“IT’S NOT ABOUT LUCK”: THE PRODUCTION OF AUSTRALIAN ELITE ATHLETES

By

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Declaration

I, Anna Jessica Grace, declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Archaeology and Anthropology, College of Arts and Social Sciences, the Australian National University, is wholly my own work unless otherwise referenced or acknowledged. This thesis has not been submitted for qualifications at any other academic institutions.

For my magnificent mother, Jocelyn

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Abstract

This thesis examines the mechanisms of athletes' training to explore the production of Australian elite athletes within a premier national sports training institution in Canberra, Australia. Drawing on the twenty months of ethnographic fieldwork I undertook while living on campus at the institution, this thesis analyses the everyday practices and the numerous training processes of athletes as well as the contributions of coaches and sports science and sports medicine experts involved in crafting athletes into distinctive, elite subjects.

Situated in the sporting embodiment literature within the broader field of the anthropology and sociology of sport, this project advances the empirical research on elite athletes, on elite sports institutions and on the complex mechanisms of training elite athletes. I explore the linking mental, moral, emotional, temporal, physiological and subjectified mechanisms of training that inform athletes' daily lives and lived embodiment. Much of the existing research has examined one single sport, and relatively homogenous demographics of sporting participants. In contrast this thesis looks at male and female athletes in senior and junior levels of elite sport across a range of sports. In doing this, it sheds light on the shared experiences of the multiple mechanisms of elite training to create elite athletes. Through the theoretical lens of Michel Foucault and a phenomenological understanding of habitus I explore how the disciplinary techniques of training produced by multiple agents influence elite athletes' embodiment and experiences of the cultural norms of elite sport.

Through the investigation of the mental, moral, emotional, temporal, physiological and subjectified mechanisms of training, I observe how the production of elite athletes is particularly marked by temporally informed micro-regimes, Hochschild's (1979 and 1983) 'emotion work' and Mauss's (1973)

'techniques of the body'. In examining the influence of an *elite athlete work ethic* discourse and the moral code of elite sport on athletes through interlinking mechanisms of training, I argue that the production of Australian elite athletes is not about luck. Instead, an elite athlete's habitus is reconstituted through interlinking mechanisms of training that are produced by multiple agents, including coaches, sports science and sports medicine experts and athletes alike, which craft elite athletes as distinct subjects.

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Preface

Between 2010 and 2011 I spent twenty months at the Australian Institute of Sport (AIS) conducting fieldwork and gathering ethnographic data about the everyday lives of elite athletes. The AIS, nicknamed "the tute" [1] by its members, is Australia's national elite sports training facility. It is federally funded, politically supported and internationally regarded as a highly innovative training centre.[2] I selected the AIS as the site to conduct my research as it represents the epicentre of elite Australian sport and is the premier training institution for Australian elite athletes. Thus, examining the AIS is crucial to gaining an understanding of how Australian elite athletes are created. This thesis examines the people and practices that constitute the AIS to explore how elite athletes are made.[3]

From Failure Emerges Greatness: Why Australia has an Institute of Sport

In September 1974, the then Minister for Tourism and Recreation, Frank Stewart, appointed a study-group to report on the feasibility of establishing a national sports institute in Australia. In response to Australia's poor performance at the 1976 Montreal Olympics[4] it was decided that the establishment of a national sports institute was a worthy project. On Australia Day 1981, the AIS was officially

[1] Double inverted commas indicate a quote. I use single inverted commas to indicate a figurative term or phrase, or to signal a quote within a quote.

[2] Coakley *et al.* (2009, 420) state that the AIS is one of the largest federally funded sports bureaucracies in the world, envied by smaller scale sporting institutions in Canada and the United Kingdom.

[3] Pseudonyms have been provided for all research participants (those who are the subject of my research), and details that reveal personal identities have been changed. For the most part I simply refer to participants as 'coaches', 'athletes' and 'service providers' to distinguish their social position, yet maintain their confidentiality. Throughout this thesis I use the term 'service providers' to refer to sports medicine and sports science experts and sports administration staff at the AIS who are involved in training elite athletes, including: coaches, sports doctors, physiologists, physiotherapists, bio-mechanists, sports psychologists, skill acquisition experts, dieticians, massage therapists and athlete career and education advisors. I provide more detail about this in Chapter Two.

[4] Australia did not win any gold medals, and won only one silver medal and four bronze medals, coming thirty-second overall. This was the first time Australia had not won a gold medal at an Olympic Games since the Games in Berlin in 1936 (Australian Sports Commission 2015a).

opened by the then Prime Minister, Malcolm Fraser, and established as Australia's national centre for training and developing elite athletes. Since that time the function of the institution has continued to be to boost the performance of Australian athletes and, arguably, the national opinion and international reputation of Australian athletes' sporting performances. The AIS website states that:

> As Australia's strategic high performance sport agency, the AIS is responsible and accountable for leading the delivery of Australia's international sporting success. Since 1981, the AIS has been the cradle of Australia's national sports system — one that is recognised the world over for its ability to identify, develop and produce world, Olympic and Paralympic champions (Australian Sports Commission 2015b).

The aim of the AIS is to develop champions and create "tomorrow's world beaters" through "sporting excellence" (Australian Sports Commission 2015b). The professional culture of the AIS is informed by "state of the art" facilities and technology, specialised expert knowledge, innovative science and 'inspiring, talented athletes' (Australian Sports Commission 2015b). Since its opening:

> Outstanding athlete results combined with skilled coaches, world-class facilities and cutting-edge sports science and sports medicine services have given the AIS its international reputation as a world's best practice model for high performance athlete development (Australian Sports Commission 2015b).

The AIS is highly regarded among Australian and international athletes, sports scientists and sports medicine professionals for its status as a professional training centre with high-quality facilities, services and specialists all in one location working in synchronicity to enhance elite athlete performance.[5] Over

[5] The AIS inspired other international training centres which are modelled on its facilities and resources as a sports medicine and sports science hub, where athletes train, consult medical professionals and receive treatment, and a place where research is conducted. For instance, British and Canadian sports institutions have been influenced by the AIS (Coakley *et al*. 2009).

time the AIS has become a training village that athletes rarely have to leave as the facilities, staff, specialist knowledge and treatment practices provided on campus cater to all their training and performance needs.

Recruiting "Potentials": Identifying Potential to Recreate Anew

The coach is central to the process of crafting athletes (Wacquant 2004). To begin the process coaches employ their expertise to identify suitable recruits. As a part of my anthropological fieldwork aimed at understanding what constitutes athletes as elite and how the AIS is involved in their creation, I interviewed coaches across various sports about the types of athletes they recruited. Time and again coaches not only listed the tangible characteristics that they regard as desirable, but they also alluded to the importance of particular intangible and ineffable qualities in athletes that they identified as vital for recruitment. These responses pointed to the fact that recruitment takes into account more than simply physical ability. Further to this, my findings reveal that athletes' potential to be recreated — to become anew as elite athletes through training — is especially important to coaches when they are recruiting.

I argue that it is athletes' potential to be recreated that is the intangible, ineffable quality which coaches seek. As one basketball coach put it: "Basketballers are recruited for possessing an array of important traits, particularly their potential". In other words, it is the imagined trained elite athlete that informs a coach's selection of an athlete.

Below is this coach's answers from his interview. He summarises four qualities that he regards as essential in recruiting athletes to assess their overall potential: head, heart, hands and feet.

> By heart I mean [athletes with][6] a passion for basketball. They must be a student of the game – not just a spectator: they play it, they watch it, they understand it, they talk about it – they live and breathe basketball. They simply love it. As a player they have to have a drive to improve; to compete; to win. They're hungry. They have the competitive spirit.
>
> By head I refer to athletes' thoughts and emotions. Can they handle their temper? We want level-headed athletes, with toughness, smartness and belief. Toughness refers to both physical toughness – meaning that they cope well with the demands of intense physical training and injuries; and mental toughness – meaning they are resilient, determined and can handle adversity. Smartness means that they have good 'basketball IQ'[7]: they can read plays, and they can handle pressure. And belief is one of the most important things for an athlete. They need to have belief in themselves [have self-confidence], have belief in the [institutional] system and have belief in their teammates. We want athletes that are team players: they accept responsibility for their actions; make sacrifices for the good of the group; and are good communicators – they are honest, they listen well and act on requests made of them.
>
> 'Hands' refers to an athlete's skill level, ball handling and shooting. We want athletes that display competency with the basics [skills and techniques] and confidence in demonstrating much more than that.
>
> And by feet, I mean movement – we want athletes that run well [this is speed and endurance], they have good balance and good coordination.
>
> We want potentials… We want to recruit athletes who are on their way up, improving, developing and growing as players. Through training they will reach their potential and transform into elite players.

This account suggests that athletes must satisfy a series of cultural, emotional, moral, mental, subjective and physiological requirements (including tangible and intangible characteristics) established by the coach and the institution in order to be recruited. In contrast to common views about athletes, their physical

[6] Throughout this thesis within quotes I use square [] brackets to indicate editorial additions, {} brackets to indicate editorial comments and I use regular () brackets found in the original quote.

[7] 'Basketball IQ' sometimes called 'basketball intelligence' is an emic expression that refers to knowledge of the game, including different playing styles and offensive and defensive plays, and having a 'good eye' for picking up on important subtleties in one's own team and the opposition during competition.

characteristics are only one of the features by which they are evaluated and selected. Meeting these standards of recruitment demands not only capability of performance in the present, but also, a promise of improvement in the future.

This thesis explores the processes whereby athletes 'meet their potential' or, in other words, how they are reconstituted through elite sports[8] training to become elite.

Thesis outline

The remainder of this thesis springboards from the desired qualities and potential in athletes that coaches regard as vital for recruitment (including: good head, heart, hands and feet — which also relate to mental, moral, emotional, temporal, physiological and subjectified qualities) to an exploration of how, once recruited, athletes are crafted through training to be elite. I divide my discussion into separate themes and explore these separately across six chapters and then in the final chapter I bring all of these elements of training together to discuss how they interlink to make elite athletes[9].

[8] Throughout the thesis I use the term 'elite sport' to include all sport performed at the highest level of competition, whether it is at a national level or an international level. In this way my use of the term 'elite sport' encompasses high-performance sport performed at a professional level (including 'professional sports such as football, rugby, basketball, tennis, golf and boxing) in which athletes earn a salary for participating in training and competition, as well as high-performance sport performed in 'non-professional' contexts (including 'non-professional sports such as rowing, swimming, gymnastics, archery and track and field events) whereby athletes may receive prize money for winning competitions, but are not salaried for participation.

[9] Throughout this thesis I use the term 'elite athletes' to encompass athletes who are training and competing in what I refer to as 'elite sport' (see above). This term is inclusive of athletes who are 'professional' athletes (who compete in 'professional' high-performance sports – such as tennis, golf and men's football, men's rugby and men's soccer – and are paid and employed on a full-time basis), 'semi-professional' athletes (who compete in 'semi-professional' high-performance sports – such as women's football, women's rugby, women's basketball and women's soccer – and are paid and employed on a part-time basis and whose income is often supplemented from other sources) and 'non-professional' elite athletes (who compete in 'non-professional' high-performance sports – such as rowing, swimming, track and field and gymnastics – and may earn prize money, but whose incomes are supplemented outside of high-performance sport).

Chapter One: Introduction

Chapter One provides the theoretical foundation that underpins the thesis and situates its place within broader anthropological and social science literature. To do this the chapter is divided into two parts. The first part of this chapter explores the current literature in social science in the field of sporting bodies and identifies the gaps that this thesis addresses. The second part examines the theoretical backdrop of the thesis by investigating Foucauldian ideas of power, discipline and surveillance, a phenomenological application of Bourdieu's habitus and discussing how these theoretical perspectives will support analysis of my data.

Chapter Two: AIS as a Village

Chapter Two explores the AIS as a village and, in turn, fulfils three functions. Firstly, and primarily, I contextualise the field site of the AIS and my research participants who inhabit it (the athletes, services providers and other staff at the AIS). Secondly, I outline the methodology used throughout my fieldwork to gather and analyse my data. Finally, I examine Goffman's concept of total institution and Scott's notion of a revised total institution in relation to the AIS to discuss the role of the AIS in producing elite athletes. I also use a Foucauldian lens to outline the ways in which space produces docile bodies in athletes' training.

Chapter Three: Physical Training

Chapter Three disrupts the taken-for-granted view of athletes' physical training as solely training a person's physiology by working on their muscles, their strength and their speed. Instead, I argue that athletes' physical training is complex and contains two elements. Firstly, I explore how athletes' physiology is trained and, in doing so, I demonstrate that this physical training is different from

what is commonly understood as 'working-out'. Secondly, I draw on Mauss's notion of 'techniques of the body' to illustrate how athletes' physical training involves reconstituting their embodiment and habitus through training bodily movement and sporting techniques.

Chapter Four: the Production of Athletes as Subjects

Chapter Four investigates the moral code underpinning athletes' training practices and how this informs athletes' production as subjects. To provide a theoretical foundation in which to explore elite athletes as special subjects, the first part of this chapter draws on Foucault's theory of 'correct training', Hacking's notion of 'making up people', and Weber's thesis of the Protestant work ethic and perspectives of the moral code. In the second part of the chapter I apply these theories to my data to argue that the discourse of sport as work and an elite athlete work ethic inform the values in elite sport, and that through athletes' repetition of training practices these values are embodied and reconstitute athletes as elite subjects.

Chapter Five: Temporal Training

Time is fundamental in training elite athletes. Chapter Five examines three dimensions of athletes' training in relation to time. Firstly, I examine the use, value and language of time in sport. Secondly, I explore the time-scape of the AIS and how this sculpts athletes. Thirdly, I investigate training temporal athletic bodies through micro-regimes, which are tied to (socially produced) cyclical and seasonal timings. To conduct this analysis, throughout the chapter I draw on Allen-Collinson's sporting embodiment literature relating to temporality, Foucault's theory of the production of docile bodies through the uses of time and

timetables as disciplinary techniques, and Morris's use of Foucauldian theory to examine how micro-regimes are used as daily practices to craft athletes.

Chapter Six: Emotion Training

Chapter Six examines how athletes' emotions are trained. This chapter is divided into three parts. Part one defines how I employ the term emotion and outlines how emotion is examined in relevant literature. Part two provides the theoretical background to my analysis through a discussion of Hochschild's concept of emotion work and feeling rules and how (from a Foucauldian perspective) emotion is used as a disciplinary technique to train athletes. Finally, part three applies the literature and theory to an analysis of my own data to examine how athletes' emotional awareness, expression and conceptualisation of emotion norms are trained. I provide examples of emotion training of confidence, unselfishness and the embodiment of an 'elite athlete attitude' to illustrate the reconstitution of elite athlete habitus and trained emotional disposition through disciplinary practices.

Chapter Seven: the Crescendo of Training

Finally, Chapter Seven examines athletes' experiences of the crescendo of training: the reconstituted elite athlete's experience of all the intertwined elements of training as second nature. This chapter draws on Csikszentmihalyi's theory of flow to explore reconstituted athletes' experiences of the crescendo of training and moments of 'flow'. Flow illustrates athletes' experiences of sporting performance and the embodiment of training processes as an unconscious new normal. One component of 'flow' I focus on in this chapter is athletes' experiences of 'getting the feel' in which they experience a merging of awareness with action and automaticity of cultivated embodiment and trained techniques. This final

chapter examines examples that reflect the multiple interlinked elements of training which enable elite athletes to transform as subjects to enable optimal sporting performances.

Chapter One: Introduction

Elite athletes' sporting performances make the execution of skills with precision at high speed look straightforward. It is easy to assume athletes' superior sporting performances are the result of natural talent. As an anthropologist I was curious about the relationship between elite athletes' physiology and the culture of elite sport. Is it simply their physiology that makes them so good? Is it years of dedicated training that makes it seem so easy? I wanted to find out: what makes an athlete elite? Can anyone become an elite athlete?

I had more questions. Are athletes the products of institutions? Is it simply a matter of physical training and work ethic? What differentiates elite athletes from amateur weekend warriors? What are the processes involved in training and how does training at an elite sporting institution impact on athletic performance? What does anthropology have to offer such a discussion?

In beginning my quest to answer these questions I investigated sports science and sports medicine literature. Much of this literature is divided into discipline specific content – such as biomechanics, skill acquisition, strength and conditioning, physiology – and does not provide a holistic perspective. Rarely are multidisciplinary approaches used in sports science and sports medicine literature to explore how diverse areas of knowledge and practice come together to train elite athletes. Athletes are discussed primarily through their physiology and sporting results and less through self-reported experiences.

Most of the anthropology and sociology of sport literature is concerned with how different social and cultural influences inform people's sense of self in sport, and how sport reinforces gender, sexuality, racial and aesthetic norms in society. The subjects in this literature are often students in physical education classes at

school (Shilling 1991; Clarke 1998; de Andrade Rodrigues and Darido 2008; Green 2003; Pringle 2010; Wright 2000; Sparkes 1999), obsessive exercise enthusiasts (Crossley 2004; Sassatelli 2000; Markula 2001; 2003; Dworkin 2003; Dawson 2015; Collins 2002; Scott 2010; Monaghan 2001), amateur athletes (Wacquant 2004; Hockey and Allen-Collinson 2007; Spencer 2009; Howe 2003) and spectators of elite sport (Armstrong 1998; Harris and Armstrong 1991; Connor 2007; Segrave 2000). Few anthropological and sociological accounts examine elite athletes and the sporting experiences associated with training to become elite (Brownell 1995; McMahon and DinanThompson 2011).

A gap exists across the social science of sport, and sports science and sports medicine literature concerning elite athletes' training and how they come to perform at an elite level. To address this gap, and to understand how elite athletes are created and their experiences of training, I conducted twenty months of anthropological research among elite athletes, and the specialists who train them, at an elite sports institute in Australia. This approach enabled me to explore from a qualitative perspective how multiple sports medicine and sports science disciplines and specialists' knowledge and practices come together to create elite athletes.

This thesis examines the data I gathered throughout 2010 and 2011 during ethnographic fieldwork at the Australian Institute of Sport (AIS) in Canberra. Immersing myself in the culture of elite sport, I explored, in particular, the question of how the cultural environment of the AIS creates elite athletes. My research reveals that elite athletes are the products of training. My research makes a significant contribution to the anthropology of sport as it is the only

anthropological study to have collected data at the AIS and the only social science research with interviews of its athletes, sports science and medicine specialists.

Elite Athletes are Produced through Training

The AIS makes special, distinct subjects – elite athletes – who, once trained, can accomplish physical feats beyond the capacity of the average person, feats that they themselves could not achieve prior to training at the AIS. This thesis explores how such subjects are produced.

Throughout this thesis I argue that elite athletes are produced by a complex process called training. Training seems easy to understand; one could legitimately submit that it involves the acquisition of knowledges, skills, and competencies via a process of learning. One might add that it is a slow process with specific goals of improving capability, capacity, productivity and performance over time. At the AIS, experts teach athletes the skills and competencies they need to become elite athletes, ranging from the emotional stance to adopt in the heat of a competition, to developing bodily awareness that will enhance their performance of complex sporting techniques. However, data from my study suggest that the process of training is not as straightforward as it may seem at first sight.

In this thesis, I argue that training at the AIS involves reconstituting the temporal, emotional, physical, mental, subjective and moral understandings and experiences of potential elite athletes. This is in order that a particular institution-

endorsed elite athlete habitus[10] can be created and maintained. The person is considered 'trained' when this new habitus becomes second nature.

To demonstrate this argument, throughout this thesis I contest the conventional understandings of the term 'training', and argue that training is a complex method of interlinked temporal, emotional, physical, mental, subjective and moral processes produced in concert by multiple agents. My investigation of training reveals two central characteristics of elite athletes. First, athletes are more than solely physiologically altered through training. Instead, they are transformed in multiple ways (through the physical, subjective, temporal, emotional, mental and moral processes of training) and, in turn, come to embody these multiple interlinked and holistic processes of training that constitute who they are as subjects. Second, my research challenges the notion that elite athletes are the product of individual training. Rather, my data demonstrate that in addition to their own actions, athletes require the discipline, surveillance and support of teammates, coaches and specialist experts to become elite.

Across seven chapters, throughout this thesis I focus on particular aspects of athletes' training (inherently interlinked processes) that are critical to 'rehabitusing' the athletes, to craft them into the elite athlete. Certainly, the potential elite athlete must start with the right kinds of physiques; of 'body capital', to borrow from Bourdieu (Bourdieu 2011; Shilling 1991). But, through training, those unconscious practices that appear inherent, are made the focus of conscious attention: they are broken down and reworked until they become second nature. Through my examination of the production of elite athletes, conventional views of training are brought into question, and in this way I test

[10] Below I discuss the phenomenological view of habitus that I adopt in this thesis to be a lived-through "structure-in-process" that evolves as an effect of the interactions of an individual or group and their physical environment (Crossley 2004, 39).

the notion that athletes are simply the results of goal-oriented skill acquisition. Instead, I examine training as a practice replete with power, wielded by specialists whose task it is to remake a person from an athlete into an elite athlete.

This introductory chapter is divided into two parts. In the first part I review relevant literature to uncover how training has been investigated by others and what contribution my research adds to this field. In the second part I outline the theoretical framework I adopt throughout this thesis to examine athletes' training and the interlinking processes within this complex reconstituting of athletes as subjects and their elite habitus.

Part One: Anthropology and Sociology of Sport Literature

The anthropology and sociology of sport are fields of literature that investigate mores, values and ideals of a society and culture through the perspective of sport. Sociologically, sport is understood to be a central element of social life, community engagement and public health discourses. Sport is commonly analysed in light of its interconnection with other important areas of life including politics, media, economics, business, health and identity, and is often viewed in relation to power (Coakley and Dunning 2000; Eitzen 2000; Furst 1971; Yiannakis and Melnick 2001). Coakley *et al.* (2009, 41–42) suggest that sport is not only a reflection of society and culture – a "microcosm of society" or "a mirror of a community" – but also a phenomenon that actively creates, shapes, shifts and transforms them.

Anthropologically, sport is seen as "an institution and a component of culture" that reflects the values and beliefs of its situated social context (Blanchard 1995, 151). In anthropology, sport is typically investigated from the perspective of meaning – what does sport mean to the culture in which it is practiced? What

does sport mean for those who participate in it? Sport provides a prism of comparison between cultures, bodies, genders, generations, religions, environments and the like (Palmer 2002).

Thus the anthropology and sociology of sport provide a seemingly logical field of literature for my research to draw on. However, this literature does not, for the most part, aid my analysis for two main reasons. The first is that the literature is largely concerned with how sport shapes society (Coakley *et al.* 2009; Eitzen 2000; Yiannakis and Melnick 2001), whereas my research is focused on how elite sport creates elite athletes. The second reason is that the discussion of athletes and bodies in the literature is predominantly from a theoretical and abstract point of view (Allen-Collinson 2009; Bale and Philo 2002). Hockey and Allen-Collinson argue that "relatively few accounts [can be] found that are truly grounded in the carnal realities of the lived sporting body" (Hockey and Allen-Collinson 2007, 115). My research, in contrast, explores the sensual, embodied, and lived experiences of athletes in the minutiae of elite sport training.

To avoid the limitations of the anthropology and sociology of sport literature, I have utilised a subfield in the literature that Allen-Collinson and Hockey (Hockey and Allen-Collinson 2007) refer to as the 'literature of sporting bodies' and 'sporting embodiment literature' to support the investigation of my data. This literature provides accounts of sporting bodies' performances and daily embodied practices and, in turn, addresses the limitations in the anthropology and sociology of sport literature. This subfield investigates, for instance, bodily experiences of discipline, pain, pleasure and aesthetics during sport training and emphasises the tactile, enfleshed embodiment of lived experience (Downey 2007; Allen-Collinson 2009; Kerry and Armour 2000; Wacquant 2004). Focusing as it does on the intricacies of power, knowledge, surveillance and morality informing

the everyday practices, embodiment[11] and the production of elite athletes as subjects; this subfield is much more relevant to my investigation.

Sporting Bodies and Sporting Embodiment Literature[12]:

Sporting body literature has been increasing since the late 1980s. At the same time there has been an expansion of the literature relating to bodies, gender, emotion and identity in the social sciences more broadly, which has provided more subject matter to intersect with sporting bodies literature (Lutz and White 1986; Asad 1997; Csordas 1993). In turn, an increasing acceptance of the study of sport has emerged in the social sciences (Blanchard 1995, 2; Yiannakis and Melnick 2001; Bolin and Granskog 2003a; Brownell 1995; Wacquant 2004; Palmer 2002; Cole, Giardina, and Andrews 2004; Besnier and Brownell 2012; Coakley *et al.* 2009).

An increasing use of qualitative research methods in this area has contributed to growing analysis of sporting bodies and sporting embodiment.[13] This research has commonly embraced participant observation, with its emphasis on "deep

[11] I refer to the phenomenological meaning of 'embodiment': subjective accounts of lived, sensuous, bodily experiences (Merleau-Ponty, Davis, and Baldwin 2004; Crossley 1995; 1996; 2006; 2007; Allen-Collinson 2009).

[12] I use these terms 'sporting bodies literature' and 'sporting embodiment literature' interchangeably to refer to the same subfield.

[13] There is an increasing range of literature that examines issues of embodiment in sporting contexts, often divided into themes including: sport and the body generally (Besnier and Brownell 2012; Heinemann 1980; Theberge 1991); feminist analyses (Bolin and Granskog 2003; George 2005; Hall 1996; Lowe 1998; Markula 2003); gendered sporting bodies (Aoki 1996; Markula 2001; 2003; McKay 1994; Connell 2015); the 'impaired' sporting body (Rees, Smith, and Sparkes 2003; Sparkes and Smith 2003); bodies in specific sports and physical activities (Spencer 2009; Crossley 2004; Monaghan 1999; Markula 2001; 2003; Lewis 2000); sport-specific ethnographies (Wacquant 2004; Brownell 1995; Bolin and Granskog 2003; Sands 1999); narratives of the injured and suffering sporting body (Sparkes and Smith 2003; Allen-Collinson and Hockey 2001; Anderson *et al.* 2003); maturing sporting body (Phoenix and Sparkes 2007; Tulle 2008); sport and sexuality (Bridel and Rail 2007; Clarke 1998; Alvarez 2009; Anderson 2002; Pronger 1990); phenomenological accounts of sporting bodies (Allen-Collinson and Hockey 2009 Hall 1996; Andrews 1993; George 2005) and auto-ethnographical accounts of sporting embodiment (Throsby 2013; Allen-Collinson and Hockey 2001; McMahon and DinanThompson 2011).

hanging out"[14] and becoming, or reinforcing one's status as, an "insider" (Bolin and Granskog 2003, 11). For other 'native' and 'insider' researchers, their own previous sporting experience, credentials and expertise have generated rapport with athletes, provided access to closed systems and enabled intimacy in private worlds through the practices of 'extreme ethnography'[15] (Throsby 2013; Bolin and Granskog 2003). Authors who are natives in their research environments often describe the multitude of benefits they experience as a result of their membership and credentials, and emphasise the difficulties they would otherwise have encountered (Bolin and Granskog 2003; Wacquant 2004; Allen-Collinson and Hockey 2001; Shogan 1999; George 2005; Cox and Thompson 2000; Downey 2007; Pringle 2008; Markula 2003; Throsby 2013 and McMahon and DinanThompson 2011). For example, Wacquant (2004) discusses how his rich examination of pugilist habituses would not have been possible without his own apprenticeship into the pugilist world (where he actively participated in the repetitive embodied learning of training during his long-term participant observation with boxers).

[14] The term 'Deep Hanging Out', was coined by anthropologist Geertz (1973; 1998) to describe the anthropological research method of participant observation: immersing oneself in a cultural, group or social experience for extended periods of time. Observations gleaned from deep hanging out provide rich insights, which enable 'thick description' of one's anthropological research; thereby enabling anthropologists to 'inscribe' their data and turn them into 'accounts' (Geertz 1994 and 1973; Ryle 1968; Packer 2010, 219).

[15] 'Extreme ethnography' is the deeply involved participatory style of observation many social researchers conduct, especially those examining issues of athletes, sport and embodiment (Bolin and Granskog 2003, 11). Such practice enables researchers to kinaesthetically engage with and examine the cultures, daily practices and lived experiences of their participants within environments where the somatic is highly valued.

Themes within the Literature Relating to My Research

Training

The study of sports training and the processes involved in creating athletes is expanding, not only across the social sciences (Wacquant 2004; Brownell 1995; Crossley 2004; Spencer 2009; Downey 2010), but also within sports studies (Ericsson 2006; Ericsson, Krampe and Tesch-Römer 1993). Wacquant reinforces the importance of ethnographic research of athletes' training in his comment "…the craft of the boxer is an object of study in its own right" (Wacquant 2004, 9).

In this section I examine some of the approaches discussed in the social science literature with respect to training athletes.

Ericsson's Deliberate Practice

I will start with Ericsson's notion of deliberate practice as a theory of training expertise and discuss how his arguments align with my own data and with the findings of others in the literature of sporting bodies.

Ericsson's (1993; 2006) theory of deliberate practice is a touchstone in sports studies literature for understanding athletes' training and the processes involved. The theory asserts that ten thousand hours is the scientifically determined quantity of time it takes to develop expertise. Whether one is training to develop expertise in chess, a musical instrument, or sport, these ten thousand hours must consist of practicing in a deliberate manner and treating training as 'work' to achieve expertise. Ericsson's work engages in debates about talent, success, hard work, the development of expertise, and the production of elite athletes. Sport studies literature repeatedly emphasises themes of 'hard work' and the

importance of time and effort in training for sporting success (Ericsson, Krampe, and Tesch-Romer 1993, 399).

Although some coaches during my fieldwork reflected on this idea of ten thousand hours as definitive of expertise, there was not consensus among the coaches and other service providers about whether or not it was time in practice or time overall. For instance, some coaches told me, "it takes ten years plus to develop an Olympian".

Colvin's (2008, 66-72) summation of Ericsson's theory asserts that deliberate practice includes five key elements that can be applied broadly to elite performance (for example, in music, art and business). I apply Colvin's summarised five elements to elite athletes and elite sport:

1) *Deliberate practice is specifically designed to improve performance*. For elite athletes attention is concentrated on learning tactics, strategies, techniques and knowledge to strengthen one's sporting performance, and through practice increase one's speed, competence and confidence in performing skills. I touch on this element in Chapter Three as I differentiate between the purpose of athletes' practicing physical activity within the context of training (to improve performance), in contrast to the purpose of people who work-out practicing physical activity (such as getting fitter and healthier). Similarly, Heikkala's (1993) research notes that the intention of athletes' training is to improve performance because the goal of sport (victory) "demands it" (Heikkala 1993, 403).

2) Deliberate practice can be repeated endlessly. This means aiming for an automatic response, a sense of fluency, naturalness and ease when performing sequences of movements, actions, and behaviours through repetitive practice. For instance, for athletes practising basketball foul shots; dribbling a soccer ball; diving off the blocks into the pool; and serving in tennis are all examples of

sporting activities that can be repeated endlessly in training. Each of these activities can in turn be broken down and analysed in an effort to improve their execution, accuracy and speed. Sheer repetition of these activities and drills (even without an opponent) will be advantageous to an athlete's performance and skill set. Illustrating this point, Wacquant reflects that:

> "The most striking character of the [boxer's] workout is its repetitive, denuded, ascetic quality: its different phases are infinitely repeated day after day, week after week, with barely perceptible variations" (Wacquant 2004, 60).

Similarly, Brownell (1995, 12) explains that the use of repetition in sports training is important for the production of elite athletes as "practice makes permanent".

3) Feedback on results is continuously available through deliberate practice. Guidance and strategies on how elite athletes can improve are immediately available through expert feedback, technological recordings and quantified measurements of results. This way practice can be modified to continually challenge an athlete and stretch their skills and ability to constantly improve their performance.

Within my own fieldwork I found that an athlete's fitness is measured by time, speed, distance, heart rate and 'feel' (bodily awareness) to track their performance and improvement, and communicate deficiencies and areas of weakness on which they need to focus. I observed athletes wearing heart-rate monitors during training sessions and a television screen placed next to the court displaying their names and heart-rates, colour-coded categories of effort, and the extent to which coaches wanted them to push themselves. In some instances if no athletes' heart-rates reflected 'very hard effort' coaches would say, "None of you are in the red zone. That is not good enough! You're doing that drill again". In response to the coaches' feedback about their performance, athletes adjust their

movements, execution of techniques and physical exertion. These constant tweaks during repeated practice are believed to enhance athletes' skills, their speed of execution and their embodiment of desirable automatic movement patterns. This expert feedback is designed to sculpt an appropriate sports-specific physique with suitable posture, bodily comportment in an athletes to reconstitute their habitus.

4) D*eliberate practice is highly demanding mentally*. Elite athletes' training requires concentration and disciplined awareness of what one is doing, reflection on how to do it better, and a recognition of how to out-smart (or beat) one's competitors.

One coach commented to me:

> As well as physical fitness, athletes must develop mental fitness for training – learning how to concentrate and stay sharp as well as physically capable for the entire duration of training, even when they're physically exhausted, is crucial.

Athletes are expected to be mindful of their physical technique; competitive strategy; energetic exertion; emotional expression; psychological confidence; appropriate verbal communication; and to be able to either blank out opponents or watch their every move, all while performing at their best.

This level of awareness and ability to multitask actions while reading information from multiple stimuli is mentally challenging, and requires constant practice to perform, let alone to perform well. Smith and Allen-Collinson's research captures this difficulty: "Training can indeed be onerous 'work' (Smith 2002, 358); commensurate with the bodily conditioning required by the activity, there occurs a conditioning of the mind, as it learns to endure" (Allen Collinson 2003, 8). I elaborate on this notion of work in Chapter Four as I discuss how the practice of

working hard is normalised in elite sport through a certain model of morality and the discourse of the elite athlete work ethic.

5) *Deliberate practice is not about fun*; *it is about work*. The focus of elite athletes' training is on learning and improving skills, abilities, fitness, technique, and thus one's role as a worker and a professional athlete, rather than on pleasure and enjoyment as a participant or spectator. For elite athletes sport is serious, competitive and bound by professional responsibilities and embodied duties. Trujillo draws on Sadler to emphasise that "athletes are aware that what they do is not play… To win they have to work harder" (Sadler 1976, 245 cited in Trujillo 1991, 293).

My own observations at the AIS support Ericsson's notion that practice is not designed for fun, enjoyment or entertainment. Instead, for elite athletes the purpose of training is to create strong, efficient and effective physical movements and to improve techniques and fitness for the functionality of performance. Despite the enjoyment many athletes receive from aspects of their work, much of the satisfaction experienced is based on the improvements and progress they have made, the success they have achieved and the outcomes generated from their performance. Athletes told me that they enjoy many components of their daily tasks, but ultimately the by-product of hard work, improvements and achievement made through repeated efforts and arduous labour and successful performance, is the greatest source of reward and contentment.

Linking to this view of practice as work, in my findings athletes' ability to assert agency in training is relatively minimal. Similarly, Dworkin examines tensions around female exercisers' agency in gyms and social pressures to perform in feminine ways (Dworkin 2003). The by-product of training discipline I observed

among athletes is the fear (and expectation) of punishment for personal, social, moral and professional 'misbehaviour'.

Thus Ericsson's theory of deliberate practice helps us to understand some of the interlinking processes involved in elite athletes' training. The function of training is complete when an athlete's habitus has been reconstituted, and the production of an elite athlete subject is embodied as second nature. Examining athletes' training through the prism of deliberate practice helps us to understand how their embodied habits are reconstituted.

Discipline and Docile bodies

Another theme that emerges in the sporting embodiment literature that helps to understand athletes' training is that of discipline, and resulting docile bodies[16]. Discipline is a key component of training; consequently, throughout this thesis, I elaborate on literature that discusses discipline.[17]

Body as Project

Producing an elite athlete body is a relentless practice due to the shifting needs, stimuli and challenges imposed by the timing of the competitive season. Shilling (1993) draws on Foucauldian theory to label this process as 'the body as project'[18] whereby an individual constantly focuses on producing, maintaining or improving their bodily goals (regardless of whether their goals are for health, wellbeing, aesthetics or performance). The practice of maintaining and regulating

[16] Later in this chapter I define what I mean by the term 'docile bodies'.

[17] This literature is often divided into themes including: manipulation of the body (Dworkin 2003; Markula 2003; 2003a), the body as project (Crossley 2004; 2005; Monaghan 1999; Shilling 2008), the mastery of the self (Spencer 2009; Wacquant 2004; Connell 1989), self-cultivation (Brownell 1995; Pringle and Hickey 2010; McMahon, Penney, and DinanThompson 2012), the production of auto-bodies through sport (Howe 2003; Liu and Howe 2012), and normalising pain and bodily experiences of discomfort (Spencer 2009; Allen Collinson 2003; Downey 2007).

[18] As its most basic level, the 'body as project' perspective highlights the social production of bodies and the ways in which transformation of bodies informs a transformation of a subject (Monaghan 1999; Crossley 2004; 2005). Shilling suggests that "sport renders the unfinished object of the human body a social project and bearer of symbolic value" (Shilling 1993, 128).

one's body is incorporated into one's lifestyle through daily habits and the 'body as project' becomes an endless task to be performed with the intention of producing a 'docile body' (Shilling 1993; Turner 1995).

Bodies are constantly changing, and trying to keep them stable or move them in a desired direction is a strenuous task. My research is consistent with Shilling's, Monaghan's and Crossley's findings concerning the constancy of training and the endless pursuit of goals in sport that could be framed by the perspective of 'body as project' (Crossley 2005; Monaghan 1999; and Shilling 2008; 2012). In particular, my data show that in athletes' lives service providers regularly programme changes for athletes to work towards, based on seasonal variations of competition and training requirements. As I discuss in Chapter Five, trained physiological change is intentional, cyclical, perceived as positive and for the benefit of performance.

My Research Contribution to the Field of Sporting Embodiment

There are many ways my data complement and expand into new areas from the existing literature in the field of sporting embodiment. Below I canvass some of the key contributions my research offers to the field; including an examination of multiple interlinking mechanisms of athletes' training and the numerous agents involved in reconstituting athletes into elite subjects.

Much of the sporting embodiment literature examines exercise enthusiasts (Crossley 2004; Sassatelli 2000; Markula 2001; 2003; Dworkin 2003; Dawson 2015; Collins 2002; Scott 2010; Monaghan 2001), or amateur athletes (Wacquant 2004; Hockey and Allen-Collinson 2007; Spencer 2009; Howe 2003), and there are a few investigations into elite athletes' experiences (Brownell 1995; McMahon and DinanThompson 2011; and Roderick 2006). My research addresses this gap

in the social science literature of sport, and the sporting embodiment literature in particular.

The literature on elite training and the complexity of elite sport at an institution supporting elite athletes is also limited[19]. Spencer (2009, 120) stated that there is "a gap in the sociology [and anthropology] of sport and body literature regarding the processes related to the actual acquisition of embodied knowledge and concrete practices of accomplishing sporting activity" (citing Allen-Collinson 2008). I join Spencer (2009) and Allen-Collinson and Hockey (2009) to provide detailed embodied accounts of training.

My research is concerned with examining the reconstitution of elite athletes' habitus and status as subjects for consistent performance at an elite level. Accordingly, it is necessary to explore the multiple agents involved – including the service providers and the biomedical knowledge and sports science expertise they bring to training athletes. Much of the sporting embodiment literature examines the relationship between sporting bodies and instructors (Crossley 2004; Markula 2003) or athletes and their coaches (Wacquant 2004; Brownell 1995; Denison 2007; Jones, Glintmeyer, and McKenzie 2005; Downey 2008), but few sources examine interactions with other sports medicine and sports science specialists (Allen Collinson 2003). Throughout my fieldwork I gathered extensive data from a wide range of sports science and sports medicine experts about their knowledge and practices in elite sport training and sculpting elite athletes. My data offer insights into the training and micro-regimes and disciplinary

[19] For instance, Manley, Palmer and Roderick's (2012) research about surveillance in English sports academies examines themes that resonate with my own research. However Manley, Palmer and Roderick's (2012) research examines "dispersed and interconnected mode of observation" and human networks across various social fields, in contrast to my research which investigates interacting social networks located in one institution.

techniques pivotal to athletes' training that are scarcely examined in other social science literature.

In my research, I maintained my role as a researcher and did not 'go native' and become an elite athlete.[20] Over time, I developed trust, rapport and good relationships with my informants that enabled me to participate in everyday practices, events and rituals, but my role as distinct from those of elite athletes and their intimate inner circles, was not forgotten. No amount of time or effort would change that fact. Sometimes this was frustrating. However, it also enabled me to bring a beginner's perspective to the work and view the culture of elite sport as an immersed outsider.

Another difference between my work and other literature about sporting bodies, is that my fieldwork focused on gathering data from a broad range of athletes within an elite sporting institution, rather than focusing on the culture of one sport or one team. Much of the sporting embodiment literature has smaller samples of informants, typically from a fairly narrow demographic (for example, all male or female, similar age, athletes from one sport, participants from one circuit class) (Wacquant 2004; Crossley 2004; Cox and Thompson 2000; Spencer 2009; Allen-Collinson and Hockey 2010). In contrast, my research examines Australian elite athletes from a wide range of sports at both junior and senior levels of competition, amateur and professional, abled and disabled athletes, male and female, and a range of ages between fifteen and forty years.

Similarly, the institutional context of AIS athletes' training in many ways creates similarities and continuities in experience that are difficult to replicate in contexts

[20] In contrast to my experience, other researchers who have conducted work among amateur athletes (Wacquant 2004), exercise enthusiasts (Markula 2001; 2003; Monaghan 1999; Dworkin 2003; Crossley 2004) or social researchers with a background in elite sport (George 2005; McMahon and DinanThompson 2011; Cox and Thompson 2000) have been able to gain membership and become an equal member among their participants.

where sporting pursuits are amateur and injury removes people from the training environment and community (Crossley 2004; Allen Collinson 2003) or where a social milieu of disorder and instability exists that limits consistency in training (Wacquant 2004). Many of the athletes researched live onsite at the AIS campus in Canberra, while other athletes live off-campus, but come to the campus six days a week. With some athletes I had constant interaction during the entire duration of my research, whereas others were passing through from interstate and overseas for varied amounts of time. Despite these differences, all AIS athletes have AIS scholarships and equal access to elite training facilities and service providers. Therefore, the athletes I researched experienced a relatively similar way of life in terms of access to nutrition, training gear, service providers and external specialists, sporting facilities and technological and biomedical resources, in contrast to the restrictions and influences of poverty or class differences that are discussed in other literature (Wacquant 2004; Pelak 2005).

Another difference between my research and other related social science literature, is that mine involves a holistic analysis of the interlinking physical, temporal, emotional, mental, subjective and moral processes of training. Such an approach is used in some other limited examples in the literature (Wacquant 2004; Hockey and Allen-Collinson 2007; Allen-Collinson 2009; Markula and Pringle 2006); however many others acknowledge but do not address all of the elements in great depth. In this way my research provides a heuristic approach to assessing the production of athletes and training processes and an important contribution to anthropological literature and the field of sporting embodiment.

Part Two: Theoretical Lens

There are many elements that are intertwined to create the concept of athletes' training. To understand them I have employed a range of theoretical perspectives discussed throughout different chapters in this thesis. Specifically, Foucault's work on power and subjectivity is essential to my analysis of training and the production of elite athletes. This work scrutinises the mechanisms of surveillance and discipline and the micro-regimes involved in the everyday practices of training which serve to reconstitute athletes as subjects and their habitus as elite.

Markula and Pringle (2006) argue that the Foucauldian themes of discipline, surveillance and power must be employed to investigate sport, and the plethora of social science literature that applies a Foucauldian perspective to examine sport, exercise and bodies, reinforces their claim (including Markula and Pringle 2006; Markula 2001; Bridel and Rail 2007; Andrews 1993; Cole, Giardina, and Andrews 2004; Brownell 1995; Shogan 1999; Johns and Johns 2000). This literature explores power relations in producing knowledge and surveillance around sporting bodies that are used to discipline behaviour in everyday practices.

Applying a Foucauldian theoretical approach to my findings is useful to examine the power relations, knowledge production and discipline, however this approach has its limitations. For instance, a Foucauldian analysis does not allow much space to explore beyond the realms of social construction when examining individual experiences that are *not* related to power. Therefore I also adopt some pertinent concepts from phenomenology. Over the following pages I provide an overview of the key theoretical concepts taken from the Foucauldian and phenomenological perspectives that will be used throughout the chapters.

Foucauldian Theory in Sporting Bodies Literature

Discipline, power and surveillance are everyday aspects of elite sport that are both imposed upon athletes by coaches, sports medicine and sport science specialists and embodied by elite athletes themselves. Foucault's theoretical framework supplies a critical lens to examine how discipline, power and surveillance are mobilised, both institutionally and individually, and are negotiated and resisted within an elite sports institution and particularly within training processes. This thesis argues that training is a site of power, discipline and surveillance that reconstitutes athletes as subjects and produces a particular type of subject: that of the elite athlete. These elements of power, discipline and surveillance within training are discussed in much social science literature that adopts a Foucauldian approach to examine sport and bodies (Markula and Pringle 2006; Brownell 1995; Cole, Giardina, and Andrews 2004; Andrews 1993).

An Overview of Foucauldian Theory of Power and Discipline

Michel Foucault (1926–1984) was a French philosopher, historian of ideas and social theorist highly influential for his contribution to theories of power, knowledge and the self. Foucault's ideas transformed throughout his writing, however, he consistently rejected the labels of post-modernist and post-structuralist that were attributed to his work. He saw his main research objective as investigating "how humans construct knowledge about themselves and how this knowledge subsequently shapes the experience of being human" (Markula and Pringle 2006, x). Foucault's theoretical investigations gave rise to new research methods (discourse analysis and genealogical approaches) that explored historically and culturally situated power relations, social rules, norms and

socially constructed ideals to trace formations of knowledge and subjects. Although his writings do not explicitly address sport or exercise, his emphasis on the "body as a site for force relations" renders his theoretical approach as pertinent to an analysis of athletes and sporting embodiment (Markula and Pringle 2006, ix).[21]

Foucault's theories of power/knowledge, surveillance and discipline are useful in analysing how training is formulated by experts and how experts are validated and maintained. His theories are also useful to examine how the knowledge that underpins training as a process of socialisation and subjectification persists.

Power/Knowledge

Foucault's power/knowledge approach interprets power and knowledge as mutually constitutive and socially negotiated (Foucault 2006, 201). Power/knowledge emerged from a specific method of theoretical analysis that Foucault appropriated from Nietzsche, called 'genealogy'.[22] Foucault understands knowledge to be immersed in relations of power and conflict and for Foucault knowledge is "always a form of power" (Macey 2000, 101). These relationships of power reflect the fact that power/knowledge is typically produced by experts that create and control the objects they claim to know, thereby maintaining social norms and the status quo through "dividing practices" (Katz

[21] For an extensive account of Foucault's life and influence in academic thought see (Markula and Pringle 2006).

[22] To elaborate, genealogy is an 'anti-science' as it is not a means of analysis which espouses the truth of one grand narrative or general theory (Foucault 1998). Instead, genealogy uses an analytical approach which grounds its particular research object in its specific history, locating it in time, place and cultural context and analyses the 'truth' of the object as reflective of the socio-cultural historical framework in which it exists (Katz 2001, 120; 124-5; Seidman 2004, 180). Genealogy is concerned with disrupting the naturalness and timelessness of objects of knowledge by revealing the discourses in which they are embedded. Genealogical analysis seeks to uncover 'how and why we know what we know'. This theoretical approach is not utopian, rather it "aims to disrupt social conventions and norms" as it imagines human society to be "thoroughly social and susceptible to immense social variation and change" (Seidman 2004, 180). Genealogy reveals the social and political processes which create dominant discourses and consequently the accepted 'social facts' – the beliefs which are assumed to be 'natural', 'normal' and 'true' within any society (Foucault 1998).

2001, 121). Katz states that "dividing practices [which inform power/knowledge] are political strategies that separate, normalise and institutionalise [individuals and] populations for the sake of social stability" through the perpetuation of discourses (Katz 2001, 121). In Hacking's words, knowledge incorporates "the presumptions that are taught, disseminated and refined within the context of [discourses and] institutions" (Hacking 2006a, 5). However, Foucault states that although knowledge may build on what came before, knowledge is always social and temporary because power is fluid and diffuse (Foucault 2006, 121; 131; 201).[23]

Within the context of the elite sport institution, the power/knowledge dynamic is firmly embedded in the institutional system as knowledge, as well as athletes and service providers being categorised and divided into segmented groups. Coaches and service providers fill the roles of socially accepted 'experts', and relate to other experts and athletes from the standpoint of power/knowledge 'expertise' and certified (credentialed) status. The categorised, specialised sports-specific knowledge held by each of these experts validates their authority, reinforces their power within relationships with athletes and, in turn, legitimates their knowledge and status as experts. The power/knowledge relationship between service providers and athletes takes place on an unequal foundation that necessitates the 'clinical gaze' of athletes by service providers to assist in the production and maintenance of elite athletes.

[23] To expand, Foucault conceives modern power to be diffuse, positive and productive, disciplinary and guiding, and as the means to generate (regulatory) knowledge (Foucault 1991; Lupton 1997, 99). Modern power consists of "non-centralised forces" which cannot be owned or seized and are "non-authoritarian, non-conspiratorial, and indeed non-orchestral; yet it nonetheless produces and normalises bodies to serve prevailing relations of dominance and subordination" (Bordo 1999, 253; 252). Modern power permeates social interactions and operates in a quiet, methodical and regulatory manner, inciting people into particular categories and subjectivities (Helliwell and Hindess 1999, 90-92). Indeed one of the most important elements of power for Foucault is that, along with constructing bodies and body types, produces subjectivity and constitutes subjects.

Clinical Gaze

Foucault's notion of the 'clinical gaze' points to an authoritative and medically influenced view whereby the seer reads, perceives, pathologises and subjectifies the 'seen' (Foucault cited in Huff 2001, 52 and Murray 2007, 363–366). The consequence of such observations is that the 'seer', through his or her embedded perceptions and specialist knowledge, has a sense of 'knowing' not only the body, but also the subject of the body that is seen (Murray 2005a, 154–157; 2007, 363–366). Foucault aptly summarises: "discourses [which are embedded in the seer's perceptions] do not simply describe the conditions of one's existence, but rather are productive of it" (Foucault 2003 cited in Murray 2007, 362). Dean suggests that particular ways of "seeing the true" systematise observation as an acceptable form of gathering knowledge and rationalise discourse embedded within the seer's knowledge (Dean 1994, 32 cited in Ritzer 2000, 594). However the power of the gaze is not only clinical or unilateral.

Murray describes observation, whether in the context of empirical research or of casually observing another, as "never neutral": observations always contain embedded perceptions (Murray 2007: 361). Alcoff states that perception is "a learned process in and through which *seeing* and *knowing* are intimately interwoven in historically and culturally specific ways" (Alcoff 2001, 272 cited in Murray 2007, 362 emphasis in the original). For instance, when observing another person's body Murray states that one "reads" that body or adopts a "narrativising gaze" (Sedgwick and Moon 1993) and makes observations and evaluations which render the observed body "legible" as if it were a text or cultural script (Moon and Sedgwick 1993 cited in Huff 2001, 50–51; Murray 2008, 214). In this way Moon and Sedgwick's narrativising gaze bears similarities – albeit without the medical perspective and authority – to Foucault's clinical gaze

(Foucault 1989). Athletes can adopt this gaze towards other athletes, experts and themselves. The power entrenched within one's gaze renders it a non-neutral action. Instead, it acts as an instrument of power, a practice of subjectification, and a form of surveillance.

Surveillance

Foucault's concept of surveillance refers to the ever-present threat of judgemental, categorising and critical gaze from others onto one's body, and thus one's self. Such threat instructs individuals to adopt a self-surveying and self-regulating gaze with respect to their own bodies and behaviour. As discussed, Murray argues that observation is always already prejudiced and in this way mere observations act as surveillance. Therefore, the same surveying gaze that one applies to one's own body and actions is also cast judgementally upon others' bodies and actions. Self-surveillance (surveillance of one's own body) and collective-surveillance (the surveillance of bodies by self and others) operate in a circular way. People survey, judge and discipline their own bodies, so as not to be judgementally surveyed by others.

Intertwined with surveillance is the practice of discipline. Foucault asserts that discipline operates on two main levels: an individual level (referred to as disciplinary power) and a population wide level (referred to as biopower) (Foucault 1991). These concepts provide analytical tools by which to assess the processes of regulation and normalisation that impact on bodies at individual and population levels. "[Society's] social order is produced through a series of disciplinary strategies whose aim is to regulate behaviour by imposing norms" (Seidman 2004, 189). Social order is maintained through technologies of control which are imposed on the body and internalised by each individual. Discipline and biopower are crucial to these technologies.

Discipline

Foucault's concept of discipline refers to a technique of control over individual bodies, by individuals. Discipline, understood in this way, emerged in the eighteenth century when it became recognised as an 'individuating' technology that focuses on categorising the conduct of individual behaviour through a stress on personal responsibility (Foucault 1991). Central to disciplinary practices is the performance and function of one's body. Health became "at once the duty of each and the objective of all" (Foucault 1984, 277 cited in Lupton 1999b, 62). The individual came to increasingly monitor both body 'inputs' – food, sleep, water and even 'unhealthy' products such as tobacco, alcohol and junk foods – and body 'outputs' including time–management, heart rate, muscle size, body shape and weight (Glassner 1989, 180–191 cited in Petersen 1997, 200).

Biopower emerged in the early nineteenth century and refers to techniques of control over the population which involve 'totalising' and regularising technologies. The techniques of control within biopower are modes of subjectification that categorise, divide and normalise individuals and populations within society at large and serve to 'make [many] live' and 'let [few] die' (Rabinow and Rose 2006; Rose 2007; Seidman 2004, 189). The technologies imposed on populations involve political strategies of regulation and surveillance, which generate expert knowledge of the population's social behaviour to facilitate effective government.

Foucault's theoretical concepts of discipline and biopower are useful for examining the public health discourses that are present in contemporary Australian society and carry over as a backdrop into elite sports institutions. For the purposes of this thesis such an analytical approach is useful for investigating the specialised, elite sport-specific discourses of health and performance that are

taken-for-granted when regarding elite athletes' bodies and notions of being 'well trained' and 'ready to perform'. Through persistent self-policing and an internalised regimentation of the body, elite athletes are incessantly governed by power/knowledge relations and engage in practices of discipline that sculpt and maintain their bodies and status as subjects. Athletes' internalised panopticon[24] is evident in everyday practices such as weighing oneself on bathroom scales, food choices and exertion of effort during training. The discipline and biopower technologies that play out within the AIS are normalised, naturalised and accepted as vital for successful participation in elite sport.

Discourse

Entangled in Foucault's notions of power/knowledge, discipline and surveillance is his conception of discourse. This is more than just a way of seeing the world; it is a product of power – as power is entrenched in the construction of knowledge (Foucault 2006). The foundation of discourse, in this sense, is the specialised language and associated knowledge that informs social thought and action (Foucault 1984). I utilise Lupton's argument that "discourses are both delimiting, structuring what is possible to say or do, and productive. Discourses bring into being, make visible, render malleable, useful, functional or dysfunctional and differentiate between various types of bodies… the healthy, the diseased" (Lupton 2000, 51). In my work, the differentiation is between elite athletes and 'ordinary

[24] Foucault's well known theory of panopticism is pertinent to his notion of surveillance. The idea of 'panopticism', coined by Foucault in 1975, is derived from the terms 'pan' and 'optic' ('all-seeing'). Its origin is in Bentham's original 'panopticon' prison model. Bentham's model analyses the architecture and positioning of the watching tower which "stands at the centre of a hollow circular structure housing a number of individual cells. The tower, which is also circular, is pierced by windows that allow a supervisor to look into the cells without being seen" (Macey 2000, 289–290). A consequence of this tower is that individual prisoners do not know when they are under surveillance and therefore assume that they are constantly being watched; "trapped by [their] visibility" (Macey 2000, 289–290). Foucault argues that this pervasive panoptic surveillance operates not only in prison cells: it operates within contemporary Euro-American/Western societies more broadly, including as an internalised panopticon by individuals. In this thesis, Western society/culture refers to those that originate from Europe.

people'. Hacking suggests that discourse is "not just part of our knowledge; it is part of what we take knowledge to be" (Hacking 1986, 356). This thesis argues that the way elite athletes are produced in an elite sporting institution involves multiple discourses – the discourse of sport as work, the discourse of the elite athlete work ethic and the discourse of sporting temporality – all present within the socialising processes of training, and constituted by productions of power/knowledge, discipline, biopower and surveillance.

Docile Bodies

A final element of Foucault's theory that is useful for the investigation of elite athletes is that of docile bodies. Docile bodies epitomise the reconstitution of one as a subject through the automatism of habit and repetitive practice of disciplinary techniques. "Discipline produces subjected and practiced, 'docile' bodies" (Foucault 1991, 138). Foucault states that there are four characteristics of docile bodies: 1) cellular (spatial distribution), 2) organic (coding of activities), 3) genetic (accumulation of time) and 4) combinatory (composition of forces) (Foucault 1991, 167).

Throughout this thesis I touch on different aspects of each component. I discuss the cellular characteristics of space being used to discipline athletes at the campus of the AIS in Chapter Two. The organic characteristic of docile bodies refers to disciplinary techniques of activities, including timetables and gestures: I discuss the former within Chapter Five and the latter in Chapter Three. The genetic characteristics of docile bodies and accumulation of time is evident in Chapter Four in the values of hard work and morality embedded in athletes' daily practices and constitution of subjectivity. Finally, the combinatory characteristics of docile bodies can be seen in production of athletes as subjects and the reconstitution of elite athletes' habituses, through the crescendo of training examined in the

Chapter Seven. Together, the interlinking processes of training reflect disciplinary techniques that produce elite athletes' reconstituted habituses in line with specific elite athlete docile bodies.

Despite the richness of Foucauldian theory, I suggest that more than this perspective alone is required to understand the intricacies of training and the creation of elite athletes at the AIS. For instance, I also draw on Goffman's notion of total institutions, Weber's Protestant work ethic, Morris's perspective of micro-regimes, Hochschild's theory of emotions, and a few key phenomenological concepts. Within each chapter I outline the relevant theoretical perspectives and concepts discussed. However, it is necessary to understand at this point how a phenomenological lens and some associated key ideas are used in addition to Foucauldian theory throughout every chapter of this thesis. To do so, I turn to a discussion of phenomenology and the concept of habitus.

Sport and Body Literature from a Phenomenological Perspective

Phenomenology is the study of phenomena, "the actual objects of sensuous experience and perception" (Macey 2000, 297), and the meanings attributed to "things that present themselves to, and are perceived in our consciousness" (Allen-Collinson 2009, 279). Phenomenology is a broad theoretical perspective with divergent strands associated with a variety of key thinkers as well as its own methodological attitude.[25]

Phenomenology does not readily engage with the themes of structure, power, surveillance and discipline, nor does it examine power relations and negotiation of control and resistance addressed by other theories. Instead phenomenology is

[25] See Kerry and Armour (2000) for the theoretical history of phenomenology and Allen-Collinson (2009) for an overview of different phenomenological strands.

concerned with analysing sensual and subjective experiences of bodily performances. Desjarlais and Throop argue that the value of phenomenology for anthropological research rests, most meaningfully, in the fact that it is different from other theoretical analyses of bodies in that it does not view the body as a text, but as a living entity; "a locus from which our experience of the world is arrayed" (Desjarlais and Throop 2011, 89).[26] The embodied, sensual and lived experiences of individuals — imbued with personal meaning and culturally, socially and historically situated understanding — are the focus of phenomenology.

Within phenomenology "lived experience is embodied experience" (Sandelowski, 2002, 112) and "the lived body is not just one thing in the world, but a way in which the world comes to be" (Leder 2002, 25 cited in Hockey and Allen-Collinson 2007, 117). Consequently, meaning and lived experience are understood to reciprocally inform the way individuals understand the world and their embodied knowledge and practices.

The body in motion constantly alters embodied consciousness and perception of the world. The lived body engages in movement through everyday practices and embodied habits. Experience necessitates movement, Jackson (1983, 330) claims, as an essential intermediary between habituated bodily patterns and social norms and beliefs. Altered patterns and movements of the body induce new experiences and perceptions. Consciously slowing one's breath to increase tranquillity for example, or running quickly to warm up one's body and increase heart rate and blood flow, demonstrate small acts of movement that dramatically shift one's sensual experience (Jackson 1983, 334). For an elite athlete,

[26] Desjarlais and Throop's (2011) article provides a detailed discussion of the broad contributions phenomenological approaches have offered to anthropology.

habituated movement within sporting performance is made meaningful through the consciousness and self-reflection it incites (Kerry and Armour 2000, 2). The way we move our bodies reflects not only our subjective physiological experience of our bodies, but also our cultural experiences of social structures and interactions. Our movement defines the way we carry ourselves, perform bodily practices and gestures, and our habitus.

Habitus

Patterns of bodily movement are generated by habitus. Bourdieu's concept of habitus refers to the culturally informed physical disposition of an individual — including posture, comportment, gait, style of dress, accent, vernacular and demeanour — which are sculpted by historical norms and social positioning, including gender, race, ethnicity and so on, and orient an individual's actions.

Noble summarises Bourdieu's definition of habitus as:

> …not simply the embodiment of a socio-structural location (class, gender, ethnicity). It is also the capacities which generate improvised human conduct, the 'practical mastery' in and of social spaces, manifest in our actions, modes of appearance and bearing – posture, manners, ways of speaking – which make social life possible (Bourdieu 1991, 12 ; 86–89 cited in Noble 2013, 343–344).

Bourdieu uses habitus to describe "the unconscious internalisation of objective social structures which appear spontaneous and natural, but which are in fact socially conditioned" (Robbins 1991 cited in Macey 2000, 175). Noble adds "It may be unconscious and involuntary, but there is nothing 'natural' about this" (Noble 2013, 342).

Habitus encapsulates the complexity of social and physiological processes intermingling to create our bodily disposition (Bourdieu 1977; 1990). Layered within our habitus are bodily memories of techniques, styles of movement and comportment, physical sensations of holding one's posture or limbs in an

appropriate way. For elite athletes, their habitus is constantly being worked on and their habitual-body experiences tension between 'natural' movement and specific technical modes of movement they are instructed to perform by service providers. To address this tension between old habits and new habituated movements, disciplinary techniques of surveillance, punishment and repetition are required to ensure that socio-culturally appropriate techniques are embodied by athletes and made normal, automatic and second-nature. This process transforms the habitus and reconstitutes the embodied knowledge and corporeal norms.

Common critiques of Bourdieu's notion of habitus is that it is static, deterministic and unconscious (Brownell 1995; Noble and Watkins 2003). However phenomenological understandings of habitus adopt "a more dynamic and fluid notion of the habitus as a lived-through structure-in-process, constantly evolving as an effect of the interactions of the agent or group with both others and their physical environment" (Crossley 2004, 39). Such a phenomenological view of habitus supports that notion that through changing one's practices, one's habitus can be reconstituted, and this is the view that I adopt in my analysis. For elite athletes the process of training is primarily concerned with reconstituting their bodily habits via elite sport training, to make second-nature the skills and embodied capacities repeatedly practiced in training. In turn, a phenomenological view of habitus "offers an invaluable tool for exploring the interdependence of social determination and human agency, the structured and generative capacity of human action" and insight into the creation of elite athletes through training (Noble and Watkins 2003, 521- 522).

Chapter Two: AIS as a Village, and a Culture unto Itself

This thesis examines how elite athletes are produced as special subjects with distinctive habituses; the role of multiple agents (including coaches, teammates, service providers and individual athletes); and the culture of elite sport in this production. The purpose of this chapter is threefold. Firstly, it provides an overview of the AIS: its institutional culture and the staff and athletes studied. Secondly, it provides an overview of Goffman's theory of institutions and disciplinary practices, which I use to discuss the institutional production of elite athletes. Thirdly, it outlines the methodology I employed throughout my data collection. The chapter begins with some contextual information about the AIS.

The Australian Institute of Sport

A Brief History

At the official 1981 opening, the AIS consisted of only one campus in Canberra with the facilities and staff to support eight sport programmes, namely basketball, gymnastics, netball, soccer, swimming, tennis, track and field, and weightlifting. Following the success of AIS athletes at Olympic Games, World Championships and other international events, the federal funding for the institute has increased over time. This has enabled the expansion of sporting, scientific and medical facilities. The AIS remains at the forefront of national and international sports medicine and sports science knowledge and practice, and has expanded its number of specialisations (that is academic disciplines) of expertise and associated staff members. Furthermore, the increasing and sustained funding has facilitated the incorporation of a growing number of sports and aligned training

programmes. In turn, the population of elite athletes across a range of sports and training programmes has increased in Australia at large. In 1985 the Canberra campus expanded its sports medicine facilities and opened residential facilities; additional campuses were built in Brisbane and Perth to provide facilities for more sports programmes across the country. By 1995 further campuses had opened in Adelaide, Melbourne, Sydney and the Gold Coast, and the number of sports programmes across the institute had doubled.

Each sport has designated residential training facilities at a specific campus. Consequently, the institutional facilities at each campus are diverse. On a daily basis there may only be a small amount of interaction between the campuses, but each campus functions cooperatively to provide an environment that fosters Australia's sporting success. During the time of my fieldwork in 2010-2011, thirty-eight programmes for twenty-nine different sports existed at the AIS, spread out over the several campuses in Australia as well as campuses in Spain, Italy and the United Kingdom. While some of the original sports — for example basketball and netball —have remained in Canberra, others such as tennis, have relocated to Melbourne, or in the case of weightlifting have ceased to be an institute programme.[27]

[27] I use present tense in my thesis as many of these elements are relevant today. However, after the completion of my fieldwork in 2011 the AIS underwent significant changes in 2012. These institutional changes, prompted by Australia's decline in Olympic medal tally and waning international sporting achievements, reflect a shift in vision "from world class to world best" (Australian Sports Commission 2015a). On an operational level these changes resulted in attrition of staff and athletes who had not performed at a high level in recent competition, transforming the format of sports programmes (including a reduction in the number of sports, athletes and training programmes offered), reducing the number of athletes funded and athletes' scholarship entitlements and ending the residential housing of athletes. Other institutional changes include rebranding the name of the organisation from "AIS: Sporting Excellence" to "AIS: Winning Edge 2012-2022", and redesigning the AIS logo and trademarked colour scheme of uniforms, associated products and the interiors of buildings. A major element of these changes involves the AIS pushing funding, management, recruitment, research, and administration responsibilities for athletes and sports programmes back on to the National Sporting Organizations (NSOs) and affiliated bodies of sports such as Rowing Australia, Basketball Australia, and Tennis Australia (Australian Sports Commission 2015a). Now NSOs are tasked with "taking full ownership and accountability of their programme" instead of the AIS (Australian Sports Commission 2015a). As these changes did not occur during my data collection I do not address them in my thesis, however it is important to acknowledge

The AIS Village: Canberra Campus

Despite the accord across interstate campuses, the Canberra campus is, and has always been, the main (federal) campus. The Canberra campus has more sports, medical facilities, sports programmes and visiting sports training camps than the other campuses, and it is regarded by tourists as the iconic headquarters of the institution.[28] My fieldwork primarily involved AIS athletes based at the Canberra campus; however I also interviewed and conducted participant observation fieldwork with athletes from interstate campuses who came to train and/or compete in Canberra. For this reason I focus on the Canberra AIS campus and its facilities, sports and training programmes, and below I describe its particular facilities.

'Ressies'

On 29 October 1985 the then Prime Minister, Bob Hawke, officially opened the Canberra residential facilities. Prior to the opening of these residences, AIS athletes boarded at university accommodation throughout Canberra. These original residential facilities consist of four-storey split-level blocks of twelve single rooms, and there are twenty-two "blocks". Each block has a separate two-bedroom flat attached, and all together the facility can house two-hundred-and-seventy occupants. Up until 2007 athletes lived in the 'blocks' and 'ressies supervisors' and 'ressies house parents' (who I will discuss below) lived in the attached flats. The blocks are set among landscaped gardens and all residents can access a centrally located recreation room that contains couches, a table-tennis

them as they have impacted on the culture of the AIS and the mini ecosystem of each campus. These shifts suggest the necessity for further anthropological research into the AIS and comparison with my own findings.

[28] For many Australian primary school students, Canberra is a destination for school camps, with excursions to iconic federal institutions including Parliament House, the National War Memorial, the National Museum and the National Gallery, as well as the Australian Institute of Sport.

table, piano and arcade gaming machines. All single rooms in the blocks contain single beds, a small fridge, desk, small book shelf, lamp, wall fan, built-in wardrobe, sink, column heater, plug-in access to the internet, TV aerial, and internal phone. Each block has a common room with a television (Foxtel sports channels), reverse-cycle air-conditioning, lounge, fold-up ironing board and iron, and internal phone. There are four shared-bathroom facilities in each block. The attached flats for the supervisors and house parents have four single-beds, a television, a large fridge, kitchenette, kitchen table and chairs, a bathroom, a desk, large book shelf, lamp, wall fan, built-in wardrobe, column heater and plug-in access to internet and television aerial, and internal phone. Since 2012 the AIS website refers to this residential facility as the "AIS Athletes' Village". However during my fieldwork it was referred to as 'old ressies'.

On 26 June 2007 the Federal Minister for the Arts and Sport, Senator George Brandis, opened a second residential facility at the AIS Canberra campus. The Senator stated that this second facility was built because it formed:

> An integral part of the Australian Government's $74 million AIS redevelopment project to provide Australia's elite athletes with access to world-class training facilities. The Australian Government is committed to ensuring the continuous improvement and ongoing success of Australian sport and the AIS as one of the world's premier centres of sport excellence. New, improved residences will provide a much-needed boost to servicing and supporting the training and development of Australian athletes and teams in preparing for international success including the 2008 Beijing Olympics and Paralympics and beyond (Australian Sports Commission 2007b).

This speech captures the political and financial support for the AIS which, in turn, reinforces the social and political importance of elite sport and sporting excellence in Australian society.

Since 2012 the AIS website has referred to this second residential facility as the "AIS Residence of Champions"; however, during my fieldwork this facility was referred to as 'new ressies'. The 'new ressies' three-storey residences consist of self-contained four, five and six-bedroom 'pods' (essentially serviced apartments) that can accommodate up to one-hundred-and-forty-four occupants (Australian Sports Commission 2007a). Each pod consists of a shared kitchenette, two bathrooms and laundry facilities and a common lounge space with television, (Foxtel sports channels), and internal phones. There are two couples, 'ressies house parents', who live onsite in new residences. Each couple has a one-bedroom pod (an entire apartment) of their own. The new residences have a courtyard, and two 'break-out rooms' which have couches, a large television, pool table, table-tennis table and arcade games. All levels of the residences and every pod are wheelchair accessible and compliant (unlike the older residences). The new residences also have several rooms that are dedicated 'Study Hall' spaces, which are rooms with tables and chairs that seat between six to twelve athletes. These rooms create a space for "athletes' education and welfare needs", although athletes must supply their own laptops and study equipment (Australian Sports Commission 2007a). In contrast to the other residences, the new residential facilities were designed to be energy-efficient with a five-star rating, including a solar-efficient design, double-glazed windows, hydro-in-slab heating and cooling, and rainwater collection and storage tanks for toilets and irrigation.

The new residences are more comfortable, modern and better equipped than the older residences. Athletes who have stayed at the older residences (as athletes on training camps, during recruitment trials or those at the AIS prior to 2007) and now live in a pod in the new residences often refer to the rooms at 'old ressies' as "cells" and describe the blocks as being "like a prison". This sentiment is widely

shared among athletes because the rooms are small, are practically identical, and are often dimly lit, the décor is dated and drab, and occupants are discouraged from putting posters on the walls. In contrast, the modern 'new ressies' rooms are bigger, well lit, warm in winter and cool in summer, have better noise-insulation, and vary in appearance between each pod. Occupants of the old residences often speak longingly of living in the "flashy", comfortable "new and spandangled ressies" where they could decorate their rooms and make the spaces look and feel "more personalised and homely".

The opening of the second residential facility changed the dynamics of the AIS residential arrangements. Previously all the athletes and residential staff ('ressies supervisors' and 'ressies house parents' who provide domestic and social support for athletes) were housed in the one location. Since 2007, athletes are housed in either of the two facilities, depending on the nature of their training, and residential support staff are spread across the two facilities. Only athletes who are 'long stay' are prioritised to stay in the 'new ressies'. Athletes who travel for long durations throughout the year or are only visiting the AIS for competitions, training camps or only for a period of a few months, are housed in the 'old ressies'. Long-stay staff, researchers and visiting family members also stay at the old residences, and spare blocks are rented by students and teachers visiting on school camps and by sports teams travelling for sporting competitions. The residences are located on opposite sides of the road from one another, which in many respects creates a divide between occupants.

Another key factor in the changing social structure of the campus is that when the new residences opened the old residences partially became a commercial venture open to 'the public'. As a result, since 2007 the campus is no longer a village whose sole residents are AIS athletes and staff – schools and sports teams who

pay to stay for short visits also have a presence in these residences and in the Dining Hall. Previously only AIS athletes and residential support staff for athletes stayed on campus in the old residences, and the Dining Hall was located in the same building. Athletes and staff who lived onsite prior to 2007 spoke of the "social", yet "intimate", nature of the "Dining Hall at old ressies" where athletes would often sit around tables in the evening and "talk for hours". However the Dining Hall facility at the old residences closed when a new larger Dining Hall facility was built into the new residences — one which is used by all residential occupants. This means that at any one time there can be hundreds of AIS athletes (short-term and long-term stay), dozens of residential AIS staff, athletes' visiting families as well as hundreds of members of the public, eating in the Dining Hall. Consequently the noise, the queues (which prioritise athletes) and the limited space (which is often filled with a combination of excited school-children and busy, focused AIS athletes) can lead to a sense of functionality rather than of fun and relaxation.

The Dining Hall

In the military, soldiers eat in the 'mess'; at university, students eat in the 'refectory'; and at the AIS athletes eat in the 'Dining Hall'. To enter into the Dining Hall each person must swipe their access pass, walk through the designated 'athlete' or 'public' turnstiles, clean their hands with the hand-sanitary-dispenser and queue in the appropriate 'athlete' or 'public' line. This design intentionally slows down and organises people as they enter into the Hall, which seats approximately three-hundred-and-fifty people at a time and can serve up to a thousand meals a day. The queuing mechanism primarily serves to control the public staying at the AIS, who often get excited about eating 'athlete food', about potentially spotting or being near elite athletes, and who worry about 'missing

out' since the Dining Hall is open only during set hours and makes only a certain number of each dish. The service hours are breakfast (6:30 am - 10:00 am), lunch (12:00 pm -1:45 pm) and dinner (5:45 pm – 8:45 pm).

The hall is divided into two sections. Athletes and staff commonly sit in the front section closest to the windows, while school groups and amateur sporting teams are usually cordoned off to eat in the back section. There is a combination of seating arrangements – stools, booths (that seat six people), small round tables (that seat four to six people) and long tables (that seat up to thirty people). Although athletes happily socialise with members from different sports, due to their schedules and clustered living arrangements, they commonly eat with their teammates and/or those with whom their share a pod or block. They will rarely eat on their own.

The Dining Hall serves a wide variety of nutritious meals with hot and cold food options at breakfast, lunch and dinner. These meals are typically low-fat and high-carbohydrate. Bains-marie of meat and vegetarian meals, alongside large containers of salads, and platters of cold meats and fruit, are organised buffet-style for consumers to self-serve their portions. An AIS food service dietician develops seasonal menus, which operate on a four-week cycle. The Dining Hall is open every day of the year except for Christmas Day. To mix up the menu and create novelty and variety in the food service, dieticians organise special events and international cuisine nights, which involve serving foods that align with the special event theme, decorating the Dining Hall, and serving extra dessert options. Some examples include chocolate and strawberries for Valentine's Day, green iced-donuts on St Patrick's Day and blue and maroon donuts for State of Origin (an Australian National Rugby League special event) competitions.

The mission statement of the Dining Hall is to "feed athletes for today, and educate them for tomorrow" (Australian Sports Commission 2009b). AIS education strategies include providing nutritional information cards for each dish or food provided on the menu. Each card describes the nutrient content of a serve of food, and points out important nutritional features. As a quick guide a traffic-light system is used to rate the food and assist athletes to make good choices.[29] All new residential athletes attend an orientation session to explain how the Dining Hall operates and how to make best use of the food service at the AIS.

Other Campus Facilities

At the same time as the new residences opened, a new sports science and sports medicine building was built to cater for the growing number of disciplines (referred to as departments) as well as the associated specialist staff and new technologies and equipment. The departments include sports medicine, physical therapies (massage, physiotherapy, acupuncture and Pilates), sports psychology, nutrition, biomechanics, physiology, performance analysis and skill acquisition, strength and conditioning, and academic and career education. In addition to offices for all of the staff, most departments have specialised spaces for testing, treating and training athletes. For instance, the nutrition department has kitchens for holding cooking classes for athletes, the biomechanics department has a five lane one-hundred-metre running track and multi-purpose indoor testing facility, and the physiology department has a haematology and biochemistry laboratory that allows sophisticated screening of blood, saliva,

[29] In 2010 the AIS changed its nutritional information displays from a "traffic light system" with "green" (eat freely), "orange" (eat sometimes), and "red" (treats to be eaten in small amounts), to a "medal system" with "gold", "silver" and "bronze" replacing green, orange and red respectively. In addition to this colour-coding, the nutrition cards of the new medal system incorporate symbols to signify the nutritional properties of a meal or food. For instance, if a meal is rich in protein, iron, fat, carbohydrates specific nutrients or vitamins, then a particular corresponding symbol is displayed (Australian Sports Commission 2009a).

sweat and urine (to enable early detection of physiological abnormalities that could inhibit appropriate adaptation to training). The physiology department also has a technical workshop that allows specialised equipment to be designed and produced[30] and an 'altitude house' that houses up to twelve athletes at a time to sleep, reside and train under conditions of simulated high-altitude.

Another important facility physiology experts use to improve athletes' performance is the 'Recovery Centre', which is used by athletes to aid their rest, recovery and active healing between training sessions and competitions. The Recovery Centre is divided into dry and wet areas. The dry area includes a massage area, float-tank, research laboratory, changing rooms, a nutrition recovery bar and a warm-down area with exercise bikes and stretching mats. The wet area is designed to allow athletes to engage in active and passive recovery in both hot and cold water. It has a number of hydrotherapy options, including hot and cold showers, a spa with jets that can target major muscle groups, a plunge pool, and a whirlpool at normal pool temperature. The AIS website states that the Recovery Centre is:

> …focused on developing and implementing world's best practice recovery strategies and techniques to optimise athlete training and performance. This state of the art facility provides athletes with cutting edge recovery techniques using a multidisciplinary approach. The Recovery Centre has the capacity for researchers to conduct evidence-based research and measurement of outcome effectiveness, which is vital to ensure the scientific validity of recovery is enhanced (Australian Sports Commission 2014a).

This facility demonstrates the degree to which science and technology are embedded in the AIS, the culture of elite sport and in elite athletes' daily lives.

[30] Technical accomplishments in recent years have included: an automated 'first-principles' system for respiratory gas analysis; a 'state-of-the-art' treadmill control system; a rowing course calibration system; and a cycle ergometer that matches the kinetic energy of road cycling (Australian Sports Commission 2014b).

In addition to high-tech sports science and sports medicine facilities, the expansive sporting facilities at the AIS Canberra campus have been added to and upgraded since 1981. Today the sporting facilities include basketball courts, netball courts, volleyball courts, tennis courts, multi-purpose indoor fields, outdoor soccer and hockey fields, archery facilities, track and field facilities, boxing facilities, gymnastics facilities, Olympic standard swimming pool and two other swimming pools, a multi-use indoor stadium and a multi-use outdoor stadium that is modified for different competitions. There are also a few other facilities for AIS staff and athletes including a uniform warehouse, amphitheatres, lecture rooms and a library. Tourists and members of the public can access an AIS merchandise shop, a café, a public gym, a public swimming pool, and public spa, sauna and plunge-pool facilities. The AIS campus is filled with technologies of formal surveillance, including security cameras and identification swipe-access systems at every portal, so that only designated persons have access to certain facilities.

AIS: A Revisited Total Institution (RTI)

Much social science work on the operation of institutions is influenced by the work of sociologist Erving Goffman, particularly his (1968) discussion of Total Institutions (TIs) and the production of certain people as institutional subjects. Goffman suggested that asylums, hospitals, military colleges, boarding schools and prisons are Total Institutions, and that inmates, patients, students, cadets and prisoners are produced as subjects within these institutions as a result of their location in embedded hierarchies of power. A central commonality among these institutions is that their inhabitants eat, play, train/work, recover and sleep in the one place with the same people. Staff oversee the inmates' practices, provide highly-structured schedules, and enforce certain types of behaviour (for

example wearing uniforms) that foster minimal self-expression (Goffman 1955; 1959). Wolkowitz draws on Goffman to argue that "when they issue uniforms, they issue skin" (Wolkowitz 2006, 79 citing Goffman 1968).

More recently, Scott's (2010b) Revisiting Total Institutions (RTIs) research provides a modified version of Goffman's theory and one which is useful in examining the AIS. In contrast to Goffman's analysis of the 'sad, bad and mad', Scott explores elite institutions and institutional programmes for talented people, to enable them to learn and develop as subjects, with the view of becoming elite and extraordinary. Commonalities among these inmates are institutional vernacular and in-group behaviour, a fear of leaving and letting go of the culture that provides a sense of identity, and group belonging (Scott 2010b). In particular Scott writes of "academic hot houses", and this example resonates with the AIS and its members (Scott 2010b, 224).

Academic hot houses are RTIs that aim to "educate, enrich and develop people's talents or abilities" throughout the duration of their training (Scott 2010b, 225). Scott discusses the features of "doing members" (that is participants, and in my case athletes) within the RTIs' communities of practice (2010b, 225). Many of these features are comparable to those at the AIS and the experience of its athletes, including: competitive entry, strict rules and rigid social norms, the need to demonstrate belonging through performance, the need to illustrate ongoing membership through continual potential to improve, devotion and dedication to the programme, the sense of a surrogate family among members, internalisation of surveillance regimes to monitor progress and improvement of oneself and one's teammates, and, finally, an environment that fosters institutionalisation and anxiety about release from the institution (Scott 2010b, 225). For many AIS athletes, the reconstitution of their habitus as a result of training is regarded as a

rite of passage similar to many academic hot house inhabitants' experiences of transformation as subjects as they shift from studying and being a 'student' and being a 'graduate'. The AIS epitomises Scott's notion of RTI and the conception of an institution for high-achievers with a culture unto itself. As I show throughout this thesis, such a culture is reliant upon service providers who oversee athletes' daily practices to provide structure and discipline and produce elite athletes as subjects.

Goffman's total institution theory is also useful when combined with a Foucauldian disciplinary perspective, as discussed in Chapter One, in relation to the role of space in producing athletes as docile bodies. At the AIS the space of the institutional campus serves as a technology that disciplines athletes and their daily practices. Disciplinary techniques of space are employed at the AIS campus and are reinforced by staff, security and social (as well as personal) surveillance and policing of behaviour. For instance, the ways in which athletes occupy space is highly regulated: athletes must queue in the Dining Hall to assemble their meals and clean up afterwards; athletes' behaviour is recorded by security cameras placed all around the campus; and their entry and exit times into the residential facilities are recorded. Every couple of months coaches request records of these surveillance mechanisms to confirm athletes' compliance to institutional curfew rules.

Another example of disciplinary techniques includes athletes only being permitted into certain spaces while accompanied by service providers and during certain hours. The hours of access are strictly timetabled to minimise sharing of equipment and space between athletes from different sports to optimise efficiency. These spaces include: training facilities, the Dining Hall, the Study Hall, other residential facilities and the strength and conditioning gym. Bale

suggests that sports are "rule-bound, ordered, enclosed and predictably segmented forms of landscape", and that this can be extrapolated to sporting institutions. Consequently he sees elite sport as a highly rationalised environment (Bale 1994, 2).

Foucault's theory of discipline and production of docile bodies uses the concept of the "art of distribution of space" to examine the spaces that accommodate disciplinary practices (Foucault 1991, 141). He suggests that discipline requires an enclosure that "is the protected space of disciplinary monotony" (Foucault 1991, 141). Institutions, such as the AIS, offer such a space whereby daily practices of all institutional members are focused on crafting docile subjects, in this case elite athletes. Disciplinary use of space also aims "to derive the maximum advantages and to neutralise inconveniences" (Foucault 1991, 142). At the AIS all of athletes' training needs are catered for in one space: service providers, facilities, biomedical and scientific knowledge and technology are all "under the same roof" (Foucault 1991, 143).

Another aspect of space as a disciplinary technique is partitioning: "each individual has his own place; and each place has its individual" (Foucault 1991, 143). At the AIS the separation of athletes from different sports through the access they have to facilities and living quarters (for example, old and new residences, blocks and pods) is an example of this kind of partitioning. The use of "functional sites" and "useful space" is a means of separating and differentiating subjects by the behaviour they are trained to perform within distinct confined spaces (Foucault 1991, 141; Markula and Pringle 2006). For example, the physical training athletes perform within the strength and conditioning gym relates to building strength and fitness that assists with specific sporting performances. This conditioning is differentiated from athletes' sports-specific training (for

example, specific basketball and swimming training) which occurs within sport-specific facilities (basketball courts and swimming pools), and the training performed in the Recovery Centre is different again. Within each of these partitioned spaces, athletes wear different AIS uniforms that signpost the differentiated training they perform.

Foucault's final point in the "art of distribution" as a disciplinary practice of space, refers to how space serves to reinforce rank and classification (Foucault 1991, 145). Drawing on Foucault, Marshall describes how "the architectural enclosure of the main gymnasium served to consolidate the boundary between athletes and non-athletes and between 'real' athletes and 'pseudo' athletes" (Marshall 1989, 107 cited in Shogan 1999, 23). At the AIS, the enclosure of the athletes' strength and conditioning gym — located in a separate, secure building, partitioned away from the 'public gym' accessible to paying members of the public — uses the technology of architecture and space as a means of making explicit the separation of classified athletes from the public.[31]

AIS Service Providers

The AIS has a large number of departments staffed with specialists who work across a range of areas to support the development of elite athletes. These staff members, commonly referred to as 'service providers' (SPs), are employed at the AIS to 'service' athletes to support their performance potential. 'Servicing' involves consulting (listening, observing, measuring and monitoring) athletes' bodies and treating (healing, soothing, rehabilitating and disciplining) symptoms that impinge on athletes' training and performance. Every sport at the AIS has at least one SP from each department assigned to service its athletes.

[31] In Chapter Three I will elaborate on the differences between 'training' and 'working-out'.

SPs are instrumental in training elite athletes. Some commonalities across the different types of SP include: a personal interest in sport and often a background in amateur (and sometimes elite) sporting competition; science, medicine or sports studies education; an attentiveness to health and fitness; and the fact that they are usually driven, hardworking, professionals. SPs consult with athletes as needed (for some this means every day, for others it means weekly or only every couple of months). SPs attend weekly staff meetings to keep abreast of individual athletes' progression as well as the team's performance, health and wellbeing, and use their expertise to help facilitate the development and success of individual athletes and teams. Therefore, beyond the immediate inner circle of the team or squad of athletes in each sport, the next layer of intimacy is the support staff. Below I list the SPs at the AIS and provide some information about their roles.

Sports Coaches

Sports coaches are a type of SP, although they are categorised separately as 'coaches'.[32] Coaches are the most important SPs because they work closely and directly with athletes on a daily basis. Coaches work only with athletes in their particular sport, whereas other SPs are responsible for athletes in multiple sports, and this distinction is emphasised in the differentiated geographical positioning of SPs on campus. Coaches' offices are located next to the relevant sporting facility premises while all the other SP's offices are located in the sports science and sports medicine building. This organisational separation aligns coaches with athletes and the purview of a specific sport, while other SPs are aligned with the science and medicine of sports and athletes.

[32] From now I shall merely refer sport-specific coaches as 'coaches', who are differentiated from strength and conditioning (S&C) coaches.

Team sports, including basketball, have three types of coaches: a head coach, an assistant coach and what is referred to as a 'scholarship coach'. Each coach plays a different role within a hierarchical structure. The head coach has the most status, authority and experience. Central to his or her role is planning and directing training, instructing athletes in the techniques of the game, directing the conditioning of players to achieve maximum athletic performance, assessing players' skills, assigning players' positions and evaluating the team's and opposing teams' capabilities to determine game strategy. An assistant coach's role is primarily to support the head coach. Consequently, an assistant coach's status, authority and experience is always subordinate to those of the head coach. Some assistant coaches have direct coaching responsibilities, while others respond to the head coach's directives. It is the assistant coach's role to make sure players, equipment and facilities are well-prepared and organised. To do this they perform administrative tasks outside of training to enable the head coach to coach with ease. For instance, assistance coaches conduct weekly inspections of athletes' pods (bedrooms and apartments at 'ressies') to make sure athletes are keeping their living spaces clean and neat – if they are dirty or unkempt, athletes are punished during training and made to do penalty exercises by the head coach.

Finally, a scholarship coach is employed for two years as an apprentice senior coach. Their title signifies that these coaches are learning, and their role is finite, but the title is probably misleading as these coaches are not on scholarships. They are paid employees and titles such as 'trainee coach', 'junior coach' or 'apprentice coach' are arguably more appropriate. A scholarship coach is usually tasked with duties that aid the other coaches (in essence they are an assistant coach's assistant). Commonly this more junior coach is considerably younger and less experienced than the more senior coaches. His or her role is to perform the less

authoritative 'grunt work' (time consuming tasks, such as collating and coding video footage of training). The scholarship coach's lesser authority, experience and age often facilitates a more jovial relationship with athletes, in contrast to the more authoritative relationship between athletes and senior coaches.[33]

AIS individual sports, including swimming, have one coach per squad and do not have staff fulfilling the roles of assistant coach or scholarship coach. For instance, in swimming there are four squads and each squad has one coach. These coaches set daily training schedules, instruct technique, determine discipline policies for athletes and negotiate long term and short term training cycles and associated goals. From the four swimming squad coaches, one coach is appointed head coach with authority over the others. The head coach has authority over the administration, organisation and discipline of athletes and staff.

Individual sport athletes typically have intimate working relationships with their coaches as they work closely together for long periods each day over many years. If, or when, a coach of an individual sport leaves the AIS to work elsewhere their athletes often follow them, whereas in team sports, athletes usually stay with the team or programme.

Doctors

AIS sports physicians, referred to as 'doctors' or 'docs', consult athletes with injuries or illness, or athletes who wish to discuss aspects of injury and illness prevention. Doctors are a significant and authoritative service provider. Doctors' decisions about whether an athlete is fit, healthy and well enough to train and compete override any other SP's opinion or treatment, including those of coaches.

[33] Athletes have intimate working relationships with head coaches and assistant coaches, but as scholarship coaches are younger and have less authority – and do not make final decisions about things, such as recruitment – they are less intimidating.

If an athlete has any physical, mental or emotional illness or injury, AIS doctors will be involved in his or her treatment. Before an athlete is recruited he or she will undergo a medical screening conducted by an AIS sports physician to make sure they are medically fit to train, and in optimal health to perform.[34]

Nurses

Registered nurses make a crucial contribution to athlete care and are responsible for dressing injuries, providing immunisations, taking blood and dispensing medications. The nursing staff supervise and maintain the AIS pharmacy.[35]

Physiotherapists

AIS physiotherapists, referred to as 'physios', are specially trained to work with sports injuries to help athletes recover, and to provide education and resources to prevent problems. Prior to recruitment, physiotherapists conduct injury screening to assess the health and performance of a potential athlete to determine if their body is capable of withstanding the volume and intensity of elite sport. Physiotherapists assist sporting performance and recovery as well as injury prevention through the use of effective treatment, management techniques and exercise protocols. Athletes are encouraged to visit physiotherapists (after seeing their doctor) in response to any pain, extreme soreness, tightness or stiffness in their bodies (for example muscles and joints). Consequently athletes typically have individual consultations with their team physiotherapist on a regular basis.[36]

[34] The head of medicine explained that "ideally we would always have at least one female sports physician on staff, but as there are fewer female sports physicians available (because working in the private sector is significantly more lucrative than working here) it can be difficult". For the duration of my fieldwork the five doctors were all male, two were in their mid-thirties, one in his mid-forties, another in his mid-fifties and another in his early-sixties.

[35] The three nurses employed during my fieldwork were all women in their early-fifties.

[36] During my fieldwork the AIS had eight physiotherapists. These included male and female staff ranging in age from late-twenties to early-fifties.

Soft Tissue Therapists

Soft tissue therapists, colloquially known as 'masseurs', massage athletes to alleviate tight muscles and treat sports injuries. Athletes are entitled, and encouraged, to have weekly massages to assist their recovery and sporting performance.[37]

Sports Psychologists

Sports psychology is a crucial component of athletes' training. Athletes undergo an initial wellbeing and mental health screening as part of their recruitment process to identify any clinical issues and the state of their mental health. During AIS training athletes are provided with customised and integrated psychological services to meet the specific needs of individuals aligned with their sport. Sports psychologists develop athletes' 'podium preparedness' and performance psychology through education and training of psychological skills and exercises in order to: promote systematic self-regulation of thinking, energy, emotion, and attention; create a productive team environment; and grow leadership and communication skills (Australian Sports Commission 2013). Sports psychology is also used to 'restore performance' by fostering recovery from injury, performance slumps, and training stress; cultivate psychological resilience and coping skills; and manage interpersonal conflict. Finally, sports psychologists assist athletes' mental health and wellbeing, beyond performance, throughout their AIS training by screening, managing, and coordinating support, encouraging healthy life balance and facilitating sport and career transitions.[38]

[37] During my fieldwork there were eight soft tissue therapists. These included male and female staff ranging in age from late-twenties to mid-forties.

[38] During my fieldwork the nine AIS sports psychologists were predominantly female, with a few male staff members, and were largely aged in their thirties to mid-forties.

Physiologists

The AIS physiology department has the most staff across the AIS sports science and sports medicine departments with nineteen staff members. To provide direct sports science support, with laboratory and field-based testing and scientific activities, physiologists record athletes' bodies and behaviour during rest, recovery and activity. Physiologists typically interact with coaches and athletes during several training sessions a week. There are two types of physiologists: generalists and recovery specialists.[39]

General Physiologists

Physiologist generalists (referred to as physiologists) are responsible for identifying and quantifying the physical and physiological characteristics that contribute to performance in particular sports, and the most effective methods of manipulating these characteristics to enhance the likelihood of success. A key function of the physiology department is to monitor training sessions to allow an accurate assessment of the level of stress placed on athletes. This involves the measurement of a range of physiological variables including cardiovascular, neuromuscular, hormonal, blood and performance variables (Australian Sports Commission 2014b). In their role as SPs, physiologists work with coaches, athletes and other scientists to monitor performance in both training and competition settings. For instance, part of athletes' training routines involves regular 'physiology testing' by physiologists to record a baseline of fitness (including agility, speed, endurance, flexibility, vertical jump) and athlete anthropometric measurements (such as height, weight, arm span, skin folds) that

[39] Throughout my fieldwork there were a number of male and female physiologists in their early twenties who were employed as interns (referred to as 'post-graduate scholars') at the AIS, equally as many PhD students in their late-twenties and early-thirties, and approximately the same number of senior staff in their forties and fifties.

are later compared with mid-season and post-season results. Other physiologists' roles include: developing, maintaining and implementing technology and sports science equipment for training and performance testing, monitoring and measuring; conducting applied research projects to enhance sports performance; and providing high level advice, consultation and education to athletes and coaches (Australian Sports Commission 2014b).

Recovery Centre (Physiology) Specialists

The AIS performance recovery specialists are physiologists who educate athletes and coaches about fatigue, recovery practices and physiology. Their roles include: conducting recovery sessions; developing team travel protocols; monitoring athletes' sleep, training loads and responses to training; supplying teams and athletes with recovery equipment; developing recovery facilities through advice on design and operation; and undertaking applied fatigue and recovery research (Australian Sports Commission 2014b).

Strength and Conditioning Coaches

Strength and conditioning forms an integral part of the development of all AIS athletes and their everyday training. The strength and conditioning discipline provides services in the areas of speed, agility, endurance, strength, stability, flexibility, injury prevention, management and rehabilitation for the purposes of enhanced athletic performance during competition across all sports (Australian Sports Commission 2011). Before athletes are recruited they are subjected to movement screening tests that capture their abilities in each of the above areas so that strengths, weaknesses and areas of improvement can be recorded and programmed. Core stability, injury prevention and rehabilitation, proprioception and agility programmes are incorporated as part of an athletes' overall strength and conditioning programme.

Strength and conditioning coaches (referred to as 'S&C coaches') create individualised strength training (lifting weights) and conditioning programmes, in consultation with sports medicine practitioners and sport coaches, that are tailored to meet athletes' specific needs and designed to allow each athlete to progressively achieve their optimal performance. The S&C coaches' role is to: develop correct exercise skills or drill techniques; improve the strength base of athletes; address athletes' specific strengths and weaknesses; improve athletes' sports-specific movements and techniques through agility and speed sessions; and improve athletes' physical conditioning through sport-specific conditioning sessions (Australian Sports Commission 2011). Athlete development is monitored by the S&C coaches within each and every scheduled lifting session (typically three to four sessions a week) in the strength and conditioning gym throughout the period of athletes' scholarships. To assist S&C coaches fulfil their role, athletes are required to fill in a training diary for each weight training session. This tracking of activity enables the S&C coaches to monitor each athlete's progress and adjust programmes to enhance their development.[40] As a result of this regular contact, S&C coaches are the SPs that athletes have the most contact with other than their main coaches.

Dieticians

At the start of a nutrition programme at the AIS, most athletes attend an individual screening session with their team dietician (commonly referred to as a 'nutritionist' by AIS staff and athletes[41]) to assess their eating patterns and

[40] During my fieldwork the S&C coaches were a mix of male and female staff members. A few coaches were in their late-twenties, the majority were in their thirties and a few of the more senior staff were in their forties.

[41] Although nutritionist and dieticians are assumed to be the same, AIS dieticians are quick to point out that the difference between a nutritionist and a dietician rests on the scientific rigour of their qualifications. As one dietician informed me "Dieticians are in the same boat as S&C coaches. Anyone can become a PT [personal trainer] or a nutritionist after completing an eight-week course at TAFE, but you

identify any nutrition issues. Throughout the year, athletes may attend follow-up sessions with their dieticians to discuss specific dietary concerns or questions. Issues that require individual attention include nutrient deficiencies (for example iron deficiency), weight management, failure to recover well from training sessions and specialised competition eating plans. Athletes may initiate their own appointments or may be referred by other sports science and sports medicine professionals, their coaches, or house parents from the AIS residence. Nutrition education sessions are presented to AIS teams and provide overviews of eating well for sport as well as specialised topics such as bulking up, eating for post-exercise recovery, fuelling and hydration strategies for competition and eating while travelling (Australian Sports Commission 2009a). These education sessions are presented in traditional lecture formats and creative activities such as a game-show format, role playing, food taste-testing, video clips and group discussions. Dieticians use these sessions to help athletes develop nutrition knowledge and practical skills to use on a daily basis.

Cooking classes are one of the most popular and useful activities dieticians use to teach and train athletes about nutrition. These classes teach athletes how to plan menus, organise catering for a group house, and feel comfortable in the kitchen. Recipes are taken from the *AIS Sports Nutrition* cookbooks, which have been written and researched by AIS dietetics staff and are openly accessible resources (Burke, Australian Institute of Sport Department of Sports Nutrition 1999). The meal ideas are designed to be quick to prepare, full of carbohydrate for refuelling, low in fat, and taste appealing. In their role as SPs, dieticians impress upon athletes the serious repercussions of their nutrition and dietary habits with

have to complete a specialist three year Bachelor degree, with a high entrance score, to get into dietetics to become a dietician or to become a S&C coach".

respect to sporting performance while instilling the importance of balance, taste and fun associated with food in their daily lives.[42]

Biomechanists

Biomechanics is the study of forces and the effects of those forces on and within the human body. Whenever a force is applied to the body, biomechanics can be used to analyse and interpret its cause and effect. AIS biomechanists are involved in the observation, measurement and analysis of training and competition performance and use their expertise to support athlete development (Australian Sports Commission 2013a). Athletes consult with biomechanists in an initial screening before they are recruited, and then sporadically as coaches, S&C coaches and medical staff request or when biomechanists require research data.[43]

Skill Acquisition Specialists

Skill acquisition specialists use their knowledge of how the brain handles information through the learning process[44] to design training programmes that give athletes a competitive edge.

[42] During my fieldwork the majority of the dietetics staff were women in their late-twenties and mid-forties and a few men and women in their thirties.
[43] During my fieldwork there were more men than women in the biomechanics department with staff ranging from late-twenties to early-fifties.
[44] For instance skill acquisition specialists monitor athletes' learning process from conscious efforts to master a task, to the point when decision making required to complete that task becomes automatic.

This includes practical methods such as:

> Designing innovative practise approaches to aid athletes in fine tuning their skill preparation; assessing how athletes combine their sensory awareness and motor skills to perform in their sport; exploring the application of technological approaches to skill learning such as interactive visual stimulation; and assisting coaches to apply the latest developments in applied learning research (Australian Sports Commission 2014c).

Athletes consult with skill acquisition specialists periodically – at a coach's request or when skill acquisition specialists require data for their research.[45]

Athlete Career and Education Advisors

Athlete career and education advisors assist athletes to make informed decisions that impact on their performance in sport, careers, education and life. These SPs assist athletes with preparation for job interviews and applying for university and TAFE courses; and they work in conjunction with Study Hall tutors to provide guidance to athletes with their school and university assessment. This assistance with education and employment needs, often unrelated to their sporting careers, is intended to create balance and standby options for athletes during and after they leave the AIS.[46]

Residential Staff

Managing Supervisor

During my fieldwork the residential managing supervisor role was filled by a former national Olympic team head coach who was familiar with the regimes and structure of sports training and with the necessity for discipline and strict rules (especially regarding curfews, dress codes, room inspections). This role is akin to

[45] Similar to biomechanics, during my fieldwork there were more men than women in the skill acquisition department and staff ranged from late-twenties to early-fifties.
[46] Athlete Career and Education Advisors were both male and female in their thirties and forties during my fieldwork.

that of a school principal – authoritative and intimidating when necessary, yet friendly and relaxed within daily interactions with staff and athletes. Athletes interacted with the residential managing supervisor on a daily basis in the Dining Hall and around 'ressies' but only for disciplinary reasons would athletes have scheduled consultations.

Residential 'House Parents'

There are two married couples in their forties to fifties who live in the new residences and occupy the role of 'ressies house parents' at the AIS. These couples perform the role of residential supervisors to support athletes on campus. For instance, they make sure athletes are quiet and in their rooms by curfew, buy birthday cakes to celebrate their birthdays and chauffeur them to medical appointments and shopping centres off campus. Primarily these SPs are employed to create some sense of normality in athletes' lives. Athletes often let off steam by chatting to the house parents, who can provide an adult, impartial and 'external' perspective. If athletes are unwell in the middle of the night and need medication or someone to sit with them while they are sick, a house parent can perform this role. The house parent role ensures that athletes are interacting with some people who are not sports, science and medical specialists and this helps create some balance in their lives.

Residential Supervisors

Residential supervisors perform similar roles to house parents but are men and women in their late-twenties to early-forties who live onsite in the old residences (their partners are not allowed to live with them in the residences). Residential supervisors conduct 'bed checks' of athletes seventeen years-of-age or younger at 10pm every night to make sure athletes are in bed and that all other athletes have

turned off loud music, do not have any guests (especially of the opposite sex) in their rooms and are quietening down ready for bed.

Who can Train at the AIS? Getting an AIS Athlete Scholarship

Detailing the SPs who train athletes, begs the question of who the athletes are that are trained? Before I discuss the athletes who receive training at the AIS, it is necessary to outline the conditions under which athletes are selected to train there.

The AIS offers up to seven-hundred athlete scholarships annually across all sports at all campuses.[47] To train at the AIS athletes must have an AIS scholarship. The requirements for each sport vary, but some general recruitment rules for an AIS scholarship apply. These rules stipulate that athletes must: be an Australian citizen; already compete at a national or international level in their recruited sport; and work or study in addition to their training throughout their scholarship period at the AIS. AIS scholarships are competitive and lucrative as they entitle athletes to top-level coaching, access to sporting facilities, equipment and uniforms, sports science and sports medicine facilities and professionals, medical insurance, accommodation, meals and travel costs, and assistance with education and career planning (Australian Institute of Sport, 2009). An average AIS scholarship is valued at approximately sixty-thousand dollars per annum, although fluctuation across sports exists regarding the equipment required, competition fees and expenses for interstate and international travel.[48] The

[47] As of 2012 with the introduction of the *Winning Edge 2012-2022* AIS programme, many changes to the administration of the institution came into being. These changes include the scholarship system, and it is now National Sporting Organisations who are responsible for funding for athletes and the amounts awarded, instead of the AIS.

[48] For instance, the male and female basketball athletes are entitled to all of the same resources. However, depending on the international competition schedule and travelling expenses, the value of their scholarships vary.

duration of scholarships is typically twelve-months, but differs in some sports. Athletes usually have a six-month probationary period when they first arrive, and after this point their scholarships are extended or terminated depending on their performance — which is reviewed on an annual basis.[49]

Obtaining an AIS scholarship is not a simple task. Beyond the bureaucratic requirements, scholarships are awarded based on athletes successfully showcasing their merit through performance. Demonstrating such athletic worthiness requires a combination of both athletic potential and previous achievement throughout a competitive selection process involving training camps, state, national and international competitions, and regular seasonal competitions.

Particular physical features may factor as influential to an athlete's recruitment in some sports, such as height, bodyweight, physique, flexibility or aptitude towards sprinting, endurance, strength or versatile performance. For example, in men's volleyball only in rare circumstances are athletes who are less than six-feet and five-inches (one-hundred-and-ninety-five-centimetres) tall recruited, whereas in gymnastics height is a disadvantage and shorter athletes are more commonly recruited. In boxing, a sport with weight divisions, a spread of top athletes from weight categories is recruited; however, some weight categories are more competitive than others depending on the number of athletes applying for recruitment. Therefore, short male volleyballers, tall gymnasts or athletes with outlier or typically detrimental characteristics across other sports must have

[49] Athletes who are terminated for 'performance reasons' have not achieved the goals negotiated in their AIS scholarship contract. These goals may include being selected for the national team or improving performance statistics.

exceptional sports skills, fitness, and strength and conditioning to be recruited at the AIS.

Beyond physical characteristics, other features are important in athletes' recruitment. These include age, work ethic, social and emotional maturity, personality, attitude and competition experience, which must all meet the approval of the team or squad's head coach. As a baseline, athletes must be competitive, talented, likeable, coachable, respected and respectful, demonstrate an ability to work hard, perform well and display potential to further improve, and offer something unique to the squad or team as there are only limited positions and many people capable of filling them.

AIS Athletes

During my fieldwork the athlete population was primarily made up of basketballers, swimmers, rowers, track and field athletes[50], archers, gymnasts, sailors, netballers, volleyball players, soccer players and boxers, as well as athletes with disabilities (AWD) including AWD basketballers, AWD swimmers, AWD rowers and AWD track and field athletes. Additional camps of athletes passing through periodically included tennis players, cyclists, water polo players, rugby players, Australian rules players, and winter sports athletes.

Within this broad range of sports, AIS athletes are generally a relatively homogeneous bunch. A few athletes spoke to me of their religiosity, bisexuality, homosexuality and ethnic background, but, predominantly, AIS athletes are secular, heterosexual and Caucasian Australians without disabilities. Some sports have greater ethnic diversity than others. For instance, the AIS boxing and soccer

[50] Track and field athletes include sprinters, hurdlers, race walkers, heptathlon runners, middle-distance runners, long-distance runners, marathon runners, long-jumpers, triple-jumpers, high-jumpers, shot putters, javelin throwers, discus throwers, hammer throwers and pole vaulters.

teams are more ethnically diverse than the primarily Caucasian population at the AIS. One of the key areas of diversity at the AIS relates to the AWD athletes. I conducted participant observation with AWD athletes. However, as my data primarily involves athletes without disabilities, I do not specifically discuss issues pertaining to athletes with disabilities in this thesis.

This fairly homogenous athlete population encouraged my exploration of the production of elite athletes on a broader, over-arching scale, in contrast to much of the literature regarding athletes and sporting bodies that focuses on particular demographics or sports.[51]

Age

The age of AIS athletes varies depending on the sport and the sports programme to which they have been recruited. Some sports have 'development' programmes for 'junior' athletes who currently compete at a national level and are training to progress towards 'senior' elite level competition. Other sports have 'senior' programmes in which athletes compete internationally at an elite level. Still other sports programmes include a combination of both junior and senior athletes. For instance, female gymnasts are recruited from seven years of age to join the development programme,[52] while the senior men's gymnastics programme commonly has athletes in their mid-twenties, some in their late-teens and a few in their early-thirties.

[51] As I acknowledge in the Introductory Chapter, my research differs from much of the literature which primarily conducts analyses of athletes from one sport. For instance: boxing (Wacquant 2004), mixed martial arts (Spencer 2009), running (Allen-Collinson 2011), or these athletes whose experience of sport is shaped by their race (Pelak 2005), ethnicity (Carniel 2009), sexuality (Clarke 1998; Anderson 2002), religion (Finn 1991), gender (Carniel 2009), or disability (Hardin 2007).

[52] The families of these junior female gymnasts typically move to Canberra so that athletes can live with them while training at the AIS. By the time female athletes are in their early to mid-teens they are senior athletes. At this time some athletes choose to live onsite in the residential facilities.

Team sports recruit athletes at different ages. For instance, the men's soccer development team recruits fourteen to sixteen-years-old athletes; the women's netball development team recruits eighteen to twenty-one-year-old athletes; the men's and women's basketball development teams recruit fifteen to twenty-one-year-old athletes; and the male volleyball teams recruit sixteen to nineteen-year-old athletes for the junior team and athletes who are nineteen-years-old and older for the senior team. The swimming programme combines a few developing athletes (who are usually aged from their late-teens to early-twenties) who train with senior athletes (who range from late-teens to early-thirties in age). Thus age alone does not categorise an athlete as senior or junior; rather, the level of competition in which they perform determines this status. Overall, the majority of athletes at the AIS ranged from seventeen to twenty-five years of age.

Socio-Economic Status and Class[53]

Competing in elite sport requires a significant amount of familial and financial support and sacrifice. Athletes require financial resources not only to succeed, but also simply to participate in elite sport. Prior to attending the AIS, most athletes' expenses are paid by parents and guardians. For example, paying for sporting competition fees, team memberships, gym memberships, sports uniforms, mouth-guards, physiotherapy appointments and transporting athletes to training early in the morning, late in the evening and interstate on weekends. Consequently, due to the significant expense of elite sport on average athletes are 'financially comfortable', 'middle-class' and 'high socioeconomic status' with parents who are commonly 'white-collar workers' employed in professional,

[53] In this instance, I use the terms 'class' and 'socio-economic status' relatively interchangeably. The former refers to people with similar social and educational experiences and financial circumstances — for example, 'working-class' or 'middle-class'— and the latter refers to one's current employment and economic situation.

managerial or administrative work. Coming from such socio-economic backgrounds enables many athletes to progress up the ranks of elite sport as the outlays for sporting equipment, travel and medical bills simultaneously increase.

Only a few athletes mentioned to me that they noticed their difference from their peers in regards to familial wealth and socioeconomic status. These athletes commented that in comparison to the rest of their teammates they had noticeably reduced access to financial resources. They commented that their teammates wore expensive brand-name clothes, owned the latest mobile phones, laptops, sound-systems, video games and consoles, drove new cars, had holidayed nationally and internationally with their families, and were often sent money from their parents as pocket money to "spoil themselves" and "enjoy some treats". One athlete demonstrated his differing experience of money from those of his teammates when he said: "I had to work all summer helping my dad build a house and do labour around the farm to earn the same amount of money [another athlete's] parents send him each fortnight".

In contrast to the athletes discussed in some other ethnographies, most athletes I researched were not using sport as a means of social advancement 'out of the ghetto' or hoping to 'get famous to escape my hometown' (Wacquant 2004; Pelak 2005; Whannel 2013; Jones and McMillan 1996; Wiggins 2006). Instead, at the AIS, athletes have the luxury to pursue careers in elite sport if they wish as they have other things (including education, familial financial support and, for many, a middle class cultural capital[54]) to fall back on if their sporting career does not make them a fortune.

[54] I use this term to refer to Bourdieu's (2011; 1984) cultural capital: non-financial social assets that promote social mobility beyond economic means. Examples can include education, intellect, manners, vernacular, dress, or physical appearance.

One example of the operation of class and cultural capital among athletes lies in parental occupations. Many athletes I researched have parents who have themselves competed in sport at a competitive amateur and elite level (including many at state level, some at national level and a few internationally). Similarly, there is a considerable number of athletes with parents in medical professions, particularly nurses, doctors and physiotherapists. For these athletes, their parents' previous sporting experience or current professional medical expertise generates a sense of consensus, understanding and familiarity concerning the sporting and medical surveillance to which athletes are routinely subjected. It makes sense that parents with sporting backgrounds are able to use their own knowledge, experience and social networks to support and assist elite athlete children to succeed in sport. In contrast, a few athletes have parents who had no individual or professional experience with sport and did not understand many of the scientific and medical processes, coaches' disciplinary techniques or regimented rules surrounding the training of elite sport.

Education and Employment

Socioeconomic status and class background influence trends in athletes' education and employment experiences. A few athletes were educated in public schools, but the majority of athletes was schooled in the private and Catholic systems prior to going to the AIS. The vast majority of athletes who are of school age attend the local public school once they move to the AIS, although an increasing number is studying via correspondence at their previous (now interstate) school or attending the local private school. Most athletes studied in addition to their sports training. Commonly athletes studied in sports-related fields including: medicine, medical sciences, physiotherapy, massage therapy, physiology and science. However, other athletes studied and/or worked in areas

unrelated to sport, including law, journalism, economics, horticulture, information technology and commerce. Senior athletes who have completed their tertiary studies usually work part-time, whereas junior athletes who work usually do so on a casual basis.

The AIS stipulates that it is compulsory for all athletes to either work or study in addition to their sports training. AIS staff gave me a range of reasons for this rule:

> "So that athletes are rounded";
>
> "It sets them up to have skills and work experience outside of their sport";
>
> "During tough times – like long stints of injury or missing out on making the squad or team or podium – athletes are able to focus on work or study and are distracted from their sport setbacks. It helps them recover from these setbacks and perform better, sooner."

Staff commented on the strengthening of resilience, life balance, mental focus, compartmentalisation skills, time management and priority setting that athletes gain from this regime.

Incentives for Athletes to Train at the AIS

The biggest incentive for athletes to train at the AIS is the opportunity to train with experienced professional coaches alongside the nation's best athletes, while having access to all the specialist SPs, technology, services and facilities at the forefront of elite sport. My data reveals that training an athlete to become elite requires specialised knowledge and structured micro-regimes, combined with disciplinary and surveillance techniques. These elements are suited to an institutional environment as they can be readily reinforced in everyday practices by staff and fellow athletes to assist in producing optimal athletic health, sporting performance, professional achievement and continual progress.

Athletes are inspired by training among contemporary champions and their heroes, especially surrounded by leading-edge technology and scientific knowledge, to create their own legacies of success. Also, to have free and available access to all the above-mentioned SPs in one location is uncommon in other training institutions.

Training at the AIS is not the ultimate goal for the athletes who obtain scholarships. Rather, their sporting goals (such as, winning Olympic gold medals, world championships, and world records) are their ultimate goals which are assisted through training at the AIS. However, the connections and kudos created from athletes' membership in the AIS elite athlete community (through access to sports science and sports medicine experts), and the embodied skills and status as elite subjects that they develop from their AIS training, forms the foundation for much of the success that they experience throughout their careers. It is the combination of all of these elements that gives AIS scholarships and AIS training experience such prestige and value in elite sport.

Methodology

Research Focus and Participant Selection

There are many sensitivities involved in researching elite sports teams. Coaches and athletes are judged on their public performances and, in turn, there is a lot of pressure to perform well. The politics and hierarchy of the AIS are such that there were some limitations on freely accessing people, facilities, meetings or events as I chose, and consequently I was inclined towards working with some people and events rather than others.

In addition to the politics of the institution, the selection of sports I researched was the result of practical considerations of crucial importance to my fieldwork. To assist with ready access to athletes, I was keen to conduct research among

sports that had residential programmes (whereby athletes lived on campus), with the majority of daily training sessions located on campus, as well as the possibility of some competitions on campus. I wished to conduct research with sports that had at least half a dozen scholarship holders, male and female athletes, a cross-section of individual and team sports, and preferably junior and senior elite athletes. I drew up a short list with these characteristics in mind and discussed the pros and cons of each sport and squad with my AIS supervisor[55], who made some suggestions about which teams I would be most likely to gain access to and who assisted in organising meetings with the head coaches. With the relevant coaches' approval, I conducted interviews and participant observation with athletes from the entire range of sports being trained on the Canberra campus. However more intense research was focused on two sports in particular: swimming and basketball.

Basketballers

The coaches and athletes from both of the men's and women's basketball teams often interact as they use the same training facilities, share a team manager and have many of the same staff members as SPs. Nevertheless the teams are distinct from one another as they have different coaches, schedules and training programmes. The male and female basketballers are fifteen to twenty-one years old and are referred to affectionately by their coaches as "my athletes" and "the girls" or "the boys". The majority of basketballers are still in their final years at school, some are studying at university and a few are working in casual jobs around the AIS campus (for example, working as AIS tour guides, assisting at the AIS child-care, or other administration roles across AIS departments). The

[55] During the permission process I was allocated an AIS supervisor, to whom I reported on a regular basis during my fieldwork.

basketballers are typical of the demographic of AIS athletes as discussed above.[56] The AIS school bus driver transports athletes between school and the AIS for classes, lunch at the Dining Hall, and training sessions.

Conducting research with the residential male and female basketball teams also gave me some access to the senior national male and female basketball squads and/or teams (including the athletes and associated coaches and service providers) when they came to the AIS for training camps. These athletes were typically 'graduates' of the AIS development basketball programme who play basketball professionally nationally and internationally. One coach explained:

Traditionally, every Opals' [female Australian Olympic basketball team] and Boomers' [male Australian Olympic basketball team] team has ten out of twelve of its players from the AIS [development basketball programme]. This just goes to show the reputation of our programme: we are training athletes to be elite athletes, to play professionally and make it onto the Olympic team!

Consequently, these senior players also reflect the demographics of existing basketballers: the majority are private-school educated, metropolitan located, middle or middle-upper socioeconomic status with a few athletes from the country and public-schools. The main differences are that they are aged between nineteen to thirty-six years old, have extensive international basketball experience, and live independently from their teammates (often in different countries) outside of an institutional environment. Many of these players have lived in the United States of America to train and study at university as part of the American 'college basketball' system and from there have had experience playing

[56] For instance, most basketballers attended private or Catholic schools prior to attending the AIS. Most of the basketballers come from average or above-average socioeconomic backgrounds and live in metropolitan areas, although a few are from regional areas around the country and working-class backgrounds. The majority of school-attending basketballers is enrolled at the local school close to the AIS where their timetable is scheduled around team training.

professionally in Australia, Europe and America. The data I gathered with these senior athletes supplemented the data I gathered primarily with the AIS residential developing male and female basketball teams.

Swimmers

The swimming squads I researched have similar socio-economic demographics to the residential development basketballers – often private school educated, metropolitan located, middle or middle-upper socioeconomic status – but the majority of swimmers consist of older and senior elite athletes. There are four swimming squads at the AIS, and collectively, the swimmers are aged between nineteen to thirty-one years old. One squad has all male swimmers with a female coach, another squad has a male coach with all male swimmers and the other two squads have a male coach with both male and female swimmers. There are usually between four to six swimmers in each squad.

Demographics aside, generally swimmers are different from the basketballers in personality, maturity and stage of life. For instance, swimmers are noticeably more independent, autonomous and sometimes introverted individuals with greater self-confidence, self-assuredness and self-reliance from greater life-experience and senior elite sport experience. Many swimmers had been training at the AIS for a few, if not several, years before I interviewed them. Most swimmers lived in residences when they first began training at the AIS, but after a few years they had moved into share-houses with friends or teammates, or homes with their (commonly non-athlete) partners. Most swimmers study at university or have a part-time job, some are in long-term relationships and others are married. These aspects of their lives reflect their age and life experience. Although swimmers largely socialise with their teammates and are a close-knit community, they also have friends in Canberra outside of the AIS. In contrast, the

young and less life-experienced basketballers are more socially dependent on their teammates (which is a product of habit, context and training).

Interviews and Other Qualitative Research Methods

To gather data I conducted many hundreds of hours of semi-structured interviews[57] and focus group discussions with over one-hundred-and-thirty athletes and staff (and a few athletes' parents) throughout my twenty months of fieldwork.[58] Each interview included a series of questions about the interviewee's demographics (for example, their age, where they came from, education, and family life), life history, sporting life, life and career at the AIS and their experience of being an elite athlete at the AIS or an AIS staff member. These interviews were insightful, fun, humorous and detailed as athletes and staff provided accounts of their lives, their perspective on events, social dynamics, the AIS, elite sport, and the training of elite athletes. Interviewees largely spoke candidly, although some told me stories 'off the record' and one requested that my recording device be switched off. Interviews also provided opportunities for people to ask me questions about my project and my research methods, and fostered rapport between myself and my informants. In addition to audio-recording, each interview I took written notes. Immediately after the interview I typed up the key findings and observations, made notes of follow-up questions, and later transcribed and coded the interviews.

[57] Within my research, my semi-structured interviews involved a list of questions I wanted to ask, but I did not necessarily follow in a set order or word the exact same way every time and many questions I asked arose organically during the interview. In the final moments of each interview I would always go through my written list of questions to make sure I had covered the important questions and ask the interviewee if they had any questions of me.

[58] I started my interviews with basketballers and swimmers and their associated service providers, but after I received interest and volunteers from other athletes and staff I expanded my scope to include many of the other sports at the AIS.

In addition to semi-structured interviews, I conducted census surveys; recorded video footage and took photographs; watched and listened to live and televised sporting events; gathered newspaper clippings; collected AIS brochures, pamphlets and newsletters; and accessed sports media.[59] I also gathered data from the AIS athlete tracking system (ATS) to gather data. The ATS is an information system that gathers athletes' self-evaluations, which they are required to provide on a daily basis. These self-identified evaluations and data generated graphs and reports that captured detailed information about athletes' experiences as well as ratings out of ten concerning their energy levels, sense of lethargy, pain, injury, confidence, health, nutritional intake, physiotherapy appointments, doctor consultations and performance in relation to multiple areas of their training (for instance, rehabilitation, sport-specific training, strength training and competitions). I accessed athletes' ATS reports on a regular basis and printed out the graphs and reports of monthly snapshots of individual athletes and squads and teams self-reported experiences of training.

These different forms of data collection helped me to discover the answers to my questions about how the AIS produces elite athletes, the way the AIS is organised, the roles of different staff members and how athletes' time is scheduled to shape their bodies, daily practices, values, beliefs and production as distinct subjects.[60] However the main qualitative research method I used to gather data was participant observation, as well as what Wacquant (2004) refers to as 'observant participation', whereby one learns through doing.

[59] The sports media I accessed (primarily from the AIS library and AIS media monitoring subscription lists) included magazines, newsletters, academic journals, films and documentaries, conference papers, and news coverage (on television, radio, newspapers and websites).

[60] During my fieldwork, one mode I did not use to gather data was social media. Difficulty in gaining ethical clearance from both my university and the AIS was a significant deterrent to pursuing these as a method of data collection. I found athletes to be more forthcoming in person than in writing (including emails and surveys) and, thus, do not feel that my research was negatively affected by excluding social media as a method data collection.

Participant observation

Wacquant illustrates observant participation with reference to boxing:

> To understand the universe of boxing requires one to immerse oneself in it firsthand to learn it and experience its constitutive moments from the inside. Native understanding of the object is here the necessary condition of an adequate knowledge of the object… For the rules of the pugilistic art boil down to bodily moves that can be fully apprehended only in action and place it at the very edge of that which can be intellectually grasped and communicated (Wacquant 2004, 59).

Through employing observant participation and participant observation, I immersed myself in the culture of the AIS and the everyday lives of its members. I conducted participant observation during common daily occurrences on campus, such as athletes' training sessions, team meetings, SPs' staff meetings, hydro-recovery sessions, sporting competitions, informal social gatherings among AIS staff and athletes, and every few weeks anthropometry testing, physiology testing (fitness tests), cooking classes and birthday celebrations. Further to this, to fully engage myself in AIS culture I lived in the old residential facilities onsite for the entire duration of my fieldwork. I was housed in a block at 'old ressies' with other AIS 'post-grad scholars'.[61] I gathered data while living on campus during mundane daily practices, such as eating at the Dining Hall for breakfast, lunch and dinner, exercising in the strength and conditioning gym, doing my laundry at the residential launderette, and writing up field notes in an office in the sports science and sports medicine building where most of the SPs

[61] AIS 'post-grad scholars' is the title for interns who, having just completed Bachelor degrees, perform the role of junior staff at the AIS (where they earn low wages, help gather data for a department and work on institutional projects). Some are in the process of completing their Honours or Masters degrees (yet study is not a pre-requisite of these positions).

worked.[62] I took advantage of the access that living on campus provided and socialised and interacted with a broad range of athletes and staff.

Throughout my extensive fieldwork I observed athletes and staff in many situations. Life at the AIS is highly scheduled, busy and ordinarily the atmosphere is filled with a productive energy. Outside of training the AIS generally has a relatively relaxed atmosphere. At times the environment feels tense, and staff and athletes are agitated and exhausted from working or training for long hours under lots of pressure, but at other times there is a tingle of excitement in the air as a result of athletes' having a successful training session or winning a competition. These moments inspire a feeling of camaraderie, community and celebration among athletes and staff. Despite all of the rigid scheduling of coaches' and athletes' daily events, timetables are often changed at the last minute due to accidents, injuries, sickness and stress, so participant observation provided a flexible method of gathering data amidst the frequent schedule disruptions. I regularly alternated which team or squad and sport training session I attended each morning and afternoon, so that I could observe an assortment of training sessions. Sometimes I worked closely with one team for days, weeks and even months on end while other teams were away (travelling for competition or on holidays during their off-season), or if I was interested to follow the lead up, execution and aftermath of a special event.

I engaged in participatory observation in the lives of elite athletes as closely as my access would allow. Nevertheless, the limitations of not being a team member,

[62] In addition to compiling over a dozen exercise books of handwritten notes recorded during participant observation, I also created sixty to ninety minute audio recordings each evening as I went for a walk and talked into my Dictaphone as a means of debriefing from events and recording my daily participant observations. To synthesis and organise my data during my fieldwork I sent my university supervisor quarterly progress reports about the main themes of my findings. Also, upon the request of some the basketball SPs, I offered anthropological insight into athletes' training, team culture and the institutional environment in the form of annual seminars to small groups of basketball SPs as progress reports of my research, and weekly sound bites of my findings during weekly service provider meetings.

staff member or elite athlete (and thus, not a 'legitimate insider') impeded my access into all intimate 'insider' places, including locker rooms, pods, intimate conversations, medical consultations without invitations, as well as the trained embodiment of athletic, skilled, fit, nausea-inducing lactic acid lived experiences of training, competition and flow[63] from elite sporting performance. However, I was able to observe and discuss these experiences via varied forms of participation (within a non-elite athlete context) and "extreme ethnography" by engaging in elements of sporting embodiment in this elite sporting environment (Bolin and Granskog 2003, 11).

Spaces Conducive to Participant Observation at the AIS

Certain spaces on campus were conducive to participant observation and gathering rich data, particularly the Dining Hall and the strength and conditioning gym. Living onsite enabled me to eat meals in the Dining Hall with athletes from almost every sport within the AIS programmes throughout the duration of my fieldwork. The Dining Hall is usually a social space that allows for relaxed conversations about subject matter unrelated to the institutional environment, as well as reflections on events from athletes' daily schedules and their thoughts or feelings about training, teammates, SPs and daily gossip. The organisation of space and resources in the Dining Hall creates opportunities for conversation while queuing for the buffet, drink stations and dishwasher as well as while selecting a seat at a round or long table, booth, or sitting on a stool at a bench. While queuing and during meals I interacted with a wide range of athletes including Olympic champions, new scholarship holders, Commonwealth Games medalists, Paralympians, retired athletes, local elite sport celebrities and world

[63] Flow is a state that encapsulates the crescendo of training and a reconstituted elite athlete habitus. I examine it in Chapter Seven.

famous sports stars – some of whom are residential athletes and others who are athletes passing through the AIS on short-stay training camps.

The Dining Hall was also a conducive space to engage other AIS staff members. For instance, I often ate meals with SPs, researchers, coaches and administration staff who either lived onsite or ate lunch or dinner at the Dining Hall. Although I was always 'on' and in 'researcher mode' during my participant observation in the Dining Hall, most of the athletes and staff I interacted with were in a relaxed headspace and open to social interaction of an informal nature.

The strength and conditioning gym (also known simply as 'the gym') is another space that cultivated interaction with athletes from all sports. In between sets of exercises, athletes walk around the gym or sit/stand still and engage in conversation. For this reason the gym environment was highly conducive to anthropological research. I was able to encounter the same athletes there at certain times of day, several days a week, without having to organise interactions or interrupt their training sessions.

Athletes spend much of their professional lives being studied, examined and evaluated by SPs and researchers who gather data to provide feedback on their performance. As a result they are accustomed to being research subjects and, for the most part, are quite comfortable with being the subject of others' interest. However, this is not to say that they want to be analysed all day, every day, in the way that participant observation and anthropological research methods encourage. Therefore, the gym provided an idyllic space for participant observation as I was able to observe athletes training while busily exercising too, without appearing to be 'working', 'doing research' or demanding anything from athletes within these interactions. Once I felt I had built enough rapport with

athletes I asked if I could interview them, and the majority of them were obliging in this respect.

The data I gathered from formal and informal interviews and participant observation in the Dining Hall and gym with a broad range of athletes provided a point of comparison with the data I gathered from regular training sessions with the swimming squads and basketball teams. These spaces served to reinforce the point that my body was a fundamental research tool in my data collection. Through observant participation I subjected myself to experiences that helped me ascertain the lived experiences of my research participants and connect with their bodily stories and subjective experiences.

My Body: My Primary Research Tool

The main method I used to gather data during my fieldwork was participatory observation and to do this my body became my primary research tool. I subjected myself to as many forms of measurement, monitoring, bodily manipulation and surveillance, akin to athletes' regular experiences, as I could. For instance, I endured anthropometry testing (skin fold measurement, known colloquially in Australia as the 'fat pinch' test), hydrotherapy recover sessions (getting into the cold plunge pool and hot spa with athletes) baring my scantily dressed body to extreme temperatures of the water and athletes' gaze. I was filmed while performing a movement and coordination test and viewed the video with an S&C coach as my movements were critiqued and assessed (and laughed at) so that an individualised strength training programme could be designed for me. I meticulously followed my personalised S&C strength training programme so that I could lift weights in the gym alongside athletes, at a level suitable for me. I had

my bone density measured by a DXA[64] scan machine and the results relayed to me by a dietician. A doctor provided an ultrasound scan of my thigh when I injured my left quadriceps with a target-tear in muscle. I joined in stationary-bike fitness trainings to the discomfort of my exhausted cardiovascular system and blushing face. I ate meals with athletes and was subjected to judgement on my portion sizes, meal choices and adherence to public health nutrition discourses. I completed a nutrition consultation, kept a 'food diary', and confessed my dietary habits to dieticians. I completed the psychology induction survey to gauge my mental health, wellbeing and performance psychology skills, and completed an Audio, Visual, Kinaesthetic, Read-write (VARK) survey to determine my preferred learning style. I paid for physiotherapy and massage consultations with SPs who also treat 'private' (and therefore non-athlete) patients at the AIS. I volunteered my body to be tested in the float tank[65] while trials of the equipment were being undertaken, before its use was restricted only to athletes. I conducted interviews with athletes in the altitude house[66] to gain exposure to that training environment.

To gain insight into the experience of competition, I 'trained' (or more aptly as I discuss in Chapter Three, I 'worked-out') by following structured training programmes in the lead up to 'racing' (participating) in ten-kilometre running 'fun runs' (amateur running events and charity races). These running events gave me 'competitions' of my own to prepare for, which included following a regular nutritional regime, exercise regime and recovery regime and I also tapered my

[64] A DXA (dual-energy x-ray absorptiometry) scan records bone density.

[65] Recovery Physiologists explained to me that the float tank is much like a bath, yet the water is filled with enough salt that the body becomes buoyant. The intention of this treatment is to relax the muscles and reduce sensory stimulation as you float in the water for thirty to sixty minutes. This state is said to be comparable to the recovery benefits of eight-hours of sleep.

[66] The Altitude House is a facility onsite at the AIS to simulate training at high altitude. I discuss this further in Chapter Three.

'training' and strict regimes in the lead up to the events so that I could understand the experience of tapered training.

I purposely mixed up the times I attended training sessions, ate meals, did my laundry, ran and lifted weights during the day, walked at night, and did general activities around the campus to facilitate interactions with as many athletes and staff members as possible during their regimented routines. I experienced these procedures, processes and techniques (often to my utter humiliation, the humour of the SPs measuring or monitoring me and the amusement of the athletes I was participating with) all in the name of anthropological data collection! I was motivated to experience these practices for myself to understand subjectively, physically, mentally, sensually, socially, temporally, emotionally and morally the processes that produce elite athletes. In particular, I was keen to glean an insight into the biomedical procedures, scientific processes and expert knowledge that conceptually as well as physically influence the creation, reconstitution and maintenance of AIS elite athletes as subjects.

Linked to the idea of my body as a research tool, I had to adopt a researcher habitus. This included wearing an AIS uniform to symbolise my role and place in the community, and eating meals in the company of my participants at times and in composition and quantities that were socially acceptable. I had to develop a communication style that was research driven: to ask questions that I might otherwise have felt were rude, socially awkward or loaded; and to notice if and how people responded to me. I also had to accept that at times I felt like a social pariah as a result of committing faux pas and breaching social taboos that I did not yet know existed, let alone understood their significance. Indeed it was my transformation as a person in my role as an anthropologist conducting qualitative

research in an elite sporting institution that made me appreciate the reconstitution of athletes as subjects through training at the AIS.

Data Analysis

Following twenty months of fieldwork, I spent fifteen months analysing my data. I conducted this analysis manually (rather than by using software) as a means to thoroughly categorise, explore and code the intricate details of the themes, recurring patterns and outliers I was able to identify. This process was iterative and comprehensive, albeit laborious, as it involved turning analogue (hard copy) data – such as hundreds of pages of handwritten fieldnotes, sixty surveys and census forms and hundreds of hours of audio files of dictated notes and interview recordings – into digital (soft copy) coded word processed documents. Manually analysing my data in this way stimulated a deep familiarity with its detailed content. This helped with investigating it thematically as well as enabling me to code the data in accordance with a range of categories (including activities, events, behaviours, emotions, norms, social roles/ professional positions/ interactions and public/ private contexts) in which themes arose.

My data analysis built on an amalgamation of themes: some *a priori* coded themes assembled from previous reading and preparation for the fieldwork, and some themes that arose from grounded coding during my fieldwork (whereby the themes emerged organically during the data collection and data analysis). The *a priori* themes were drawn from a wide range of social science literature and theory relating to elite sport (Roderick 2006; Howe 2004), elite athletes (McMahon and Penney 2011) and institutions (Foucault 1991; Goffman 1968; Scott 2010). *A priori* themes were also drawn across different disciplines, including sports medicine (Halson and Jeukendrup 2004), sports science (Australian Sports Commission 2014), sports nutrition (Burke and Australian

Institute of Sport Department of Sports Nutrition 1999), sports psychology (Australian Sports Commission 2013), and sports coaching literature (Denison 2007); elite athlete biographies and autobiographies (Thing and Ronglan 2015); as well as sporting ethnographies (Allen-Collinson and Hockey 2008; Wacquant 2004; Brownell 1995) and social science qualitative research method texts (Spradley 1980; Silverman 2010).

In addition to literature, preceding my fieldwork I obtained clearance to conduct my research from the AIS ethics committee and this experience informed some of the *a priori* themes I pursued going into my fieldwork and the data analysis afterwards. Likewise, media coverage of sport in Australia (including television coverage, newspaper articles, websites, blogs, radio programmes) and popular culture depictions (including advertisements, documentaries and films) of elite sport and elite athletes also informed the data I gathered, how I organised it and the high level themes I initially used to examine and code the data and to set the first foundations from which comparisons were made. Some of the *a priori* themes that guided my data collection and analysis included: discipline, surveillance, power, health, performance, wellbeing, pleasure, pain, perfection, beauty, biomedical discourses, physical training, idealised body images, fame, wealth, celebrity, talent, genetics and natural ability.

My use of identified *a priori* themes provided an organising framework during the initial stages of my fieldwork, a means to explore the data in more detail during data analysis and a point of comparison to test the themes of my newly discovered data from the AIS against existing literature. Once I began collecting data it was evident that some of the *a priori* themes I expected to be useful or relevant in the field were misleading, inappropriate or redundant. Although many of the themes did provide a base from which to frame my examination of the AIS,

the *a priori* themes were especially fruitful in creating a foundation from which to critique, contrast and diverge into new territory by gathering data located in original themes and across newly discovered codes and perspectives. Thus, during my fieldwork and especially during data analysis I created new organising categories and both high level and fine grained themes to code the nuances and subtleties of difference my original data depicted. Some of the themes reflected in my grounded data coding included: morality, elite athlete ethics, elite athlete attitude, elite athlete subjectivity, laziness, emotion (for instance, poise, selfishness, unselfishness, shame, confidence, pride and aggression), working-out, bodily awareness, embodied knowledge, training embodiment, feel and flow.

My use of manual data analysis to test themes within my data, and against *a priori* themes in the literature, readily lent itself to data triangulation as a method of analysing my data. I used two methods of data triangulation. Firstly, I compared themes in the data collected from different methods of data collection (including data gathered in interviews, surveys, census forms, ATS data, AIS promotional paraphernalia and AIS published resources and participant observation recordings in various formats including: video recordings, audio recordings, handwritten and typed up fieldnotes and reflections). Secondly, I triangulated data in relation to participants' perspectives (for instance, comparing the perspectives of athletes, coaches, teammates, service providers, where possible athletes' family or friends, and my own observations). I was interested in comparing participants' perspectives regarding recurring patterns of themes, metaphors, emic expressions with general participants' observations, experiences and understandings of events, values, norms and actions and answers to interview/survey/conversation questions. These two methods of data triangulation enabled me to examine and test not only how my data mapped onto

existing landscapes within the literature, but also to extend the current maps in the literature to previously unknown landscapes and reveal the extent of my discoveries.

In the final six months of my fieldwork I observed that my data collection appeared to be reaching data saturation as the themes recorded in my fieldnotes remained constant. I chose to continue my fieldwork over the final months to observe particular significant events (including important competitions, changes in coaching personnel and the introduction of some new athletes) to test, and in turn have validated, the repetition of experiences and recurrence of themes in new and different contexts. In analysing my data a hierarchy of themes emerged as well as a narrative logic to express important themes within my thesis. The most significant themes, the most illustrative examples and, most importantly, the rich new landscapes in the field that were discovered through my data, inform the narrative that this thesis presents.

Chapter Three: Physical Training

It is no surprise that one of the most important elements of athletes' training is the physical training of the body. However the complexity of physical training and the multiplicity of ways athletes are physically trained is less obvious than most sports spectators assume. My research shows that physical training involves two interwoven elements. One element involves adapting athletes' physiology – as well as their social values and mores around their own physiological performance – through physical sporting activity. The second element involves the training of athletes' embodiment (including movement, posture, gait and breath) through Mauss's (1973) 'techniques of the body'. In combination these training elements are significant in reconstituting athletes' habituses as elite, and producing "practiced bodies, 'docile' bodies" (Foucault 1991, 138).

The beginning of this chapter examines physiology adaption, and the cultural mores of elite athletes' physiologically performing bodies. In this discussion I differentiate between the physical sporting activity that athletes perform, which I refer to as training, and the physical sporting activity of people participating in exercise, which I refer to as 'working-out'. The remainder of the chapter investigates the second element of physical training: embodiment transformation.

Physical Activity: Training Versus Working-Out

As discussed in Chapter One, much of the literature in the field of sporting bodies examines exercise enthusiasts (Crossley 2004; Sassatelli 2000; Markula 2001; 2003; Dworkin 2003; Dawson 2015; Collins 2002; Scott 2010; Monaghan 2001),

or amateur athletes (Wacquant 2004; Hockey and Allen-Collinson 2007; Spencer 2009; Howe 2003), and there are a few investigations into elite athletes' experiences (Brownell 1995; McMahon and DinanThompson 2011; and Roderick 2006). Consequently, much of the literature explores physical activity from the perspective of people who (as I refer to it) 'work-out' and are concerned with aesthetics, health, fitness and social participation, via a focus on elite athletes conducting training for the purpose of physiological adaptation for sporting performance. The first section of this chapter traverses elite athletes' physical training, delineates this from the activity of people who work-out, and explores the insights gained from this and how they contribute to the field of sporting bodies.

A common assumption about athletes' physical training, is that it is simply about physical activity and exercise (I use these terms interchangeably). Athletes engage in physical activity in a myriad of ways every day and every week within the context of training. For athletes, physical activity involves fitness training[67], strength training (for example, lifting weights) and improving their conditioning[68] through purposeful, disciplined and regimented physical exercises and sport-specific activity. Their activity is informed by coaches providing training programmes and run-sheets[69], knowledge, practices and surveillance. In this section I explain how the practices and cultural meanings associated with

[67] For example: cardiovascular and endurance training: running, sprinting, cycling, rowing, and swimming.
[68] Athletes' conditioning is inclusive of flexibility, balance, coordination, power-to-weight ratio, agility, accuracy, speed, power and stamina.
[69] Training run sheets are schedules that list, in sequential order, each activity athletes will practice and the duration of time allocated to each task throughout a training session. Each activity will have multiple benefits, such as developing certain technical skills, building one's strategic and tactical thinking, nuancing one's communication skills and working on one's fitness, which all serve to improve one's sporting performance. Across different training sessions these activities are set to train athletes for different purposes determined by the coach.

physical activity differ depending on whether it is conducted within the context of training or working-out.

During my fieldwork I observed that working-out is an activity that people engage in to increase or maintain their health, improve their physical fitness and for the benefit of amateur sporting, lifestyle or aesthetic goals that are personal rather than professional goals. For instance, working-out is an activity that AIS staff and service providers engage in, in contrast to the training that athletes perform. Personal goals for those who work-out (referred to herein as "exercisers"[70]) include: playing sport at a particular level of competition; preventing lifestyle diseases (for example, type-two diabetes, obesity and cardiovascular health); increasing longevity; stimulating weight loss, 'toning', 'staying in shape', 'sculpting an ideal body'[71], getting 'six pack abs'; 'stress relief'; 'commuting from work to home'; 'combining my social life with exercise'; and fun and recreation.

[70] This term 'exercisers' does not include bodybuilders as they are a separate subculture (Klein 1993; Monaghan 1997; 1999; 2001; 2014; Bloor *et al*. 1998; Moore 1997; Roussel *et al.* 2012; Bolin and Granskog 2003). From the data I gathered during my fieldwork, AIS athletes and service providers do not regard body builders as '*real* athletes' because, as one coach told me, body building is understood to be about "aesthetics alone" and "narcissistic display" rather than the "performance of athletic mastery". Another coach told me that body building "lacks the execution of athletic excellence" and "elite athletic skills to win a competition". In addition, many athletes and service providers told me that they disregarded the notion of body building as an elite sport because of its normalised performance-enhancing-drug culture, which contradicts the morality of their own experience of elite sport.

[71] For literature that examines ideal body types, gym culture and aesthetics and exercise see: Markula and Pringle 2006; Kennedy and Markula 2010; Shilling 2012; Gill, Henwood, and McLean 2005; McKay 1994; Monaghan 2001; Crossley 2004; Sassatelli 2010; 2000, Bolin and Granskog 2003, and Bolin 1997 and 1998. Mainstream contemporary Australian culture tends to conflate the fit performing bodies of athletes with the ideal body types modelled in fitness industry promotions that are produced for aesthetic purposes. In reality athletes' bodies come in an incredible assortment of shapes, sizes, builds and heights that are often contradictory to the relatively homogenous idealised bodies of the fitness industry. The variety of athletes' bodies may be evident within one team (in sports like basketball or rugby union) let alone across an entire league or multiple sports. Furthermore, athletes' bodies and ideals seasonally fluctuate and vary across sports, while the body ideals of gym cultures and fitness industries are relatively fixed and reductive. Thus, as I discuss in Chapter Five, the body ideals of athletes oscillate based on their competitive season and differ based on the sport, whereas the body ideals of gym cultures are divided by sex and are more static (especially on an annual basis). Body ideals of gym cultures tend to change gradually over time in line with fashions and bodily norms; currently the typical ideal for women is a lean, toned and trim body with womanly curves in the 'right places', and for men a lean, muscular and taut body with especially defined muscular upper body. To achieve such ideals gym cultures promote continual engagement in exercise to acquire, stabilise and maintain such bodies.

Monaghan states that “From a Foucauldian perspective, gym culture consists of ‘practices’ and ‘technologies of the self’ which are exercised by normalised subjects in pursuit of self-improvement, happiness and healthiness” (Foucault 1988 and Gordon 1991 cited in Monaghan 2001, 332). In contrast, the primary intention of training is to benefit sporting performance. For elite athletes, goals are focused on their mastery of the self — they train with the intention of enhancing their sporting performance in their professional capacities as athletes.

Strength and conditioning (S&C) coaches are vocal in differentiating between the practices of training and working-out and the embedded goals of these practices. They consider training to be concerned with producing performance-focused functional elite athletes and working-out as a practice performed in pursuit of health, fitness, sociality and aesthetics.

One coach elaborated on her understanding of the differences between training and working-out:

> When [AIS] athletes come to the gym to lift weights they are training, they're not 'working-out'. People who 'work-out' are concerned with aesthetics (weight loss or muscle gain); or health and fitness. They are motivated to 'work-out' to get their body 'into shape' and to keep it that way. Strength and conditioning training is all about performance: building up the function of an athlete's body so they perform better. [This is produced by] strengthening and conditioning muscles, joints, ligaments, increasing an athlete's flexibility through range of motion and developing proprioception awareness[72]. Strength and conditioning training may increase an athlete's health and aesthetically enhance the appearance of their physique, but the primary goal is about benefitting their competitive performance. I say to some of my athletes – the senior athletes that get my humour – 'I don't give a stuff about the way you look' {laughs}. 'I care about the way you perform. Are you faster? Stronger? More powerful? Do you have better agility, fitness and fewer injuries? Yep! OK, now I know I'm doing a good job – your performance is improving and that's what counts. You can work on your beach muscles when you retire' {smiles}.

For exercisers, the goal of exercise is to 'work-out' the body to a point of subjective satisfaction (either by look and/or feel) and to maintain that body. For athletes, constant change is intentional, desirable and cyclically calculated for performance purposes by experts and repeated on a seasonal basis. The notion of a 'peak performance body' is in relation to these seasonal training cycles. In contrast, for exercisers, change is usually desirable in either a linear progression or something people try to stop. Thus, working-out and training are differentiated

[72] Proprioception awareness is one's perception of one's body through sensual experience, for instance the perception of the position of one's body in space. For some this includes perception of deep tissues of the body "of enclosed or encircled corporeal space" (Morley 2007, 76 cited in Allen-Collinson and Hockey 2011, 336). For example, knowing where one's feet are without looking or learning correct weight lifting techniques without watching one's reflection in a mirror. Athletes are trained to develop this sensual awareness without external stimulus. For instance there are no permanent mirrors in the gym, this is to assist athletes in developing awareness of their bodies performing movements correctly without external direction.

processes with different goals, practices and outcomes performed by different subjects.

In further contrast to working-out, service providers' prescription of micro-regimes[73] is fundamental to training for athletes to organise and timetable their daily actions and practices in minute detail. Consequently, athletes' daily practices are scheduled, structured and surveyed. Athletes have little control over the types of skills they work on, the drills they practice or the unconscious cultivation of self that occurs as a result of these practices and the process of training.

As I elaborate in Chapter Five, every aspect of athletes' training is considered, organised and programmed by service providers to align with a cyclical agenda that is coordinated with the daily, weekly, monthly and seasonal programmes arranged by sport-specific coaches. The physical exercises, skills and drills elite athletes practice during training, and the micro-regimes they embody outside of training, are rigorously accounted for and calculated. Thus the range of physical activities and other learning opportunities presented to athletes are by design, not by accident. In addition, training athletes to become elite extends beyond the hours and social discipline of specific sports training. The boundaries in athletes' lives relating to time, discipline, values, resources and daily practices of training are porous, and training impacts on seemingly unrelated events, such as daily rituals and practices, life choices and relationships.

Foucault argues that "discipline is the political anatomy of detail" (Foucault 1991, 139). By this he means that the production of athletes' docile bodies, generated through power/knowledge, are created through the minutiae of training regimes.

[73] I will discuss micro-regimes and the temporal and timetabled dimension of training elite athletes in greater detail in Chapter Five.

He goes on to say that "…the body that is manipulated, shaped, trained, which obeys, [and] responds, becomes skilful and increases its forces" (Foucault 1991, 136). In this way the physically trained body – the docile, yet productive athlete body – gains skills, embodied competencies and automatised habits through mastery of training practices. Athletes' habituses are transformed through disciplinary practices of physical training and they are made distinct from those of others, such as exercisers, in the process.

One coach described the process of training as follows: "learning is a change in behaviour due to experience… learning is not a work-out, it is training. It is practice". This coach perceived 'working-out' to be physically exercising the body through fitness practices and social participation in exercise. In contrast, he understood training to be something different. To him, training is a process that involves athletes intentionally learning and transforming their skills and physiology through unconsciously embodying knowledge. This knowledge is taught by coaches, service providers and teammates to enhance athletes' performance in a specific sport.

He went on to say:

> Learning how to learn is a skill and so too is training how to train… we have to train athletes how to train. Training is a complicated, complex process… [athletes'] skill sets include technical, tactical, physical and mental knowledge… [athletes'] progress and improvement requires change.

Thus training is not simply exercise. Exercise can be performed without preparation, planning and purpose, and is unrelated to sporting performance, whereas training is a combination of specific sporting skills, knowledge, embodied habits and expertise cultivated through the power/knowledge, surveillance and discipline of experts.

In a comparison between professional boxers and amateur boxers, Wacquant touches on the different experiences of these two groups:

> Among regular practitioners, the main division separates amateurs from professionals, these two types of boxing from neighbouring universes, though they are tightly interdependent, are very distant from each other at the level of experience. A pugilist may spend years fighting in the amateur ranks yet know next to nothing about the mores and factors that mould the careers of their 'pro' colleagues (Wacquant 2004, 53).

I suggest that this difference Wacquant highlights between amateur boxers and professional boxers is similar for many people who 'work out' at the gym on a regular basis, in contrast to elite athletes who perform physical training. Similarly, many exercisers jog during their lunchtimes; some even participate in fun-runs and charity running events. But running a marathon competitively at a national or international level requires different training regimes, running techniques, mental and emotional resilience, physical ability and athletic talent from jogging. It requires training with a focus that is different to that achieved from working-out. In these examples, although both groups of people (amateur exercisers and elite athletes) may regularly engage in strenuous exercise, the experiences, habituses and embodied knowledge of exercisers are significantly different from those of elite athletes; and exercisers may also know "next to nothing" about training and the "mores and factors" essential in moulding elite athletes (Wacquant 2004, 53).

In addition to the difference between the goals of an athlete's training and an exerciser's work-out (and the regimentation required examined in Chapter Five, and social mores associated with achieving those goals explored in Chapter Four), the health outcomes from the two practices are dissimilar.

The Relationship between Health, Fitness and Performance

Health is an important factor for SPs (service providers) to evaluate. However at the AIS it comes second to the primary focus of performance; performance is the heart of training athletes. In other words, while optimal health is desirable for athletes' performance, creating positive changes to health is not the goal of training.

An elite athlete's health is understood to balance on a knife edge between peak performance and illness. Exercisers who work-out may have less impressive sporting performances but tougher immune systems than elite athletes whose intense training loads can challenge their immune systems and render them vulnerable to injury and illness. One athlete summed it up: "people can be healthy, but be unfit. As an athlete you can be fit, but be unhealthy".

During my fieldwork I observed that athletes commonly experienced head colds, sinus infections, tonsillitis, influenza and gastroenteritis particularly during the end of pre-season and the height of the competitive season. Medical staff informed me that athletes' compromised immune systems combined with close living quarters in the AIS residences provide an environment conducive to contagious infections and the spread of diseases. Sports doctor Jenkins explains:

> Too much exercise can lead to a dramatically increased risk of upper respiratory infections. The stress of strenuous exercise transiently suppresses immune function. This interruption of otherwise vigorous surveillance can provide an 'open window' for a variety of infectious diseases – notably viral illnesses – to take hold… Similarly, cumulative overtraining weakens the athlete's immune system, leading to frequent illness and injury… A balanced training programme of exercise and rest leads to better performance (Jenkins 2005).

The stress of training on athletes' immune systems, joints, tendons and muscles means that being in 'peak condition' is a temporary condition to generate 'peak

performance', which Privette (1983, 1361) describes as "superior functioning". Peak condition is a state that athletes work tremendously hard towards, and hope to experience for as long as possible. However, they are conscious that it is a finite experience that may be repeated but not consistently maintained over an annual season (including pre-, mid- and post-seasons).

High intensity training and seasonal competition are emotionally, mentally, physically and socially taxing for elite athletes, and injuries and illness are common when fatigue occurs on multiple levels. In the same way that peak condition is a result of more than physical training by an individual, so are the conditions of stress and fatigue. Consequently, attempting to maintain the body at peak condition for long periods of time is impractical, irresponsible and contrary to the efforts of training. The research of Halson (2008) and Halson *et al.* (2003) shows that athletes under stress (that is heavy training loads, reduced sleep and limited recovery), especially over the long-term, tend to overreach and underperform.

For exercisers, the issue of illness as a by-product of over-training is less common. For many exercisers, boosting health is a reason to work-out and pushing themselves to extremes through exercise is unnecessary and unappealing. Elite athletes do not have the same luxury of time and choice as most exercisers, who are able to take longer breaks during and between exercise sessions – or to take a temporary hiatus if required to fully recover. Thus athletes' fitness is typically more robust than that of exercisers who work-out, due to their persistent training for performance purposes. Yet, it is arguable that exercisers' health and immune systems are more robust than those of elite athletes because they have greater agency in, and less pressure on, the processes involved in their work-outs. For instance, exercisers are able to choose the timing, duration, intensity and physical

activity involved in their work-outs and if they are not feeling up to it (for example because of ill-health, weather, mood, fatigue, social commitments or work priorities) they can simply choose to work-out at another time, without negatively impacting on their professions.

Thus, as this section has demonstrated, training and 'working-out' are different types of physical activity that reflect different cultural norms that are held, and reinforced, by the different types of people who perform them. Furthermore, this section has illustrated that physical training (adapting athletes' physiology and ingraining culturally specific values about performance) are essential elements in the creation of elite athletes.

The Subtle Side of Physical Training: Training Embodiment

For the remainder of this chapter, I will focus on the subtle side of physical training: the training of athletes' embodiment. This process is complex and often understated, although it involves just as much sweat and hard work as physical activity. By examining the elusive and intricate aspects of physical training, I explore how athletes' bodies, skills and physical characteristics – their habitus – are created through training and, in turn, how elite athletes are produced as subjects.

Physical training, which I define below, is essential to the multiple interlinking processes that create elite athletes. Mauss's (1973) 'Techniques of the Body' concept is crucial in understanding the creation of elite athletes through physical training. The essence of this concept is that bodily movement and physical competencies are social-culturally produced. Drawing on Mauss's concept, this chapter investigates examples of movements that are seemingly 'natural' and 'normal', yet are actually culturally and historically situated body techniques.

Mauss's Techniques of the Body

Mauss's (1973) 'Techniques of the Body' is a seminal text in the literature of bodies, emotions and personhood. It disrupts the notion of 'natural', 'normal' and 'universally similar' in these domains. Mauss (1973) discusses how mundane universal modes of action in daily life – including breathing, walking and sitting – are embodied and performed in culturally specific ways within all societies. He argues that each of these modes of action is not the result of biology alone. Instead, they demonstrate the linkages between psychology, biology and sociology that must be trained into the body through imitation and repetition.

Mauss refers to learning physical activity, and the embodiment of these actions, as "techniques of the body". He argues that an individual's bodily comportment, physical movement and embodiment changes across cultures, over history and in response to fluctuating cultural knowledge, values and beliefs. He provides an abundance of examples across a range of physical movements, including eating, drinking, hygiene practices, reproduction, running, marching, digging, swimming and hunting – movements that are traditionally considered natural or automatic – and explains how all of these movements are the products of cultural techniques of training the body. They are not fixed, predetermined or universal.

Mauss is concerned with how people "learn how to use their bodies": what postures, comportments, gestures, facial expressions and emotional displays are appropriate and form the basis of their socio-cultural historically-situated habitus. He argues that bodily techniques are produced and perpetuated by those in positions of power and authority and imitated by others around them (Mauss 1973, 73).

Below is an excerpt from Mauss that details this process:

> What takes place is prestigious imitation. The child, the adult, imitates actions which have succeeded and which he [or she] has seen successfully performed by people whom he [or she] has confidence and have authority over him [or her]. The action is imposed from without, from above, even if it is an exclusively biological action, involving his [or her] body. The individual borrows the series of movements which constitute it from the action executed in front of him [or her] with him [or her] by others. …It is precisely the notion of prestige of the person who performs the ordered, authorised, tested action vis-à-vis the imitating individual that contains the social element. The imitative action which follows contains the psychological element and the biological element. But the whole, the ensemble, is conditioned by the three elements indissolubly mixed together [the social, psychological and biological intertwined] (Mauss 1973, 73-74).

Mauss's concept is critical in understanding the creation of elite athletes, as his perspective illustrates how the process of training in elite sport shapes elite athletes in both uniform and diverse ways.

Physical training extends Mauss's concept of techniques of the body, in that it sculpts more than just one's body: it also reconstitutes one's habitus and in doing so is pivotal in the production of elite athletes as subjects, and athletes' docile yet productive bodies. However, following Crossley I argue that "body techniques are forms of understanding, 'embodied principles', rather than mechanical sets of movement" (Crossley 2004, 66; Crossley 2001). Thus, body techniques are flexible. One's bodily competencies can be reconstituted through repetition of new techniques. This approach stands in contrast to Mauss's account, which emphasises rigidity and constrained patterns of learned movements, implying a uniform, unchanging performance of movement.

Throughout this chapter I demonstrate that through physical training, intricate elements of sports performance are broken down into basic actions, movements and techniques that are consciously and unconsciously taught to and imitated by

athletes. Consequently, an athlete's lived embodiment is reproduced and elite athlete habitus is created anew.

Embodiment Training in Sporting Bodies Literature

Embodiment is an important theme within the field of sporting bodies. Below I briefly canvas some of the significant contributions to the literature. For instance, Spencer's (2009) work investigates mixed martial art (MMA) artists whose fluctuating bodies retain habits through practice. These MMA artists develop contextually beneficial calloused bodies that have been trained to give and take pain. Downey's (2005) research into physical training in Brazilian capoeira provides insight into the mastery of cunning and embodiment of cultural sensual knowledge, and offers a valued contribution to the literature. Crossley's (2004) ethnography amongst circuit trainers (exercisers who participate in circuit work-out classes at gyms) is influential as it investigates reflexive body techniques that include embodied skills of timing, tempo and rhythm. The developed habitus of these circuit trainers is evident when newcomers attend class and do not possess the necessary techniques, regardless of fitness or skills acquired elsewhere. Another significant example in the literature is Chisholm's (2008) research which investigates one elite female rock climber, Lynn Hill and aspects of her physical training that helped cultivate her athletic prowess and rock climber habitus. Chisholm suggests that there are several central components of Hill's physical training that facilitated her embodiment of a rock climbers' physical toolkit (including reaching and falling), and the reconstitution of her habitus, which enabled her to master free-climbing.

Finally, an important contribution to the literature is Wacquant's (2004) research that explores the cultivation of a pugilist habitus, developed through the

repetitive physical training of boxing. Wacquant provides a rich account of the cultural techniques of boxing and of how boxers undergo "'physical rehabilitation', a genuine remoulding of one's kinetic coordination, and even psychic conversion" to reconstitute the habitus of a pugilist to enable boxing training (Wacquant 2004, 69). He goes on to say that:

> The culture of the boxer… is formed of a diffuse complex of postures and (physical and mental) gestures that, being continually (re)produced in and through the very functioning of the gym, exist in a sense only in action, and in the traces that this action leaves within (and upon) bodies (Wacquant 2004, 59).

Wacquant's account relates to my own research in that he highlights the training of competency through repetition and explores the tension of rigidity and flexibility in habituated movement patterns, which I explore later in this chapter. Thus, as these and many other examples of embodiment training taken from the literature illustrate, much of the literature in the subfield of sporting bodies scrutinises examples of physical training directed towards the development of complex bodily techniques and sporting embodiment.[74]

As this chapter demonstrates, my research contributes to the field of sporting bodies as I explore embodiment training of elite athletes. Although I explore specific examples of movement among particular athletes, I also reflect on the universal nature of training athletes' embodiment as essential to their creation as distinctive subjects.

[74] Other discussions of physical training in the field of sporting embodiment literature include: Bolin and Granskog's (2003) collection on gendered experiences of sport training; Allen-Collinson and Hockey's (2009) investigation of sensual experiences of running; Markula's (2003; 2011; and Markula and Pringle's 2006) analysis of aerobics and fitness classes; Rail's (1990; 1992) phenomenological analysis of basketball; and McMahon and DinanThompson's (2011; McMahon, Penney, and DinanThompson 2012) examination of the crafting of swimmers as subjects and of swimmers' bodies.

Kinaesthetic Learning

Before I analyse examples of physical training taken from my fieldwork, it is necessary to shed light on one socio-culturally situated norm within the AIS that shapes the way athletes are created there: athletes' preferences for kinaesthetic learning.

Teaching bodily movement including physical skills, speed of performing tasks and styles of movement, is fundamental to the physical training of athletes for elite sport. Consequently, it is unsurprising that during my fieldwork I discovered from the results of learning preference tests[75] that the vast majority of athletes are kinaesthetic learners.

Kinaesthetic learners primarily "learn through emotions, movement, touch and space" (LangVid Language Training 2010) and are able to learn best when they are able to physically interact, mimic, perform or observe bodily action in relation to the subject matter they are learning (RMIT University 2007). They represent approximately five percent of the population, with the remaining ninety-five percent dispersed across other learning styles (LangVid Language Training 2010). For many athletes, their predisposition for kinaesthetic learning assists physical training and the reconstitution of their intuitive sense of their bodies in time and space. When most elite athletes view other people performing physical techniques, they find it relatively simple to mimic those actions and movements. Through repeating imitations, athletes naturalise trained behaviours into their own repertoire of normal and natural embodiment.

[75] The learning preference tests are also known as VARK testing. These decipher people's preferred learning styles between the options of Visual, Auditory, Read/write or Kinaesthetic.

An important technique that athletes must learn is the capacity to have awareness of their bodies. This is referred to as having bodily awareness and enacting proprioception. For most athletes their kinaesthetic learning preference provides an advantage in developing this bodily knowledge.

Physical training hones this learning style and bodily knowledge, imprinting the act of bodily consciousness into athletes' habitus so that it becomes an automatic skill that can be performed in all forms of physical activity at any time. If athletes do not activate their bodily awareness while performing sporting movements, they develop poor muscle memory and bodily habits which may impinge on their performance and lead to injury.

Coaches and other service providers stress to athletes that to rectify bad habits they must consciously feel their bodies, be mindful of their actions and choose to move in a meaningful, purposeful, culturally appropriate way. They lament the repetition of 'bad habits' and 'how easily bad habits can be formed or maintained' and express their fear that such habits will be 'expressed at the wrong times if they are not ironed out'.

Basketballers, for example, are trained to adopt a particular 'defensive stance' (body position) when they are playing defence. This means standing with slightly bent knees, with one's bottom sticking out, arms out-stretched wide and confidently reaching across the body of an opponent.

One coach suggested that competently performing this technique involves:

> Activating a 'nappy of muscle'. Think of sumo wrestlers' belts: that's where all the muscle is [for example muscles in and surrounding gluteus, hips, pelvis and lower abdominals], pull it in, switch it on and engage the correct posture [chest up and out, shoulders back and down, neck straight].[76]

By activating these muscles, grounding one's feet and legs, and lowering one's centre of gravity, athletes are strengthening their bodies against hits and knocks and adopting a strong, aggressive and intimidating use of space.

Embodying this posture transforms athletes' bodily dispositions. Physical training of such techniques creates intentional distinctions from others and erases habitual movements from the former self. Coaches often instruct basketballers to "sit on her" and "don't give your opponent any room, hug him [the opponent] in [when playing defence]" when they are in this powerful position and learning how to appropriately use this stance for performance.

Wacquant (2004, 98) similarly notes that physical training in techniques and postures develops a sense of power and strength in boxers, and a confidence in their own physicality. Thus, physical training of appropriate postures for a given sport, teaches athletes awareness of their body in time and space and how contact should feel for optimal performance.

Thus through physical training (and imitation, practice and repetition of skills) athletes develop their second-natured intuition to "feel into the movement", embody "bodily awareness", and naturalise appropriate bodily "successful habits" within their elite athlete habitus. Over time, and through physical training, the athletes' intuition of what feels good, right and becomes an

[76] Activating this 'nappy of muscle' is required in many sporting movements basketballers perform including shooting and lifting weights.

embodiment of correct technique, is retrained and is reconstituted into their reformed habitus.

Physically Training Athletes

Below I discuss detailed accounts of specific practices of embodiment training among AIS athletes.

Learning How to Run

An outsider assumes that running is a relatively basic physical activity that athletes practice as part of their fitness training and sporting performance. An insider in elite sport knows that the practice of running is multifaceted, technical and not suitable for all athletes. One only has to speak to an athlete with leg or foot injuries to discover the manifold methods and processes involved in training athletes to safely return to running practices after injury.[77] Sports coaches, S&C coaches, doctors and physiotherapists provide training run sheets and treatment regimens to assist athletes' speedy return to running.

Physically training athletes to run requires varied techniques for athletes with different sport-specific training and performance requirements. For instance, the physical training techniques that basketballers learn for running, take into account the speed and stop-start nature of the game of basketball. This style also accounts for the long, tall, heavy bodies moving (and potentially colliding into one another) and the springy and slippery surface of the court on which they play. In contrast, shorter, lighter, smaller-framed marathon runners, who run outdoors on firm uneven surfaces, are unlikely to run into one another, and do

77 For instance, Australian basketballer Lauren Jackson discussed returning to training after her knee surgery: "Even learning to run again [after a year off due to injury] was just unreal. [A specialist] is coming up to work with me on Tuesday to work on my sideways movement and as soon as my knee's ready to do that, I'll be back on the court with the girls"(Tuxworth 2015).

not need to jump or move in lateral ways between strides, require their own unique physical training techniques for running.

To provide a snapshot of one element of basketballers' physical training of running, I will explore the bodily techniques involved in training basketballers to 'take off' – that is, to begin running from a standing stationary position. Techniques for basketballers' 'take offs' are different from those of sprinters' 'starts' from blocks, triathletes' sprints out of water onto the shore to start their running 'leg', or marathon runners' 'starts' for their long distance events.

For basketballers, coaches and S&C coaches emphasise that the 'first three steps are crucial' when starting running. Athletes must be particularly conscious of their posture and muscle activation when transitioning from a stationary position to running. Some of the coaches and S&C coaches' instructions about correct technique for basketballers to start running include:

> "Rocking [their body weight] forwards [on their toes]";
>
> "Lean and incline your torso forwards";
>
> "Lunge the first step";
>
> "Drive your hips up and out";
>
> "Land your foot [correctly]";
>
> "Drive and generate power with your arms";
>
> "Snap your second stride up and out from your hips not your knees"; and
>
> "Thrust your third step up and out propelling from your glutes and hips".

These techniques athletes are trained to perform to take off and start running are also different from the techniques required to perform continued running, such as upright posture, cadence and mid-foot striking. Thus, what may seem quite natural, ordinary and familiar (to start running) is, in fact, an embodied

technique that athletes have skillfully acquired from a series of service providers. Moreover it is the service providers' surveillance and disciplining of athletes' technique[78] that further sculpts the way athletes perform this mode of action and come to re-habit the movement and reconstitute their habitus. Foucault's writing on bodily discipline and surveillance aligns with my own observations of training athletes' running techniques. For instance, he states that as "the act is broken into elements: the position of the body, limbs, articulations is defined; to each movement is assigned a direction, an aptitude, a duration; their order of succession is prescribed" (Foucault 1991, 152). I suggest that elite athletes' corporeal knowledge is constituted as second nature through the embodiment of techniques repeated in training.

Similar to my examination of running techniques across different types of athletes, Brownell (1995) discusses a culturally distinctive walking style among Chinese populations that contrasts with those of Chinese athletes and Westerners[79]. Brownell suggests that the walking style of Chinese populations is informed by traditional physical training in martial arts and tai-chi. Brownell's analysis is similar to Mauss's discussion of the distinctive walking style – with fists closed – of women who are educated in a convent (Mauss 1973, 72). In Brownell's work, the culturally pervasive walking style is recognised as distinctive because it emphasises "solid footing, a low centre of gravity, balance, and rootedness in the earth – thus, the feet should be flat on the ground, the shoulders rounded and pressed downward" (Brownell 1995, 9).

[78] For instance, one coach insisted to his athletes: "Never run backwards. It is not efficient. It's not fast. I guarantee if I asked someone to line up at the baseline and to run over there [as fast as they could] they wouldn't run backwards [to do it]. It's much quicker to turn your hips [and run forwards instead]."
[79] Brownell's use of the term 'Westerners' refers to Northern Americans and Europeans.

Brownell observed different walking styles between the general Chinese population and Chinese athletes. She explains, “in general [Chinese] people walk further back on their heels with their shoulders pressed downward and rounded slightly forward” (Brownell 1995, 9). In contrast, she says Chinese athletes “walked more like Westerners with their chests pushed out and bouncing off their toes” (Brownell 1995, 9). Through comparison it is evident that these differentiated styles of walking and accompanying embodied postures reflect cultural differences. Brownell explains that physical training of walking, for the general Chinese population, normalises rounded shoulders and flat-footed, heel-striking walking techniques – an embodiment that is informed by traditions of carrying heavy loads on poles balanced across the shoulders, and social norms of bowing before superiors as an expression of humility.

In contrast, Brownell argues that Westerners’ expressions of individual pride and self-confidence is embodied through bursting chests, square shoulders and toe-striking gaits. This is true also of Chinese athletes who have received different physical training from the general Chinese population. “Westerners raise their centre of gravity and move as if they want to leave the earth behind” (Brownell 1995, 10). Brownell concludes that “The point is that something as automatic and seemingly trivial as one’s walking style expresses an entire orientation to the world” (Brownell 1995, 10). Brownell’s conclusion about the embodiment of walking techniques can readily be applied to other bodily practices, including the athletes’ running techniques discussed earlier. For elite athletes from different sports, varied running techniques reflect their sport-specific habituses and, therefore, the culturally nuanced norms, practices, goals, body types and embodiment of the athletes performing them.

Learning to Breathe

The epitome of apparently mundane, instinctive, automatic bodily techniques is breathing. Breathing is ostensibly the most normal, natural and involuntary mode of action that humans perform. Yet my observations of, and interviews with, AIS athletes demonstrate that breathing techniques occupy multiple modes of action for different purposes, with different meanings at different times. Furthermore, the techniques are explicitly taught by multiple service providers.

Breathing may be a physiologically automatic process, but it is not an unchanging, or universally similar one. Athletes certainly know how to breathe, but elite athletes must learn new and better ways of breathing, and are trained explicitly to use their breath to benefit their performance. Service providers – including psychologists, strength and conditioning coaches, doctors and physiotherapists – all instruct athletes on the use of their breath through physical training to transform athlete bodies, reconstitute their habitus and improve their sporting performance.

Morley's (2001) research on yoga, and Lyon's (1997) research on respiration – which discusses trance, yoga and meditation – both describe cultural training of breathing that is performed to induce emotional and physiological change in the body. They suggest that performing trained breathing techniques is transformative, it brings to the foreground one's consciousness and one's control over otherwise involuntary, automatic and unconscious modes of action.

For athletes, the transformative nature of breathing occurs in different ways and for different purposes. The varied purposes include: getting emotionally 'hyped up' and physiologically energised and 'pumped up' before performance, assisting technical sporting techniques during performance, and calming and soothing the

body and mind in order to focus and relax before and after competition. For instance, psychologists train athletes to use their breath, through engaging in 'mindfulness'[80] practices, meditation exercises and by slowing their breathing patterns to "assist athletes with centering their minds, being in the present moment and calming anxiety to assist performance and recovery and relaxation" as one sports psychologist explained. Enacting such practices can change an athlete's emotional experiences, mental state and physiological sensations.

I observed S&C coaches using physical training processes to instruct athletes to use their breath to perform movements in challenging positions. S&C coaches stress that if athletes consciously engage their breath during their weight lifting exercises this technique will help to 'activate' and 'engage' certain muscles (for example their 'core': abdominal muscles and their diaphragm) and make the movements smoother and make it easier to generate power. Athletes are trained to embody a 'strong, supported stance' (posture and technical position) throughout certain movement patterns and in synchronicity with their inhalation of breath (for 'switching on' muscles) and exhalation of breath (during 'release' of contracted muscles).

When teaching an athlete a squat exercise, S&C coaches provide a series of technical cues. For example coaches instruct athletes to: "relax your face"; "soften your shoulders down and squeeze your shoulder blades together"; "eyes up"; "chest up"; "soft grip"; "switch on your core"; "tuck in and switch on your glutes – squeeze a fifty cent coin between your butt cheeks"; "sink your heels down into the earth". All of these cues are used to assist the correct posture for the

[80] 'Mindfulness' refers to being emotionally, physically and mentally present in the moment; being aware of one's body (for example slowed movements, increased breath, racing heartrate, and sweaty palms), emotions and environment in a moment in time.

movement. Breath is intrinsic to the series of cues. During a training session one coach instructed an athlete to:

> Deep breathe into your diaphragm, switch on your lower abdominals and glutes. Feel your core tighten and compress. Hold your breath until you are in the bottom of the squat and once you incline from the bottom of the position slowly begin to exhale through your mouth. …If you breathe at the wrong time you will fail the lift, and it will crush you.

S&C coaches listen to athletes' breath and can hear if movements are being performed correctly. From this they gauge the pace of the movement and aspects of athletes' muscle engagement throughout an exercise.[81]

Doctors, nurses and physiotherapists also use different breathing techniques to physically train athletes. These service providers train athletes to use their breath as a form of distraction from pain and discomfort, by directing athletes' awareness and concentration to their breathing patterns when they treat a patient's body (for example neck realignment, injections and pap smears).

Such practices stem from the Lamaze method. In the 1960s French obstetrician Dr Lamaze designed a series of techniques to assist women during childbirth (Lothian 2011, 118). This process involves breathing exercises to focus the mother's attention on her breath – something she can control – away from the pain and unpredictability of her labour. It has been found that "controlled breathing enhances relaxation and decreases perception of pain" (Lothian 2011, 118). This technique can involve a combination of slowing the breath, oscillating between oral and nasal breathing, counting the breath, holding between

[81] Maslen (2015) examines sensual knowledge in a series of professionals (musicians, Morse coders, mountain climbers and physicians) who use their hearing in important elements of their jobs. She explains that the musicians and mountain climbers receive physical training to use their breath to perform their roles while physicians receive training in listening to the breath of others.

inhalation and exhalation and making the breath more or less audible (Worthington and Martin 1980).[82]

Breathing training of swimmers

The coaches' surveillance and discipline of breathing informs athletes' training, performance and their embodiment of sport-specific techniques. One swimmer, Kelly[83], who I interviewed on several occasions throughout my fieldwork, transitioned in that time from being an elite athlete at the height of her career to a retired athlete and became a mother. Kelly provided some fascinating insights into her experiences of the physical training of breathing from a range of service providers, primarily her coach.

Kelly explained that her experience of sport-specific techniques for breathing involved two different techniques. Through training she embodied both of these techniques and was able to perform them both with ease, although the more complex technique required greater physical training. For Kelly, the practice of breathing during swimming is so deeply embodied in her elite athlete habitus and sporting practice that it is second nature to her: it feels natural and normal. Asking her about this process is thus akin to asking her to think about her breathing when she is walking around during the day or performing other everyday tasks: it is asking her to talk about something it is automatic and unconscious.

[82] Lamaze techniques have been tested by researchers on participants who have put their hands into buckets of ice water and found that those who used the breathing technique were able to withstand the cold, pain and discomfort for the longest duration of time (Worthington and Martin 1980).
[83] All of the names of AIS athletes used throughout this thesis are pseudonyms.

Kelly explained:

> On one hand, breathing [between strokes] when you swim is automatic. It's not something you have to actively think about. It's like driving a car – when you know how, you just do it, you get in the car and drive and it just happens. For the most part, breathing when you swim is like taking the next stroke, you don't have to think about it.

For swimmers, learning to breathe while swimming is a rudimentary technique. Kelly discussed that her one-year-old son is currently taking swimming lessons and he is learning to breathe in the water: "it's just a process that you learn very early on in swimming training… that becomes natural". At an elite level this technique is grounded in the habitus of the swimmer and, Kelly informs me, it is "only if you were injured or sick or something wasn't working with your stroke [technique] you would even think about it".

Kelly went on to explain:

> On the other hand, there are many elements of breathing in swimming that are highly technical. [For instance,] When you do deep water swimming [at the beginning of the race, after diving into the pool] you have to learn how to hold your breath and use your breath like a deep-sea diver. You actually have to swallow air and holding it in position. You start [this breathing and holding technique] way down deep in your diaphragm, and then slowing breathing and swallowing air into your bottom of your lungs and holding it there, and then [slowing breathing and swallowing air] into the middle of your lungs [and holding it there] and then into the tops of your lungs, then into your throat and into your mouth and holding it for as long as you can, and then a little longer. You feel like you're going to die! You feel like you will drown! But that's OK, you just come to accept that [feeling] and push past that. Then, just when you feel like you can't hold it any longer or swim any further you push [the technique] even harder and relax, and you can go further and somehow it doesn't hurt anymore. It's not so scary and it feels OK.

> I was known for my deep water swimming, it was something I was good at so [my coach] pushed me to do it. [Coach] pushed me to train and practice it more and more and I got better and better at it. You've got to work on your strengths, of course you've got to work on your weaknesses, but you've got to make the most out of any advantages you have, so I loved working on that and pushing that [deep water swimming] and making it my thing [that I was known for doing well].
>
> I couldn't do it [deep water swimming and holding my breath] like that now [that I have retired]. There's no way I could just jump into a pool right now and swim for seven kicks deep underwater. I tried last year and the best I could do was five kicks and that's enough, I just came up [to the surface]. There's no need to push myself to the point where it hurts [and beyond that] any more. I know how to do it and I could train to that point again, but you've got to stick at it and maintain that high level of training to achieve those sorts of results.

This example conveys the psychological, cultural and physiological elements of the physical training embedded in mastering and embodying a highly technical breathing technique. There are many elements required for mastery: one must be extremely fit, confident in one's swimming skills, fiercely competitive, able to endure pain and discomfort, able to remain calm, trust the process and be obedient to one's coaches' instructions to "practice, practice and practice some more". Through her training Kelly embodied these qualities and developed a kinaesthetic knowledge that enabled her to perform complex, technical movements with confidence and mastery. Her experience demonstrates that the technical breathing skills for swimming are embodied in the habitus of elite swimmers. However, without continual physical training these qualities and capacities diminish.

Furthermore, the physical training for technical breathing that Kelly underwent illustrates the authority of her coach in instructing her to "keep working at it". The role of the coach in surveying and disciplining athletes' performance and imitation of techniques is highly significant. In observing one training session I

was shocked to see Kelly's coach reprimanding her for breathing (in the wrong place, at the wrong time). "What are you doing?! Why did you breathe? That completely slowed your [lap] time. Let's do it again – *properly* this time. No breathing". Kelly was supposed to swim a fifty-meter lap of butterfly stroke swimming, as fast as she could, without breathing (throughout the entire lap!) The physical training of not breathing and holding one's breath is paramount in elite swimming. For Kelly, this sort of training benefitted her cardiovascular fitness, her mental concentration and drew on her breathing techniques. In the words of Wacquant: "the coach aims at transmitting, in a practical manner, by way of *direct embodiment*, a practical mastery of the fundamental (corporeal, visual, and mental) schemata of [training]" through discipline, repetition and punishment (Wacquant 2004, 60 emphasis in the original).

To assist Kelly's sporting performance through controlling her breathing in another way, she was instructed by a sports psychologist to train her breathing to calm her anxiety before competitions. She told me:

> I used to get really anxious before I raced, so I went to my sports psych[ologist] and got some help. She helped me with some techniques to use my breath to focus my thoughts, slow my heart rate down and feel in control. There are so many things that you cannot control in a meet[84] so it feels so good to just be in control of something. For me that was my breath.

Kelly told me that her breathing training also came in handy outside of elite sport. During childbirth she used her training in controlling her breath to calm herself and "find something to be in control of" to distract herself from the pain.

[84] A 'meet' in swimming refers to a competition.

> Breathing became my entire focus when I was giving birth… I just blanked everything else out and was able to get through it because I knew the pain was temporary, and that it would be over soon, if I just helped myself stay calm and be in control of it.

Consequently, even after retiring from elite sport, Kelly's intuitive responses draw on her training as an elite athlete to assist her navigation in the world. Her sense of self and her habitus is made up of techniques, qualities and embodiment of elite athlete training.

Physical Training at a Macro Level: Basketball and Cross Cultural Styles of Play

Physical training of shooting a ball in the game of basketball involves not only teaching a specific technique; it involves the production of elite athletes whose culture is physically embedded in their sporting movements. During interviews, coaches and athletes often discussed variations in basketball playing styles as influenced by athletes' and teams' national cultures. These discussions acknowledged the influence of (commonly stereotyped) socio-cultural values, priorities and beliefs on basketballers' bodily techniques and offensive and defensive playing styles.

Coaches and athletes informed me that Australian basketball styles often involve performances grounded in "hard-working digger", "battler" and "underdog" identity and values (reflective of broader Australian cultural values). There is a perception that Australians have to make up for athletic and physical shortcomings (we are typically shorter and less athletic than many leading nations) with perseverance and hard work. In contrast, other national teams' athletes are perceived to be genetically and physiologically gifted with height, strength, speed, and 'athletic dominance'. Australians' basketballers 'hard work' is largely demonstrated through our techniques of 'running the lanes', (fast

transitions up and down the court) and our team mentality (and emotional expression) of 'camaraderie'. One coach explained "Aussies are usually only aggressive (in a violent and negative sense) as a reactionary behaviour". Thus athletes' and coaches' perceptions of (stereotyped) Australian values and cultural norms inform the basketballers' skills, bodily techniques, embodiment and styles of play.

AIS basketballers' perceptions of other ethnic and national cultural influences on basketball teams' styles of play also relates to other cultural stereotypes of Asian, European, African and Northern American basketball teams. Athletes and coaches observed that: American basketball is 'showy' and illustrates a style of 'showmanship'. They described American basketballers' offence style as "fast", "athletic", "loud", "talkative", "very much a display of individual talent and ability, more than teamwork". They described American basketballers' defensive style of play as "assertive", "confrontational", "aggressive", "in your face", they use a lot of "trash talking"[85], and an "extroverted approach". In contrast, coaches and athletes described Asian basketball teams playing styles as: "quiet"; "highly structured [strategies and plays]"; "[players offence is directed to] play from the outside" because the players are "typically shorter and slighter than other national teams"; their defence is "less aggressive and confrontational" with "less dunking and showy displays of talent and athleticism". African basketball playing style is typecast as "highly athletic" because they are seen to be "genetically blessed" players. It is also stereotyped as "disorganised", "quiet" and "often

[85] 'Trash-talk' is a form of boast or insult commonly heard in elite sport. It is often used to intimidate the opposition, but can also be used in a humorous spirit. Trash-talk is often characterised by use of hyperbole and figurative language. For example 'Your team can't run! You run like honey on ice'. Puns and other wordplay, especially if they incorporate a person's name or team name are commonly used. Trash-talk was made iconic by the heavyweight boxing champion Muhammad Ali in the 1960s and 1970s. Since then, it has become common for boxers, wrestlers, basketballers, ice hockey players and sprinters. Usually (but not exclusively) male athletes use trash-talk.

confused [not well structured], introverted approach" with "sloppy plays". Finally, athletes and coaches categorised European basketball styles as "slow", "aggressive", "outspoken", "highly masculine [a lot of talk, ego and aggression involved]" and "emotional" and the athletes are assumed to be "big", "tall", "strong", "muscular", and "reachy".

These cultural stereotypes highlight that basketball is not based on natural or universal skill alone. There are many variations in basketball playing styles and the differences demonstrate that athletes' elite habituses are products of the cultural environments in which they have trained, and that national cultural values and beliefs are embedded in athletes' performances of bodily techniques.

This discovery of the cultural variation of basketball playing styles among AIS basketballers reminded me of one of Mauss's famous examples of embodiment training, in which he compared the marching styles of French and English soldiers. Mauss states that "the British infantry marches with a different step from our own [French army]: with a different frequency and a different stride" (Mauss 1973, 72). In this example he explains that the structure of one's gait, the timing of one's stride and timing of one's accompanying arm swing – central components of marching – are unique to the cultural context in which such skills are learnt/taught and practiced.

Soldiers learn to march from the authoritative teaching of their instructors through repetitive practice so that this mode of action becomes embodied (second nature) and can be performed with precision in synchronicity with hundreds of other soldiers from the same army at the same time.

Mauss explains that:

> These actions are more or less habitual and more or less ancient in the life of the individual and the history of the society. …one of the reasons why these series may more easily be assembled in the individual is precisely because they are assembled by and for social authority (Mauss 1973, 85).

Thus soldiers from different cultures practice different styles of marching that reflect the cultural context in which they learned to march: their teachers' traditions and authority; and the socio-historical logic of movement and marching, from their culture. Through the practice of marching, soldiers embody cultural values and power relations: their soldier habitus is produced and solidified. My examination of basketballers from different cultures demonstrates similar findings: athletes and their embodied performances of sporting techniques are cultural products reflecting the norms, values and movements of those around them and, in turn, these qualities become normalised in their habitus and physical performances.

Another important example of embodiment training found in the literature is Young's (1990) examination of throwing styles and the social production of gendered performances to create distinct bodily practices among boys and girls. Young's example of distinct throwing styles among girls and boys from the same culture demonstrates that bodily techniques may be trained differently based on the values and norms of the persons performing them, but (as discussed in Mauss and my own examples) these distinct styles are normalised as natural differences.

Young's (1990) pivotal text 'Throwing like a Girl' draws on Straus' (1966) work which explores photographs of young girls and boys throwing.

Below is the description of the physical discrepancies in throwing styles she observed:

> The girl of five does not make any use of lateral space. She does not stretch her arm sideward; she does not twist her trunk; she does not move her legs, which remain side by side. All she does in preparation for throwing is to lift her right arm forward to the horizontal and to bend the forearm backward in a pronate position. ...The ball is released without force, speed, or accurate aim. ...A boy of the same age, when preparing to throw, stretches his right arm sideward and backward; supinates the forearm; twists, turns and bends his trunk; and moves his right foot backward. From this stance, he can support his throwing almost with the full strength of his total motorium. ...The ball leaves the hand with considerable acceleration; it moves toward its goal in a long flat curve. (Young 1990, 137-138).

Young draws a contradictory conclusion to Straus who regarded the differences to be "the manifestation of a biological rather than an acquired, difference" (Straus 1966, 157). Instead, Young believes that the gendered differences that exists between these boys and girls in the physical activity of throwing a ball is not natural, it is learned.

Young explains that the difference between male and female children's throwing styles is a reflection of the variation in socio-cultural physical training that is taught, imitated and normalised among American children.[86] Boys, she argues, are taught to embody masculine qualities of physical prowess: confidence in movement, power in physical activity, comfort in using force, and entitlement in their use of physical space. The embodiment of these values carves boys' bodily knowledge and practices so that when boys throw balls they make full use of their bodies and embrace the masculine qualities that have been trained into their embodiment.

[86] Although Young examined American populations, this example can be extrapolated to populations of Western children more broadly.

In contrast, girls adopt what Straus refers to as a "'feminine attitude' in relation to the world and to space" whereby their bodies are closed and folding inwards so that they take up as little space as possible (Young 1990 138, 142). Consequently, their throwing styles are awkward and do not generate much force. Young goes on to say that these young girls' throwing styles are symptomatic of "basic modalities of feminine body comportment" and socio-cultural values and norms about the movement, meaning and management of gendered bodies in public and in space (Young 1990, 139). "Reflection on feminine comportment and body movement in other physical activities reveals that these also are frequently characterised, much as in the throwing case, by a failure to make full use of the body's spatial and lateral potentialities" (Young 1990, 142). Young also compares men and women's gait, posture, sitting, standing, leaning, carrying books[87] and identifies differentiated gendered embodiment in these activities too. Accordingly, Young's analysis demonstrates a production of feminised passive, docile bodies which embody the cultural norms of the world around them.

In her analysis Young suggests that men are often physically trained to be active, whereas women are trained through conscious teaching and unconscious imitating to be reactive. By 'reactive', she means that girls are socialised not to get hurt, not to get dirty, and that being timid and passive is feminine and normal (Young 1990, 143).[88]

[87] Young notes that women carry books in front of their chest, which lends to their posture of leaning their head and shoulders in an inward, rounded, stooping way to take up less space. Meanwhile, men carry books by their side keeping their shoulders back, chests puffed out in front of them, with their heads up with open body language taking up as much space as they desire and can command, with their outstretched limbs.

[88] In addition to being reactive, Young argues that women are trained to be reified — a woman *is* a body as much as she *has* a body – and that this objectification is pivotal and normalised in feminine embodiment (Young 1998).

Young examines other sporting movements similar to ball throwing, that women perform differently to men. For instance, she explains:

> In softball or volleyball women tend to remain in one place more often than men do, neither jumping to reach nor running to approach the ball. Men more often move out toward a ball in flight and confront it with their own counter-motion. Women tend to wait for and then react to its approach, rather than going forth to meet it. We [women] frequently respond to the motion of a ball coming toward us as though it were coming at us, and our immediate bodily impulse is to flee, duck, or otherwise protect ourselves from its flight. Less often than men, moreover, women give self-conscious direction and placement to their motion in sport. Rather than aiming at a certain place where we wish to hit a ball, for example, we tend to hit it in a 'general' direction (Young 1990, 143).

Consequently, there is a common perception in Western society that 'girls can't throw' and 'throwing like a girl' or 'running like a girl' is a pejorative statement conveying women's, supposedly, natural ineptitude towards certain modes of physical activity. However, I argue that 'throwing like a girl' is a mere illustration of perfected (albeit gendered and socio-culturally situated) physical training over years of embodying cultural values, norms and bodily techniques. Mauss aptly sums this up: "Hence there are things which we believe to be of a hereditary kind which are in reality physiological, psychological or sociological in kind" (Mauss 1973, 77). Therefore, Young's example demonstrates that American (and arguable more broadly Western) women's embodiment and practice of physical activities is moulded by the historical and cultural values and norms of women's bodies, habitus and subjectivities.

Physical Training on a Micro Level: Teaching Australian Basketballers How to Shoot

At the AIS coaches teach shooting technique to all basketball players. 'Shooting' refers to moving a basketball towards the basketball ring in ways that incorporate particular, idealised, techniques for the purpose of scoring points during games. Shooting is a skill that basketballers practice every day within team training, individual training and scheduled 'shooting practice' (daily training sessions entirely dedicated to shooting). All athletes are expected to shoot well under pressure during games as all positions involve shooting the ball to score points, although athletes in specific positions or who have specific talents and strengths are more likely to perform certain types of shots than others.

To assist athletes' physical training, coaches make tailored suggestions to each player to guide their improved performance.[89] However each coach makes recommendations and modifications regarding an athlete's shooting techniques with a view to aligning individual shooting styles with their own interpretation of an idealised basketball playing style and their embodied preferences for shooting techniques. Therefore, athletes are being trained as productive docile bodies that reflect the training and power/knowledge of the individuals who train them, but these techniques are also culturally informed.

Thus shooting techniques vary cross-culturally and from one coach to the next. During my fieldwork I observed athletes from Chinese, Japanese and Taiwanese basketball teams adopting shooting styles that normalise holding the basketball symmetrically between both hands and shooting most shots from 'outside' (long

[89] Coaches have certain expectations of athletes too: male basketballers working in causal jobs and not studying (referred to as 'non-schoolies') have more spare time than teammates, so they are instructed by their coaches to shoot a minimum of three-thousand basketball shots a week. If they do not, they will be punished.

range two-point and three-point shots). Athletes and coaches suggested that these techniques were used due to the abundance of shorter players and variations in cultural styles of basketball (including different defensive style, offensive plays, shooting styles, communication styles and emotional displays). AIS coaches emphasise these cultural differences to athletes when they are devising strategic plays against teams from other countries and cultures.

The techniques of idealised shooting styles have changed over time due to improving sports science, sports medical knowledge and technology. For example, the biomechanical analysis of shooting efficiency has influenced athletes' physical training of technique. Although there are some universal similarities with respect to athletes' execution of shooting a basketball towards a basketball ring, the variation of ideals and execution in shooting styles is significant. This cross-cultural variation in style of performing sporting skills illustrates the complexity of training athletes, and the cultural specificity of what constitutes 'good technique'.

So, what are the specifics of AIS shooting techniques? In the AIS men's basketball team, coaches instruct athletes to shoot the ball by applying leg strength and activating gluteus muscles (buttocks), despite the fact that to the lay person, the movement appears to be upper-body dominant. Athletes are instructed to practice shooting the ball by transitioning from a squatting position (akin to sitting in a chair) with activated leg and buttock muscles to begin with, moving through to jumping, and then landing with correct technique in a standing position. While an athlete's legs are engaging in this activity his or her arms are also moving. To begin, their elbows are bent at a ninety degree angle (parallel to the ground), with the ball in their hands in front of their face, with their dominant hand under the ball and their non-dominant hand supporting the ball from the

side. Their arms then transition to straighten above the head, ending the movement with the arms and hands out-stretched away from the body after releasing the ball.

One coach summarised his understanding of 'good basketball shooting technique':

> The ball should rest on the cupped hand and come off the fingers, the wrist snaps, the arms are at ninety degrees… watch the ball travel to the hoop, sit down (bum out), chest up, move quickly.

A similar summary is suggested by Shogan, a social scientist and former basketball coach, who argues that shooting is a holistic movement; the whole body is involved in getting the technique (Shogan 1999, 27-28). "In the correct use of the body… nothing must remain idle or useless: everything must be called upon to form the support of the act required" (Foucault 1991, 152; Shogan 1999, 27 citing Baier 1986).

Coaches instruct athletes to listen for "acoustic cues" such as their "shoes squeaking on the court" to signal the correct amount of speed and strength applied through the legs and feet. Such acoustic sensitivity is itself part of training. Haptic knowledge of holding the ball and landing on the ground is also developed once shooting technique is naturalised and automatically embodied by athletes. Coaches explain that "Every shot has to be the same, full extension [of arms], hard snap [of wrists]. Become a shooting machine! Aim for consistency. Keep repeating until it becomes a natural instinct".

Each AIS player has his own embodied interpretation of the idealised shooting style, which is unique due to individual physique (for example height and limb length), bodily comportment (for example posture, stance and use of space), coordination (for example ball handling skills and physical strength) and

exposure to physical training. Thus, although techniques of the body are always competencies and principles rather than the rigid machine-like repetition of skills (Crossley 2004), training attempts to minimise inefficient individual variances and condition each athlete's shooting technique to embody their professional culture and coaches' idealised style. Through repeated shooting, and the disciplinary techniques coaches use to punish and reward behaviour, idealised styles of shooting become normalised and embodied in the elite athlete habitus (Shogan 1999, 30).

Mimicking Shooting Styles: Teammates as Agents in Athlete Habitus Production

Occasionally, at the end of training, athletes muck around and mock one another's shooting styles. Below is a discussion of an instance that I recorded when five male basketballers imitated each other's shooting styles.[90] Reflecting on my field notes later, I realised that these athletes' use of humour unconsciously demonstrated their elite habitus and their kinetic and kinaesthetic techniques and embodiment of physical training. Athletes' imitations reinforce idealised techniques and styles that align with their coaches' models of "skilled shooting execution". Mockery and irreverence are expressed by athletes towards those who stray from the trained techniques of shooting. In this way athletes use surveillance and peer-policing as a means of disciplining poor technique and reinforcing the socio-cultural reconstitution of each other's habitus and shooting techniques.

On this occasion the boys were trash talking while they practiced shooting, and were riling each other up. In a humorous yet pejorative gesture, Tony retaliated

[90] In addition to observation, the detail of each athlete's shooting style was further informed by discussion with athletes about their own and others' personalities, nicknames, shooting styles, body language and styles of play more generally.

to something Joe said with: "at least I don't shoot the ball like you, like this:" mimicking and exaggerating the poor execution of Joe's shot. Tony's imitation involved starting the shot with minimal bend in his legs (or application of leg strength pushing on the floor). His elbows were low with his hands closer to his chest than his face. With a small jump, he slowly released the ball with his arms ending out-stretched, although almost parallel with the floor. Joe's shooting style is a result of a lack of strength in his long lanky limbs and, at that time, of his physical fatigue and lack of experience with respect to physical training. Joe is the least experienced member on the team and works hard to keep up with the pace. He is early in the process of reconstituting his elite athlete habitus.

To defuse the social tension building between Tony and Joe, and to direct attention towards Luke, Bobby grabbed the ball and said "it could be worse, he could shoot like this, like Luke" (imitating Luke's shot). Bobby imitated Luke's shot by beginning in an unstable stance, with his body weight unequally distributed and loaded on his toes (not in the heels of his feet and back of the legs as the coaches instruct). He then initiated the shot with his arms at a ninety degree angle high above his head, and finished the shot with his arms straightened above his head.[91] Bobby scoffed that Luke had developed this shooting style because he is a "short-arse" making up for his lack of height. This imitation set the boys into rollicking laughter and the mood shifted from a more aggressive tone to a playful, cheeky one, with the boys competing to see who could most accurately imitate each other's shooting style.

[91] As already mentioned, basketballers are instructed to initiate their shot with their arms bent at a ninety degree angle with the ball in front of their forehead and finish their shot with the arms outstretched in front of their face. Bobby's exaggerated imitation of Luke's shot is humorous because it blatantly diverges from these instructions.

Next up was Luke's imitation of Sam's shot. The display involved Luke activating his glutes with a deep squatting movement and quick snap of the hips that coincided with him pulling the ball back tight onto his forehead and releasing it from there. The boys thought this was a well-performed mimic, laughing and agreeing that is was an accurate portrayal. Sam however was miffed by the performance and denied that his embodied shooting disposition looked the way others demonstrated.

Sam then imitated more experienced player Max's shot. This involved a quick, springy jump using his leg strength, to transition through to a quick release of the ball, ending his shot with high and relatively straight arms above his head. Max responded: "except when I shoot, the ball goes in" and they all had a good chuckle.

Finally, Max mocked Smith's shot. Max turned away from the boys as if putting on a mask and costume and turned back around embodying [Smith's] confident, smug facial expression and sly body movement. Max started with a relaxed, bouncy jump that appeared quite lackadaisical, yet finished with a quick, fluid and punchy release of the ball. This was teamed with Smith's characteristic glint in the eye and smile in the corner of the mouth.

This playful mockery of shooting styles reveals the detailed and subtle nature of embodiment and docile body production in athletes' physical training and habitus reconstitution. This example demonstrates mimicry as a disciplinary technique of physical training. Through irreverent imitation each athlete portrays his or her clear sense of what constitutes 'effective technique', 'functional movement' and bodily manifestation of cultural norms, authoritative values and cultural modes of movement. Furthermore, the example highlights that despite the high volume of repetition of regimented physical training that athletes experience, individual agency and embodiment nonetheless exists: athletes are

not robots and their embodiment of physical training will always incorporate a fusion of socio-cultural influences with their own physiology. Wacquant draws a similar conclusion: "the dispositions that make up the accomplished pugilist are, like any 'technique of the body' for Mauss 'the work of the individual and collective practical reason'" (2004, 17). Athletes' movements expose their accumulated physical training as well as their immediate dispositions and experiences. Athletes' performance of skills reveals their ability and technique and their transforming habitus. Athletes' imitations and mockery express: 'I know how you move, your physical strengths and weaknesses. I am going to use this to my advantage whether you're my teammate or my opponent'.

This mimicry of behaviour reinforces athletes' inclination towards kinaesthetic learning and the detail they absorb when they consciously and unconsciously observe one another's movements in training. Coaches benefit from athletes' aptitude to mimic technique and utilise imitation as a useful way to train athletes how to perform particular sporting tasks, as well as to appropriate body language and emotional management. Likewise, how an athlete interprets movement through imitation conveys to others their understanding of the relevant technique, skill or task.

These basketballers' impersonations of one another assist their performance when they are competing with and against their teammates. These imitations demonstrate their ability to manage and modify their behaviour and physical techniques to suit the context. For example, knowing that Joe drops his arms and hands low in his shot or that Sam pulls his arms up especially high, changes the way an athlete defends against those players when they are opponents, or passes them the ball when they are teammates. Knowing that a teammate embodies a tendency towards being, for instance, eager, anxious or indifferent, changes the

way coaches direct instructions towards him and the way teammates or opponents compete against him.

Phenomenological Concepts Informing Physical Training

Below I discuss three useful phenomenological concepts (haptic knowing, attunement and historical density) that shed light on the sensual, lived experience of athletes' physical training and the minutiae of reconstituting one's perspective of the world, one's habitus and one's status as a subject, via changes to one's embodiment.

Haptic Knowledge

Modifying habitus and sporting embodiment through physical training requires the development of a sport-specific haptic knowledge and a sensual knowledge of the environment. Ingold suggests that "such practice is not purely the property of an individual body but rather a total system of relations with the surrounding environment" (Ingold 2000 cited in Allen-Collinson and Hockey 2010, 341). For instance, trained swimmers often describe feeling the water that they are swimming in: "it feels thick"; "it feels fast"; and they "push and pull" and "catch" the water with their strokes. For swimmers, haptic knowledge is central to their embodied experience of the water and their physical activity in the pool. Wacquant (2004, 71) asserts that "sensuous intoxication" is key to embodiment education and athletes' habitus cultivation.

Another example of training haptic knowing that I observed during my fieldwork was of basketball coaches teaching athletes to develop 'automatic' and 'natural' responses for jumping and landing. Basketball coaches instruct their athletes to jump in particular ways that involve using proprioceptor knowledge and feeling

of their feet, as well as haptic knowledge of their shoes and the ground on which they jump.[92] In time, and with iterative physical training, coaches expect athletes to "be a natural" at this particular body technique and automatically respond by "jumping like a basketballer" on court.

Basketballers are taught this technical jumping technique for the purpose of assisting their athletic movements on court and preventing unnecessary injuries from unreliable and unstable movement patterns. Coaches instil into athletes that jumping with correct technique requires them to use their whole bodies. For instance, athletes must prepare their bodies to jump into the air on five main coaching instructions: 1) bending their knees; 2) 'activating' their leg and buttock muscles; 3) activating their core (lower back and abdominal muscles) in a strong mentally and physically 'switched on' and engaged manner (activating their bodily awareness and proprioception knowledge); 4) pushing out their chests (lengthening and strengthening their torso) and 5) stretching their arms and hands out vertically or horizontally. Athletes are reminded to be especially conscious of their body weight distribution in their feet and to push the ground away from themselves.

Likewise, 'landing a jump' ideally involves 'naturally' (automatically) preparing one's feet and ankles to simultaneously softly reconnect with the ground with one's weight equally distributed across a flat foot (including one's heels', arches and toes). Athletes are advised to absorb the shock of touching the ground through their leg and buttocks muscles and a 'strong core'. Thus ideally, when landing a jump athletes will adopt 'soft knees' (knees bent) and 'engage' their core to 'take the load' of the jump, and 'reduce the force' of the movement through

[92] For instance, aforementioned Australian basketballer Lauren Jackson discussed returning to training after knee surgery: "for me it's a matter of getting my touch back … learning to shoot properly again with two legs and doing things the way I used to do them (Tuxworth 2015).

their joints by actively using their muscles. These bodily activations, firing up of bodily awareness and haptic knowledge of the feel of the ground becomes natural, automatic and unconscious in athletes through physical training.

Physical training of haptic knowing requires a series of interlinking processes and embodied knowledge. For training jumping and landing techniques these processes include another five coaching instructions: 1) instruction from a coach about correct technique[93]; 2) an athletes' bodily memory (informing what feels right and wrong to assist replication of technique); 3) physiotherapist instructed mobility exercises and "pre-habilitation[94]" of ankle flexion; 4) strength and conditioning of one's core, quadriceps and gluteus so that the correct muscles are 'switched on', engaged and sensually active; and 5) repetition of the movements to the point of internalisation (embedded within one's habitus) and automatic performance. Training of haptic knowing involves the development of athletes' physiological, sensual and conceptual awareness so that it, eventually, become unconscious, and the development of complex technical movements so that they become habitual and enmeshed within bodily memory (and historical density).

Merleau-Ponty (2001) describes historical density as embodied memory made manifest. Historical density rests on physical training of bodily techniques that are naturalised and automatic within the embodiment of an individual. Ingold (2004) extends this notion of embodied memory to include attunement, whereby an athlete is thoroughly in tune with the environment and external stimuli implicated in their sport, such as sporting equipment and weather. Attunement

[93] One coach I spoke to identified problems that some of her athletes were having with their haptic knowing and footwork such as: difficulty landing with both feet, incapable of changing stances quickly and "not playing the ball off [or from] the feet". She explained that her athletes needed to develop footwork awareness and proficiency (and thus increase their haptic knowing through physical training).

[94] Athletes perform rehabilitation exercises to heal injuries, whereas 'pre-habilitation' (otherwise known as 'pre-hab') exercises are created by S&C coaches and physiotherapists as preventative exercises for muscles, joints and other body parts that commonly get injured in any particular sport. Alternatively, an athlete may need these exercises due to weakness or previous injury histories.

is present, for instance, when a hockey player, without looking at her stick, and purely by haptic (touch) knowledge and historical density, knows where and how to grip her stick and account for the added moisture of having dropped it on the wet field during play. Unthinkingly, she moves quickly to re-grip the stick, corrects her posture and gets back into position on the field without taking her eyes off her opponent and without losing awareness of the location of the ball.

Chisholm's (2008) investigation of one elite female rock climber Lynn Hill, and aspects of the physical training that helped cultivate her athletic prowess and rock climber habitus, provide an example from the literature of the embodiment of haptic knowledge. Chisholm suggests that there are several central components of Hill's physical training that facilitated her embodiment of a rock climbers' physical toolkit, and the reconstitution of her habitus, and in turn enabled her to master free-climbing. Below I discuss two techniques of the body that Hill developed through training: reaching and falling (Chisholm 2008).

Rock climbing is a challenging sport that requires intricate physical training to develop an appropriate habitus to support practical climbing techniques. This habitus requires embodied skills of strength, flexibility, endurance and certain physical qualities (such as finger callouses). To be able to reach holds[95] and climb up challenging terrains, Hill underwent physical training in reaching. In rock climbing, a climber's hands serve as embodied instruments that are imbued with strength and technique. Through training her reach, Hill's hands became accustomed to gripping rough and slippery surfaces, the skin on her hands toughened, her palms and fingers developed callouses, and her grip strength improved. In turn, her haptic knowledge developed such that her hands could read the surface of terrains for secure holds. Hill's haptic knowledge training also

[95] "Holds" refers to parts of the rock a climber grips to be able to scale the rock.

involved the development of a “soft grip” and maintenance of a “relaxed face” so that she could stay calm and minimise energy waste through using extra muscles during her climbs (Chisholm 2008, 16).

Another component of Hill’s physical reach training and embodiment of haptic knowledge involved manipulating her breathing to synchronise with her movements so that she could grasp hard-to-reach holds. For instance, she took big inhalations to maximise the lift in out-stretched positions and exhaled in quick bursts “to make a karate-style grunt” to help make powerful or dynamic moves (Chisholm 2008, 16).

Fundamental to rock climbing at an elite level, and to scaling intimidating terrains, is training one’s body and one’s practice (physically and emotionally) to accept the possibility of falling. This aspect of physical training involves being relaxed on the rock and looking down as well as practicing the correct technique to break a fall in its event. Chisholm suggests Hill’s ‘habit-body’ – her reconstituted elite athlete habitus – saved her from a potentially fatal fall she experienced during training (Chisholm 2008, 35).

As Hill describes it:

> As I fell backward I waved my arms frantically in a circular motion to keep myself from landing on my head… Look for a landing, some inner voice instructed me. I veered toward the leaves of a tree to my left. . . tucked my body into a ball, blasted through its branches, then my left buttock slammed into a lattice of tree roots sprawling on the ground (Hill 2002, 7–8 cited in Chisholm 2008, 23).

Chisholm goes on to say that "[a] woman not so habituated… would have been immobilized" (Chisholm 2008, 23). Hill's physical training in rock climbing had crafted her instinctual responses, her sensual perceptions and her views of her own physical capacity and reading of terrains, and these were fundamental to her falling safely. Through physical training (and specifically training the technique of haptic knowledge) specific rock climber values, norms, skills, movements, qualities and perceptions of the world were embedded in Hill's reconstituted habitus as a rock climber.

Attunement and Historical Density

Alongside haptic knowledge, attunement and historical density are other significant attributes taught, learnt, consciously embodied and unconsciously enacted within sports performance through physical training. Attunement and historical density are keys to understanding the ways that athletes experience, perceive and know their bodies and the world around them. Drawing on Ingold's (2000) notion of attunement, I explore below one significant example of athletes' physical training of fitness, physiology and elite athlete embodiment: that of altitude training as carried out at the AIS.

The 1968 Mexico Olympic Games was the first – and, to this date, only — Games held at high altitude. During the Games athletes' performances were significantly affected by the altitude being much greater than that at which the athletes had

trained (Australian Olympic Committee 2015). For athletes in long-distance events the high altitude resulted in slow times, poor performances and severe fatigue. For other athletes (from many different nations, and across a wide range of sprinting and power events), the impact of high altitude *positively* influenced performances, resulting in many existing world records being obliterated.[96] These performance outcomes were understood to be the consequence of Mexico's high altitude (two-thousand-two-hundred-and forty meters above sea level). Since the 1968 Games, there has been significant sports science and sports medical research into the science and physiology of altitude on athletic sporting performances. Likewise, since that time many athletes have attended high altitude training camps in preparation for competitions in both high and low altitude locations in an attempt to boost sporting performance.

So what is going on? High altitude affects athletes' sporting performance because of the lower density of the air (and therefore oxygen)[97]. As a result, the amount of oxygen inhaled with each breath is reduced in contrast to the amounts inhaled at locations at lower altitude. Athletes' bodies that are not physically acclimatised to high altitudes must work physiologically harder to make use of the lesser quantities of oxygen.

[96] American long jumper Beamon's historic world record leap of 8.90 metres won the gold medal at the Mexico Olympic Games and was fifty-five centimetres further than the previous world record (8.35 metres). This result remained a world record until 1991 (more than twenty years) (Australian Olympic Committee 2015).

[97] "Any given volume of air is comprised of 79 percent nitrogen, 20.9 percent oxygen and 0.1 percent other gases such as argon and krypton. But as you get higher and higher above sea level, the pressure of the atmosphere decreases. This is due to the effects of gravity (which keeps air close to the ground). So as you reach higher altitudes, the air expands. While the composition of the air stays the same, the expansion means that the air is 'thinner' – so in essence, at higher altitudes you inhale less oxygen and nitrogen molecules than you would at sea level" (Australia's Chief Scientist 2012).

For instance: to counteract the lack of oxygen,

> "The body increases its heart rate and respiratory rate to increase the amount of oxygen taken in and circulated around the body. So, for example, while an athlete might normally run with a heart rate of one-hundred-and-fifty beats per minute, at high altitude it might increase to one-hundred-and-sixty-five" (Australia's Chief Scientist 2012).

Over time the body compensates for the low oxygen conditions by increasing the red blood cell count; thus, with constant exposure to high altitude (through altitude training), the body acclimatises. This physiological response is advantageous.[98]

One swimmer explained to me what training at high altitude feels like:

> Swimming at [high] altitude is tough. Especially when you do deep water swimming in those conditions, it's really tough. You're tired because you don't get as good a quality sleep and you don't feel as fresh [because of the reduced oxygen and the impact of this on muscle recovery and repair after training]. But then [after a few days or weeks] you just get used to it. Then you come home [to low altitude] and train, you feel amazing. You just glide through the water and it's so easy! Training in [high] altitude feels like you're weight lifting with heavy weights and then you come home and do the same routine and it's like the weights are tiny and so light and move so easily that you're surprised by it, by the lack of resistance {demonstrates movement and smiles}.

Although some athletes travel internationally to locations of high altitude, the AIS has constructed an Altitude House to simulate such an environment. This house, comprised of twelve beds, bathroom, kitchen and a lounge, mimics what it would

[98] "More than two-hundred genes are turned on in response to altitude, including the one which induces the creation of more red blood cells thereby increasing the amount of haemoglobin in the blood. Haemoglobin is the protein that binds oxygen molecules to red blood cells. The more haemoglobin in the blood, the more efficiently oxygen is carried around the body. This means that even though less oxygen is taken into the lungs, it is more easily transported to the muscles. In addition, as you breathe faster the amount of carbon dioxide in the blood is reduced, which leads to the blood becoming less acidic. To counter this, the kidneys release blood bicarbonate to try to balance the PH level. For athletes, this is a big advantage since blood bicarbonate is the primary source of protection for muscles against lactic acid – the waste that builds up during exercise and leaves muscles feeling stiff and sore" (Australia's Chief Scientist 2012).

be like to live at high altitude (Australian Sports Comission 2009a). The Altitude House simulates the impact of low pressure atmosphere of two-thousand-and-fifty metres by changing the composition of the air within the House to approximately eighty-five percent nitrogen and fifteen percent oxygen. The air is not thinner, but the presence of less oxygen is physiologically equivalent to being at altitude (Australia's Chief Scientist 2012).

When athletes conduct altitude training at the AIS they 'live at the Altitude House' on campus, typically for three to four weeks at a time. The expectation is that athletes spend minimal time outside of the house, preferably only leaving to train and eat meals (at the AIS Dining Hall). Consequently, when some of the athletes I interviewed were conducting altitude training I interviewed them in the Altitude House.[99]

Professor Gore, Head of Physiology at the AIS, explains that:

> By living in the house for twelve hours or so a day, the athletes' red blood cell counts increase and their haemoglobin increases. As well, their muscle buffering capacity, ability to handle lactic acid and their efficiency also improves. They [athletes] can then use these factors to their advantage in training and competitions. Overall, we're talking about a one to two percent increase in performance, *which mightn't sound like much, but can be the difference between a medal and failing to qualify* (Australia's Chief Scientist 2012 emphasis added).

Altitude training is a demonstration of attunement: training the body to physiologically respond to its surrounding environment and embody advantageous qualities to assist movement in that environment. Physical training

[99] These interviews were always noticeably shorter than the usual interviews I conducted with athletes. I would leave them dehydrated, with a pounding headache and feeling exhausted, sometimes after only thirty minutes! This significant effect on my own body after such a short time demonstrated some of the difficulties of high altitude training as well as the seriousness of the side effects and the dramatic physiological changes athletes must undergo through high altitude training as a form of physical training and attunement. For instance, many athletes said they found it hard to sleep (waking up several times during the middle of the night) and felt lethargic during the day when they were staying in the Altitude House.

of altitude acclimatisation is also a "(re)socialization of the physiology" (Wacquant 2004, 59).

However, the effects of altitude training, and the embodied attunement that it involves, only last two to four weeks after returning to a low altitude environment such as Canberra (which is at an altitude of six-hundred meters above sea level) (Australia's Chief Scientist 2012). Therefore the de-adaptation is relatively rapid and attunement techniques and physical training have to be reinstated to repeat the results. Constant altitude training would be necessary if one wanted to maintain these results indefinitely. Like Kelly's technical breathing techniques, high altitude attunement is not eternal.

Ultimately, elite athletes' movements and sporting techniques are trained and embodied though complex physical training from multiple service providers with the aim of reconstituting their habitus.

Wacquant aptly concludes that:

> The function of pedagogical work [through physical training] is to replace the savage body… with a body 'habituated' that is temporally structured…[and] kinetically remodelled according to the specific demands of the field (Bourdieu 1972, 196 cited in Wacquant 2004, 60).

Almost every physical movement and technique that athletes perform is a product of discipline and training imposed by service providers and teammates throughout their sporting careers. The result is a transformation of their embodiment so that it becomes a culturally specific elite athlete habitus.

Athletes consciously and unconsciously absorb some physiological techniques and styles of movement, while discarding others. These techniques and styles communicate to outsiders the socio-cultural and historical environment in which they were learnt. Thus athletes' embodiment of physical training is complex,

being at the same time both individual and flexible, and a reflection of docility and adherence to cultural norms.

Through repetition of culturally-specific practices, athletes' bodily techniques and movements become automatic. However they are also carved by their unique physiology. Although many athletes are born with propensities towards kinaesthetic learning, and with genetic and biological predispositions towards athletic behaviour, it is only through physical training that athletes come to embody the specific bodily techniques, sporting movements and elite athlete practices that together constitute the appropriate elite athlete habitus. As one coach summarised "champions are not champions just because they do the spectacular, they are champions because they do the basics spectacularly — better than anyone else. For champions the basics are automatic". Thus, as I have shown, training is the embodiment of 'the basics' and the reconstitution of specialised techniques as second nature.

Chapter Four: Production of the Elite Athlete Subject

This chapter investigates the production of elite athletes as subjects; as special kinds of people, distinct from others. It examines how the culture of elite sport training cultivates certain values, morals and social norms that are central to producing elite athletes. This is a topic that Shogan (1999, 47) regards as an under-investigated and Scott (2013, 25) describes as: "how subjects are constituted in the first place".

Through this investigation I argue that the discourse of sport as a profession with its own work ethic, informs athletes' evaluations of what constitutes moral, worthy and ideal behaviour. Thus, I examine the meaning and morality of elite athletes' practices, embedded through disciplinary practices of training, that shape athletes' "bodies and souls into productive and willing entities" (Heikkala 1993, 399).

This chapter is divided into two parts. The first part canvasses the production of subjects from three theoretical perspectives that inform the analysis of my data. To begin, I outline the production of subjects from Foucault's perspective of discipline. I then sketch Hacking's theory of 'making up people' to evaluate classifications and knowledge of elite athletes as special subjects. Finally, I examine the role of values, norms and cultural knowledge in shaping athletes as distinctive subjects, by drawing on Weber's description of the Protestant work ethic. In the second part of this chapter I weave together these theoretical frameworks to investigate athletes' training in elite sport and how this produces athletes as subjects. In this discussion I explore the elite athlete work ethic

underpinning the reconstitution of athletes' norms, values, beliefs and daily practices that shape their formation as elite and distinct subjects.

Athletes as Subjects in Sporting Embodiment Literature

Heikkala's (1993) research adopts an approach that considers elite athletes' practices as central to their constitution as subjects. She states that discipline is an instrument that is pivotal to the production of athletes as special types of persons, and she examines bodily exercises and the keeping of a training dairy as practices that are intricately involved in this production. Heikkala focuses on athletes' will to win and desire to constantly improve, and suggests that these mentalities are sculpted through disciplinary techniques that produce "the docile yet productive bodies and souls of sport" (Heikkala 1993, 402). She analyses elite athletes as a broad category of subjects in and of themselves, and considers athletes from a wide variety of sports rather than examining nuanced subjectivities of athletes from specific sports.[100] Similar to my own research Heikkala's work also does not focus on the influence of specific social categories in the production of athletes' subjectivities.

In contrast, Shogan (1999) examines elite athletes in relation to the influence of social categories such as gender, sexuality and disability on the production of their subjectivities, from a Foucauldian perspective. Her work explores the tensions and interactions between relentless sporting discipline and training practices, and the other social categories that shape athletes as subjects. Shogan argues that athletic subjects are always hybrids of these influences; there is more

[100] Other literature focuses on sports-specific subjects. For instance: Barker-Ruchti and Tinning's (2010) research explores how women's artistic gymnastics training crafts gymnasts as particular athletic subjects. Wacquant's (2004) ethnography explores the making of boxers as distinctive subjects through pugilistic apprenticeships, and Howe's (2003, 227) work explores the production of Welsh women's rugby habitus through "kicking into touch".

to their subjectivity than merely the effects of disciplined training. While I acknowledge the truth of this view, for the purposes of this thesis I will focus solely on the elements of disciplinary practice that shape athletic subjects, rather than explore the complexities of hybrid influences.

In addition to Shogan's work, a lot of literature investigates the hybridity of athletes in relation to a range of social categories (Krane 2001; Harrison *et al.* 2011). Much of this literature is focused on the ways that training disciplinary practices reinforce the social norms of the broader society in the culture of elite sport, for example, mainstream conceptions of femininity and masculinity,[101] heterosexuality[102] and race[103]. This literature also explores examples of the culture of elite sport empowering diverse subjectivities and creating new social norms that influence broader society (for instance, homosexual athletes and the Gay Games,[104] disabled athletes and the Paralympics,[105] and female athletes and the normalisation of women competing in an increasing number of sporting events[106]). Therefore a variety of social categories can influence the production of athletes as hybrid subjects and sport both reinforces broader social norms by operating as a microcosm of society, and also serves to challenge and transform societal values and beliefs by operating as a culture unto itself.

While these examples provide interesting accounts of the complexity and hybridity of athletes' subjectivity, few sources focus on the central theme of this

[101] Among a great deal of literature, Connell's research on men and sport explores how men come to define themselves as men, and as athletic subjects, through their roles as ironmen (Connell 1989). Likewise, Bolin and Granskog's (2003) edited collection records women's experiences of sport and exercise and explores the complexities of femininity, athletic subjectivity and being female in sporting domains.

[102] See Kidd 1983; Wright and Clarke 1999.

[103] See Pelak 2005; Van Sterkenburg and Knoppers 2004; Carniel 2009.

[104] See Bridel and Rail 2007; Cox and Thompson 2000; Clarke 1998; Anderson 2002.

[105] See Hutzler and Bergman 2011; Hardin 2007.

[106] In 1984 marathons (see Bridel and Rail 2007) and in 2012 boxing officially became Olympic sports for female athletes (Aaltonen 2013; Allen-Collinson and Owton 2014).

chapter: "how subjects are constituted in the first place" (Scott 2013, 25). Examining how elite athletes are produced as subjects is important because athletes are commonly accepted as 'special', 'distinct' persons, often assumed to be a result of physiological and genetic differences, rather than social production through training. This chapter sheds light on the intricacies involved in reconstituting athletes as subjects and the interlinking processes involved in their production through training.

Part One: The Theoretical Context of Subject Production

This part of the chapter outlines Foucault, Hacking and Weber's theoretical perspectives as these are useful for the investigation the production of athletes as special subjects.

Foucault: Subjectivity and the Disciplinary Technique of Correct Training

For Foucault, subjectivity is something that is constituted, including by the subject itself, in a process called subjectification (Foucault 1997). One's subjectivity is constituted through one's practices which are grounded in a specific cultural and historical context. In this way Foucault suggests that subjectivity is a form rather than a substance, a product moulded through power, discipline and practice rather than an objective truth (Foucault 1997). Kelly summarises this by saying that "the subject constitutes itself in different forms at different times through the use of varied practices" (Kelly 2013, 513).

Kelly goes on to say that:

> The subject is understood by Foucault not as something simple, merely a conscious doer, but as something that must be constructed. This is correlative to his focus on practices and techniques: since these things vary historically, so too does subjectivity itself (Kelly 2013, 513).

However, Foucault does not suggest that a subject, and the practices performed that produce his or her subjectivity, are individually determined. Instead, these practices "are models that he finds in his culture and are proposed, suggested, imposed upon him by his culture, his society, and his social group" (Rabinow and Hurley 1997, 291). Athletes who aspire to become elite subjects must enact specific practices that require disciplinary techniques of surveillance to ensure that the quality of performance is upheld, and only those who engage in socially accepted practices are regarded as elite subjects. Thus for elite athletes, the discipline they are subject to through training transforms their daily practices, reinforces the values and social norms of elite sport, and reconstitutes them as elite athlete subjects. In this way "discipline 'makes' individuals; it is the specific technique of a power that regards individuals both as objects and as instruments of its exercise" (Foucault 1991, 170).

Correct Training as a Disciplinary Technique

This thesis explores athletes' training as a complex method of interlinking processes performed by multiple agents to produce elite athletes. In this chapter I introduce Foucault's theoretical concept of 'correct training'. Correct training is a disciplinary technique that can be applied to anyone; however, "instead of bending all of its subjects into a single uniform mass, it separates, analyses, differentiates" individuals into distinct subjects through three instruments: 1) hierarchical observation, 2) normalising judgement and 3) a combination of the

two in the form of examination (Foucault 1991, 170). I use this theory to examine the production of elite athletes, through training, into distinct subjects.

1. Hierarchical Observation

Foucault argues that power is enacted through observation. The notion of hierarchical observation relates to stratified layers of surveillance, which commonly occur within institutions, where a hierarchy of professionals including a manager and multiple 'specialised personnel' surveys the actions of an individual (Foucault 1991). In the case of elite athletes, hierarchical observation occurs through coaches, other service providers and teammates as well as athletes surveying themselves. Through this observation athletes are the object of, and rendered a subject through, the gaze of many.

Foucault argues that hierarchical observation acts as a "machinery of control that function[s] like a microscope of conduct" (Foucault 1991, 173). Markula and Pringle suggest that through surveillance "a visible body is a knowable body that can subsequently become subject to the workings of power", meaning that through observation, one comes to see and know another (Markula and Pringle 2006, 41; Foucault 1991, 172). Shogan supports this view, "The effect of observation is not merely that athletes are seen. Observation makes it possible 'to know them, to alter them'" (Shogan 1999, 35 citing Foucault 1979, 158). In this way observation performs "the policing functions of surveillance… encouraging obedience and work" (Foucault 1991, 173). Therefore, observation is never neutral: the act of gazing and being gazed upon through hierarchical observation involves an exchange of power, and gives rise to normalising judgement.

2. Normalising Judgement

Observation incites judgement that is reflective and reinforces socio-cultural norms. Foucault suggests that normalising judgement enforces an oppositional binary of permitted and forbidden behaviour, a "double system: gratification-punishment" (Foucault 1991, 180; 183). Compliance with rules, regulations and norms is rewarded, whereas non-conforming or transgressive behaviour is punished (Foucault 1991, 179; Markula and Pringle 2006, 42). "Normalisation is the goal and the effect of discipline" that correct training provides in producing athletes (Heikkala 1993, 399).

Through training, athletes are exposed to a "discursive web of normalising practices" (Markula 2003, 88). For instance, drawing from Foucault, I argue that athletes are subjected to:

> …a whole micro-penality of time (lateness, absences, interruptions to tasks), of activity (inattention, negligence lack of zeal), of behaviour (impoliteness, disobedience) of speech (idle chatter, insolence), of the body ('incorrect' attitudes, irregular gestures, lack of cleanliness) (Foucault 1991, 178).

Subtle procedures of punishment "from light physical punishment to minor deprivations and petty humiliations" are used to correct athletes' misbehaviour (Foucault 1991, 178). For example, athletes may be instructed to perform sprints or push-ups as punishment; denied from sitting during drink breaks between drills in training; and humiliated through coaches or teammates calling them derogatory nicknames, yelling at them or swearing at them to express their frustration at an athlete's non-compliant behaviour. Normalising judgement of athletes' behaviour in training uses "reduplicated insistence", which means repetition of disciplinary practices, which in this instance relates to the intention of reconstituting athletes' habitus to embody training practices and socio-cultural norms (Foucault 1991, 180).

Finally, Foucault insists that normalising judgement "…compares, differentiates, hierarchizes, homogenises, excludes. In short, it normalises" behaviour and makes it possible to praise or punish (Foucault 1991, 183). In the second part of this chapter I demonstrate that, through correct training, normalising judgement not only normalises athletes' behaviour, it also normalises the reconstitution of athletes as elite.

3. Examination

The final element of Foucault's *correct training* is a combination of hierarchical observation and normalising judgement "in a procedure that is specific to it, the examination" (Foucault 1991, 184). He proposes that the examination of correct training involves a constantly repeated ritual of power (Foucault 1991, 186):

> Disciplinary power… is exercised through its invisibility; at the same time it imposes on those whom it subjects a principle of compulsory visibility. In discipline it is the subjects who have been seen. …It is the fact of being constantly seen, of being able always to be seen, that maintains the disciplined individual in his subjection (Foucault 1991, 187).

Therefore, examination causes subjectification since it renders certain people into objects who are seen and, in turn, subjects whose practices are disciplined, surveyed and judged. Through examination a shift occurs from examining *practices,* to critiquing, comparing, describing, measuring, and judging an *individual* who is performing the practices.

For elite athletes, training provides a context for examination since it invites hierarchical observation and normalising judgement. For example, a regular 'ritual of power' that athletes perform is fitness testing. This involves athletes completing a battery of tests that assess their speed, strength, flexibility, agility, endurance and body composition. Many service providers are required to conduct such testing and record results, which means that there are a lot of staff

— as well as other athletic competitors — involved in hierarchical observation. Every assessed skill is a benchmark of performance and athletes are expected to improve on their previous results. Accordingly fitness examinations assess much more than athletes' fitness. It charts training compliance, performance progression, potential to improve, and reiterates the necessity of athletes' discipline through practices of hierarchical observation and normalising judgement. This example embodies a common element of examination, that is the: "accumulation of documents… the organisation of comparative fields making it possible to classify, to form categories, to determine averages, to fix norms" to create docile subjects (Foucault 1991, 190).

Another example of such record-accumulation in basketball includes the collections of statistics of players' behaviour on court recorded by score-keeping officials.[107] The gathered and averaged statistics paint a portrait of each basketballer's performance. They provide an 'objective', measured record by which to compare players, as well as an individual's previous and present results, and so provide an indicator of improvement. These data, placed in the context of normalised expectations of performance, determine whether or not a basketballer will be reconstituted as an elite athlete. Consequently, statistics are crucial in assessing athletes' performance, and they transform athletes into "objects of knowledge" (Heikkala 1993, 401).

Shogan (1999, 35) provides an apt account of correct training in discussing the process whereby coaches measure the differences ('gaps') between an athletes' ability and the desired ability:

[107] For example, in every game that AIS basketballers play, a record is kept of the position they play, the minutes on court, the field goals (shots) taken, percentage of field goals (successful shots), three point goals, three points percentage, free throws, free throws percentage, assists, steals, turn-overs, offensive rebounds, defensive rebounds, total rebounds, blocked shots, as well as the total points and efficiency.

> Through the coaches' observing and judging, comprehensive records of athletes' performance in training sessions and competition are produced and the gaps between athlete's performance and the standard for the activity are noted (Shogan 1999, 35).

Shogan's example illustrates coaches' monitoring of athletes' performance through the statistical analysis of records with the goal of changing how athletes train and perform, so that they will reach an appropriate standard and become elite. The surveillance and judgement embedded in these coaches' actions exemplify the processes of discipline, and in particular the processes of correct training, in athletes' sports training.

Implied within Foucault's concept of correct training, through normalising judgement in particular, is the influence of morality. Foucault regards morality as being socio-culturally and historically produced. Two factors he identifies as informing morality within any culture are: 1) what is understood to be forbidden; and 2) what is regarded as positively and negative valued. Foucault suggests that these factors determine whether or not one is culturally determined as a moral subject.

In the second part of this chapter I will use Foucault's concept of morality to examine the elite athlete work ethic.

Hacking: "Making Up" Subjects

Hacking's (1986; 2004; and 2007) research on 'making up people' examines the ways different kinds of subjects are socially produced in cultural and historical settings where "a new scientific classification may bring into being a new kind of person, conceived of and experienced as a way to be a person" (Hacking 2007, 285). His research also explores how "the classifications of people interact with the people classified", in what he has termed the 'looping effect' (Hacking 2004, 277). Hacking's work is crucial in understanding how elite athletes are sculpted

through the institutional processes of training and the cultural knowledge reinforced by experts, as well as how athletes interact with their own classification as elite athletes.

Hacking's work (2004, 277) draws on Foucault's theory of power/knowledge, discipline and subjectification. He considers the investigation of cultural practices (including social pressures, norms, values, morals, expectations and priorities) from the perspectives of institutions and experts: what he calls "top-down" perspectives. Hacking also draws on Goffman's theory of total institutions (see Chapter Two) and dramaturgical analysis (see Chapter Six) — which he calls "bottom up" perspectives — focused on face-to-face interactions between people, micro gestures and practices of power (Hacking 2004, 278). In this way Hacking uses Foucault's genealogical examinations of power and social structures, and Goffman's rich sociological descriptions of face-to-face interactions to "better understand the ways in which the actual and possible lives of individuals are constituted" (Hacking 2004, 288).

In his theory of 'making up people' Hacking argues that there are five elements involved in the social production of subjects: 1) the classification of the subjects, 2) the people who are the subjects, 3) the institution that houses the subjects, 4) the knowledge about the subjects, and 5) the experts who create (and dispense) the knowledge about the subjects. Below I discuss each of these elements with respect to the production of athletes as subjects.

1. Classification of Kinds of Subjects: 'Elite Athletes'

Hacking argues that the social influences involved in determining classifications is evident through comparing different cultural and temporal contexts as subjects are historically produced.

The category of elite athletes has not always existed; instead, it is a socio-historically located classification. Guttmann (2004) argues that elite athletes as a category of subject, a distinct kind of person, has been cultivated in recent decades with the exponential professionalisation of sport.[108] The production of the elite athlete has become increasingly complex and specialised, and involves a growing number of experts to measure, monitor and mould elite athletes into being.

2. The People who are the Subjects

In this second element of Hacking's theory, people, and classes of people, are classified. Within my research I refer to elite athletes as a category of subjects, but at times I also specify certain types of subcategories of people within the category of athletes, for instance basketballers, swimmers, gymnasts and 'sports stars' as kinds of elite athletes (Whannel 2013; Smart 2005).

3. The Institution that Houses the Subjects

Established organisations are inherently involved in administrative processing to "manage tribute, taxation and recruitment" of subjects (Hacking 2007, 288). Hacking states that the institutions around classified persons serve to "firm up the classifications" of subjects through bureaucracy, which is internalised, normalised and becomes an accepted day-to-day reality in the lives of the subjects (Hacking 2007, 288). In the case of my research, the AIS is the institution that is inherent to the production and 'firming up' of elite athletes, literally: housing, clothing, feeding, training and administrating athletes in their everyday lives.[109]

[108] For more information about the history of professional sport see Guttmann (2004), Holt (1990), Kirsch (1989) and Dunning, Malcolm, and Waddington (2004).
[109] In Chapter Two I discussed Goffman's theory of Total Institutions, which also informs Hacking's 'making up people' theory.

4. The Knowledge about the Subjects

Hacking argues that fundamental to the production of a category of distinct subjects, is the knowledge about the people defined as the subjects. This knowledge relates to the classified people's characteristics, their capabilities, their needs and their requirements. There is a wealth of knowledge about elite athletes and elite sport which is divided into specialised disciplines, including sports medicine, sports science, sports coaching, sports psychology, sports nutrition, physiotherapy, biomechanics, skill acquisition, physiology, recovery physiology, and the field of strength and conditioning. Since the opening of the AIS in 1981, the amount of knowledge about elite athletes in each field has expanded with growing numbers of specialists focusing on divided areas of knowledge to assist athletes to perform at an optimal level.

5. The Experts Who Create the Knowledge

The final element of Hacking's 'making up people' relates to the experts who are intricately involved in creating and perpetuating knowledge of subjects. For elite athletes these experts are referred to as service providers (SPs) (including sports medicine practitioners, sports scientists, sports coaches, sports psychologists, sports dieticians, physiotherapists, biomechanics, skill acquisition specialists, physiologists, recovery physiologists, and strength and conditioning coaches). These service providers are fluent in the scientific discourse, traditional facts and "imperial myths that have become concretised facts" which serve to reinforce the classification of subjects as elite athletes (Hacking 2007, 289).

In part two of this chapter I will return to Hacking's five elements of subject production, in relation to the discourse of sport as work and the elite athlete work ethic at the AIS.

Weber: The Protestant Work Ethic

Weber's theory of the Protestant work ethic provides a theoretical perspective on morality and how judgements of behaviour inform judgements of subjects.

Weber was interested in the social values and beliefs found in Western societies in the eighteenth and nineteenth centuries that contributed to the development of the spirit of capitalism. He explored the influence of religion on social interests and social actions, and concluded that the values and morality attached to work within Calvinism gave rise to the spirit of capitalism (Weber 2002). He labelled this attitude towards work the *Protestant work ethic*.

Weber argued that Calvinist beliefs are centralised around the notion of 'the calling' "that is, the idea that people have been 'called by God' to the position they occupy in this world" (Hughes *et al.* 2003, 99). 'The calling' endows an individual with traits, skills or opportunities towards an occupation and through their fulfilment "of the traditional requirements of [the] secular station in life [one can] show devoted service to God" (Hughes 2003, 99). Thus one is expected to follow one's calling, as a religious *duty* to God and it is "absolutely the highest level possible for moral activity" (Weber 2002, 29).

These religious beliefs about daily conduct and moral duty expressed through labour generated a social norm about commitment to work, and also emphasised the importance of discipline. Being disciplined, productive and actively engaged with labour, thus following one's calling, was praised, and contrasted with the sinfulness of sloth: the "wickedness of idleness and laziness" (Hughes *et al.* 2003, 101 and van Krieken *et al.* 2000, 243).

A new perspective on time began to emerge during this period where time was viewed as a means to express one's discipline to one's calling and should not be

wasted (Weber 2002). Weber drew on Baxter (1855) to argue that "loss of time through socialising 'idle talk', luxurious living and more sleep than required for health is morally absolutely reprehensible" (Baxter 1855 cited in Weber 2002, 107). Time allowed quantified opportunities to perform labour and collect wealth from engagement in service. Benjamin Franklin was famously quoted as coining the phrase "time is money" which succinctly conveyed these value-dense views of work, discipline and productivity (Weber 1930, 48-49 in Hughes *et al.* 2003, 101).

Hence, Calvinists "collectively created a new mentality", a Protestant work ethic, and generated a context of rationality, calculation, disciplined and efficacy-driven behaviour that formed the foundation upon which the spirit of capitalism could build (Hughes *et al.* 2003, 101).

Part Two: Production of Elite Athletes as Subjects at the AIS

In this second part of the chapter I apply the theoretical perspectives introduced above to my own data. To understand how athletes are produced as subjects, it is necessary to examine two important discourses that shape the values, norms and practices in athletes' everyday lives, and which are central in their creation as elite athletes. These two discourses include sport as a profession and the elite athlete work ethic. I reflect upon elements regarded as influential in athletes' production as distinct subjects: the qualities of seeking distinction, sacrifice, taking risks, challenging limits and elite athlete attitude.

Hughes and Coakley's (1991) 'sport ethic' shares some similarities with my 'elite athlete work ethic', specifically the stress on seeking distinction, making sacrifices, taking risks, accepting pain, and challenging limits as core values and practices that shape elite athletes as subjects. However their theory relates to positive deviance (which they define as "over-conforming to norms" and "actions

based on uncritically accepting norms and willing to follow them to extreme degrees") within broader Western society (Hughes and Coakley 1991, 361). In contrast, I suggest that the elite athlete work ethic is a discourse in elite sport that informs values, norms and practices, and creates elite athletes as subjects.

Sport as Work

My research investigates sport as work shaped by cultural interpretations of value, productivity and outcomes. Rigauer suggests that work involves tasks that are performed with the specific intention of achieving goals and fulfilling requirements that are, typically, progressive and productive. These features of work stand in contrast to play as "play is an activity performed for its own sake" (Rigauer 1981, 7–8). Rigauer adds that:

> Sports have long since become an aspect of the rationalisation of labour. One sees the truth of this thesis in modern training methods, which duplicate the world of work, which turn the training cycle into a productive process… the connection between sport and work is clear: both systems of behaviour enhance the status and prestige of the concept of achievement (Rigauer 1981, 9).

At the AIS the view of sport as work is normalised through use of the language of 'work' by service providers, athletes and administrators. For example, 'go to work', 'work hard', 'hard working', 'work at it' and 'get working' are common expressions used by service providers to encourage energy and focus during training. As in other professions, elite athletes' work is framed by rules and regulations. AIS athletes must sign work contracts before they can occupy scholarship positions. These contracts legally formalise service providers' expectations of athletes as professional workers and serve as a benchmark by which to assess athletes' behaviour, sporting performance and sporting improvement towards negotiated goals and 'key performance indicators'. Thus athletes' contracts require correct training – observation, judgement and

correction of behaviour aligned to norms – to ensure that they satisfy work targets. Likewise, the administrative process of athletes' contracts perpetuates the role of the institution and specialised experts in making up people and classifying athletes as elite, as well as competent, capable and worthy of their contract.

Athletes' contracts outline specific goals for sporting performance, as well as for their studies and/or employment, and/or volunteer roles.[110] Sporting goals are examined by reference to performance indicators of progress and improvement. For instance, there are guidelines that stipulate fitness and physiological requirements. For example, an initial baseline of performance is measured and then used as a reference point to compare an athletes' skinfold measurements, vertical jump, ankle flexion, agility test results, sprint times and endurance test results across time. These contracts incite hierarchical observation as they demand compliance with team and institutional rules. Contracts set out a series of tasks to be completed on a daily, weekly and monthly basis, including specified targets for improvement and markers of progress to be met, as well as objective measures and subjective indicators to evaluate athletes' conduct.

Implicit in each contract are the social and moral norms instilled through an examination of correct training. In this respect many of the expectations outlined in athletes' contracts are similar to those found in the contracts of other professionals. For example, athletes contractually commit to adhere to: specified dress codes, mandatory attendance at regular team meetings, individual feedback sessions and progress reviews, designated work hours and pre-existing schedules,

[110] As discussed in Chapter Two, in addition to their sport, it is a requirement of AIS athletes that they must either study, be employed or volunteer in addition to training. These additional roles are a means of 'back up' and 'fall back' in case athletes are injured and unable to train for long periods of time or indefinitely. The AIS stipulates these rules to give athletes life experience and alternate avenues to prepare them for (the inevitable) life after elite sport.

institutional codes of conduct and elite sport cultural values, and professional responsibilities. Athletes are similar to other workers in terms of their expected focus on progress and productivity. Coaches emphasise to athletes the significance of "hitting their KPIs [key performance indicators]" if they want to improve, achieve and succeed. McKay states that the values within elite sport that perpetuate the view of sport as work, and reconstitute elite athletes as workers, are essentially capitalist values: efficiency, productivity, functionality, and quantifiable markers of progress (McKay 1994, 39).

A common expression uttered by athletes that reinforces the perception of sport as work is "getting the job done". By this they mean fulfilling their roles as elite athletes and performing at the highest level. Another common expression is 'putting in one's best effort' at every practice, and fulfilling tasks in an efficient, effective manner 'in the pursuit of excellence'. Getting the job done, then, means much more than simply completing tasks; it means getting the job done *well*. It refers to approaching one's role as an elite athlete in a professional, productive and functional manner. For many, this involves compartmentalising rewards and reducing the likelihood that one will give in to emotional and physical desires, social distractions and deviations from 'the plan', 'one's routine' and 'one's career goals'.

During the London 2012 Olympics when hurdler athlete Sally Pearson was asked after her heat how she felt about the upcoming semi-final, she said "there is no more work to do, this is it, the first race out of the way. . . tomorrow is just another day at the office, [I'll] see what I can do" (Gleeson 2012). This quote does not suggest that competition is not work. Rather it suggests that work in sport cannot be left to the last minute, that all of the arduous training and preparation must be conducted well in advance of the competition. Coaches and athletes alike

described the difficulty and frustration of being 'under-done' or 'undercooked' — that is, of being unfit, not competition-ready or psychologically prepared to perform as a result of not having done 'enough work'.

One athlete explained to me that:

> Getting the job done means getting on with it, no more messing about, you know, like no more dessert until *after* world champs in thirteen weeks… and no more going out [to nightclubs on Saturday nights].

One coach suggested that "to get the job done, you've gotta do the work early".

Like other workers, athletes must stay on top of their workloads to achieve their work goals. Coaches, like other bosses, make use of techniques such as wall charts and other forms of documentation – as processes of Foucauldian examination – to monitor work progress. The public and visible nature of these productivity trackers is purposely used to increase competition among athletes and increase their productivity. Another tactic coaches adopt is to give awards to the best trainer of the session (like an 'employee of the month' award) as a means of increasing rivalry among athletes.

Trujillo argues that athletes' work is evaluated in terms of capitalist values of "success and occupational achievement, and is defined (and quantified) in terms of team victories, and individual records" (Trujillo 1991, 293). However, a point of departure from many other professions is the pursuit of winning as a central feature of work in sport. Although athletes use a myriad of measurements to track progress and improvement, within elite sport mere participation or improvement without achievement is often deemed unsatisfactory. Hughes and Coakley assert that winning is a significant goal in athletes' jobs and a demonstration of improvement and perfection, whereas losing is only tolerated if it serves the

purpose of learning how to win (Hughes and Coakley 1991, 363).[111] Particular narratives and metaphors adopted by athletes and coaches, and within media commentary on elite sport, reinforce the importance of the outcomes of their work and that its primary goal is to win. In concurrence with this values, Garrigou (2006) states:

> In their work, professional athletes cannot adopt the attitude that 'it is only a game.' Sometimes, as a metaphor, they may use these words, but only as a metaphor. The phrase echoes the very reverse idea; that is, it appears to function as a way of compensating for loss or disappointment in relation to something which clearly is not 'just a game'. As a consolation in defeat, professional athletes may refer to the recurrent definition of competition by which a given result is never definitive or vital; there is, after all, 'always tomorrow/next week/next year'. …the idea that 'it is only a game' is used to soften the disappointment of defeat in relation to something which is not 'just a game' but is a job – and a special kind of job (Garrigou 2006, 670).

Productivity, performance and results are central to the discourse of sport as work, not only for the athletes competing, but also for their coaches and other service providers, their sponsors and fans. If athletes do not perform to the required standard they will cease to be recruited for competition. Recruitment onto national teams (that is teams that may compete at important competitions, such as Olympic Games, World Championships, World Cups and Commonwealth Games) is based on individual performances, which are usually measured

[111] Media coverage of Australian athletes' performance at the 2012 London Olympic Games emphasised the value of winning, as opposed to participation or effort without achievement. The media focused on the success of athletes' winning first place, and gold medals, and perpetuated narratives of disappointment and failure around silver medallists' (second place) results. I spoke with athletes and coaches, and observed media reports that expressed views of silver medallists' results that emphasised 'letting the nation down', 'letting myself down', 'losing the gold', 'disappointment', and 'frustration'. British newspaper, the Daily Mail, stated that "Australian swimmers won only one gold medal - in a relay - six silver and three bronze for the country's lowest Olympic medal tally in swimming since Barcelona in 1992. Australia also failed to win an individual [gold] medal in swimming for the first time since 1972" (Daily Mail Online 2012 my emphasis). In response to this Australia's national swimming coach, Don Talbot, said "the swimmers had lost the fire in their belly", and former Olympic gold medal winner Susie O'Neill questioned "the team's work ethic" suggesting that this was to blame for the poor results in the pool (Knight 2012). Thus, the achievements of silver medallists were undermined because they were perceived as 'first place losers', failures and a disappointment to their country and fans rather than podium placeholders and high-achievers.

statistically. Sponsors might choose to discontinue financial support of unsuccessful athletes (Charbonneau and Garland 2005, 1). Athletes who do not succeed or who engage in behaviour that detracts from their ability to perform well (for example, binge drinking when on sick leave or arrogant anti-social behaviour) or perform unethically (for instance, performance enhancing drug use) may find their fans turning against them.[112] The discourse of sport as work is closely connected to the discourse of the *elite athlete work ethic*.

The Elite Athlete Work Ethic

> A high-performance athlete not only embodies the skills of a particular sport, he or she embodies the values that underpin the discipline and make these skills possible. Embodiment of what count as values and skills in a particular context or culture, like the embodiment of athletic values and skills, is a consequence of attention to and immersion in these values and skills (Shogan 1999, 75).

The elite athlete work ethic I observed during my fieldwork, linked with the discourse of sport as work, bears striking parallels with the Protestant work ethic as formulated by Weber. In what follows, I argue that the elite athlete work ethic provides the moral foundation on which the production of AIS athletes as distinctive subjects is based.

In a conversation with a Paralympic world record holder before he left for the Paralympic Games, I wished him "the best of luck". He said "thanks, but it's not about luck. It's about hard work and training smart". So I corrected myself, "wishing you the best of health instead" and his face lit up, "thank you. I need that!"

[112] The Australian men's magazine GQ's (2006) article 'Ten most hated athletes' provides commentary around aspects of athletes' behaviour that most irritates fans. Poor sportsmanship, arrogance, selfishness and not being team-minded were all heavily criticised (GQ 2006). Similarly, Walton discusses the results of the Asset Study which surveys Australians' attitudes and opinions towards more than two hundred Australian and international sporting icons: "Australians are very attracted to athletes who are seen as competitive and humble and Roger [Federer who came top in 2012] embodies these attributes" (Walton 2012).

Success is understood as a matter of effort, discipline, determination and hard work for elite athletes. A female rower I interviewed denied my suggestion that her clover necklace was a good luck charm, informing me instead:

> No. The necklace is actually a three leaf clover (deliberately *not* a four leaf clover) to symbolise that it's not about luck. N*othing* is about luck. It's about hard work, determination and making it happen! [Emphasis in the original].

One of the highest compliments an athlete can receive is to have his or her work ethic praised by their peers, coaches or competitors. Coaches frequently stress the significance of hard work in elite sport and the importance of an athlete's work ethic to their success. Several coaches said to me "at the end of the day, so much of an athlete's success comes down to having a good work ethic and their ability to put in the work will have a huge impact on how far they go". Training is understood as work – not just physical labour, but mental labour as well.

Coaches reinforce to athletes that working hard is crucial in training to become elite; essential for elite sporting performances. They emphasise that significant effort is necessary in every element of daily regimented minutiae if athletes are going to improve. Regardless of how talent is conceptualised (whether it is innate, learnt, physical, mental and emotional or a combination of all of these attributes[113]), service providers told me they accepted talent as merely the foundation upon which an elite athlete is built using good work ethic and hard work.

In my interviews with coaches I asked what features they looked for when recruiting athletes, in addition to physique, skill sets and other relevant sports

[113] There is disagreement in the literature, as well as a lack of consensus among the service providers I interviewed, about an accepted definition of talent.

specific features. All of the coaches addressed the concept of work ethic. One coach reflected:

> They have to have a desire to repeatedly push themselves to the limit… They have to *love hard work* and *love working hard* as it is essential for sporting success. [Emphasis in the original]

Another coach said:

> They have to be serious about wanting to improve and work hard to make improvements. And they will have to be resilient in the face of setbacks – as there will be many – and use their base of hard work to turn things around.

The elite athlete work ethic discourse "encourages success through personal initiative and hard work"; concurrently, 'laziness' is decried (Wiegers 1998, 149). During my fieldwork disparaging descriptions of athletes' 'laziness' and 'lazy' behaviour, conveyed through humorous, satirical and critical narratives, reflected the disdain with which both coaches and athletes conceptualised behaviour understood to be lazy. 'Don't be lazy, ya bum, get over here and help me pack up the equipment' is a common example of how athletes use the term in a humorous, although an almost talisman-like, fashion (and another example of hierarchical observation and normalising judgement).

Through stern tones, glaring eyes and hand gestures that combine pointed fingers and pounding one's fist into one's palm, coaches drop the 'L bomb'[114] as a strategic criticism to shake athletes up. The 'L bomb' is dropped, with precision, into a coach's feedback to denigrate individual athlete's behaviour or the entire team's performance at training. 'L bombs' are also used by coaches to reprimand lazy behaviour *off* the court, track or water and demonstrate how it contributes to poor performances *on* the court, track or water.

[114] 'L Bomb' refers to coaches using the word "lazy" to reprimand athletes as a morally laden disciplinary technique.

One track and field athlete encapsulated the value of hard work as: "you're either working hard or you're hardly working". This statement speaks to the core of the morally laden ideals of athletes' behaviour and training practices in elite sport. Accusation of laziness is more than a critique of insufficient effort in a singular context; it is understood as a reflection of one's character and moral standing. Lazy behaviour is not simply a matter of poor behaviour, it is conceptualised as incongruent with an elite athlete's work ethic and the core values of elite sport. The moral value associated with working hard, and the immorality associated with lazy behavior, are socially accepted truths, and the elite athlete work ethic reflects a similar morality to that in the Protestant work ethic: one's actions are understood to be indicative of one's 'authentic self' and therefore judgement of one's actions conveys a judgement of character. 'Virtuous' conduct is rewarded, and 'sinful' behaviour is reprimanded to minimise interference with the reconstitution of one's subjectivity and one's sporting performance.

The boxers in Wacquant's research illustrate the value of work:

> Nothing is more important than the amount of work you do… you gotta work hard… it ain't gonna come to you by magic. You gotta work hard, train hard, e-ve-ry day: run, shadowbox, hit the bags, you gotta be serious about your work, man
>
> As the work a boxer performs provides a means to measure a man's worth – in and out of the ring – and sense of self (Wacquant 2004, 41).

This elite athlete work ethic infiltrates all aspects of athletes' lives. The production of athletes as elite subjects not only influences their everyday training practices, routines and relationships, but also their professional roles and positions as iconic public figures within contemporary Australian society. Hughes *et al.* describes this application of work ethic to broader life as a "moralistic view of

work and its determination to rationalise all aspects of life" (Hughes *et al.* 2003, 96).

A significant similarity between the elite athlete work ethic reflected in my data, and the Protestant work ethic as described by Weber, is the moral evaluation of one's actions and one's being that results from 'judgement from without'. With each of these work ethics, a moral obligation and professional responsibility to pursue one's calling or occupational role brings a constant fear of judgement of one's conduct.

Elite athletes are viewed as having an important advantage over the rest of the population in being talented. However, what athletes *do* with that talent determines whether or not they will be perceived as elite athletes or as sporting hopefuls. Making the most of one's talent through hard work, dedication and resilience is glorified, whereas 'squandering' one's talents through misbehaviour and laziness is castigated. This moral critique is illustrated by the fact that athletes who 'do not realise their potential' are referred to as 'failures' and 'wasted talent'.

However, in addition to an athlete's innate and individual talent, my data exemplifies the role of multiple agents in producing athletes. Therefore, in contrast to the assumption that athletes' failures are their own doing, athletic failure has to be seen as a reflection of the wider system and the process of training and other agents involved. Wacquant agrees that athletes are a "quintessentially collective product" produced through practices that are transmitted and judged by a moral community (Wacquant 2004, 100).

Another example of the elite athlete work ethic is reflected in the normalisation and naturalisation of the 'elite athlete attitude' through training. This attitude is the vantage point from which athletes are trained to see the world. One coach's

speech showcases what is understood to constitute an elite athlete attitude, and how it informs elite athletes as subjects:

> Adopt an 'elite athlete attitude' to everything. See the world as a winner, from a champion's perspective. Make every day count. Make every day your masterpiece. Have purpose. Leave no stone unturned. Your body is your passport. Look after yourself. Dress warm. Get lots of sleep. Eat well. Make the most of massage and physio services. Come to every training session with a plan – a focal point to improve on and what you want to get out of the session. Have intention in your training. Adopt the same attitude when you're lifting weights too. You're here to work hard, stay focused and achieve. Adopt a 'FU' attitude. Think 'I'm here to win'. Be present. Bring presence into your game. Lift yourself and each other at every training. Don't just go through the motions. Don't be stagnant. Be a better player, a better athlete in four weeks' time. Durability is the key to success. If you can demonstrate being a consistent, healthy player who looks after themselves, their body, their relationships, their injuries and school then you will be a very successful, dependable player and teammate. That is the attitude that you need to adopt today to succeed.

This coach's speech was given to his team four weeks out from a major international competition. In this speech he conveys the multiple processes involved in training athletes to be elite, especially the impact of athletes' worldviews on their everyday practices to become elite subjects. He is suggesting that athletes must be mentally focused on their goals, compliant to necessary processes, competitive in pursuit of those goals and motivated by duty, morality and pursuit of success. Furthermore, this speech speaks to the influence of morality, positive values, self-surveillance and internalised obligations on athletes' daily practices and sporting performances in reconstituting athletes as distinctive subjects.

It also speaks to what other coaches have said: "train with respect: it is a sin not to do your best", "use every day wisely and train with heart", "train hard, it's your reputation on the line".

Shogan's work reinforces this view and she argues that:

> To succumb to the pressures of a contest and revert to old habits of performance is a mark of an undisciplined team or individual and to resort to actions of retaliation or aggression leading to penalisation… reflects a disgraceful lack of discipline (Shogan 1999, 18).

More than lack of discipline, poor behaviour reflects immorality contrary to an elite athlete work ethic and elite athlete attitude, and defies the values and practices that make an athlete an elite subject.

Cultural Beliefs around Time Producing Athletes

Closely linked with the moral concerns around uses of time and hard work, the elite athlete work ethic and disciplinary techniques around time use are deeply embedded into training rules. During interviews with coaches and while observing training sessions, I noticed these values being ingrained into athletes' awareness through a list of 'common things that piss coaches off'.

The list includes:

> 1) Lateness: athletes not being punctual is understood as selfish and disrespectful;
>
> 2) Procrastination: not acting on things straight away is creating future problems. Not immediately fixing problems reflects carelessness and exacerbates problems, causing strained relationships;
>
> 3) Disorganisation: there is too much to do and too much expected of athletes for them to be anything other than organised to perform well;
>
> 4) Not being 'in the moment', and consequently not giving best efforts: athletes must give their best efforts every time they train. One coach explained "as coaches we understand that [the outcome of] an athlete's best is variable, but it is vital for athletes to make their training and performance efforts valuable by consistently giving their best every training.

These rules reflect coaches' annoyance at misused, mismanaged and 'immoral' uses of time.

The morality infused in athletes' use of time results in athletes who are trained to embody a sense of anxiety, shame, embarrassment, guilt and fear (of being punished), if they are late or misuse time. Tardiness is pathologised as a sign of selfishness, laziness, disorganisation, indifference, disrespect and untrustworthiness. As a result, there is pressure to 'make the most' of one's own time as its use has connotations with negatively and positively valued behaviours. For instance, athletes must ask to go to the bathroom during training and they are expected to bathroom before and after training sessions in order to cause minimal disruption to team training. In this way time usage is surveyed in hierarchical observations and normalising judgements and is central in the creation of norms, knowledge and reconstitution of athletes as special subjects.

Distinction

My data suggests that for many athletes, defining oneself as an elite athlete reflects a socially accepted status as 'special', 'talented' and 'extraordinary' and is a means of gaining distinction from 'everyone else' and from 'ordinary people' within the 'general population'. For athletes who label themselves as elite, at the core of being regarded as distinct from the general population is a desire to be publicly acknowledged for their work ethic, and gain recognition for their commitment to, and continual engagement in, hard work and appropriate moral behaviour.

Hughes and Coakley (1991, 363) research supports my finding, and they suggest that "being an athlete means striving for distinction". Such distinction is often associated with an attempt to be faster, higher and stronger than one's competitors, and constantly improving, getting better, getting closer to perfection through one's impeccable competitive work ethic (Hughes and Coakley 1991, 363). Further to this Hughes and Coakley assert that "the validation of one's

identity as an athlete is primarily tied to one's immersion in the quest for distinction rather than gaining external rewards" (1991, 363). Through hard work and perpetuating the ideals of the elite athlete work ethic, athletes are produced as subjects distinguished from all other kinds of people. One athlete succinctly summarised to me how athletes' discipline makes them distinct from everyone else: "if it was easy then everyone would do it".

Commitment and Sacrifice

A central means of illustrating one's work ethic is through regimes of discipline and sacrifice. Hughes and Coakley argue that "being an elite athlete involves making sacrifices for one's sport" (1991, 361). They suggest that sacrifice is demonstrated through commitment such that sport is prioritised above all other aspects of one's life. Moreover they propose by "consistently do[ing] what is necessary to meet the demands of the team or the demands of the competition" athletes demonstrate their occupational discipline and personal (social and physical) sacrifice for their role (Hughes and Coakley 1991, 361). For example, Sands writes of an elite sprinter pumping up his squad before an important competition "You have to work hard to compete at this level. This is not high-school [or an amateur level competition]. If you aren't willing to sacrifice the time you are wasting not only your time, but my time as well" (Sands 1995, 2).

During my own fieldwork, the language of sacrifice occurred frequently. However, many athletes and coaches I interviewed rejected the term as they understood sacrifice to carry a negative connotation of 'giving up' or 'missing out' on things. Instead, these coaches and athletes preferred to conceptualise such behaviour in terms of more positive and productive concepts such as "commitment", "dedication" and "loyalty". Thus as one coach said: "*giving* their energy, effort and attention" towards what they understood to be important, "to

make improvements, *achieve* their goals and *gain* success". Athletes spoke of how their *commitment* reinforces their sense of self as elite athletes:

> Why wouldn't I train on Christmas Day? It gives me an edge. I keep up my routine, my fitness is unaffected and by maintaining my [disciplined] routine I ensure that I don't sit around over-indulging in food and alcohol. I'm not going to change who I am and what I need to do [to be an elite athlete] just because it's a public holiday.

This athlete's actions reflect an internalisation of the surveillance and judgement that I described earlier as central to the production of the elite athlete subject.

AIS athletes who conceptualise commitment, dedication and loyalty as central to their training ethic assert an empowerment and agency in their decision making. For instance, one athlete said to me:

> No one has forced me to play sport or become an athlete. It's my choice. I want to be here and doing this – just ask my coach, doctor or my mum, it's harder for me *not* to train!
>
> So what I can't lay around eating cheese all day and drink a bottle of wine with every meal each night. I wouldn't want to be doing that anyway! All those parties I've left early, or haven't been to at all, just don't compare with how good it feels to feel good; making PBs [personal bests]; standing up on the podium and representing your country and being successful [in competition] against the best athletes in the world. Yeah it's bloody hard work, but it's worth it. I wouldn't trade all the hard work, if it meant trading that feeling.

Amidst the professional responsibility (sacrifices or acts of commitment, dedication and loyalty) that this athlete experienced, she assured me "if I didn't enjoy it I wouldn't do it". While these forms of discipline are required within her role as an athlete, she nevertheless also experiences them as a choice.

Despite the occupational responsibilities of adhering to the regimented schedules, strict diets and limited social lives inherent in elite athletes' work, most athletes acknowledge that they find their work deeply enjoyable, personally satisfying and professionally fulfilling. One track athlete succinctly summed this

up, "after London I don't see why there would be any reason for me to stop running, I mean, I have the best office in the world". Professional duty is thus experienced via a narrative emphasising agency, responsibility, satisfaction and pleasure. Ultimately, in demonstrating commitment and dedication – through, for instance, choosing to go to bed early each night, avoiding calorie-dense low-nutrient foods and putting their training schedules before family functions and social gatherings – athletes reinforce their social and self-reconstitution as athletes and prioritise training, and the duties involved, above other aspects of their lives.

However not all athletes' experiences of commitment are viewed positively. There are many times when athletes see the sacrifices involved in elite sport as a challenge. For instance, some athletes I interviewed spoke of frustrations at missing funerals, weddings, university graduations, exams, birthday parties, christenings and Christmases due to training camps, competition and travelling. Thing and Ronglan (2015) examine athletes' biographical confessions and discuss the intersection between stress from the sacrifices demanded in sport and disappointment over performances – sometimes leading to the consideration of taking performance-enhancing drugs. Other literature explores the impact on athletes' work and life balance[115] and health[116] as a result of the sacrifices they make to assist their sporting performance and is discussed below.

Wacquant (2004, 15) describes the sacrifices required through boxing training practices as akin to "monastic devotion… The monastic, even penitential, character of the pugilistic "programme of life" turns the individual into his own

[115] For example, body builders becoming obsessive and sacrifice other aspects of their life for sporting goals (Frank 2012; Monahan 2011).
[116] For example, athletes sacrificing health for performance and developing eating disorders (Jones, Glintmeyer, and McKenzie 2005).

arena of challenge and invites him to discover himself, better yet to produce himself".

Taking Risks and Experiencing Pain

Another element of the production of athletes as subjects through normalising the elite athlete work ethic, is that "being an athlete involves accepting risks and playing through pain" (Hughes and Coakley 1991, 363). Part of this acceptance of risk involves what is referred to by many service providers as: 'living on a knife edge'. This expression is frequently used to describe the conundrum many athletes face whereby they are situated in a paradox of health and performance in which they may be 'fit, but not healthy' (as discussed in Chapter Three). To be 'fit, but not healthy' is to be capable of short term performance goals, but unable to maintain one's physique or workload without injury, illness and disruption to health in the long term (Mitchell 2014).

Hughes and Coakley's research suggests that a 'real athlete' "does not give in to pressure, pain or fear" (1991, 363). It is taken as a sign of dedication and moral courage to persevere through extreme physical stress and psychological and social pressure and "play on" (Hughes and Coakley 1991, 363). Chronicling a year in his life as a footballer Nelson writes "injuries are a player's way of life" (Nelson 1996, 246). The centrality of pain and perseverance to elite athletes' sporting performance epitomises athletes' commitment, work ethic and obedience to disciplinary regimes.

Coaches often reiterate to their athletes that central to their training is "learning to become comfortable with the uncomfortable". Learning to maintain focus and perform through sickness and injury is crucial to becoming comfortable with pain and discomfort. Key to being reconstituted as an elite athlete and developing this aspect of their elite athlete work ethic, is the skill of masking pain and discomfort

from one's opponents. A crucial component of athletes' training is developing the ability to distinguish acute injury from general discomfort and soreness that typically arises during or after training (which I elaborate further below) through bodily awareness is a crucial component of training. In sport, this technique of compartmentalising or ignoring one's own physical discomfort for the benefit of sporting performance is typically referred to as 'handling adversity' or 'coping with adversity', and is positively valued behaviour central to one's embodied and subjective knowledge as an elite athlete.

During my fieldwork, athletes and coaches alike explained that one of the ultimate demonstrations of the elite athlete work ethic is to train and compete through pain and discomfort. One coach explained to me that gruelling fitness training and penalty practices are a "rite of passage" for elite athletes. In these instances, athletes not only 'develop a good work ethic', but also learn the standard of training required to become elite and the type of subjectivity required to make the top. She said:

When athletes do these types of tough training they prove to themselves, and their teammates, that they can 'run through the fire' and they come out the other side mentally tougher, more emotionally resilient and aware of their physical capabilities. They know that they can push beyond what they thought was their limit.

Another coach agreed:

> Penalty practices are part of the job… if they can't handle it [discomfort] here [at training] they won't handle it out there [in competition], when it counts.

Training through discomfort, exhaustion and mentally challenging sessions cements an athlete's status as "having what it takes" and "being made of the right stuff" (Wolfe 2005). It displays what Lyman and Scott refer to as a "coolness"

(Lyman and Scott 1968, 145) and Goffman refers to as "composure" (Goffman 1967, 222-223): an air of ease and grace whilst conducting hard work, and repeating and improving performance.

One former track and field athlete, turned coach, recounted his experiences of training though pain:

> The first time I trained with my coach I'd just come off my off-season and hadn't trained hard for a while. He wanted ten lots of four-hundred-meter sprints. I wasn't gonna give in – but damn it was hard! The last few laps were painful, slow – I was cactus. I ran, spewed and ran some more, until I finished. I had to show him that I could handle it and was prepared to put in the work to improve. But bloody hell, I didn't want him to know that that session almost broke me.

Training is about developing working habits and pushing through fatigue. As one coach said "people's true colours show when they fail, when they are sore, stressed, fatigued, in pain or injured". That is why training is concerned with forging new patterns of behaviour and ways of thinking so that the habituated state, the autopilot of the habitus, endorses strength, resilience and 'pushing through'.[117]

In light of Foucault's conception of morality, athletes learn that 'giving up' is forbidden, and examples such as "lay down Sally"[118] from Australia's 2004 Athens Olympic rowing team achieve mythical status as archetypes of 'poor behaviour' (Coakley *et al.* 2009, 173). Instead, pushing through discomfort, pain and

[117] This element of 'pushing through', 'toughness', 'resilience' and 'handing adversity' is also reflected in social science literature examining soldiers and military training (Gill 1997).

[118] Throughout the international media coverage of the 2004 Olympics in Athens footage was repeatedly displayed of an Australian rower, Sally Robbins, laying back, oar out of the water, as the rest of the women's rowing eight frantically tried to finish the race as the boat neared the finish line. "Sally Robbins' actions that day would have her widely known in the sporting world as 'Lay Down Sally'" (Coakley *et al.* 2009, 173). The fall out of this event involved punch-ups between teammates, angry press conferences and media headlines that referred to Sally as a "quitter" and "almost un-Australian" (Coakley *et al.* 2009, 173). This example illustrates the hierarchical observation and normalising judgements entrenched in sporting performances (by teammates, sports commentators, media commentators and spectators) and how these performances are believed to reflect more than just one's actions, but reveal one's morality and true character.

adversity are positively valued, and normalised and naturalised into athletes' behaviour through the repetitive practice of training.[119]

Regular medical checkups are fundamental to the process of training athletes to maintain health and safety standards in elite sport and assist with athletes' bodily awareness in distinguishing between injury and discomfort. In elite sport generally, and at the AIS, doctors medically assess athletes' health and fitness before competition and provide an 'all clear' before they can compete. Medical professionals will not allow athletes to compete if they are unfit to perform or if further performance would exacerbate existing injuries. Athletes are expected to push themselves hard, but also to follow service providers' advice: "don't be stupid", make sure that they are "conscious of the difference between soreness and pain, pain and injury", and "be honest and be open about how much pain you're in, so the problem can be fixed early". Athletes must be responsible for making decisions, but also for following instructions. Both athletes and service providers are critical of athletes who do not follow medical advice, as doing so is seen as a breach of contract.

Some athletes minimise or do not report their experiences of soreness, tightness or injury. This may be due to contractual agreements and financial incentives, 'saving face', not wanting to miss out on a major competition or opportunity for glory, or their work ethic and sense of duty. Some athletes lie about how they became injured when they are ashamed to admit that it occurred because they were doing something they were not supposed to be doing, such as skateboarding, getting drunk or using recreational drugs, partying, or getting into fights. The message I observed service providers repeatedly drilling into athletes is "be

[119] For more literature that examines pain in athletes' training and constitution of moral subjects, see Spencer 2009; Allen-Collinson and Hockey 2001; Downey 2007.

honest and be open… we can only help you as long as we know what is really going on". Thus, a tension exists between athletes' duty to 'play on', and athletes' responsibility to report any symptoms they experience or actions they have taken which may impede their ability to perform. For this reason service provides stress to athletes that they must be judicious in the choices they make both in everyday life and when it comes to performance to enable them to 'play on' in the present and perform in the future.

Challenging Limits

Another component of the elite athlete work ethic that is crucial in athletes' subject production involves what Hughes and Coakley describe as a refusal "to accept limits in the pursuit of possibilities" (1991, 363). It is believed that if one puts in the work, anything is possible. Time and again athletes related to me experiences of injuries, accidents, disappointments and rejections that they had endured, and outlined the "resilience" and "perseverance despite adversity" that had motivated them to work harder to succeed "next time". The saying 'what doesn't kill me makes me stronger' was often used by athletes to demonstrate that the pursuit of excellence is crucial to training and glorified as a positively valued behaviour.

Many athletes described their "pig-headedness" and "stubbornness" as "desirable traits in elite sport" that assisted their determination to train hard, persevere and remain dedicated to their goals. "You've got to have a bit of mongrel in you to win" one athlete offered. Another concurred, "you've gotta have some serious grit and determination to begin with, and over years of training develop even more to help you succeed".

Many service providers reinforced the view that success requires a refusal to quit.

For example, one service provider told me:

> It's almost a necessary requirement that elite athletes are a bit delusional and have a sense of self grandeur to even compete, or believe that they can compete, on an international level. Think about it, they honestly believe that they can be the fastest man or woman in the world. It's not *just* about self-confidence; it's a whole different mindset. Good on 'em, the rest of us don't back ourselves, or put in the hours, like they do. Probably because we don't have the same self-confidence – deluded or not.

Hughes and Coakley suggest that within elite sport it is not only socially accepted, but actively reinforced, that "anything is possible *if* one lives by the… ethic" as 'real athletes' "do not accept any situation without trying to change it, overcome it or turn the scales" (1991, 363 emphasis in the original). For this reason "true athletes are obligated to believe in *the attempt* to pursue success" and pursue dreams without reservation (Hughes and Coakley 1991, 363 emphasis in the original). Coaches and other service providers reinforce to athletes that with the right mindset, self-belief, commitment and resilience, athletes *should be* able to achieve their goals.[120] If athletes' perceptions of fear and failure are impeding their attempts to succeed, pep talks, therapy and technology are used to turn their perceptions around, improve their performance and positively impact on their achievements (Hughes and Coakley 1991, 363).

Motivations vary between athletes. For some, the reputation of being 'world champion' or 'world record holder' is important. Other athletes told me that their sporting endeavours are a personal pursuit completely separate from public recognition and fame and, instead, that they aim to test their limits and achieve individual goals. Regardless of their motivations or of how humble athletes may be about their achievements, the elevated status of elite sport in Australia and

[120] Lupton (2012) writes about how the terms 'should' and 'ought to' are morally infused sentiments and in this instance, Lupton is correct. These coaches' words are laden with moral judgement of athletes' actions.

western societies more generally means that elite athletes' successes leave a legacy in sporting history. This is key to understanding their subjectivity as elite athletes.

Chapter Five: Time as a Disciplinary Technique of Training

> Time has something to do not only with clocks or timing but also with the sequential ordering of priorities. It further relates to irreversible changes, records and identity, to both cyclical and linear processes and last, but not least, it is used and controlled as a resource (Adam 1995, 15).

Throughout this thesis I argue that training is a power-laden process that is driven by specialists. In this chapter I focus on the ways in which various service providers use time to bring athletes under their control and to produce subjects who have a particular elite athlete habitus – one with culturally specific knowledge of temporally adjusted training.

This chapter is divided into three parts. The first part explores time in sport generally, the second part examines the time-scape of the AIS specifically, and the final part investigates the temporal production of AIS athletes through service providers' micro-regimes of training. To support my examination of time as a disciplinary technique of training, throughout this chapter I contextualise how time is used and perceived in elite sport, in particular the AIS time-scape. I argue that the AIS time-scape combines cyclical time, the culturally (elite sport) specific conception of seasonal time, and Western perceptions of linear time. Seasonal timing informs which training goals, daily practices, bodily ideals and athletic performances are prioritised, as these elements fluctuate in line with each sports season.

Part One: Time in Sport

Social researchers working in the literature concerning sporting bodies, including Allen-Collinson (2003), Smith (2002) and Eichberg (2002), discuss a culturally particular concept and experience of time that is normalised within sport through training practices and embodied by athletes as 'natural'. These authors agree that time is central to sport and, in turn, crucial to the production of athletes. Adam (1995) notes that time is the most commonly used noun in the English language; it infiltrates our colloquialisms and perceptual framings of events. For instance: opening-time; closing time; play-time; show time; good times; time flies; time takes its toll; hard-times and tough-times; easy times; spare time; free time and leisure time (Adam 1995, 19).

Time language also reflects evaluations of behaviour and people, through moral lenses, for example: 'good and productive use of time'; 'lazy time' and 'waste of time' (as discussed in Chapter Four). With this in mind, it is unsurprising that the specificity of an athlete's time is reflected through culturally-nuanced time terminology and time metaphors that are pervasive throughout sporting practice and vernacular. For example, time-in, time-out, timed-out, over-time, extra-time, time in the sin-bin, injury-time, game-time and shot-clock-time are all common terms (Allen Collinson 2003, 3). The value of time in sport is illustrated through this myriad of linguistic references, and the languaging of time (Smith 2002) reveals the entrenchment of time in sporting norms and ideals.

Another indication of the importance of time in sport is the use of time in structuring competitions and forming sporting rules and regulations. In basketball, for instance, the team that scores the most points within the specified competition length of forty minutes of play (as recorded by time keepers and referees) is deemed the winner. During game-time the offensive team has eight

seconds to make the ball travel over the half-court line and twenty-four seconds to shoot a basket, otherwise it will violate the rules, and the defensive team will gain possession. Other rules based on time in basketball stipulate that players cannot take longer than three-seconds to pass the ball from outside of the court into play, or stand still in the key (the marked section of the court surrounding the basket) for more than three-seconds, otherwise game-time will be stopped and offence will be granted to the opposing team.

In basketball, time creates parameters, drives strategies in play and is controlled by people in positions of power (referees and time keepers). It is accepted that game-time is a finite resource – time cannot be ignored as the clock is objective and the end of game-time is absolute and indisputable. Thus constant presence of time is a boundary of sporting activity and a determinant of performance.

Indeed in many other sports besides basketball, the significance of time in sport is seen in its application as a determining factor in who wins. Within many sports, the fastest time recorded of an activity over a pre-set distance determines the winner of a competition. This 'fastest time' refers to an athlete (or team of athletes) travelling, via a predetermined mode of movement, over a specified distance.

Time also provides an objective marker to compare one's current performance against previous ones, as well as the performance of others. Smith notes, "Sport measures human progress through constant improvement in records" (Smith 2002, 346). A 'personal best'[121] (PB) records an individual's fastest movement travelled over a particular distance, the furthest distance travelled in a set time, or the highest number of repetitions of an exercise within a particular time period,

[121] Known as 'PBs' in Australia or within North American contexts 'Personal Records' or PRs.

either in training or competition. PBs reflect the tracking, recording and categorising of performance improvement in time, capturing a snapshot of information to generate training plans and future performance goals: athletes are trained to attend to time as a marker of achievement.

Time serves to conjure competitiveness within and between athletes to motivate performance improvements, and affects athletes' lived experiences as athletic subjects. One method used by coaches for instilling the importance of time into athletes, is to simulate the pressure of competition in training drills by utilising short timeframes with the clock counting down to zero at which point a buzzer blasts or siren rings and time is 'up'. Whether it is a matter of beating other athletes' times or merely a 'race against the clock', Smith (2002) maintains that time is used as a marker of performance, categorising success or failure, which, in turn, serves to mark athletes.

Similarly, Sands (1999) suggests the measurement of time is used to classify athletes into categories associated with high-performance times and speed. For instance, iconic 'time as marker of self' examples include world record holding performances, such as 'the four-minute mile', or the male world record one-hundred-metre runner who is commonly dubbed by the press as 'the world's fastest man'. Likewise, being a 'sub two-hours and five-minute' marathon runner; 'sub ten-second' one-hundred-metre runner; or 'sub fifteen-minute' fifteen-hundred-metre freestyle swimmer are examples of athletes being categorised in relation to their performances with reference to time. Allen-Collinson demonstrates this categorisation of athletic subjectivity in her description of herself and her running partner: "Time marked us and we marked ourselves with its passage" (Allen-Collinson 2003, 11).

In line with the work by Allen-Collinson (2003), Smith (2002) and Sands (1999), I argue that in addition to organising, categorising and marking athletes, time is embodied by them. Time is interwoven into their habitus; it permeates their daily lives and lived experiences through temporal micro-regimes to such an extent that athletes become their times and personify temporal manifestations of training (Allen-Collinson 2003).

Part Two: AIS Time-scape

Extrapolating from Erben's (1998) research on a Western perspective of time, and Phoenix, Smith, and Sparkes' (2007b) analysis of time in sport, my own findings suggest that time permeates every element of athletes' lives. It organises their daily practices and bodily rhythms and it informs disciplinary techniques that sculpt their bodies. Consequently, their lives and production as distinct subjects are understood through the lens of time. To examine how time plays a role in elite athletes being crafted into elite subjects and their embodiment of peak performance, it is necessary to explore perceptions and concepts of time within elite sport. In this section I discuss the multiple modes of time that exist within the AIS time-scape, and how athletes embody these temporal techniques of time and seasonal realities as processes of training.

The temporal training of athletes includes training athletic bodies in response to seasonal timing. This process of seasonal training begins the moment athletes commence their elite sport training at the AIS. Athletes immediately have to incorporate the institution's time-scape into their daily practices and this process is transformative of their habitus to become elite. The AIS time-scape is complex as it incorporates multiple concepts and experiences of time, including cyclical and seasonal sport timing that are intertwined with rigid concepts of linear time as well as moral judgements on the use of one's 'own time'. Athletes are trained

to structure and embody their daily practices in accordance with these cyclical, seasonal, linear and morally-infused realities of time. These non-exhaustive categories of time are not discrete but for analytical purposes it is useful to portray them separately.

Linear Time

The form of time most commonly associated with sport is linear time. Western perceptions of linear time refer to a fixed passage of time represented by calendar and clock time measured in units of seconds, minutes, days, months, years that moves in a unidirectional manner (Munn 1992). Within Western societies linear time is understood to be connected to astronomical processes and believed to be universal, objective and constant (Munn 1992; Allen Collinson 2003).[122] Linear time is associated with values of progress, and forms the basis of mathematical formulae that relate to space or distance and speed (for example, kilometres per hour, and metres per minute). The concept of speed within linear time is connected to Western capitalist values, akin to values within the elite athlete work ethic of efficiency, efficacy, productivity and progress.

Within the culture of the AIS these sentiments of linear time are naturalised, taken-for-granted and reinforced within social interactions. There is often a sense among coaches and athletes that they are 'working against time' to train athletes to improve, prepare, get fit and progress towards a timed physical-peak in order

[122] Early sociological analyses of time conducted by Sorokin and Merton (1937) revealed linear time to be a Western construct rather than an objective truth. Sorokin and Merton's research was the first to demonstrate cross-cultural variations in the understanding of linear time through highlighting differences in the number of days that are understood to constitute a 'week'. Their research indicates that cross-culturally a common element providing structure to the concept of 'a week of time' is not astronomy; instead they argue that a 'week of time' is conceptualised by the social system surrounding the practice of the market in a culture. Therefore, they demonstrate that time, and in particular conceptual understandings and experiences of linear passages of time, is not universal. Sorokin and Merton state that linear time, which is usually taken-for-granted as objective, quantified and pre-existing outside of sociality, is actually socially organised in relation to contextual cultural values, purposes and functions of a social group.

to compete. With this sense of time 'marching on' comes the pressure and frustration of coaches and athletes working to align linear time and sporting seasonal time (discussed below) with the intricate physiological timings of trained seasonal athletes.

Utilising the taken-for-granted concept of linear time, sport studies literature repeatedly emphasises themes of 'hard work' (as discussed in Chapter Four) and the importance of 'doing the time' and 'putting in the hours' to train for sporting success (Ericsson, Krampe, and Tesch-Romer 1993). Ericsson's aforementioned deliberate practice theory (as discussed in Chapter One) asserts that ten-thousand hours is the minimum quantity of time it takes to develop expertise. Whether one is training to develop expertise in playing chess, a musical instrument or sport, these ten-thousand hours (of linear time) must consist of training in a deliberate manner and treating the activity as work in order to achieve this expertise. Coaches and other service providers reference Ericsson's theory in staff meetings and athletes' consultations, emphasising the finite time athletes have to improve, perform and develop mastery. Furthermore, coaches stress that it is preferable for these ten-thousand hours of deliberate practice to be completed before an athlete turns eighteen years of age, contributing to a sense of urgency in the timing of training.

Another reason why time is significant in sport is because of the finitude of athletes' participation in competition. Few sports enable athletes to compete, at an elite level, over the course of a lifetime. The majority of athletes have to retire from high-performance sport at a young age relative to other professions as their aged bodies do not enable them to compete with the same strength, speed or quick recovery as in their youth. This creates an urgency to achieve in the present while still youthful and physically resilient, as there is a strong perception

(informed by broader Western cultural values about ageing) that the aged body is a declined, immobile body with reduced fitness, strength, flexibility, freedom and increased pain, soreness and dependence on medical experts (Phoenix, Smith, and Sparkes 2007).

Linking to stereotypes of aged bodies and reinforcing the 'power of youth' sentiment, Phoenix, Smith and Sparkes's (2007) research illustrates some athletes' perceive of time as 'controllable'. These athletes believe that they have to make the most out of their time to achieve their goals because they are key agents in their own present and future narratives, lived experiences and temporal realities. Phoenix, Smith and Sparkes's data suggest that athletes' futures (including the maximising of their potential: their career peak) are always framed from the standpoint of being 'yet to be realised' as if it is simply a matter of determining this reality via one's own efforts. This viewpoint incites an urgency to maximise time; to take advantage of one's youth, good health, ability to perform and training opportunities before one's performance is impacted by age (Phoenix, Smith, and Sparkes 2007, 238).

Morality and 'Own time'

I argue that training athletes to perform well involves more than a quantitative measurement of time or the repetition of skills over time. Instead, I claim that developing athletes' expertise requires synthesising interlinked qualitative processes – including their embodiment of temporal training and the disciplinary techniques of time. The disciplinary technique of training occurs not only through sports practice and performance, but also during one's 'own time'.

I use 'own time' to discuss passages of time that lie outside the athlete's training, school and work schedules. Athletes' own time is 'free time' or 'spare time'; 'down

time' that athletes have agency to use, fill or waste at their own discretion. This time may be defined by the boundaries of linear clock-time, however it is often framed by informal routines: time as constituted in the unfolding of activities, such as bed time, nap time, dinner time, time to call mum (Munn 1992, 96). Through training, athletes are not only taught to develop, but also trained to embody culturally specific skills, values, beliefs and realities. The consequence of the embodied learning from training is that practices carry over outside the cultural sphere of sport and practice time into personal lives and social spheres beyond sport.

Athlete's own time is subject to moral judgement by coaches, service providers and other athletes within the AIS time-scape, because of the athletes' agency in controlling, organising and utilising these flexible passages of time. This judgement links back to the values of the elite athlete work ethic (as discussed in Chapter Four): the cultural conception of the importance of productivity and 'progress at all times', combined with the perception of time as a finite resource that should not be wasted, because wasting time is understood to be sinful and immoral.

Embedded in the trained elite athlete work ethic is the assertion that how one spends one's time directly reflects the kind of person one is: the morality of one's behaviour and the discipline of one's character. Actions that are perceived to be unproductive, inefficient and lacking functionality are conceptualised as immoral, a waste of time and impeding one's capacity to succeed, and reflect poorly on the person. The insidious moral evaluations attached to individuals' actions and use of time, and consequently to individuals themselves, portray the embedded morality within elite sport. Accordingly, the elite athlete work ethic debunks the notion of 'own time' – it reveals that athletes are never truly 'off the

clock' as they cannot detach from their bodies or escape passages of time that have moral connotations and embodied responsibilities. Thus for athletes, time as a technique of power transverses temporal contexts and social spheres/fields. Athletes' own time bleeds into their athletic time as activities or practices that they engage in (whether privately or socially) and are embodied and carry over into training. For example, athletes who stay up late or consume large quantities of alcohol or fatty foods during their own time will be affected in a bodily sense – for instance, feeling fatigued, hung-over, unwell and lethargic – during the temporal field of training: one athlete described to me the notion of "time going over the edges".

Fundamental to elite athletes' everyday practices is their time-commitment to the scheduled formal activities and informally scheduled training activities. AIS athletes train a minimum of twenty-five hours a week. Although this amount of time does not equate to a typical 'full time' job, those hours refer only to the formally scheduled practices athletes engage in and do not include all of the time spent performing practices outside of formal training to which athletes are expected to commit. For the majority of AIS athletes, their sports training is their primary occupation, and part-time work and/or education commitments fit around their sporting commitments. However, even athletes who balance full-time or part-time study and/or work with their training requirements commonly discuss their status as an elite athlete as the primary marker of their subjectivity. Thus, in labelling oneself as 'an athlete', and defining oneself through one's particular sport ('I am a runner or swimmer or basketball player'), athletes are not only declaring their occupational role, but — based on their dedication to sport — they are also defining their status as a type of subject and their primary

social role. Marking themselves with this label conveys to others that being an athlete is central to their self-perception.

Elite athletes commonly experience an elasticity of training time, whereby 'time goes over the edges' whereby for every chunk of time athletes spend in formal training sessions they must also commit several chunks of time in informal processes of training. In this way their temporal practices of training are all encompassing, touching on almost every domain of their lives – including their eating habits, their sleep routines and even their social lives – to the extent that over-compliance and 'over-conformity' to training can become a negative issue for some athletes.[123] For example, if an elite athlete's afternoon training session begins at 4.00pm and finishes at 6.30pm, the duties around those set temporal parameters pervade into the other activities in his or her life. The athlete will be careful to eat appropriate portions and nutritional foods to suit his or her training needs at lunch, and possibly a pre-training snack in the hours leading up to 4.00pm. He or she must arrive fifteen to thirty-minutes before training officially begins to warm up, stretch and (depending on the sport) run through practice drills or 'pre-habilitation' exercises. For example, for swimmers, pre-training warm up involves stretching and abdominal strength exercises, for rowers it involves cycling to training before they get into the boat, and for basketballers dynamic stretching, skipping and shooting hoops. In addition to physically warming up athletes, this pre-training time also allows them an opportunity to mentally 'psyche up' and get into the appropriate mindset and emotional disposition for training. Then, after training, a regime of rituals will be carried out – eating a recovery snack or meal, performing a hydrotherapy recovery

[123] Hughes and Coakley (1991) discuss positive deviance and over-conformity among athletes, whereby being 'too diligent' can lead to issues such as eating disorders, fatigue and injury.

training session, stretching, performing cool-down mobility exercises and wearing compression garments[124].

Thus athletes' time is laden with responsibility, accountability and pressure to achieve, and is narrated as dependent on their agency to either make things happen or allow things to fail. However, analysis of my data complicates this notion of success as a by-product purely of individual athlete responsibility and actions. Assessment of the production of elite athletes reveals the roles of multiple agents in monitoring, measuring and controlling athletes' time and, subsequently, the shared responsibility, accountability and success of athletes' training and sporting performance.

Cyclical Time

Cyclical time is important within the AIS and comes in a multitude of forms within the institution's cultural time-scape. Cyclical time refers to the many rhythmic, repetitive forms of time that occur on a daily, weekly, monthly, season, annual basis. At the AIS, elements of daily life that involve cyclical time include meal times, bed times and training times. The majority of athletes wake up, attend training sessions and eat their meals in the dining hall at the same time each day. These rhythmic times, and experiences of cyclical time, encourage stable rhythmic physiological timings including: circadian rhythms which inform sleep, hunger, bowel movements, and elevations of stress hormones and depletion in energy over a day. Menstrual cycles among female athletes over the course of a month are another example of rhythmic physiological timings (Rowland 2011). These physiological cyclical rhythms are biological processes;

[124] Compression garments look like lycra or spandex leggings and long sleeve tops (or high-tech thermal underwear) and the purpose of wearing them is to promote blood circulation within the body to increase oxygen delivery to muscles to reduce lactic acid build up. In layman's terms, compression garments are designed to reduce muscular soreness so that an athlete will be able to perform again at a high level with reduced muscle pain caused from heavy training sessions and DOMS (delayed onset muscle soreness).

however, they can be retrained through sociality and temporal routines. Therefore, one's personal cyclical timings can become socialised to synchronise with those of others.

Through training, athletes' biological cyclical timing is synchronised with the competitive season of their sport and time-scape of the AIS. For instance, athletes' circadian rhythms are trained to synchronise with their new timetables which stimulate them to wake at approximately the same time each day, experience hunger at the same time each day, and defecate at the same time each day. For female athletes the proximity they share with their teammates through the routines of training often causes menstrual synchronisation.

Social Production of Sports Seasons and Seasonal Timing in Sport

One of the most significant cyclical timings in sport is the sports season. Athletes undergo different forms of athletic training each sports season which emphasise appropriate skills, fitness and techniques. Below I canvass the social creation of sports seasons and the malleability of these boundaries.

The seasons of sport are socially created. National and international sporting organisations determine their national and international competition season years in advance. For example, when China hosted the 2008 Olympic Games in Beijing, the date eighth of August 2008 (08-08-08) was selected as the commencement date and opening time of 8:08pm as eight is a culturally auspicious number (Newman 2008). When the Olympic Games were held in Sydney, Australia, in 2000 they began as late as possible, the fifteenth of September, to increase the likelihood of warm and sunny weather. There are elements of time over which coaches and athletes have no control, including the duration of competitive seasons and length of competition (a basketball game is

always forty minutes long). However, elasticity of time exists whereby forty-minutes of game time corresponds to usually over ninety-minutes of 'real' (linear) time, once time-outs, quarter-time and half-time are taken into consideration. There are other elements of time that are highly controlled in elite sport. As I demonstrate below, athletes' weekly schedules provide a clear example of highly controlled time, predetermined by experts (coaches and other service providers).

Coaches use competition seasons to map the annual schedule for their athletes' training sessions. Training goals and activities are different across the seasons and, therefore, athletic seasonality impacts on the way time is understood and experienced in the sphere of the AIS time-scape. Likewise, other service providers plan their training, treatment and monitoring of athletes around the timing of the competitive season. The seasons are often unequal in length, and may slightly change from one year to the next in relation to the calendar year. Many areas of athletes' life and priorities are informed by the seasonality of training. For example, home-leave[125] from training is allocated during certain times of the season.

On a broader scale, the seasonality of elite sport informs the wider Australian population. The influence of sport in Australian society is reflected in the ways in which it is entwined in annual calendric celebrations. Second only to the Christian calendar, sport marks other momentous annual events and public holidays represented in the Australian societal calendar. For example, the Boxing Day holiday in Australia is also marked by Boxing Day cricket[126] and Boxing Day

[125] 'Home leave' refers to a period of training leave in which athletes are allowed to depart the AIS and training regimes to travel (usually interstate) to go home and be with their families.

[126] The Boxing Day test match is a cricket game at the Melbourne Cricket Ground. The game is between the Australian National cricket team and other national teams touring Australia. The match starts on Boxing Day and may last up to five days.

Sydney to Hobart yacht race[127]; a commemorative day for Australian and New Zealand Army Corps (ANZAC Day)[128] and the Queen's Birthday public holiday are both marked by novelty Australian Football League games[129] and, finally, the Melbourne Cup[130] is a horse racing event in Australia which has its own public holiday 'Race Day'/ 'Melbourne Cup Day'.

The Importance of Cyclical Time in Sport

Seasonal time is an important and influential element of cyclical time in the AIS time-scape, and is fundamental to elite athletes' temporal training and production. Once athletes start training at the AIS they must reorient themselves to the particular temporal life of the AIS time-scape. In this section I discuss seasonal timing and how, through training, athletes are taught to recognise several different rhythms of time which relate to the different parts of the season: pre-season, mid-season and post-season. The seasonality of sporting activity is one of the most important conceptual elements of the elite athletic world. Time is ordered and punctuated around specific seasons, and specific functions and performance of the physical body must be produced for each kind of time. As is the case with any kind of seasonally dependent work, different kinds of activities

[127] Another important sporting event that starts on Boxing Day is the Sydney to Hobart yacht race. This is also known as the Bluewater Classic and covers a distance of six-hundred-and-thirty nautical miles between Sydney Harbour and Hobart on the island of Tasmania. Traditionally, it took about six days for the yachts to reach Hobart, but now the fastest yacht usually reaches the finish in less than two days.

[128] The 'Anzac Day clash' is an annual Australian Rules football match between Australian Football League (AFL) teams Collingwood and Essendon, held on Anzac Day (the twenty-fifth of April) at the Melbourne Cricket Ground.

[129] The league clash held on the Queen's Birthday Holiday at the Melbourne Cricket Ground (MCG) is an annual Australian Rules football match between Australian Football League (AFL) teams Melbourne and Collingwood.

[130] The Melbourne Cup is Australia's major thoroughbred horse race. Marketed as 'the race that stops a nation', it is a three-thousand and-two-hundred metre race for racehorses aged three-years-old and over. It is the richest 'two-mile' handicap in the world, and one of the richest turf races. Conducted by the Victoria Racing Club on the Flemington Racecourse in Melbourne, Victoria, the event starts at 3pm (daylight saving time) on the first Tuesday in November and is a public holiday in some states in Australia.

are called for in each season and, in the case of elite athletes, different kinds of bodies must be produced to be fit for those seasons.

The task of specialists is to instil in athletes the temporal concepts pertaining to seasonality and to link those with physical attributes to produce elite athletes who understand, recognise and are fit for the season's purpose. Here, I argue that insofar as temporal training is concerned, the elite athlete is not subject solely to linear notions of time, constantly striving towards an ultimate peak of physical fitness or prowess, even as she or he strives towards the ultimate goal of peak performance. Instead, in the AIS training context, the athlete is temporally sensitive, fit for the purpose of the season. The trained elite athlete is not simply produced and then maintained as athletes' bodies, or their fitness, are not one single physical outcome. Rather, an athlete's body is a complex entity that is time-sensitive; knowing when to produce the required version of the trained body for particular kinds of calendric events is a hallmark of the trained athlete.

Having the right body at the right time is one indicator of the properly trained elite athlete. Therefore, developing an athlete's body is an ongoing process as their bodies are intentionally produced to be shifting, rather than stable, entities. Training elite athletes, as discussed in Chapter Three, is often confused with the practice and goals of working-out in which the aim, typically, is to maintain a single, stable body. In contrast, elite athletes are trained to continually physically adapt and physiologically transform across the sporting seasons for the purpose of improvement and better performance. In the context of elite sport, performance is of utmost value; winning is the goal of performance and producing a trained athlete is the action required to reach this goal. Training athletes to improve their performance requires athletes changing and

acclimatising their bodies depending on the contextual timing of their competitive sporting season.[131]

This trained variation in an athlete's body is calculated by coaches and service providers through sports science and biomedical knowledge to produce what I refer to as an athlete's temporally trained body: a seasonally contingent body (discussed further in the next section). A temporally trained athlete embodies the scheduling of linear time that coaches impose and physically transforms to suit the particular needs of each part of the season in relation to the timing of competition in their sport. The temporally trained body is in flux over the sports' seasons to improve sporting performance and create the right body for the right time of the season. The 'right body' is the trained body at its 'peak': a culmination of social, physiological and conceptual processes reaching a desired level of maximal fitness, skill and sporting expertise intertwined through an athlete's sporting embodiment. The 'right time' is during the competitive season and, in particular, in synchronicity with the timing of important competitions. Athletes' temporally trained bodies exemplify the use of time as a paramount conceptual method – which links conceptual, social and physiological processes – by coaches and service providers in order to produce elite athletes.

In analysing time as a process inherent in training athletes I challenge the common-sense understandings of athletes' training, and perceptions of time as monolithic, linear and universal. Furthermore, I disrupt common beliefs that fit bodies are stable entities that are maintained over time through constant use of

[131] Sporting seasons are different for each sport. For instance, team sports typically have longer competitive seasons than individual sports and this season is clearly defined (typically about six months) and pre-seasons and post-seasons are approximately three months each. In contrast, athletes in individual sports still have differentiated sports seasons but as they compete in 'meets' (races/events) athletes and their coaches can have more autonomy in deciding which meets they will compete in and how busy their competition schedule will be and greater agency in determining the length of each season.

the same practices to sculpt individual physical bodies. Instead, my research reveals that athletes and their athletic bodies are seasonally variable entities produced by multiple agents through the practice of temporal training, which involves interlinking complex processes and specific cultural power/knowledge from a vast array of expert service providers. In doing so I challenge a misperception about athletes and the process of training to become and remain elite. An assumption often presented in popular culture, gyms and fitness culture is that athletes are in peak condition 'ready to go' and 'ready to perform' at any moment, any time. However, this presumption could not be further from the reality of elite athletes' ability to perform, or the reality of elite sport.

The Myth of Training the Same Way All Year Round

Below I provide an example of junior amateur athletes who train all year round with the aim of becoming better athletes. Sports journalist Cambria's (2013) article 'Is it really a good idea for kids to play a sport all year round?' examines the negative repercussions on young amateur athletes playing two seasons of competitive sport a year, thereby not having an off-season/post-season or typical competitive sport season cycle to diversify their training. Cambria writes:

> An alarming April study presented to the American Medical Society for Sports Medicine studied one-thousand-two-hundred-and-six 'specialised' athletes ages eight to eighteen. Nearly two-thirds had had an injury, and more than half had suffered an injury from overuse — one-hundred-and-thirty-nine of them serious [injuries]. The authors of the study concluded that specialisation resulted in 'higher rates of injury, increased psychological stress and quitting sports at a young age' (Cambria 2013).[132]

The problem for these young amateur athletes is that they are training their bodies all year round to produce 'peak athlete bodies' for competition

[132] 'Specialisation' refers to competing in one sport from a young age and playing both winter and summer competitive seasons of that sport back-to-back in a year. For example playing indoor football (soccer) in summer and (outdoor) football (soccer) in winter.

performance. However, they are doing this without any down-time to properly rest, recover and rejuvenate their bodies, let alone time off to strengthen their bodies or develop and improve different capabilities that require diverse types of fitness. These heavy training loads, especially in sports that favour skills performed on one side of the body, exacerbate asymmetries of strength, musculature, flexibility, balance and, in turn, injuries on growing bodies. The view that 'more equals better' does not take into account the precise science of training loads and periodisation within elite athletes' training that links skills and fitness with the fluctuating training cycle to produce a peak performing body. Elite athletes do *not* train all year round using undirected heavy and high-intensity loading and, as Cambria's article indicates, this is certainly not what others should do in an attempt to mimic elite athletes' performance.

Major League Baseball pitcher Tommy John is the spokesman for the 'Stop Sports Injuries' campaign sponsored by several medical associations (Cambria 2013). Its supporters advise against children playing the same sport year-round without downtime. Cambria's (2003) article quoted one coach, Tommy John:

> I asked parents who do this [who] encourage their kids into amateur sports all year round: 'Who is the best pitcher in MLB [Major League Baseball in America]?' They say, 'Well, probably Justin Verlander.' I say, 'You think Justin Verlander plays baseball year-round? If he's the best, why wouldn't he do it to get better?' (Tommy John quoted in Cambria 2003).

Similarly Hoffman, an owner of Advance Training and Rehab Gym, deals with injured young athletes. He describes the youth sports scene as a 'hamster wheel' that burns kids out. "At some point, I want to ask the parents, 'What have you really enjoyed doing in your life that you've had to do three hours a day? If you did something two to three hours a day, every day, would you still enjoy it three years later?" (Hoffman cited in Cambria 2003).

This example demonstrates that — contrary to assumptions among spectators and for many in amateur sport — the fluctuation of elite athletes' training loads and physical activity across the sports season is crucial for elite performance. Thus, elite athletes' training is not the same across seasons and neither are their bodies. Instead, scientifically informed fluctuation and a variety of training (and, in turn, bodies) are important in athletes' physical development, skill progression, and improvement of fitness and performance, and are vital in reducing overloaded and burnt out (Halson and Jeukendrup 2004; Halson *et al.* 2002).

Athletes' Temporally (Seasonally Contingent) Trained Bodies

Training significantly shifts in accordance with seasonal time, cyclical regimes and service providers' scientifically calculated micro-regimes. Before I elaborate on discussions of seasonal time and service providers' micro-regimes, I shall expand my point about athletes' temporally trained bodies. I refer to athletes' temporally trained bodies as bodies that perform particular practices (for example types of training) depending on seasonal cycle timetables. These shifting season cycles inform athletes' training practices and, in turn, constitute them as subjects. The temporal (seasonal) quality of athletes' trained bodies can be observed in the changes that occur in athletes' bodies in line with changes of sporting seasons. Therefore, as the sports seasons change so too do elite athletes' bodies as a result of the temporally informed changes in their everyday practices and micro-regimes. Thus, elite athletes' trained bodies have temporal, and temporary, modes of being: a pre-season body that aligns with the pre-season, a peak-performance/mid-season/in-season/peak-season body that aligns with the competitive season, and a post-season/off-season body that aligns with post-season. These fluctuating bodies do not naturally occur; rather, they are the result

of elite training which re-habituates the body to transform in accordance with intentionally designed training processes.

Service providers record data of athletes' physiology and fitness on a regular basis, but the three main points of variation are across the pre-season, the mid-season and the post-season. The results reflect athletes' bodies — and, in turn, their performance — and are in a constant state of flux which does not progress in a linear fashion. Instead, the 'peak body' athletes work towards in the pre-season is a different body from the 'peak body' of the mid-season. One coach explained to me:

> Athletes are usually at their fittest at the end of the pre-season and beginning of the season. You can't improve on fitness during the season, you can only hope to maintain some of the gains you build up in the pre-season.

For this reason coaches are especially strict on athletes in pre-season because the fitness they can achieve at this point will determine how far they can extend themselves for the rest of the season. Coaches set physically gruelling training sessions that consist of strategically and tactically complex exercises to build athletes' fitness, physiques and mental concentration — all of which must be refined for the mid-season.

The Seasonally Contingent Body of Elite Basketballers

Within basketball, an idealised pre-season athlete has enhanced cardiovascular fitness after working on speed and endurance drills. Arduous pre-season physical training encourages a leaner muscular body with lower skinfolds, and a body that is strong, powerful and conditioned (physically resilient) ready for the competitive season. To achieve these results strength and conditioning (S&C) coaches programme high repetitions lifting low-to-medium weight ranges. Basketball coaches' run sheets contain high repetitions of speed work and agility

training. Thus pre-season training emphasises increasing cardiovascular fitness (and consequently maximal speed, agility and endurance) which will be sub-optimal by the post-season.

During the season basketballers train to maintain their health and fitness between their taxing competitions. There is a particular emphasis on recovery training (hydro-therapy, sleep, nutrition) to encourage athletes to stay well, maintain energy levels and hold onto their fitness around the late night games, travel and stress of the mid-season. Training has a greater focus on strategy, tactics and developing athletes' 'basketball IQ' (as discussed in the Preface) rather than on increasing fitness and conditioning like the pre-season or increasing strength and size like the post-season.

Accordingly post-season training is quite different from pre-season and mid-season training and, accordingly, so too is the trained body of the post-season. By the end of post-season, basketballers are usually stronger but slower and heavier, with higher skinfolds than optimal for the season. As one former basketballer turned coach said "elite athletes definitely have in-season and off-season bodies". The idealised post-season basketballer body is larger and stronger, has greater muscle-mass and greater size and weight than both the competitive seasonal body and especially, the 'cut' (lean, muscular) pre-season body. To achieve this idealised post-season bodily form, coaches and S&C coaches physically train athletes to 'get massive', 'get big in the gym' and 'lift heavy, run less, eat more', to perform more intense strength training and less endurance and cardio training, and to be especially mindful about their protein consumption. For instance, athletes will lift weights four times a week (one more session a week than they do in the other seasons) in which they will perform fewer sets and repetitions of

heavier weighted exercises. On court athletes will predominantly perform half-court training sessions so that they run less during training.

In addition to changing physical activity regimes between seasons to achieve variations in athletes' temporally trained bodies, athletes also have to modify their dietary practices. For instance, during their off-season basketballers increase the volume of food they consume to assist their goals of increasing their muscle-mass and body size. During the off-seasons, basketballers regularly commented that: "eating can be a chore"; "eating is a job, sometimes you've gotta scoff food down"; "eating enough and eating right is hard work", "the time of day determines what and how much you need to eat, regardless of your appetite". Similarly, one coach, who is a former athlete, remarked:

You have to learn how to eat as an athlete. You have to take a completely functional approach to meals sometimes and just be focused on the calories and treat it as fuel. Like making sure you're eating enough protein, sometimes just means shoving chicken down your throat. You have to maintain your muscle mass and eat a constant supply of protein. Eating right helps you maintain your [training] momentum.

Another athlete shared his experience of not eating enough during the post-season and the negative effect this had on his seasonal athletic body:

> You have to stay on top of what you eat all the time. If you slack off [make poor food choices] or don't eat the correct food at regular intervals you can really mess up your training and it can set you backwards. That happened to me the first summer I was here [at the AIS]. We had two months home leave in the off-season – so I wasn't at the tute or eating at the Dining Hall – so I was eating a little differently from usual. But, because I'm always very concerned about my skinfolds, and what I eat, I made sure to eat 'healthily' and ate lots of rice and salads. But as a result I did not eat enough protein. [Consequently] I lost *eight kilograms* of muscle mass! In *seven weeks*! And lost [the progress I'd made in] many months of hard work over the season and the off-season that I'd done to put that muscle on in the first place. I was *devastated*! That experience had a big impact on me following the dietician's advice and eating what they say to eat, how much and how often, instead of just eating what I thought was healthy and setting back my body composition gains [improvements]. I had to work really diligently to gain weight and it took almost a whole [annual] season to get back to where I had started. {Emphasis in the original}.

This example illustrates the constant work involved in crafting athletes' temporal bodies and necessity of athletes to closely follow the specialist advice they receive if they are going to improve their performance and properly embody an elite athlete habitus.

The Seasonal (Trained) Body as 'Project'

My research findings demonstrate the multitude of regimes elite athletes must engage in to create fit, healthy, trained bodies capable of optimal performance. Public health literature on chronic pain emphasises that people who experience pain, sickness or injury are often temporarily and/or temporally limited, bound and imprisoned by their daily structures and routines (Jowsey *et al.* 2013; Yen *et al.* 2013; Bury 1982). A common assumption is that, in contrast, people who are healthy and pain or injury free are liberated from health and hygiene practices that impose constraints on their time. However, my findings highlight the

constraints that elite athletes have had placed on their time through rigid micro-regimes – including the scheduled input of measured food quantities and the output of structured physical training loads – are crucial in sculpting their bodily rhythms, daily practices, weekly routines and seasonal athlete bodies. These constraints temporally structure athletes' decision making and limit their autonomy. In this way athletes' micro-regimes render the body a constant project.

My findings disrupt the view of athletes' bodies, as exemplars of 'healthy bodies' which are liberated from the constraints of time. Instead, I argue that they require strict control, typically reserved for sick, pathologised bodies. Much of the social science literature that discusses bodies and temporality, refers to bodies' temporally and temporarily informed experiences of change that are uncontrollable or detrimental. For example, the literature is largely focused on bodies in flux due to changes such as puberty, menstruation or pregnancy and, more commonly in sport bodies literature, illness, injury, pain, chronic (unfavourable) conditions (Allen-Collinson and Hockey 2001; Allen Collinson 2003) or aging (Tulle 2008; Eichberg 2000; Phoenix, Smith, and Sparkes 2007a), rather than the constant and cyclical temporal changes occurring in bodies through training.[133] I demonstrate that constraining micro-regimens are not only experiences of sick, aging or ill bodies. Constraining micro-regimens are fundamental in the active, young, healthy bodies of elite athletes, and are pivotal in their production as subjects. Likewise, in the same way that sick or injured bodies are temporal, and often temporary, athletes' bodies are temporal manifestations of training.

[133] As a side note, there are some interesting similarities between temporally trained athlete bodies and other kinds of temporal bodies. For example, athlete and pregnant bodies share similar status in that they are viewed as healthy, normal — albeit extraordinary — bodies that are highly productive, surrounded by a biomedical, interventionist environment that is beyond the control of an individual.

Another piece of literature from the field of sporting bodies research that addresses bodies in flux is Spencer's (2009) article about the body callousing of mixed martial artists. Spencer's research supports my argument on the seasonality of athletes' bodies:

> It is important to study sporting bodies in constant flux and not as fixed bodies, nor as determined by a single causal factor. The manifold ways in which sporting bodies are (continually) created prior to actual sporting events is important in this respect (citing Maguire 1993 in Spencer 2009, 120).

Spencer's research also draws on Maguire's (1993) examination of athletes' bodies which provides an interesting, albeit theoretical and abstracted, examination of athletes' bodies. Maguire asserts that athletes' bodies are the construction of multiple overlaid ideologies that frame them as biomedical, disciplined, commoditised and symbolised (Maguire 1993, 35). Although there is merit to Maguire's argument, and it has been useful when examining my own data, I argue below that athletes' bodies are not only produced through biomedical techniques and knowledge, but also by embodied practices of training which have physical, social and psychological (among other) manifestations that are also temporally variable in response to service providers' micro-regimes.

Part Three: Service Providers' Micro-Regimes

Athletes are brought under the control of – and worked on by – the AIS via the regulation of everyday temporal rhythms such as eating, sleeping and undergoing physical activity. Morris (2008), writing on diabetes, argues that diabetics are infantilised by their health conditions as they cannot take on the adult roles of caring for the self as their schedules are determined by their diabetic temporal rhythms; for instance, in deciding when to eat or how long to stay on a night out (and away from one's insulin). Diabetics are, he argues, slaves to temporal

rhythms beyond their control, just as such rhythms had been beyond their control when they were infants and children, when they ate and slept in the patterns set by adults. Morris concludes that full membership into the adult world cannot be accomplished by diabetics, so profoundly are they temporally infantilised by the control exerted by an external power that must be taken into the body.

Morris' arguments are pertinent to the case at hand. I argue that the athletes who enter the AIS, who were previously in charge of their own eating, sleeping, and other activities, must relinquish control of these to others. Very particular habits pertaining to sleeping, eating and other activity must be set, or more properly reset, in the athlete, to achieve optimal performance. The resetting replicates the parental control once exerted over the infant body and, just as parents once relinquished control of the spoon to the child, so too does the institution relinquish control to the athlete, once such basic practice becomes second nature. A 'subject' is made via the common institutional processes of parenting and institutional care. In the former case, the familial (infant) subject's rhythms of physical activity, eating and sleeping is made and shaped under parental hand. In the latter case, athletes are sent back to the position of infancy and remade, in the case of the AIS in the shape of the elite athlete.

Morris's argument concerning temporal infantilisation among diabetics resonates with my own research findings, with respect to the behaviour of both athletes and service providers[134]. However, the latter component of Morris's

[134] Examples of infantalisation among athletes include the imposition of dietary regimens (that even schedule weekly 'cheat meals') and the setting of curfews which impede on their agency in everyday practices. Some service providers spoke to me of a few athletes developing "learned helplessness" and "learnt dependence" as a result of service providers' micro-regimes and the practices of training. British Olympic Champion Vitoria Pendleton spoke of her own experiences of being institutionalised (and arguably infantilised in this process) as a result of elite athlete training. Soon after she retired she explained: "It's strange. I feel in some ways as if I was institutionalised and now I've been released. It's a new way of living, there's a lot more decision making. I still find myself saying: 'I need to get to bed soon.' Then I realise: 'No, I don't need to get to bed soon. I don't have a bedtime anymore.' Something so ingrained is hard to break. I'm walking down the road and I suddenly feel guilty because I haven't filled

theory is more aligned to the argument of this thesis, which explores the imposition of micro-regimes into athletes' daily practices as a means of sculpting temporal, embodied rhythms and, in turn, reconstituting elite athletes' habitus.

When athletes commence their training at the AIS they adjust their body clocks to the AIS time-scape and begin the process of temporal reconstitution. This process involves them surrendering their command over the rhythms of their daily practices and bodily habits. Instead, their decisions are framed in accordance with micro-regimes that guide their daily bodily rhythms, practices, and lived experiences. Therefore, inherent in training elite athletes – and reconstituting them as subjects – is the process of training conceptions and experiences of time.

Coaches and other service providers are experts in power/knowledge relationships with athletes. Within these relationships, time is used as an instrument to discipline and survey athletes' daily practices. Through temporal regimes, service providers categorise athletes' behaviour, evaluate their performance and judge their actions and in doing so actively produce them as elite subjects. Foucault formulated the term 'technologies of power' to capture specific social practices that "determine conduct of individuals and submit them to certain ends of determination" (Foucault 1988b, 18 cited in Markula and Pringle 2006b, 24). Thus, technologies of power are productive processes within social relationships that classify, discipline and normalise people in a way that controls their behaviour. By scheduling athletes' daily practices through micro-regimes, service providers use time as a technology of power.

my whereabouts sheet out. Then I think, actually I don't have to fill my whereabouts sheet out. The best way I can describe it is it's a bit like entering the real world." (White 2013).

Role of Service Providers

At the AIS many service providers, especially those with sports science and biomedical expertise, are required to provide culturally specific knowledge and techniques for training temporal athlete bodies. Service provides evaluate athletes' abilities to perform by using a series of techniques. These techniques include: diagnosing impairments, assessing prognoses to aid performance, and determining timeframes for optimal recovery. Service providers play an authoritative role in athletes' time through the creation of detailed prescriptions and schedules for rest and recovery as well as exercises and training regimes.

Munn's (1992) argument reinforces the authoritative role of service providers in training athletes:

> Control over time is not just a strategy of interaction; it is also a medium of hierarchical power and governance …Authority over the annual calendar (the chronological definition, timing, and sequence of daily and seasonal activities), or of other chronological instructions like clock time, not only controls aspects of the everyday lives of persons but also connects this level of control to a more comprehensive universe that entails critical values and potencies in which governance is grounded. Controlling these temporal media variously implies control over this more comprehensive order and its definition, as well as over the capacity to mediate this wider order into the fundamental social being and bodies of persons (Munn 1992, 109).

Weekly Training Schedules

As already mentioned, athletes are not able to 'clock on' and 'clock off' from work with the same flexibility afforded to many non-sport workers; their work is not limited to set working hours. Instead their practices of work are holistic, touching on almost every domain of their lives and spilling into all hours of day and night – including their eating habits, their sleep routines and even their social lives –

to the extent that *over-compliance* to work can become a negative issue for some athletes (Hughes and Coakley 1991).

The most insidious, yet powerful, form of temporal disciplining coaches engage in is writing weekly training schedules. All other temporal practices and routine engagements in athletes' lives — including employment, study hours and medical appointments — must adhere to, or be modified to align with these training schedules.[135] Each week coaches write up timetables of training schedules, team meetings and training events which are then distributed to athletes.

Below I provide an example of one day from a weekly training schedule. This is a randomly selected day in the men's basketball weekly schedule and is reflective of a fairly typical Tuesday in an average week of mid-season training. Unless specified as 'school/non-school athletes' or 'individual/small group sessions' the items below refer to participation of all athletes in the team.

[135] The extent of coaches' authority over athletes' time — and the rippling effects of this — is evident in examining the class timetable of athletes who are also school students. The AIS has organised the nearby college (which has eight-hundred to one-thousand students) to construct a weekly timetable that accommodates the needs of twenty to forty AIS athletes. The timetable is the same every week and the structure fluctuates over days of the week. For instance, AIS athletes are never enrolled in 'line one' classes — the first class every Monday morning, the last class before lunch every Wednesday or the last double period every Friday afternoon. This enables coaches to utilise these times each week for athletes' sports training without having to compromise athletes' class time at school.

Tuesday 16th [Athlete's official timetable]

Reminder: room inspections today

8.00am – 9.00am	Shooting training
9.30am – 12.00pm	School athletes – attend class at school/ uni[136]
10.00am – 12.00pm	Non-school athletes - Athletic Development + Shooting
2.000m – 3.00pm	Individual/small group[137] training session
3.00pm – 4.00pm	Team meeting and warm-up
4.00pm – 6.30pm	Team training
6.30pm – 7.00pm	Recovery Centre, recovery session
7.30pm – 9.30pm	Study Hall for athletes at school/uni

[136] 'Uni' is an Australian colloquialism for 'university'.

[137] Small group training sessions include three coaches teamed with three to four athletes providing focused, individualised advice and training.

Below is the same scheduled day, but this version includes my notes regarding unwritten rules and activities that are expected of athletes on the same day.

Tuesday 16th [Athlete's unofficial timetable]

Reminder: room inspections today

7.15am- 7.45am	Shower – optional, eat breakfast
7.45am	Arrive at training – "if you're not fifteen-minutes early you're late"
8.00am – 9.00am	Shooting training
9.00am - 9.30am	Eat post-training snack, shower, and school athletes bus to school/uni
9.30am- 12.00pm	School athletes – attend class at school/ uni
10.00am – 12.00pm	Non-school athletes - Athletic Development + Shooting
12.05pm-12.10pm	School athletes bus to AIS
12.00- 12.40pm	Eat lunch at AIS Dining Hall[138]
12.45pm	School athletes bus to school
12.55pm- 3.00pm	School athletes attend class
1.45pm	Non-schoolies arrive fifteen-minutes early for training session
2.00pm – 3.00pm	Individual/small group training session
3.05pm – 3.10pm	School students bus back to AIS
3.15pm – 4.00pm	Team meeting and warm-up
4.00pm – 6.00pm	Team training
6.30pm – 7.00pm	Recovery Centre, recovery session
7.00- 7.30pm	Shower and eat dinner
7.30pm – 8.30pm	Study Hall for athletes at school/uni
8.30pm-8.40pm	Study hall break – eat second dinner and/or snack
8.40pm - 9.30pm	Study hall
10.00pm	Bed time

Thus there are many additional regimes coaches encourage athletes to engage in between timetabled tasks. These additional activities are infused with coaches' views of how athletes *should* be spending their time: developing productive

[138] Athletes return from school to eat lunch at the Dining Hall with other AIS athletes each school day. Nutritionists encourage this daily lunchtime practice as it ensures athletes' access to appropriate nutrition and adequate amounts of food, and reduces athletes' temptation of eating the fast-food options near the school. However other service providers are concerned that athletes are cut off from socialising with their classmates (and peers their own age outside of the AIS). In this way eating lunch becomes a micro-regime of discipline which serves to reconstitute athletes' habituses and produce them as elite subjects, distinct from others.

nutrition, hygiene, training preparation, and training recovery practices. Through these weekly training schedules coaches train athletes in how to use their time. Furthermore, these schedules instruct athletes in how to function in their everyday lives (on an almost hourly basis): promoting actions of self-discipline; self-control; self-monitoring; and self-evaluation through self-surveillance; and social policing practices. These schedules are a crucial tool in temporally training and recreating athletes since they involve athletes relinquishing power, control and agency over their own choices, practices and use of time.

On a micro level of scheduling, coaches and other service providers explicitly structure every detail of an athletes' time during their professional interactions (including consultations and training sessions). Doctors and physiotherapists have short, time-constrained appointments in which a formulaic series of questions, tests and action plans are conducted.[139] During these appointments doctors and physiotherapists assert their culturally valued knowledge and authority through analysing symptoms to diagnose illnesses and injuries and through providing prognoses that are informed by time, including the duration of healing and recovery time required for an athlete to return to optimal performance. Throughout these professional exchanges doctors and physiotherapists determine the timeframes in which athletes can, and should, adopt the 'sick (or injured) role', placing their status as healthy, fit and/or productive on hiatus (Parsons 1975).

[139] Such patterned interactions serve to further athletes' temporal training as during these medical appointments athletes occupy the liminal subordinated role of patient – the recipient of care and seeker of knowledge from the specialised expert – by engaging in socially accepted and contextually expected social cues.

Athletes also have timetabled micro-regimes of healing when they are sick. These include provisions for the amount of fluid they should consume in a twenty-four hour period; frequency and dose of medication; suitable foods to consume at meals; volume and intensity of physical activity; and bed rest. Likewise when athletes are injured they are usually ordered to follow a strict set of practices tied to time. For instance, injury recovery commonly involves: rest, icing the injury as often as possible for approximately twenty-minutes each time within first twenty-four hours, compressing the injury with strapping tape, keeping the injury elevated (reducing time spent with one's body weight on one's injury), rehabilitation and stretching exercises, massage, physiotherapy, drinking green tea, and taking anti-inflammation and pain medication.

Similarly within everyday training sessions, coaches create scheduled micro-regimes to direct and discipline athletes' actions and efforts. In basketball, for example, coaches write run sheets which specify every intended skill to be practiced in sequential order. Run sheets commonly include a variety of drills that emphasise, for instance, offensive skills, defensive skills, teamwork skills, individual skills, and fitness. When coaches write their training run sheets they take into consideration how many athletes will be present at training, and whether any athletes are injured or healing from injury and can only train for a set amount of time or intensity. Training guidelines for an injured basketballer might include: ninety-minutes low impact training; ten-minutes of high-pressure or physical contact training; or only running in a straight line (no zigzag running or agility training).

Coaches seek to optimise training for every one of their athletes, and schedule and structure drills to concentrate athletes' training around limited schedules due to injury. There are very few moments when it is socially acceptable for athletes

to opt out or avoid particular skills and drills. Furthermore, extending from training run sheets, coaches organise athletes' game time activities and shape the duration (how many minutes for a game), lived experiences and opportunities (and potential for opportunities) of athletes' sporting performance. Coaches' schedules must be followed if athletes are going to be included, acknowledged and rewarded in future training and competitions.

As already discussed in Chapter Two, Goffman's (1968) examination of Total Institutions reveals that one's social status is linked to one's control over one's time. Goffman proposes that the more one's time is controlled by others, the less agency one commands in daily life. He argues that for "inmates", schedules become a roadmap for getting through life: the users are compliant and become increasingly reliant on the instruction their schedules provide. Goffman suggests that strict timetabling is an economy of action and practice of control. Thus Goffman describes a "personal economy of action" as a relationship of autonomy and power in association with one's own timetable whereby the more one can dictate one's own schedule and daily regimes the stronger is one's currency in one's personal economy of action (Goffman 1968, 43).

> In a total institution however, minute segments of a person's line of activity may be subjected to regulations and judgements by staff; the inmate's life is penetrated by constant sanctioning interaction from above, especially during the initial period of stay before the inmate accepts the regulations unthinkingly (Goffman 1968, 43).

At the AIS, coaches' schedules train athletes to become temporally re-habituated as their time is strictly structured and monitored. Furthermore, analogous to parent-child and teacher-student relationships, coaches use time as a way of rewarding athletes. For instance, if athletes perform drills and training techniques well they are often granted more time to rest during training and given some autonomy in their actions and exercises during training. Conversely,

coaches also use time as a way of punishing athletes. For example, if they are not satisfied with athletes' performance in training, the duration of training might be prolonged, the intensity of exercises or activities might be increased through repetition in shorter or longer timeframes to complete drills, and rest times between drills might be reduced.

Athletes' Seasonally Trained Physical Adaptation & Strength Training Micro-Regimes

During my fieldwork I observed that athletes do not improve athletically or physiologically if they merely repeat the same physical activities. Rather, improving elite athletes' physiology requires highly scheduled micro-regimes of practices to ensure incremental progression and adaptation. In this section I explore micro-regimes in strength training that direct athletes' daily rhythms and transform athletes' seasonally trained bodies.

Sports science and sports medicine literature emphasises the necessity of timing in programming athletes' sports specific and seasonally determined strength training if physiological improvement (adaption) and transformation (habitus reconstitution) is to occur (Folland and Williams 2007). As alluded to earlier, aligning the right body to the right time is tied to performance goals and scientific programming. There is nothing natural or accidental about transforming the body to align with the sports season cyclical time. Instead, training is thoroughly planned, monitored and evaluated by coaches and service providers. Service provider prescriptions are contingent on the multiple micro-regimen at play in training athletes, including: exercise loads, duration and intensity; recovery sessions; sleeping patterns, dietary regimes, mental and physical demands and stressors outside of training; body composition goals; and the specific timing within an athlete's competitive season.

Transforming athletes' bodies is the result of service providers and coaches working together to create 'adaptation-inducing' training programmes to improve athletes' performance. Below I draw on a quote from Folland and Williams to provide a physiological explanation of 'adaptation' from strength training (lifting weights).

> High-resistance strength training (HRST) [140] is one of the most widely practiced forms of physical activity, which is used to enhance athletic performance, augment musculo-skeletal health and alter body aesthetics. Chronic exposure to this type of activity produces marked increases in muscular strength, which are attributed to a range of neurological and morphological adaptations.
>
> The primary morphological adaptations involve an increase in the cross-sectional area of the whole muscle and individual muscle fibres, which is due to an increase in myofibrillar size and number. Satellite cells are activated in the very early stages of training; their proliferation and later fusion with existing fibres appears to be intimately involved in the hypertrophy response. Other possible morphological adaptations include hyperplasia, changes in fibre type, muscle architecture, myofilament density and the structure of connective tissue and tendons. Indirect evidence for neurological adaptations, which encompasses learning and coordination, comes from the specificity of the training adaptation, transfer of unilateral training to the contralateral limb and imagined contractions (Folland and Williams 2007, 146).

In addition to these specific physiological transformations and strength and skill adaptations that athletes gain through lifting weights all year round, S&C coaches specifically programme strength and conditioning exercises for some athletes during their off-season with the intention of them gaining muscle mass and increasing their body size more generally for their sporting performance in the peak-season.

[140] Throughout this thesis I refer to HRST (high-resistance strength training) as 'strength training', 'lifting weights' and 'weights training'.

Lifting weights is a crucial supplementary activity to increase athletes' strength and conditioning. Athletes can only lift weights a certain number of times per week to maximise the physiological benefits of lifting. Lifting weights requires adequate rest in between sessions in order for the benefits to be gained; consequently, these sessions must be timed around sport specific training so that athletes are not too fatigued for their specialist sport training. One coach described to me the process of adaptation as a result of lifting weights and the by-product of delayed onset muscular soreness (DOMS):

> In simple terms, to create adaptation [in the body] you must put muscles under tension [resistance] and [positive] stress [by lifting weights and conditioning training] to create tiny tears in the muscles that, once rested, repair and grow back stronger. That's why the *rest* is as important as the *work* when it comes to lifting. You won't get stronger if you over-train or don't get enough rest… That's why athletes only lift three to four days a week [rather than every day] with rest days in between each training session.

If an athlete does not adequately rest between weight lifting sessions his or her muscles will not properly heal and grow stronger and efforts will not be rewarded. Adequate rest involves sleep, appropriate nutrition and mobility training (stretching). Even with proper recovery athletes will experience DOMS after strength training. One coach proposed that:

> DOMS are an indication of muscle growth due to use and repair, so DOMS are both welcomed as an indicator of effort, but are also sore and inconvenient. Athletes have to adjust to this discomfort as a normal part of their training.

Athletes commented to me that "athletes always have DOMS, it's just part of everyday life in elite sport". DOMS are an everyday part of athletes' training to become 'comfortable with the uncomfortable', as discussed in Chapter Four. When athletes have DOMS, thorough warm-up and cool-down sessions are necessary to optimise the body's performance before engaging in other physical activity. Consequently, S&C coaches' expertise guides athletes' strength training

through detailed programmes that stipulate, for instance, which exercises they will train, how many sets and repetitions of exercises, how much weight to lift and how much to increase the weight as the training progresses, how long to wait in between sets and which exercises required for warming-up and cooling-down. Strength training programmes are written according to an athletes' daily, weekly, monthly and seasonal sports training and competition timing and incorporate structured diversity to develop specific skills, alter athletes' physiques and incidentally remake their habitus.

The purpose of scheduling variety into athletes' seasonal strength training micro-regimes is to achieve goals of physical adaptation. The types of physical activity an athlete is trained to perform will impact on his or her skills, including physical strength, cardiovascular fitness, flexibility, and endurance, and over time transform his or her body. Strength training causes physiological changes (speed and strength), encourages growth, increases muscle mass and/or cardiovascular endurance and increases recovery time. Diversifying the exercises that are trained creates mental alertness and interest (freshness from variety and diversity).[141] S&C coaches and specialist sports coaches create calculated, heavily monitored, periodised training schedules for athletes with specific intentions based on seasonality. To achieve this the training loads are incremented or reduced in various ways over the course of each week, month and sports season or year to deliberately create physiological adaption in their bodies.

Coaches change athletes' training loads to generate variation in their energy levels, cardiovascular fitness, muscular strength, and to vary the impacts of stress and strain on athletes' bodies, health and performance over time to encourage

[141] As I will elaborate in Chapter Seven, with the right level of skill and challenge athletes can experience 'flow state'. However, boredom will not induce flow and therefore it is necessary to make sure that athletes are both physically and mentally challenged by their training.

positive adaption and improvement (Folland and Williams 2007). If athletes are fatigued and sore after training, then coaches and service providers perceive their training programmes as having the desired effect of physical adaptation (that is building strength and increasing cardiovascular fitness) which is the primary goal of training. However, if athletes are unwell or fatigued to a point that it is impinging on their performance at training or competition, then their training loads must be modified. If athletes are doing all the right things and rigidly following their set micro-regimes, inside and outside of training, but are still severely fatigued and/or sick, then this is a sign that they are not physically coping with the volume or intensity of their training: their bodies are not recovering, adapting or progressing.[142]

The necessity for change in athletes' physical activity regimes is exemplified by strength training programmes. These programmes train athletes in the importance of variety and modification of practices to promote the physical adaption that is essential for elite sporting performance. Examining the process an athlete undergoes through strength training illuminates on a small scale how athletes are temporally trained and their bodies are seasonally transformed by programming changes over the course of a competitive season.

Physical adaptation is the pursuit of the S&C coach. S&C coaches create strength training programmes to the increase of athletes' strength and adapt their physiology for the benefit of their performance, in doing so S&C coaches are crucial in athletes' seasonal training.

[142] Halson (2008) and Reilly and Edwards (2007) have researched immune, circadian rhythm and endocrine impairment due to sleep deprivation and, in turn, the negative impact this has on physical training and adaptation. Likewise, Kenttä and Hassmén's (1998) research discusses the benefits of recovery and sleep to avoid staleness and maladaptation in training.

Exercise scientist Dr Kravitz (1996) adds that:

> …much of the success of the [strength] programme will be attributable to the effectiveness of the exercise prescription in manipulating the progression of the resistance stimulus, the variation in the programme design and the individualisation of the programme (Kraemer 1994 cited in Kravitz 1996).

Unlike some popular culture portrayals of athletes, the aim of training is not to push athletes to 'breaking point' or to 'breakdown'. However, 'pushing the envelope' and *testing* athletes' 'breaking point' is certainly embedded in training programmes. Linked to this, the maxim 'use it or lose it' is prevalent in elite sport because one's body changes quickly, either in terms of decline or in terms of growth, development and adaptation (Ivey *et al.* 2000). Coaches told me "It takes between seven to ten days to lose muscle mass, but it takes much more than that to build it". The adage 'use it or lose it' is thus an essential principle for training athletes. If athletes do not make the best use of their time, by enacting their elite athlete work ethic and train hard, time is perceived to have 'gone to waste'. On the flipside, athletes who are effective and manage their time well are able to achieve significant adaptation, and are understood to successfully embody elite athlete training and a seasonally trained ideal.

This example of strength training illustrates a properly trained elite athlete's body is not stable nor merely maintained via training under consistent loads and similar exercises and stimuli. Rather, an athlete is purposefully exposed to variety, change and challenges interspersed with rest, recovery and lighter training sessions to positively induce physical adaptation (increased physiological strength and/or cardiovascular fitness capacities) and an embodiment of trained temporality aligned with seasonal requirements. As this example demonstrates, scheduled micro-regimes through sports specific training

and strength training programmes are inherent in reconstituting elite athletes' habituses to create temporally trained athlete bodies.

Chapter Six: Emotion Training

Sport is a highly emotional activity for spectators, recreational participants, officials, coaches, medics and, most significantly, for elite athletes. In contrast to the views held by some sports spectators, elite athletes do not repress or ignore their emotions to perform in competition. Instead, elite athletes require specialised training to change and manage their emotional expression and embodiment in ways that support their sporting performance. During my fieldwork I observed the intense emotion training athletes undergo to assist their sporting performance and, in turn, reconstitute their habitus as trained elite athletes. Emotion training is a crucial part of the training athletes undergo, since the professional environment in which athletes perform requires the ability to be mindful and emotionally present as the sporting competition shifts and flips from one moment to another. It is vital that athletes remain calm, confident and 'in control' while under immense pressure and public scrutiny, and despite mental and physical exhaustion and emotional fatigue.

Like other working bodies, athletes manage their emotions within their professional roles: the appropriate emotional demeanour must be ready at hand, appearing and unfurling in the right context (Hochschild 2003). Service providers, coaches and athletes engage in practices of surveillance and discipline in training that perpetuate the elite athlete work ethic to which emotional norms and cultural values regarding appropriate behaviour are tied. This chapter explores how the emotions of an athlete are brought under the scrutiny of the specialist sports coach, trained, and become second nature. I will show that the emotional aspect of training is one that coaches specifically and purposefully link to emotional and physical dispositions of the habitus.

This chapter is divided into three parts. The first part examines the terminology and literature concerning sporting bodies and emotion that informs my analysis of athletes' reconstitution into elite athletes through emotion training. The second part canvasses Hochschild's theoretical perspective of emotion work — that is managing bodily communication of emotions — which informs my examination of athletes' emotion training and how this is used to enhance sporting performances. Finally, the third part investigates examples of emotion training among AIS athletes and coaches, appling Hochschild's notion of emotion work and Foucault's concept of discipline.

Part One: Emotions in Elite Sport

There is no agreement within the relevant anthropological and sociological literature on a single definition of emotion. However, there is a consensus rejecting the view that emotions are stagnant, individual, natural, uniform and universal (Hochschild 2003; Allen-Collinson 2005; Lyon 1995). This literature understands emotions to be fluid, and informed by historical and socio-cultural constructions. Moreover, it stresses variation in the cross-cultural language, terminology and conceptualisation of emotion and, in turn, in emotional experience, embodiment and the management of emotion (Lyon 1995; Russell 1991). This literature emphasises the culturally relative ideals and value-laden categorisation of emotion and emotional management (Hochschild 2003 and 1979; Lutz and White 1986; Lyon 1995; Wierzbicka 1999; Russell 1991; Maguire 2011).[143]

[143] Russell (1991) demonstrates that cross-cultural variation in emotion conceptualisation is present in linguistic comparisons. For instance, he states that in the German language there is no linguistic equivalent of the English word for 'angst', and likewise the German word for the emotion *schadenfreude* (which means to feel good at someone's misfortune) has no equivalent in the English language. Similarly, Wierzbicka (1999) describes how English linguistic terms for emotional expressions such as giggling, laughing and cackling do not match the conceptualisation of emotional expression when translated into Russian.

For the purposes of clarity, within this thesis I use 'affect', 'feeling' and 'emotion' as interchangeable terms that refer, following Allen-Collinson's application of Denzin's (1984) work, to "self-feelings… as an embodied form of consciousness" (Allen-Collinson 2005, 222). Drawing on Lutz and White's (1986) work, I argue that within the AIS community "[e]motions are treated [and socially accepted by its members] as material things; they are constituted biologically as facial muscle movements, raised blood pressure, hormonal and neurochemical processes, and as 'hard-wired' instincts making up a generic human psyche" (Lutz and White 1986, 407). Further to this McCarthy (2011, 52) agrees that emotions involve several "physiological responses in the brain and body and have specific action tendencies…[including] facial movements, posture, gestures, touch and voice" as well as subjective, physiological and observational behavioural experience. In addition to these physiological features, Lutz and White add that emotions are psychobiological facts that are understood through cultural concepts and meanings that indicate social validation or disapproval (Lutz and White 1986, 407). Thus, I analyse athlete emotion training from the perspective that emotions are symbolic of contextually specific socio-cultural ideas, ideals, values, norms and behavioural expectations that are linguistically framed and physically expressed (Lutz and White 1986, 409).

The literature that informs my analysis of athletes' emotion training incorporates anthropology and sociology of emotion literature that is situated in relation to two main themes: sporting bodies and emotional management. The anthropological and sociological literature concerning sporting bodies and emotion is small. Below I discuss two key texts in this area, Wacquant (2004) and Allen-Collinson and Hockey (2005).

Wacquant's research is a touchstone in the field of sporting bodies as his data and analysis illuminate the complexities of training athletes. In addition to the richness and colour Wacquant's (2004) *Body and Soul* brings to sporting bodies literature, his work traverses the concept of emotion management. Wacquant examines the production of boxers' habitus and self-mastery through training, including by discussing how boxing crafts boxers to command and control their emotions through culturally-specific emotional management techniques in relation to culturally-specific ideals and norms. Some of the examples he gives in relation to confidence, self-belief and self-control among boxers align with my findings on elite athletes from other sports. However, some emotions such as fear and anger, are conceptualised and trained in ways peculiar to boxers.

The cultural training of emotions and embodying specific emotional dispositions are central themes within Wacquant's research. For instance, Wacquant's boxers experience social tension between the emotional disposition expected of them as athletes and the emotional disposition tied to social mores of masculinity in the surrounding culture of Chicago ghettos. He suggests the Woodlawn gym provides a place of structure, stability, order, discipline and sanctuary within the chaos, violence, instability, poverty and disorder of these men's lives in the Chicago ghetto (Wacquant 2004). In contrast I gathered data from predominantly Caucasian, middle class, educated athletes, both male and female, and from a variety of sports in an elite training facility. For AIS athletes, training offers opportunities for professional development, financial rewards and sporting celebrity. In light of these varied motivations and institutional processes, their emotion training is distinct from that of Wacquant's boxers. Nevertheless, his analysis of emotional habitus mastery through training is fundamental to my investigation (Wacquant 2004).

Another piece of sporting embodiment literature that examines emotions is Allen-Collinson's (2005) analysis of runners' liminal experience of pain and injury through the lens of emotional embodiment and management. This piece adopts a phenomenological perspective to explore the emotional dimension of runners' bodies and how injury can threaten one's sense of self. Allen-Collinson argues that an athlete's subjectivity is linked to being active, healthy, fit and mobile. She states that for an athlete, being able to perform at their peak is fundamental to self-conception, social identity and emotional habitus as an athlete subject. Consequently, if the ability to perform is compromised through injury, so too is the sense of self.

Allen-Collinson and Hockey's (2005) auto-ethnographical account explores the journey they experienced as they traversed from injury to recovery and back to training, including the emotional ordeal of experiencing and supporting an athlete's injured body and compromised sense of self, and contending with conflicting and frustrating advice from medical experts. Central to these athletes' experiences of pain and injury is their practice of emotional management. For instance, Allen-Collinson discusses the "face work"[144] she used to hide her anger while she was injured and interacting with medical professionals (Allen-Collinson 2005, 228 citing Goffman 1967).

Allen-Collinson and Hockey's auto-ethnography research explores the suppression of anger as an aspect of their emotion training as runners. This view differs from Wacquant's and my own findings that identify and explore the productive use of anger (and its exaggerated expression) as crucial to athletes' emotion training. In addition, Allen-Collinson and Hockey describe gender as an

[144] "Face work" is a term used by Goffman (1955) that refers to the actions taken by individuals to make their (emotional) behaviour appear consistent with the public image they want to present to others.

inconsequential influence on emotion management. This argument also stands in contrast to findings in Wacquant's and my own research which both discovered gendered examples of emotion training. Although my research found much of athletes' emotion training to be the same for men and women, there were examples where I found some variations in the emotions trained in men and women in the same sport (later I provide an example of training confidence in male basketballers).

Outside of the literature of sporting bodies, most of the social science literature that examines emotion in sport overlooks elite sport or athletes' emotional experiences and, instead, examines spectators' emotions (Connor 2007; Segrave 2000; Wann *et al.* 2001). For example, Connor's research examines the emotional experiences of fans, in particular their loyalty to certain sports and particular sporting events, as well as their loyalty towards certain individual athletes and feelings of pride and social connection. Segrave (2000, 72) discusses sport as an opportunity for spectators to escape into "a world in which normal rules and etiquette and demeanour can be suspended… [they can become subsumed with athletes who] embrace playing identity [roles] beyond normal self".

Other areas that social science literature explores include athletes' personal lives and coping mechanisms when they retire from elite sport (Grove, Lavallee, and Gordon 1997; Phoenix and Sparkes 2007; Sparkes and Smith 2003). Also, the role of the media, athletes' personal lives and emotional narratives are common in athletes' biographies. Thing and Ronglan's (2015) article picks up on this and explores the commercialisation of emotions and the role of athlete confessions of drug use, cheating and off-field scandals in biographies. Although these areas of

literature are interesting they are not relevant to my analysis of emotion training of athletes at the AIS.

Social science literature that examines the emotional management of workers and of emotions in the workplace (from different occupations) assists the analysis of my data. It examines employees' necessity for emotional awareness and reflexivity for the benefit of their professional performance, which is a useful concept in my own research. This literature typically explores 'emotion work' (which I define later in this chapter) in service industry professions (such as hospitality, retail and medical carer roles) and large corporate institutions (Hochschild 2003; Goffman 1959; Maguire 2011; Morris and Feldman 1997).

Another focus for social science literature relates to emotional management and social interaction. Durkheim contributed to the discussion of emotional management as culturally specific when he suggested that appropriate emotions are a "duty imposed by the group…[a] ritual attitude forced to adopt out of respect for the group" (Durkheim 1976 cited in Maguire 2011, 914). Lock (1989) suggests that the way we express ourselves informs the way we understand and experience the world and our emotions. Also relevant is the research on manners by Elias and Jephcott (1982) and Wouters (1989), which examines the control of emotions and the body through social conventions. Thus, in the small collection of literature regarding emotional management and sporting bodies, emotion training is often over-simplified or ignored. In turn, my research advances this literature through my investigation of the reconstitution of athletes' habitus through emotion training.

Part Two: Hochschild & the Theoretical Lens of Emotion Training

Despite gaps in the literature, some areas have been more significantly explored: emotional expression is one recurring line of inquiry that does weave across sporting bodies and emotional management literature, and advances my investigation (Hochschild 1979; Lutz and White 1986; Lyon 1995; Russell 1991; Ekman 1999; Kemper 1978; Kemper 1990; Snyder and Ammons 1993). "Emotional expressions (particularly facial expressions) are seen as functioning primarily to signal the individual's intentions, thereby informing others about one's likely future actions" (Lutz and White 1986, 410). Context is crucial to understanding appropriateness, as whether or not emotional expressions are appropriate is socio-culturally determined (Mauss 1973, 76). Furthermore, socio-cultural norms and ideals inform appropriate emotional responses within a context (Mauss 1973, 76). As Hochschild states "[w]e assess the 'appropriateness' of a feeling by making a comparison between feeling and situation, not by examining the feeling in abstracto" (Hochschild 1979, 560). The surveillance and discipline by other athletes, coaches and service providers of athletes' emotional expressions is a significant element of the emotion training inherent in reconstituting athletes' habitus. Much of my examination of athletes' emotion training is concerned with emotional expression, and I use some of Hochschild's conceptions of emotional management as a springboard to assist with the analysis.

Sociologist Arlie Hochschild is prominent in the social science literature on emotions in which she attempts to create a social theory of emotions predicated on the idea that the meaning of emotion is socially constructed and the expression of emotion is socio-culturally managed (Hochschild 2003; 1979). Hochschild

(2003) argues that emotional management involves changing one's feelings through changing one's emotional expressions in order to reflect appropriate emotions (socially negotiated expectations) for the social context in question. I do not engage with Hochschild's entire theory; however I make use of her concepts 'emotion work' and 'emotional management' (which she uses interchangeably) and 'feeling rules' (Hochschild 2003; 1979).

Hochschild states that "[e]motion work differs from emotion 'control' and 'suppression'. The latter two terms suggest an effort merely to stifle or prevent feeling, whereas 'emotion work' refers more broadly to the act of evoking or shaping, as well as suppressing, feeling in oneself" (Hochschild 1979, 561). She adds that emotion work refers to "the act of trying to change an emotion or feeling in degree or quality" (Hochschild 1979, 561). Puig and Vilanova consider Hochschild's concept suggests that through emotion work "the person learns to change the way he or she thinks and feels rather than simply controlling the expression of emotions" (2011, 335). Thus emotion work is managing one's emotions to fit with the socially specific expectations of one's behaviour.

Hochschild argues that emotion is predicated on what she refers to as 'feeling rules', which she explains are social scripts on how to behave. She states that "[f]eeling rules are what guide emotion work (deep acting) by establishing the sense of entitlement or obligation that governs emotional exchanges" (Hochschild 2003, 58). Specifically, she defines feeling rules as "standards used in emotional conversation to determine what is rightly owed and owing in the currency of feeling… rules as to the type, intensity, duration, timing, and placing of feelings" (Hochschild 1983, 85 cited in Lafferty 2007, v). Jones, Lavallee, and Thatcher (2011) point out that "not only expressive behaviour but inner feelings are regulated" (cited in Puig and Vilanova 2011, 335). Finally, Lupton summarises

emotion work as "not merely about stifling or repressing feeling, but also about constituting feeling, bringing it into being in response to awareness of social norms about what one *should* be feeling" (Lupton 1998, 19 emphasis in the original cited in Allen-Collinson 2005, 232). Therefore, emotion work is not simply controlling how one expresses emotion, but also rather transforming how one feels, conceptualises and naturalises emotions and emotional responses to reflect the socio-culturally negotiated (regulated) 'appropriate' feeling rules in a particular social context.

For athletes this means that through emotion training they learn to "manage and control emotions according to expectations of the subculture… internalisation of values" (Maguire 2011, 415). In turn, athletes' emotional management is ingrained into emotional responses and embodiment through training and serves to sculpt their elite athlete habitus (Lutz and White 1986 and Puig and Vilanova 2011, 338).

For my purposes I use 'feeling rules' as a term to convey the interconnection between Foucault's notions of discourse and disciplinary techniques and emotions. In combination, discourse, discipline and feeling rules at the AIS inform social understandings and expressions of emotions within social interactions between athletes and their coaches and service providers. Lutz and White's (1986) research supports this view as they argue that the foundations of feeling rules are socially-negotiated conventions of feelings; they are both norms and ideals of emotions. At the AIS these conventions unreservedly involve morality and duty: social expectations and anticipation of what one *should* or *ought to* feel and, in some instances, what one has the *right to* express.

Hochschild defines 'deep acting' as people attempting "to feel what [they] sense [they] ought to feel or want to feel" (Hochschild 2003, 42). She contrasts 'deep

acting' with 'surface acting' which she defines as "the deliberate, contrived, 'put on', outward *display* of emotions" (Allen-Collinson 2005, 233 my emphasis). Hochschild draws on Goffman's dramaturgical theory of acting to formulate her theoretical terms, and in doing so she suggests that Goffman's theory is useful in analysing acting. Conversely, she reflects that his theory does not analyse the "management of feeling from which expression can follow" because Goffman is more concerned with assessing "how people try to *appear* to feel" and outwardly *display* their feelings rather than deeply experiencing and embodying their emotions (Hochschild 1979, 558 my emphasis). This is evident in his notion of face work in which he suggests that people change their facial expression to reflect the socially appropriate emotion for a context, rather than changing their feelings (Hochschild 1979, 558). Hochschild argues that emotional management involves transforming expression and *experience* of emotion with integrity and sincerity as this changes people's emotional reality more significantly than merely *appearing to feel* appropriate emotions. Likewise, athletes' emotion training involves modification of emotional expressions in the attempt to genuinely change their emotional experiences, generate a trained emotional disposition, and transform their habitus, rather than simply teaching them how to display appropriate emotions.

Part Three: Training Athletes in Emotional Awareness

Now that my analytical vantage point is clarified, I will examine some of the socio-cultural values that shape athletes' habitus through emotion training.

My data demonstrate that athletes' emotion training does more than train socially accepted emotions and emotional responses. Rather, athletes' conceptions and values regarding emotions, as well as their emotional embodiment, are trained

and in doing so athletes learn the ability to influence others' emotions through their own emotion management. All emotion training in sport is predicated on athletes learning 'emotional awareness': being aware of one's emotions in the present moment.[145] Coaches and sports psychologists emphasise emotional awareness by training athletes to choose their feelings, choose their thoughts and their feelings about their thoughts, and choose their thoughts about their feelings. Sports psychologists are heavily involved in athletes' emotion training. However in this chapter I largely draw on the extensive collection of data I gathered about coaches producing athletes' emotional and physical dispositions through subtle and overt disciplinary techniques of athletes' emotions in daily training sessions.

Bodily Communication of Emotions

Psychologists Cuddy *et al.* (2010; 2012) conducted research on the power of one's body language to physiologically and emotionally generate not only the expression, but also the experience of confidence (Carney, Cuddy, and Yap 2010; Cuddy, Wilmuth and Carney 2012). Their research shows that emotional management can start with the body, devoid of a desired emotion, and by simulating particular poses one can physiologically manipulate one's feelings. Cuddy *et al.*'s (2010; 2012) data demonstrates that by standing in particular 'power poses' people can trick their bodies into physiological reactions that then produce emotional feelings and expressions. Power poses include standing with one's hands on one's hips, chest out and shoulders back or standing with one's legs apart and arms above one's head in a 'V' (victory pose). Cuddy *et al.* (2010;

[145] What I refer to as 'emotional awareness' sports psychologists refer to as 'emotional intelligence' (also known as both 'EI' and 'EQ'). Emotional intelligence (EI/EQ) is the ability to monitor one's own and other people's emotions, to discriminate between different emotions and label them appropriately, and to use emotional information to guide thinking and behaviour. Psychologists define emotional intelligence as an "individual's ability to recognise and utilise emotional states to change intentions and behaviours" (Salovey and Mayer 1989, 189). They stress that self-regulation is intrinsic to emotional intelligence.

2012) found that when people adopt these power poses for thirty to one-hundred-and-twenty seconds they experience an increase in testosterone (a hormone associated with confidence and aggression), reduction of cortisol (a stress hormone), slowing of people's heart rates, lowering of blood pressure, and slowing and deepening of breath which in combination leads to feelings of greater confidence. Their research concludes that embracing these postures of confident body language creates an embodied sense of emotion, even if the person did not feel those emotions when they initially performed the postures (Carney, Cuddy, and Yap 2010; Cuddy, Wilmuth, and Carney 2012). Therefore Cuddy suggests that it is emotionally possible to "fake it till you make it" or rather "fake it till you feel it, become it, own it, and embody it" (Cuddy 2012).

During my fieldwork coaches did not specifically reference Cuddy's research, but they were certainly aware of the power of mindset and body language to impact emotional management and manifestation. Coaches instructed athletes to "walk tall", "stand proud; with your shoulders back", "straight backs" and "push your chest out" so that they embodied a confidence and pride in themselves that is communicated through their bodies. This behaviour was normalised; athletes embrace confident physiology through their postures, movements and gestures, until it becomes second nature. In this process coaches train athletes in how to influence their own emotions during their everyday training and sporting performance. They also train athletes in the importance of reading their opponents' emotions to anticipate their behaviour and compete effectively (offensively and defensively) against it, as well as to ignore external influences as part of their own emotional management.

Intricately interwoven into athletes' training is the teaching of appropriate facial and bodily expressions and the interpretation of others' bodily actions, gestures

and postures. The inclination athletes have towards kinaesthetic learning styles can expedite this process. As already mentioned in the Chapter Three, athletes' propensity towards kinaesthetic learning styles, and preference towards physicality in processing and understanding information, lends itself to emotion training. The physical aspects of interpreting others', and managing one's own, emotional expression and experience is a necessary skill set for elite athletes.

Jackson (1983) suggests that bodily communication precedes verbal communication; one's bodily movement and gestures communicate to observers one's intended bodily actions as well as one's emotional state. In a related discussion, Feldman (1962), Scheff (1988) and Lewis (2003) argue that unconscious body language communicates emotion. For instance, they discuss that if a person blushes, casts their eyes downward or obstructs their face by touching it with their hands, that person is, unconsciously, signalling to others their shame, embarrassment and their discomfort in the situation. With these researchers' work in mind, if an athlete physically hesitates, fumbles, has downcast eyes and/or stooped posture when performing an exercise, their embodied expression communicates to observers that they are experiencing a lack of confidence and sense of anxiety about their (intended) actions.

Within elite sport athletes are trained to read bodily gestures and non-verbal, embodied communication and then to exploit that information to their advantage. Interactive body language and gesturing are a key source of communication between athletes during performance. In fact, athletes' congratulatory gestures and positive body language are iconic in mainstream Australian society as positive expressions of emotion. Examples include thumbs up, high fives, patting each other on the back or backside, hugs, winks, chest

bumps,[146] huddles.[147] Conversely, unnecessarily aggressive and passive-aggressive behaviour is also a key feature in sport. This is conveyed through body language, such as arms crossed in front of the chest, rolling eyes, turning away from someone and 'giving them the cold shoulder' or displaying dominant and threatening body language, for instance by looming over another person and invading their personal space.

Through training athletes learn to unconsciously recognise the bodily and emotional information others convey, capitalise on it and manipulate their opponent's behaviour for the benefit of their own performance. Coaches train athletes to interpret and express unconscious dispositions within sport, including learning to read their opponents' intentions through their body language, physical cues and facial expressions. Athletes manipulate sporting contexts to gain advantage from any weaknesses or dependencies of their opponents. For example (as already mentioned in Chapter Three), basketballers are attuned to recognise an opponent's dominant and weak hand within their ball handling skills, to identify an opponent's leg or foot injuries and to exploit these by making the opponent run, and to notice weak or unpolished defensive plays or inexperienced players on court and exploit this through performing certain defence plays. Likewise, boxers are attuned to reading their opponent's energy levels. If boxers are not mindful of their actions, typically, they will drop their

[146] Chest bumping involves two people jumping into the air and bumping their chests together.

[147] In sport, a huddle is the action of a team gathering together, usually standing shoulder to shoulder in a tight circle, to strategise, motivate or celebrate. It is a popular strategy for keeping opponents insulated from sensitive information, and acts as a form of insulation when the level of noise in a venue is such that normal on-field/on-court communication is difficult. In basketball the leader of the huddle is the point guard who will try to inspire his or her fellow team members to achieve success and strategise the next play. Similarly, after an event a team huddle may take place whereby athletes stand tightly in a circle side by side with their arms resting across each other's shoulders to congratulate one another for the teams' success, or to commiserate on a defeat.

guard,[148] leaving their face or body open to being punched, and will throw 'telegraph punches'[149] which make their punches easy for their opponent to read, block and counter-attack. Athletes are trained by skill acquisition service providers to learn how to read their opponent's body language and assess the direction or the next play they will make.

Even within individual sports, this reading of another's emotional embodiment – and, in turn, forecasting their intended bodily action – is trained into athletes. For example, one Tour de France stage winner reflected that "I decided if I made it appear as though I was hurting, even though I was feeling good, then the other competitors would be caught off guard and not expect me to take over" (Bonaventure 2014). In this instance this athlete demonstrated 'surface acting'; he observed the facial expressions and body language of athletes around him, mirrored it and then, when it suited him, discarded such pretence and used 'deep acting' to assist his own performance needs (Hochschild 2003). Other athletes in individual sports told me stories of their coaches insisting that they "run [or swim] your own race… be in control… don't be manipulated by your opponents experience… create your own opportunities and success… otherwise you will be caught off guard".

Athletes frequently demonstrate their ability to read and observe how others around them move by mimicking the movements and body language of other athletes and coaches. During my research with AIS basketballers, a highly entertaining pastime involved athletes demonstrating their ability to imitate other people's actions. Their mimicry of each other's gaits, postures and styles of

[148] A boxer's 'guard' refers to the position of their gloved hands held up around their face, with their elbows held in tight around their ribs to guard their face and body against being hit.
[149] 'Telegraphing' means to move and throw punches slowly and obviously, thereby signalling one's intentions and tactics to one's opponent making one easy to read and to beat.

completing skills illustrate how observant the athletes are: no actions go unnoticed or unevaluated (as exemplified in the Chapter Three example of shooting and mimicry). This mimicry performs two significant functions in the context of training emotion. Firstly, the imitation role-plays provide athletes with a fun way to display to one another their skills of observation and their embodiment of necessary knowledge, values and emotional responses. Secondly, and more importantly, such role plays provide a bottom-up disciplinary technique to socially police and punish (through embarrassment) the physical movement and emotional displays of other athletes. Athletes' imitations of the bodily movements of other athletes, coaches and service providers also offer an opportunity to level social dynamics through playfully mocking and joking around, and its reciprocal nature means that anyone (not just athletes) can be a potential target.

The emotion training of athletes is predicated upon an environment in which almost every element of their lives and daily practices is observed, categorised and critiqued by officials, coaches, service providers, teammates, fans and the athletes themselves. In analysing athletes' behaviour, and how their actions are socially perceived and understood, I began to see a pattern: few behaviours are ignored or pass without judgement. Early in my fieldwork I observed that this was especially true of athletes' expressions of emotion, as coaches frequently discussed and disciplined these during training. Moon and Sedgewick refer to this act of evaluating emotional behaviour as applying a "narrativising gaze" to athletes' emotional actions and expressions (Moon and Sedgewick 1993 cited in Huff 2001, 51). As discussed in Chapter One, a narrativising a gaze is demonstrated when athletes are observed by others who read and evaluate their actions and emotional responses and, in turn, extrapolate these observations to

reflect more than their behaviour, but also to reflect upon them as individuals. Indeed, my research reveals that through their narrativising gaze, coaches, service providers and athletes commonly categorise action and emotional expression into dichotomised classifications: good or bad, positive or negative, helpful or unhelpful, useful or useless, and beneficial or detrimental. The majority of athletes' behavioural expression is understood to positively or negatively impact on their performance, wellbeing and professional development.

Elite Athlete Attitude

Despite some of the variations in athletes' emotion training between sports[150], my data reveal several emotions that are important in training of all elite athletes, and which are based on a singular foundation: 'an elite athlete attitude' (already mentioned in Chapter Four in relation to athletes as distinct subjects).

During my fieldwork I observed coaches emphasising the importance of athletes learning and improving their 'elite athlete attitude'. This elite athlete attitude is the trained elite athlete's emotional disposition, and the vantage point from which they are trained to see the world. Athletes from different sports are trained to emphasise different emotional expressions to benefit performance (for example, gymnasts are trained to express calmness and emotional composure, boxers are trained to express anger and contained rage, and rugby players are trained to express aggression).

[150] Emotion training between sports commonly varies depending on whether or not a sport is performed by teams or individuals, whether that sport involves contact between athletes, and whether or not the sport is primarily aesthetic, technical, tactical, or relatively predictable (for instance does the sport involve fluctuating elements that can affect performance such as extreme weather conditions, length of competition, timing of the competition — such as performing in the morning, at noon or at night).

Game Face

One micro-scale example of adopting an elite athlete attitude is illustrated in the quote below from a basketball player describing "game face". 'Game face' is a term often used in basketball to describe the facial expression of a player when they have adopted their elite athlete attitude and trained emotional disposition. Unlike Goffmans's face work, 'game face' is not a mask or surface acting performance. Instead, this term refers to the intentional embodiment of an aggressive facial expression, posture and body language to assist a player's confident sporting performance.

> It's fun being all rough and dirty on court, you can push and shove, be aggressive and behave in ways you couldn't get away with anywhere else. Better still, it's expected of you to be like that and play that way. Talk it up [trash-talk], give lip, and give cheek to the opposition. When you're on court they're the enemy [the opposition]. You wanna beat them. That's why they call it 'game face'; you put your 'game face' on and get fired up! It's fun!

This basketballer suggests that during competition all the aggression, competitiveness and confidence ingrained in his habitus from training comes to fruition. In the liminal space of competition game face, the expression of aggressive emotional behaviour and disposition are not only normal, but valorised.

Connected to the elite athlete attitude and emotional disposition is the development of "emotion memories" (Allen-Collinson 2005, 233). Allen-Collinson defines emotion memories as experiences that inform personal narratives, meaning and expectations of how one should behave in a particular context (Allen-Collinson 2005, 233).[151] Athletes have incredible memory for the

[151] Allen-Collinson notes that these emotion memories are especially present during pain and "in relation to previous injuries, both sporting and non-sporting, [whereby teammates] imagine and empathise with the feelings of the other [injured teammates], and to construct narrative to support the sufferer" (Allen-Collinson 2005, 233).

intricate details of events during training and competitions. I propose that athletes' exceptional recollection of events is possible because of their emotional presence and embodied engagement in those events as they unfold; because they are deeply invested in the outcome of each action, intertwined physical, emotional and mental memories give these memories clarity and makes them easy to recall. McCarthy (2011, 54) supports this view, suggesting that "[athletes'] emotions influence subcomponents of sport performance including perception, attention, memory, decision making and judgement".

Linked to emotion memory, and central to an elite athlete habitus, is the automaticity of athletes' appropriate emotional habits through emotion training. Coaches regularly speak to athletes about the "power of habits", for instance:

> "Training has to become a habit: instinctual, natural and automatic."
>
> "Make winning a habit."
>
> "Develop good habits [through repetition], replace bad habits with good ones."

As discussed in previous chapters, coaches emphasise that athletes need to "train to be trained" to develop necessary skills, techniques and habits. In relation to training emotions this same perspective applies. Emotions are habitual, embodied memories and coaches observe athletes' performance of them. Coaches discipline and punish habits that they deem to be inappropriate, and praise and encourage habits which they regard as aligning with specific sporting cultural ideals and norms.

The Elite Athlete Attitude among Male Basketballers

In this section I draw on an example of the production of the elite athlete attitude (and the idealised emotional disposition) among male basketballers, particularly

focusing on the emotion training of confidence through 'dunking' practice (defined below).

> If you don't believe that you will win, you'll never win. You've got to have that single-minded belief in your ability. Self-confidence has been identified repeatedly as a positive influence of athletic performance (Woodman and Hardy 2003 cited in Fletcher and Sakar 2012, 674).

Self-confidence and self-belief are emotions reconstituted in athletes' experience, expression and embodiment through training. I observed one coach telling his athletes that "you don't lose talent, you lose self-belief and confidence" and that affects performance. He explained that "if athletes take responsibility for their own confidence, and don't [wait or] rely on others to build it up, then they never let others take it away from them either". This coach believed that this approach to confidence enables athletes to be independent and self-sufficient, and to embody an elite athlete attitude. On another occasion he said to his athletes:

> Commit to your actions, believe that your actions will succeed and don't waste time second guessing yourself or engage in the pity-party of self-doubt; if you're going to shoot the ball, trust that you will make the shot. Believe in yourself. You have to back yourself. You have to convey to others that you are capable, successful, a good player and on their level: worthy. Don't ask for respect, demand it. If you trust yourself and believe in yourself others will too.

The men's basketball team culture emphasises the importance of self-control, discipline, and empowerment. Intrinsically linked to the emotion work of training self-belief and confidence into male basketballers are the cultural norms and values of masculinity and gender performance.

The practice of dunking, for instance, provides an example that demonstrates the gendered[152] norms involved in training self-belief into basketballers, and how it nuances male basketballers' elite athlete attitudes and emotional dispositions.

[152] These gendered ideals connote mainstream Australian idealised heteronormative, monolithic masculinity. See Connell 1989; Connell and Messerschmidt 2005.

Dunking is a powerful movement and skill in basketball that scores points and is associated with power, strength and masculinity.[153]

A 'dunk', otherwise known as a 'slam dunk', is a type of basketball shot that is performed when a player jumps in the air and manually powers the ball downward through the basket with one or both hands over the rim. This is considered a normal field goal attempt; if successful it is worth two points. The slam dunk is a shot with a high success percentage in basketball as well as one of the most crowd-pleasing plays. Slam dunks are also performed as entertainment outside of the game, especially during slam dunk contests.[154] The body language of players when practicing dunking, or performing dunks during competition, demonstrates their gender performance and emotional expression of confidence. They expand their bodies out wide and open by stretching their arms, taking large imposing leaps and adopting a wide stance with their legs; they look fiercely at their opponents and scream, yell and trash-talk.

To be 'dunked on' (to stand underneath one's opponent while they dunk the ball into the basket above) is taken to be a personal insult and is perceived as having one's elite athlete subjectivity, and for male basketballers also their masculinity, violated. One coach explained to me that being dunked on symbolically connotes the disempowerment of being abused. The person who is dunked on often feels weak, as if their social space has been violated.[155] Thus dunking is not only a

[153] Dunking is rare in elite women's basketball. At the London Olympics in 2012, Australian female basketballer Liz Cambage became the first female player to dunk the ball at the Olympics. This follows a handful of players – Lisa Leslie, Michelle Snow, Sylvia Fowles, Candace Parker and Brittney Griner – who have dunked during games in the women's professional basketball league in the United States (Women's National Basketball Association – WNBA) in the last few years. During my fieldwork I did not observe female athletes dunking, and for this reason I will only discuss dunking in relation to male basketballers and masculinity.

[154] The term 'slam dunk' was coined by an American sports commentator. Previously, it was known as a 'dunk shot'.

[155] Basketball jargon reinforces this view of dunking as it incorporates language with a sexual subtext and implication of aggression. For example technical vernacular commonly used by coaches and athletes

skilled sporting technique, but also an expression of power in which one athlete is dominant and the other is subordinate. Being dunked on is to submit to the power of another.

Katz's (2001) work explores the relationship between driving practices and expressions of road rage. He argues that the anger drivers experience when they get 'cut off' is a result of experiencing their cars as extensions of themselves. Therefore, when one is cut off while driving, one interprets this as having one's personal space cut off. This leaves people feeling attacked, affronted and disrespected as individuals. Similarly, when athletes are 'driving down the lane' (which refers to dribbling the ball inside the key on the basketball court) the ball becomes an extension of the body. Athletes want the ball to be in their possession, they want to take care of it and be responsible for directing where it travels, how it is transported around the court and at what speed. They do not want the ball (an extension of their body) to be slapped out of their hands, into the opposition's control.

An example of training masculinity and emotion is present in the case of basketballer Sebastian. Sebastian is an athlete with a strong, powerful, muscular physique, and with explosive athleticism. He also is a shy person with a reserved personality.

The coaches highlighted Sebastian's practice of dunking to the team as a means of encouraging him to develop greater confidence on the court and fully embrace an elite athlete attitude. Sebastian could dunk the basketball with ease. However, he did not have the confidence to do so. Instead he would simply perform a

include: "penetrate", "penetration", "good penetration", "man on man", "charge", "push", "pull" "block", "cut", "steal", and "possession".

layup.[156] The coaches made a rule that every time Sebastian performed a layup, when there was an opportunity to dunk the ball, he had to drop to the baseline and perform two push-ups. Play would not stop for him while he performed this task, so he would then have to pick himself up from the floor at the opposite end of the court and sprint down the court to get back into the game. This tactic worked and it did not take long for Sebastian to learn the value of his ability to dunk. Following the imposition of the rule, Sebastian became more mindful of his abilities and of the repercussions if he did not manage his emotional expression through his sporting performance. Consequently, Sebastian's increased embodied aggression on the court displayed his increased self-confidence and demonstrated his reconstituted emotional disposition as a result of emotion training. He stood taller, spoke up as well as trash-talked, maintained eye contact with coaches and teammates with his shoulders back: his teammates were noticeably threatened by his presence on court and embarrassed by "being dominated by him".

I observed male basketballers' love of dunking practice. They are energised, 'fired up', animated, vocal, flamboyant and exude pride during dunking practice. Upon the completion of a dunk, athletes beat their chests with clenched fists and waggle their fingers in other teammates' faces. If athletes miss their dunk they often roar in frustration, bow their heads in shame and their body language closes and becomes small. Coaches take advantage of the emotional energy dunking incites and use dunking practice as a reward during training and as motivation to keep athletes' attention and to boost efforts during tough sessions.

[156] The layup is considered the most basic shot in basketball. It is a two-point shot attempt made by leaping towards the basket, shooting the ball while close to the ring, and using one hand to bounce it off the backboard and into the basket.

Controlling the Controllable

Central to an elite athlete attitude is a value I noticed early in my fieldwork: the importance of being in control of what one can control – especially one's own feelings. Different coaches use similar sayings to convey to athletes that their emotional experiences and expressions are their own choice. For example:

> "Remember you can only control the controllables: focus on what you can control."
>
> "Is your attitude helping you perform?"
>
> "Only you get to decide how you feel about it and what happens next."
>
> "It's up to you, is this how you want to feel?"
>
> "Are you creating successful habits?"
>
> "Are your thoughts and feelings servicing your goals?"
>
> "If your thoughts or feelings aren't helping you then stop! Think new thoughts and feel new feelings that will assist your success."

Coaches train athletes to believe that thoughts, feelings and actions are their own choice, and that their choices inform their health, happiness, wellbeing and, most importantly, performance.

Athletes are trained to be aware of their feelings and to examine their relevance and functionality, especially the purpose their feelings are serving in that moment.

I observed a coach saying to an athlete:

> If you wanna get mad and stay mad, fine. But you have to decide what purpose being mad is serving you – if it's making you perform better, great. If it's taxing all your energy, distracting you and affecting your performance, then make another choice.

In another instance I heard coaches demand: "Focus on this moment, right now. Is what you're thinking, feeling and doing helping you to perform?" To assist

emotional awareness coaches emphasise the necessity for athletes to be present in the moment:

> "Be in the here and now."
>
> "You'll need all your focus and attention in this moment."
>
> "Keep your focus in the now, and shift with each changing moment."
>
> "Get on with it. Stop dwelling on yesterday's news. If you want to make the next national team you must be focused *now* for improving by *then*. So get into the moment. Let's go!" [Emphasis in the original].

Coaches conduct emotion training in many instances, but most commonly when athletes discuss or display signs of feeling a sense of pressure, stress, nervousness, worry and anxiety – usually about the future. Coaches remind athletes to be organised, structured and mentally, emotionally and physically prepared for training and competitions in advance so when it is 'race day' or 'game day' they can "switch off all the outside noise and stimulation that may distract you". Coaches tell their athletes that they although are responsible for their own actions and feelings, and that they must accept that they cannot control other competitors, teammates or situations.

An example of athletes' capacity to control choosing their feelings is evident in the following illustration taken from the women's gymnastics competition at the 2000 Sydney Olympics. After several athletes had fallen off the vault apparatus and been injured, the height of the vault was measured and found to be five centimetres too low. Consequently, the competitors who had performed their routines up to that point were disadvantaged. The vault was then recalibrated and the competition reset to rectify the disadvantage, and all of the gymnasts competed again. On the corrected vault the majority of athletes who were previously disadvantaged coped well, and were able to perform with focus and

confidence. As Nideffer noted elite "competitors learn to block out distraction and self-doubt" (Nideffer 1993 cited in Grandjean *et al.* 2002, 325). Veracchia *et al.* argue that Olympic calibre athletes master concentration skills far better than average athletes (Vernacchia *et al.* 2000). I argue that this results from years of training, and performing, at an elite level: their highly developed emotion training allowed those gymnasts to suffer a confidence-shaking mishap on one apparatus, yet retain a narrow focus for the next apparatus. One gymnast explained "I tried to focus as much as I could on what I had trained to do, on the technical corrections" (NBC 2000a cited in Grandjean, Taylor and Weiner 2002, 325).

During my fieldwork I was often amazed at athletes' ability to be fully immersed, committed and passionate about their efforts towards a certain outcome, and then at the blow of a whistle, ring of a bell or flick of a wrist, abandon that emotional reality and embody another. Such ability reflects athletes' embodiment and naturalisation of emotion training. Below is a snapshot of athletes' ability to embody the emotional state required of them as the context shifts, flips and turns.

Accepting No Control

Switching Emotions during Sporting Performance

The following events were recorded in my field notes during the first sixty-seconds of the second-half of an AIS women's basketball game during their seasonal competition, and they provide an example of athletes' training in switching emotions.

> Playing offence, the AIS team start out aggressively: actively engaging in rough physical contact and trash-talking with the opposition. They move quickly around the court, yelling instructions to teammates. Then, as the AIS player in the position of power-forward shoots the ball, the defending player from the opposing team slaps her wrist.

> "Pheeeeewwwp" the referee's whistle blows: it's a foul.[157] The crowd roars "hurrah" and applauds and cheers. The ball goes in the basket, the AIS team earns two points for the shot, and they are awarded a free-throw (foul shot).[158] The emotional context among the AIS players on court shifts from aggressive to smug. The opposition shift from aggressive to angry and frustrated. The foul was a bad move; an unnecessary and unplanned play. Both teams quickly assemble into separate team huddles, consisting only of the players on court, to discuss their strategy of play after the foul shot. The AIS team are all smiles, high-fiving each other and congratulating the play. They stand tall and huddle close to one another; they look like a tight ring of confident players working in unison. In contrast, the opposition team's huddle is not as tight, their faces reflect their frustration, and the point guard can be heard saying in a stern voice "pull it together and follow the plays". While the players are in their huddles, one of the referees uses sign-language to match her verbal communication to the scorekeepers on the score bench "the dark (away) team's player number five fouled the light (home: AIS) team's player number eighteen, slap to the wrist while shooting the ball causing a foul. It's a successful basket, two points. One foul shot to follow."
>
> The AIS power-forward, number eighteen, steps up to the foul line and the emotional context shifts again. A hush comes over the crowd. The players from both teams who line the section of the basketball court called the 'key'[159] embody a strong defensive stance[160] with a composed aggression. The foul shooter, number eighteen, displays a

[157] In basketball, a foul is an infraction of the rules more serious than a violation (a minor breach of the rules). Most fouls occur as a result of a player committing unsanctioned personal contact with an opponent and/or unsportsmanlike behaviour. Most commonly fouls result in either of the following penalties: a) the team whose player committed the foul loses possession of the ball to the other team or b) the fouled player is awarded one or more free throws (undefended shots at the ring –defined in the next footnote). Ordinary fouls are a routine part of the game because of the constant motion inherent in basketball and are not viewed as bad sportsmanship. The penalty imposes a cost on violating the rules, but does not disparage the player committing the foul. More serious fouls are regarded as bad sportsmanship, and the penalties are designed to be disciplinary.

[158] In basketball, free throws or foul shots are unopposed attempts to score points from a restricted area on the court (that is the free throw line; informally known as the foul line), and are generally awarded after a foul on the shooter by the opposing team. Each successful free throw is worth one point. There are many situations when free throws can be awarded. The most common is when a player is fouled while in the act of shooting. If the player misses the shot during the foul, the player receives either two or three free throws depending on whether the shot was taken in front of or behind the three-point line. If, despite the foul, the player still makes the attempted shot, as in the case above, the number of free throws is reduced to one, and their fouled basket counts. Good players commonly have a high-percentage average of successful foul shots.

[159] The key, officially referred to as the free throw lane and colloquially known as 'the lane' or 'the paint', is an area on a basketball court underneath the basket, bounded by the baseline (the end of the court). It is a critical area on the court where much of the action takes place in a game.

[160] A defensive stance in basketball means standing with slightly bent knees, sticking out one's bottom, with one's arms out-stretched wide and reaching across one's opponents' body, as described in Chapter Three.

> focused facial expression as she uses her foul-shooting ritual (bouncing the ball twice before spinning it up into her right hand before shooting, simultaneously inhaling slowly and deeply and exhaling loudly and forcefully) to command confidence and relax herself. Everyone watches her. "Concentration may be as important to [an elite] athlete as confidence… including free throws (Cornelius *et al.* 1997) Grandjean, Taylor and Weiner 2002, 325). She then releases the shot, she misses. "Dammit" she yells and hangs her head. The emotional context of smugness and frustration switches teams. The mood instantly snaps from the quiet, stillness of the foul-shot context and returns back to the loud, yelling aggressive, frantic fervour and 'psyched up' behaviour previously filling the court. Player thirteen from the opposition grabs the rebounded ball of the missed shot and generates a successful fast-break[161] scoring two points from the layup. "Bleeeeeeeeep" the siren rings: time out.
>
> The AIS team looks a little rattled; a moment ago they were smug and at an advantage and now they are even with the opposition, but feel (emotionally and psychologically) behind and disadvantaged. Athletes rush to their respective huddles, this time sitting along the bench around the coach. The coach, holding an A4 sized whiteboard (with the lines of a basketball court inscribed on it) and marker, furiously draws the instructions for the next plays. He gives criticism for what just happened and makes suggestions for the next play. The body language of the players is passive, most sit hunched leaning their hands on their knees, sipping on their water bottle and gasping for breath quietly watching the coach's marker move along the white-board. The coach looks up at the players and asks if anyone has any questions. As one player makes a suggestion concerning one of the plays, this breaks the tension of the coach's berating and the rest of the team starts to sit taller, their water bottles are placed on the floor; their short break is over and they have caught their breath. The siren blasts "bleeeeeeeeeep". They stand up in a huddle and place their hands into the centre of the circle and in unison yell "one, two, three tute" and drop their hands and run back on court and the emotional context shifts again.

This vignette captures the constantly shifting emotions of the team based upon the events of the competition. Athletes are trained to respond to the context of the game and to their opponents, as well as to mirror their teammates and

[161] An offensive strategy whereby a team attempts to move the ball up the court and into scoring position as quickly as possible, so that the defensive team is outnumbered and does not have time to set up.

coaches. Additionally, athletes are trained to turn inward to choose their emotional expressions and block out fears, expectations, the crowd and those around them who are not providing stimulus worthy of mirroring. This example highlights the necessity for athletes to master being in the present moment and being constantly aware of what is needed as the plan, strategy and tactics continuously shifts and athletes must respond to teammates and create new plans on the fly.

Fletcher and Sarkar (2012) interviewed one track athlete about his nervousness before a final. He was imagining his competitors running past him at the bend and described the need to "get a grip" as he realised the unhelpfulness of his thoughts (Fletcher and Sarkar 2012, 673). He needed to stay present in the moment and think positively to benefit his performance. Jones *et al.*'s (2000) analysis of athletes' ratings of their emotional experience both before and during competitions demonstrates that there are "particular emotional states associated with good performance" and that emotions are important at specific times (Jones, Mace, and Williams 2000, 700). Athletes' emotion training assists them in calling forth the right emotions for the right times. Fletcher and Sarkar support this view and propose that "The ability to switch one's focus appears to be an important factor in withstanding the pressure associated with sport at the highest levels" (Fletcher and Sarkar 2012, 674).

Compartmentalisation of emotions is an important skill for athletes to master as part of their emotion training. Athletes need to behave appropriately across fluctuating contexts in elite sport, and each context (for example training versus competition) has different emotional norms as well as being different from those outside sport.

An Olympic basketballer I interviewed provided an insightful account of the techniques of emotional compartmentalisation that he had developed through training. He told me:

> Being on court you can be as rough, gritty and 'nasty' as you want to be, as it's an appropriate environment [to behave that way and] to unleash all those feelings. Then you are calm and go about life. Learning to switch off and forget about it all is a skill that requires training too. You have to work at it. There are so many things you have to work at and train for. But hey, at the end of the day that's why we are elite athletes. We are professionals. If it were simple and easy then everyone could do it. But it's not; it's a skill that must be trained.

Throughout the remainder of his interview he explained that athletes who are unable to manage and transform their emotional expression and feelings to reflect rapidly changing contexts of competition are left behind the pace of play, and criticised and disciplined by coaches and athletes alike. Such behaviour interferes with the social dynamic of the team, and the inherent values of emotion training the coach is teaching. Such behaviour also reflects an untrained athlete and unreconstructed habitus.

Thus athletes must learn to separate their emotions about actions from their emotions about people (including themselves). This is an important paradox in elite athletes' emotion training as it contrasts much of what they are trained to understand about emotions: on one hand athletes are trained to believe that their actions (and praise of criticism of such actions) reflect who they are as persons and, therefore, they should behave in morally and emotionally appropriate ways; on the other hand, they are encouraged to compartmentalise criticism of their actions as athletes (by coaches, teammates, fans, media, and themselves) from

criticism of themselves as individuals (but still behave in morally and socially appropriate ways).[162]

Coaches' Emotional Awareness and Emotion Work

Athletes are not the only people in elite sport who need to employ emotion work. So, too, do coaches. Coaches are not immune to the necessity of emotional management; they are deeply involved in this process. Further to emotionally training athletes, coaches engage in emotional awareness of their own behaviour and their athletes' emotional states. Coaches must be perceptive and observe their athletes' body language, energy levels, confidence, and connection with others to assess how their training is progressing and whether or not they are improving. One coach explained that coaches emotional responses are key to how athletes will learn, develop and train. In turn, it is necessary for coaches to think about whether their athletes fear or respect them. This coach explained:

> It is important for a coach to strike the right [emotional] chord with athletes so that they respect what the coach has to say. Athletes will try and get away with everything they can. If they are just afraid of being disciplined, then the coaching is not as effective. But if athletes respect their coach they are more inclined to listen and follow instructions and buy into the team rules and team cultural expectations.

[162] Compartmentalisation encourages athletes to avoid applying a (negative) narrativising gaze upon themselves by separating their actions (particularly when things go wrong) from how they see themselves as a person, which stands in contrast with so much of what athletes are trained about emotion work and in particular the disciplinary technique of shame that I discuss below.

Another coach explained that the process of establishing initial rapport with athletes is enmeshed in establishing power dynamics and disciplinary expectations.

> I start out tough and then mellow out – but you cannot do it in reverse. There's no second chance at a first impression. If athletes think you're a softie they won't listen to you and they will push you around, disrespect you and give you hell. If you're a hard-arse then they'll follow your lead and do what you say. Although, having said that, I've been told by my boss I need to work on my 'soft skills'. I'm great with the tough love, but I need to focus on providing more encouragement and positive reinforcement to my athletes.

She said that she found this challenging, as providing constructive criticism came more readily to her than providing praise. "I give praise and credit where it is due, but I have to work at giving more praise and encouragement and positive feedback more often."

Another coach told me that his emotion work largely involved holding back the full experience and expression of his anger and frustration, and downplaying these feelings at times, while at other times over-emphasising them.

> It's really hard when you're so frustrated, to stop, slow down and not completely lose it. Although sometimes you do have to completely lose your shit, just so the athletes understand you're not bluffing and then you really get to let loose! You show them that you really are as furious as they fear you may be [laughs and smiles].

As already noted, like all subjects in the institution of elite sport, AIS coaches' behaviour is under the scrutiny of the narrativising gaze and this informs their emotion work. Like most workplaces, a great deal of emotional management occurs during staff interactions in staff meetings. The content of conversations and degree of emotional expression within social interactions are informed by the social dynamics of the group, including the power and hierarchy structures at play. For instance, overt verbal communication is accompanied by covert

emotional communication. This includes shared glances, whispers, winks, nudges, smirks, raised eyebrows, constrained expressions of surprise, anger and smugness, which staff members both unintentionally and discreetly exchange. Such emotional expressions reveal conceptions and experiences of frustration, concern, disappointment, annoyance and pride about their role in athletes' behaviour, performance and training.

In coach-athlete relations, coaches can more freely express frustration and annoyance with athletes because of their accepted role of authority. However, coaches cannot behave this way in other social contexts, for example with other service providers. One significant aspect of athletes' emotion training that differs from coaches' everyday emotional experience is the role of emotions as disciplinary techniques.

Inciting Shame as a Disciplinary Technique within Athletes' Emotion Training

Emotion work is an important skill for athletes to learn, master, embody and experience, but – like all areas of training – it also serves to discipline athletes. Vital to this training is the use of shame. Shame is a complex emotion in the context of elite sport. It is both an emotion that should not be displayed, and at the same time it is used (by service providers and athletes alike) as a mechanism for disciplining athletes who display inappropriate emotions.

During basketball training I often observed coaches being critical of athletes' expressions of shame while they were on court. For instance, coaches verbally reprimand athletes for displaying shame through their body language (including lowered heads, slumped shoulders and a downcast gaze).These coaches assert that, by feeling and expressing shame, athletes are situating themselves in the past (the previous moment) rather than in the present. They worry that athletes

are "too concerned with what went wrong", and are being self-critical rather than either rectifying their mistakes or being in the present moment of play. In one instance, coaches yelled and reprimanded athletes for expressing shame, telling them:

> Don't hang your head down when something goes wrong. Don't waste your time feeling shame during competition. It is selfish behaviour. It lets your teammates down. It reflects a self-absorbed attitude. While you're focusing on your poor performance and feeling disappointed, the game has continued without you. You are now behind the eight-ball [one step behind], still thinking about yourself and what you've done wrong rather than focusing on how you can help yourself and the team and repair the situation.

Using shame to discipline athletes was often simply a matter of criticising them in front of their teammates as a means of keeping their 'attitude in line'. If athletes do something wrong coaches will often speak to them in a way that induces feelings of shame as a means of convincing them to change their behaviour. For instance, through the strategic use of nicknames — for example "tubby", "chub", "flubber" and "donuts" often used in a playful, humorous and mocking way — coaches and teammates communicate to athletes that they are overweight or out-of-shape, that they need to monitor their food consumption and that they need to work harder in the gym. Similarly, athletes who are seen to be too thin (especially not muscular enough) are also mocked and nicknamed "spaghetti", "coat hanger", "bones", "skeleton" and "bug" and reprimanded for not eating enough and not "training hard enough" in the gym.

In other instances that I observed, athletes being reprimanded without humour or playfulness. During these 'roastings' athletes are screamed at and told to "toughen up or get out" and to "work harder" (even when they are exhausted, injured, sick and struggling). Coaches told athletes that such interactions "help you improve", "build resilience", "make you mentally and emotionally as tough as

you are physically", and "show you what being a real professional athlete is about".[163] I found these interactions confronting and frequently after attending team meetings I felt shaken up and anxious as if I had been included in the coaches berating.

Another technique coaches use as a means of disciplining and motivating athletes' performance combines competitiveness and shame. For instance, by publicly displaying athletes' performance results (for example race times, weight-lifting results and competition statistics) coaches seek to spark their ambition to be at the top (the winner) and their fear and shame of being at the bottom (the loser). Athletes are vocal and observant about their results. In team sports top performers are often outspoken about their success while those who do not perform as well are quiet. I observed coaches asking athletes in front of the entire team why they had underperformed. Such practices are commonly used for two main purposes. Firstly, to encourage improved performance in the future, and secondly, to relate that message back to all the athletes to learn: "underperforming is not acceptable, it is not elite behaviour". In this way shame (and avoidance of shame) is influential in behaviour management and emotion work as athletes are encouraged to police their own, and others', behaviour.

Probyn (2004, 23) proclaims that shame is a process of self-constitution: "shame is an experience of the self, by the self" and has both material and conceptual effects: "shame is infectious". On the question of contagion, Hochschild (2003) suggests that shame induces a response of shame in others. Social work researcher Brown (2013) discusses the complexities of shame in suggesting that

[163] Conversely, one of the main ways in which athletes are expected to demonstrate resilience is through being stoic after being verbally reprimanded (often shamed and humiliated) by their coaches. They are expected to hide any displays of ill feeling or negativity, resentment or defensiveness and simply follow instructions, while emotionally embodying the attributes of an elite athlete as per their coaches' instructions.

it is a socialised, group emotion that reflects feelings like "I am wrong, I am a bad person" and makes people fear that they will be reprimanded by the group or, worse, that their sense of belonging will be ruptured and their membership taken away. It is this element – belonging or the threat to one's belonging – that coaches use to discipline athletes. Coaches threaten athletes – whether implicitly or explicitly – that if they do not perform at the level expected of them (or in ways deemed appropriate) their membership in the world of elite sport will cease. These threats have an obvious impact on athletes and commonly they improved their behaviour immediately and refocused their energy on improving their performance.

Another way in which coaches use shame, for the purpose of training and disciplining athletes' behaviour, is to express their own feelings of disappointment and of being ashamed. On several occasions during my fieldwork I observed coaches expressing feelings of shame at athletes' behaviour and performance. This tactic was typically used after something serious had happened — usually misbehaviour outside of sport — that had let down the team, impacted on the reputation of the squad and sport, and ruptured the relationship between coaches and athletes. Probyn (2004, 13) discusses former Australian Prime Minister John Howard expressing his feeling of being "ashamed of cricketers' misbehaviour" during the match-fixing scam during the late 1990s. This comment reflected the political and patriotic role of sport whereby national pride and national shame are evoked through elite athletes' behaviour. Similarly, international media readily report stories of "shamed athletes" cheating in sport (that is taking illegal performance-enhancing drugs) or committing bad behaviour off-court/field/pool/track (for example engaging in partying, public nudity, drink driving, racial slurs, domestic violence, drug dealing and taking

party drugs). These athletes are typically described by the media as “disgraced”, “too big for their boots”, “falling from grace”, and “disappointing fellow Australians”.

Sports media reinforce the view of athletes as moral, disciplined human beings who are role models for society reports of athletes’ ‘shameful’ misbehavior (Bissinger 2014; Reilly 2010; Steinberg 2013). Therefore when coaches (and athletes) speak of feeling ashamed of misbehavior, they are evoking the alleged morality of athletes, the elite athlete work ethic and the need to maintain the values, beliefs and ‘professionalism’ of elite sport. Some athletes have spoken out in public domains about feeling ashamed of their performances (or poor behaviour outside competition) and about letting down themselves, their team, coaches, family and friends. These stories further serve to perpetuate the disciplinary technique of shame.

Connected to shame is embarrassment, and this is another emotion used to discipline athletes. Keltner and Haidt argue that “embarrassment is defined by a sense of personal failure and lowered status” (1999a, 515). After losing a game, one coach stated:

> You should not be embarrassed about losing, but embarrassed about quitting, about giving up. You need to stay tough. Hang in there. Don’t go down without a fight. *That’s* the embarrassing behaviour! [Emphasis in the original].

In another instance, a sports psychologist scolded a team of athletes:

> You’re being so slack when your coaches aren’t watching. This is not elite level training. And it is not reflecting an elite attitude. It’s embarrassing and needs to be rectified if you’re going to improve.

The purpose of disciplining athletes in this way is to train standards of appropriate behaviour and emotion and, in turn, to reconstitute athletes' emotional dispositions to reflect and embody those standards.

Not all of the disciplinary techniques used by coaches are negative. Coaches also use pride as a means of rewarding athletes' discipline and performance. They remind athletes of the nation's pride, support and enthusiasm for their achievements. Athletes described to me the happiness and pride they felt when they:

> "Looked at my family and friends from the podium";
>
> "The Australian national anthem plays",
>
> "Looking at the Australian flag flying during the medal ceremony",
>
> "Wearing the green and gold uniform";
>
> "Knowing Aussie fans are watching the event back home";
>
> "Hearing the roar from the crowd when you win";
>
> "Getting hero faxes" [and tweets, emails, Facebook messages]
>
> "Having a sense of the magnitude of importance and hype created by your followers, supporters, and fans";
>
> "Feel the joy and pride coming from the whole of Australia".

The immense sense of pride many athletes feel when they "do their country proud, and represent Australia", and their enjoyment of success, is used by coaches to entice athletes to work hard, perform well and embody an elite athlete habitus.

Training Unselfishness in Basketballers

Through the example of training unselfishness in the men's basketball team, this final section brings together many of the elements discussed throughout this chapter to demonstrate the reconstitution of athletes' elite habituses (and sports

specific emotional dispositions) and the development of an elite athlete attitude as a result of emotion training.

An emotion close to selflessness found among the men's basketball team, captured by emic statements such as "being unselfish" and "not being selfish", is used as a means of reinforcing team rules and norms. I regularly observed discussion of this emotion, and coaches' and teammates' criticisms of specific emotional expressions and behaviours that they perceived to be 'selfish' as well as praise for behaviours viewed as 'unselfish'. Coaches explained during interviews, and I observed during training sessions, how unselfish behaviour and expression are produced through emotion work within training. To understand how reconstituting the habitus of basketballers relates to emotional management it is useful to explore the production of unselfishness and the feeling rules around its normalised and idealised display.

My findings indicate that among basketballers selfish behaviour is understood to be any behaviour, or emotional expression, that may negatively impact on one's own or one's teammates' performance. Unselfish behaviours are perceived to consist of positive, open, communicative, honest, caring, sharing, considerate, thoughtful, sensitive, generous, team-minded and collective-focused actions.[164] Therefore unselfishness contrasts with views of selfishness as negative, unhelpful, detrimental and self-interested actions that are made without consideration of the impact on an individual's or team's performance.

During training, many practices are criticised as acts of unnecessary selfishness. A strong emphasis is placed on athletes by coaches to 'not let negative emotions show or get the better of you'. Emotions commonly construed as negative in sport

[164] Unselfishness is stressed among other athletes and sports; however it is particularly valorised within team sports.

include shame, disappointment, frustration, despair, insecurity and fear[165]. Basketballers are expected to manage, or at least to repress and disguise, unproductive and negative emotions. Coaches encouraged them to hold their heads up high to express their confidence, displaying an "elite athlete attitude and victorious demeanour" rather than a "victim or defeated demeanour".

Coaches believe that selfishness needs to be trained out of basketballers through discipline, shame, embarrassment and punishment. Any behaviour perceived not to be actively assisting the sporting performance or wellbeing of a basketballer, or that of his or her surrounding teammates, is criticised and chastised as 'unnecessary selfishness'. In its place, unselfishness is trained into basketballers through repetitive exposure. To prevent selfish actions, athletes are trained to become observant and fluent in understanding the body language, emotional intelligence, behaviours and embodied intentions of others, and to modify their own selfish behaviour. Personifying the quality of unselfishness is believed to influence an athlete's recruitment onto national teams and to boost their performance within competitions, and it is understood as a vital element of the elite athlete habitus.

Attitude, mindset, personality, and contribution to the team – 'what an athlete brings to the game' – are crucial attributes coaches focus on in categorising an athletes' behaviour as un/productive, useful/useless or selfish/selfless, and therefore in determining whether they are appropriate for recruitment. Coaches regard performing, or not performing, particular actions appropriately as indicative of an athlete's respect for the team and the coach. Thus, selfishness is

[165] However, demonstrating the sport-specific training of emotions, Wacquant (2004) explains that all boxers feel fear and that this is socialised as natural, and normal, and something that should not to be trained out of them. Other sports might describe fear as 'anxiety' or 'nerves', but in boxing 'fear' is an accurate term to describe athletes' emotional states because injury is expected, permanent damage is relatively common and death asa result of boxing is a genuine possibility.

symbolic of disrespectful behaviour. For example, one coach criticised an athlete's behaviour while he was playing defence by saying "don't just look after your own player [on the opposite team] that's selfish. Play for the team. Hard D [defence] on two guys at once. Show your teammates the respect they deserve".

Synder and Ammons' (1993, 129) research with baseball players discusses similar cases of coaches requiring that athletes self-correct their own and others' emotions for the benefit of sporting performance and team morale. Synder and Ammons suggest that athletes are expected to embody positive emotions and always "do something" to motivate performance if they want to "remain on the team" and "help win games" (Synder and Ammons 1993, 129). In this way Synder and Ammons reinforce my findings that being inactive is understood to be selfish and counterproductive in team sport.

Coaches' assessment of athletes' emotional behaviour extends beyond sport and into their actions in social and private lives. One coach reminded his athletes about the connection between action, effort and respect as he advised them about an upcoming interstate competition which he would not be attending:

> It's important that you are helpful, productive and respectful while you're away. I want to hear back [from the attending coaches] that other coaches and athletes enjoyed travelling with you and competing with you because you always lend a hand with luggage off the bus, you're always the first to help with cleaning up. I want AIS athletes to be known for their helpful respectful behaviour. Don't forget, you're on show and lots of people applied to get your scholarship. Show them why you made the cut.

This example illustrates that the emotional disposition of unselfishness is expected to be 'second nature' to elite athletes, and so to be displayed both on and off the court.

Not Talking on Court is a Selfish Act

In order to be unselfish and so to contribute to the team's productivity in competition, basketballers must learn the art of effective verbal communication on court. Basketball coaches regard verbal communication on court ("talk") as essential to performance; categorising "poor talk" or "no talk" as untrained, selfish behaviour. Talking on court does not mean social chatter. Instead, coaches instructions for athletes to 'talk' means verbalising their movements and instructing other players' movements on court.

"Good talk", is the emic expression for effective communication; it involves all players on court communicating their movements in concise vernacular. For example: "I'm on seven" (this athlete is guarding the player on the other team wearing a number seven singlet), "I'm open" (pass me the ball), "I've got your man[166]" (I'm guarding your opponent), and "horns, we're playing horns" (a type of defensive play). Examples of athletes communicating instructions for their teammates include: "shoot", "rebound", "boards" (rebound) and "time" (the shot-clock is running down, quick do X). Team members on the bench are instructed to talk to the players on the court: sometimes this involves yelling "talk it up" at their teammates on court to instruct them to communicate more as a team. Coaches often say: "not talking is selfish", "don't be selfish, talk it up out there!", "you have to communicate more effectively, stop being selfish", "stop all the negative talk", "the focus of today's session is communication – we need to work on the talk" and "no talk means no leadership". Athletes are reprimanded if coaches believe they do not talk or talk effectively (loudly, clearly and accurately) on court. Making an example of 'poor talk' and selfish behaviour, one coach

[166] Both male and female players use 'man' to describe the opposition player that they are defending ('guarding' or 'manning').

criticised an athlete's talking style by telling the rest of the team: "don't give 'Joey talk', give proper talk. No, mumbles. No whinging and complaining during training".

Coaches repeatedly discuss the potency of emotional contagion. One coach told her team during a team meeting after a tough pre-season fitness session: "negativity is like a contagious disease, it spreads among the players… It's toxic. It's like a cancer in the team and just saps the life out of everything. Don't let it beat you, kill it".

Another coach stressed the importance of displaying a positive "mental attitude" and "appropriate" emotions on court, she said:

> It's important that you express with the right attitude when you're on court because that is the message that you are communicating with your teammates. If you are positive, communicate well and give clear instructions then you will all improve as players, you will feed off each other and it will spiral into a virtuous cycle. If you bring a negative attitude it will only lead to a vicious circle of more negativity, lethargy and destruction of team dynamics. Be thoughtful of others, be aware of how your body language impacts them – don't be selfish and interfere with your teammates' ability to train because you are being selfish and limiting your ability, and theirs, to perform.

Story of a "Shit Bloke": Selfishness in the Men's Basketball Team

In one team I researched, athletes socially disciplined the 'selfish' actions of one of their teammates, whose behaviour contrasted with the prevailing philosophy of positivity and unselfishness, by giving him the nickname "Shit Bloke". Although this particular nickname was not encouraged by the coaches, it was a product of an environment in which selfishness is shamed and publicly humiliated by coaches and teammates alike for breaching team rules and threatening team morale. "Shit Bloke" is a nickname the athletes devised as a

joke-truth[167] and the nickname operated in two ways. Firstly, as social disapproval of poor behaviour by this otherwise popular athlete, and secondly, a humorous way for athletes to voice their annoyance and criticism.

When I interviewed other athletes about this particular nickname they said:

> We called him that because it was funny, but also because it was true. [Laughing]. [We liked him, but] he was behaving like a shit bloke and no one wants to hang around with someone who is selfish, only interested in themselves and hasn't got your back… yeah it was a joke, but he was acting like a jerk, so we had to pull him into line.

Through naming and shaming Shit Bloke, his teammates – who like him as a person – demonstrate their disapproval of him as a player because of his failure to abide by the social conventions of the team and its feeling rules associated with unselfishness.

Shit Bloke's teammates informed me that his selfish actions included: not offering or providing assistance to help others, not performing tasks asked of him, forgetting to fulfil his rostered duties (for example preparing the water and Gatorade supplies for the team during training), and displaying negative body language which negatively impacted on other athletes and staff. His teammates believed that he thought being successful meant being self-interested, self-absorbed and looking after himself to the detriment of others. Such behaviour was not only unappreciated, but also contrary to social rules.

Shit Bloke's behaviours, pathologised as selfish, included other less obvious ones such as not displaying the appropriate emotions at appropriate times or not performing tasks expected to be embodied and automatic. It is expected of athletes that they readily adopt practices such as reading social cues and other

[167] The term 'joke-truth' is an Australian colloquialism that refers to the notion that 'there is a grain of truth in every joke'; thereby what people joke about reflects their thoughts, emotions, values and beliefs either unconsciously or deliberately.

people's body language, and respond appropriately. Shit Bloke was often reprimanded for leaning over and resting his hands on his knees while he was on court. Coaches argue that this behaviour conveys exhaustion and expresses lazy body language, or is a result of being unfit – neither of which coaches want basketballers communicating to their opposition or teammates.

It is assumed that basketballers will be emotionally aware and socially outward looking, actively assisting their teammates. In elite sport it is claimed that 'it takes a village to develop a hero', 'it takes a team to train a champion'; therefore one's teammates' improvement and success ultimately benefits one's own improvement and success. Coaches explain to athletes that they are all involved in each other's improvement, that they all need to "push and stretch one another" to be fitter, stronger, tougher teammates and competitors. In contrast to this, Shit Bloke responded to the improvements and successes of his teammates as if they were a personal affront to his endeavours, rather than as motivation to join them at the top. For example, he reflected "I didn't realise that coming second meant that my teammates were improving and I needed to work harder to match them, I just thought I was having an off day or getting worse as a player".

Through training athletes are taught to listen to and care for their own bodies, and there are a multitude of things that they are expected to do, in this regard. For instance, sufficiently warming-up before training, being in the right mindset, pushing themselves harder to perform, getting appropriate rest, recovery and nutrition to support their training, and following their rehabilitation programmes if they are injured. However, Shit Bloke put in minimal effort to these aspects of training as he did not regard them as important to his basketball skills, and he suffered the consequences.

Shit Bloke's 'selfish' behaviour was particularly evident in his beliefs and behaviours around food and nutrition. When he first arrived at the AIS he had difficulty adjusting to the dieticians' nutrition plan for him, as he had previously eaten primarily processed food. Consequently, at meals he chose to eat dessert or spaghetti on toast. He refused to eat fruit or vegetables. After several weeks of this behaviour it was evident, even to him, that his diet was negatively impacting on his training: he was experiencing low energy, was repeatedly getting sick, had difficulty recovering from training (he was feeling increasingly sore and fatigued) and was slow to heal from minor injuries. These symptoms culminated in Shit Bloke becoming quite unwell and unable to train. During his convalescence he began to accept his coaches', service providers' and teammates' advice about how the 'selfishness' of his behaviour was damaging not only his ability to train and his sporting performance, but also his ability to compete and improve as a player and as a teammate. Thus this athlete came to recognise how his behaviour was getting in the way of his own professional development. He also started questioning how his actions were limiting his relationships with his teammates and his sporting improvement. He started to believe that by being less selfish and helping others around him, he could be pushed and improve as a player.

Over time Shit Bloke began to buy into the institutional values and through training he began to reconstitute his habitus. For instance, he started bringing a positive attitude to training and boosting the morale of others around him through his positive and confident body language (for example, chest out, shoulders back, head held high) and emotional expressions. He began to embody a confident athlete who practiced 'good talk', increasingly speaking in a clear loud voice, conveying concise information in a timely manner on court and lifting the energy of his teammates and intimidating his opponents. Eventually discipline

and social pressure influenced Shit Bloke to adopt 'unselfish' practices, including becoming more socially aware and team-minded (both in actions and emotional expression) which, in turn, increased his productivity, perpetuated his success and served to make him a 'better athlete'. Ultimately, Shit Bloke became anew. He transformed from being criticised as selfish, to losing his nickname and becoming the team captain and being recruited on national teams, not only for his immense athletic talent, but also because he reflected the holistic nature of training.

His transformation is evident in his perspective on that time, expressed below.

> I can laugh about it [the nick name Shit Bloke] now because enough time has passed. I've changed. And they don't call me that anymore. I've grown up a lot since I first came [four years ago]. I am much more mature now. When I first arrived I was unused to looking out for all the guys. I was just used to making sure I was organised and had things in order. I didn't eat fruit or vegetables or look after myself properly. Now I eat better, and I think of the boys as brothers. We are a family, we have the same goals and we have to look after each other to achieve those goals. If they get better [as athletes] then I get better too. Helping them, helps me – I become stronger, faster and more competitive and more driven to succeed the more team focused I become.

With time and through the process of emotion training this basketballer adopted the essence of what his coaches are training: through social actions and emotional expression one can improve one's performance (and transform one's habitus) and personify the quality of unselfishness.

Selfishness is understood to be a negative emotion that can harm the performance of a team and hinder the training of an individual athlete. The particular physical expressions and actions that are regarded as selfish are unique to sport, and athletes are trained to value the importance of these beliefs. This example illustrates a paradox that is embedded in athletes' emotion training. On the one

hand, athletes are reminded that they are individually empowered, that they have the ability to choose their emotional embodiment and actions. On the other hand, athletes are trained to read specific cues, and to recognise and express appropriate emotions dependent on the context so as to fit in with the values of the group. Therefore, athletes' emotion training empowers them through their capacity to assert agency. Emotion training reconstitutes athletes' habituses by training their conceptualisation, embodiment and expression of normalised socially appropriate emotions to align with the values of elite sport.

This pathologisation of selfishness incites a moral duty to perform appropriately: to give one's best efforts, to express positive emotions and to lift one's energy, effort and actions to bolster the surrounding players for the benefit of the team's performance. Athletes learn that if they stray from these norms they will be reprimanded and shamed. The example of Shit Bloke's story demonstrates the complexity of emotional training through, for instance, the paradoxes of agency and the narrativising gaze regarding norms and ideals.

Emotion training is vital for elite athletes, for the purpose of instilling the cultural values, morals and beliefs of elite sport (and specific sports cultures) into them. It transforms their thinking, feeling and behaviour in fundamental ways and is thus crucial for their sporting performance and their existence as elite subjects in the culture of elite sport.

Chapter Seven: Flow - the Crescendo of Athletes' Training

As is clear from the preceding chapters, this thesis examines training as the mechanism that makes athletes' habitus anew through drawing together interlinking processes. In this ultimate chapter, I present the reconstituted trained elite athlete's experience of optimal sporting performance. The reconstituted athlete is 'ready to forget' the trained self-conscious attention that must be paid to physical activity, emotional expression, breathing, AIS time-scapes, moral behaviour and micro-regimes – as these have become second nature. But in the cut and thrust of performance – in the race, on the court – the breathing, the emotion and the timing is embodied, and is there to be called forth without conscious attention. Such inattention to the correctly performing body illustrates the crescendo of training elite athletes, and is discussed in this chapter as athletes' experiences of 'moments of flow'.

Throughout this chapter I refer to the 'crescendo of training' as the context in which all of the interlinking processes of athletes' training (including physiological, embodied, moral, temporal, and emotional as well as subject production) come together in the reconstituted athlete habitus. The crescendo reflects the transition to a state that was initially recognised as 'potential' by coaches and has finally been achieved. The crescendo of training also illustrates athletes' transformation from persons who consciously perform techniques, to elite athlete subjects who unconsciously embody sporting prowess as 'automatic', 'second nature' and with a new sense of 'normal'.

It is important to note that I discuss the *crescendo* of training, rather than the *completion* of training. Although athletes' habitus may be reconstituted as elite, and their subjectivity produced anew as a result of interlinking processes of training, the embodiment of training and one's ability to execute sporting techniques is not static. Thus the crescendo of training is not a final destination at which the reconstituted athlete no longer requires training; rather it is an expression of all of the elements of training coming together and 'clicking in' in the reconstituted elite athlete as natural. Therefore, proficiency and automaticity of elite athletes' execution of sporting techniques, much like their trained bodies, requires constant surveillance, application of biomedical power/knowledge and the maintenance of micro-regimes of training, as discussed throughout the thesis, throughout their entire sporting careers.

Csikszentmihalyi's Theory of Flow

In this chapter, I draw on aspects of Csikszentmihalyi's theory of flow and explore flow within sporting embodiment literature to examine the crescendo of athletes' training (Jackson 1996; Stavrou *et al.* 2007; Marsh and Jackson 1999; Vealey and Perritt 2015; Throsby 2013; Noble and Watkins 2003).

Flow is colloquially known as 'doing everything just right', 'being in the zone', 'everything clicking in, 'being in the groove', 'getting the feel' and 'having the touch'. I argue that athletes' experiences of 'flow' reveal a synthesis and embodiment of all of the processes of training coming together, in a recreated elite athlete subject. Psychologist Mihaly Csikszentmihalyi's theory of flow applies to a range of self-motivated activities, including playing music, playing chess, and doing academic work, as well as relating to many elite athletes' optimal experiences of elite sport training and performance. His theory is useful to apply to my research as it draws on a psychological and embodied phenomenological

perspective of flow, which taps into some of the training processes I regard as vital for creating elite athletes. Csikszentmihalyi regards flow as a 'limited period of intense experience' that involves nine elements (Csikszentmihalyi 1990), including:

1. Challenge-skill balance [when one's perceived skills are matched by a suitable challenge]
2. Merging action and awareness [when deep involvement leads to automaticity and spontaneity]
3. Clear goals of what one is trying to achieve
4. Unambiguous feedback [clear and immediate feedback that one is achieving one's goals]
5. Concentration on the task at hand [immense focus]
6. Paradox of control [one has a sense of exercising control without actively trying]
7. Loss of self-consciousness [the self disappears and becomes one with the activity]
8. Transformation of time [time disorientation: time slows down or speeds up]
9. Autotelic experience ["activity that is reward in and of itself… quite apart from its end product or any good that might result from the activity" (Nakamura and Csikszentmihalyi 2014, 240)] (Csikszentmihalyi 1990; Jackson 1996).

Drawing on Csikszentmihalyi's theory, Stavrou *et al.* (2007) summarise flow as a state of experience where a person, totally absorbed, feels tremendous amounts of exhilaration, control and enjoyment. They suggest that in flow states people push their abilities to their boundaries and in doing so experience a merging of action and awareness where 'time flies by' or 'everything is in slow motion'. Reinforcing the nine criteria of Csikszentmihalyi's theory Stavrou *et al.* explain that flow states arise only when certain characteristics are met: a challenge commensurate with one's skill, a clear goal combined with clear feedback, and the ability to concentrate on the task (Stavrou *et al.* 2007).

Csikszentmihalyi's theory is a logical one to draw on to explore the crescendo of elite athletes' training, as many of its elements relate to elite athletes' experiences of sport: for instance, clear goals, unambiguous feedback, requiring concentration, challenging contexts met with skill, transformation of time and autotelic experience. Sport and performance psychologist Susan Jackson has conducted research that tests elite athletes' experiences of flow against Csikszentmihalyi's nine criteria, and like me, she found these elements to be recurring themes in elite athletes' optimal sporting experiences. However (as with my own findings), Jackson found athletes' reported experiences of flow usually did not illustrate *all* of Csikszentmihalyi's nine criteria every time they experienced flow; often certain features were more pronounced than others, and some athletes also discussed elements of flow beyond Csikszentmihalyi's nine criteria.[168]

For the purposes of this thesis, I focus on the prominent features of flow that AIS athletes' experience in relation to the interlinking processes of training, rather than directly responding to the nine criteria of Csikszentmihalyi's theory of flow. The elements of flow from Csikszentmihalyi's theory that are most significant in AIS athletes' experiences of the crescendo of training include (the often

[168] The additional elements of flow that Jackson's (1996, 83) research uncovered are referred to as "miscellaneous dimensions" and include: "aware of everything" (for instance athletes described feeling "the wind in my hair" and "the rings on my fingers") "awareness of effort", "hearing the crowd" and "feel out of my body as if watching myself". In my own research, athletes also spoke of the social, interconnected experiences of flow that they felt while being 'at one with the activity', but also of how their awareness of self was 'merged' with their teammates. For example one basketballer described how his experience of flow was shared with that of another teammate during an international tournament – in which they returned nicknamed 'the Euro-Twins' for their tremendous duo-performances. This basketballer explained to me: "we had this awesome hot streak where it was like Jack knew exactly what I was going to do next, before I even did. He was there in place to set up the shot… receive the pass… get the [opposition's] rebound and pass it to me. We had really good – I guess you'd call it – chemistry throughout the whole tournament, but we kept having these moments of just being really 'in the zone' together".

overlapping): merging action and awareness, loss of self-consciousness, and the paradox of control.

A few AIS athletes discussed experiencing moments of flow in training, although the majority of athletes experienced flow during competition. The occurrence of flow in competition is more likely due to the greater requirement for concentration, the intensity of pressure and the heightened sense of euphoria (as a result of 'skill meeting challenge') that arises during competitive performance. Relating to this, Jackson (1992) suggests that, during flow experiences, athletes often exceed their usual levels of performance. To clarify, within psychology 'peak experience' is defined as differentiated from flow because it "denotes a standard of accomplishment" rather than an embodied psychological and phenomenological state (Jackson 1996, 76). Jackson explains that 'peak performance':

> ...may bear the closest similarity to flow, with the main difference being one of intensity of experience. It is possible, however, that peak experiences may not necessarily involve flow" (Jackson 1996, 76).

Thus, despite athletes' experiences of flow reflecting the crescendo of continual cultivation of mind, body, emotion and subject as the embodiment of training, moments of flow cannot be induced.

'Getting the Feel': Merging Awareness with Action

I refer to 'feel' as the component of flow that demonstrates the reconstituted athletes' experience of merging awareness with action. The concept of 'feel' was repeatedly spoken of during my data collection in relation to the embodiment of training and execution of specialised techniques becoming 'natural' and 'automatic'. 'Feel' is discussed in the literature of sporting bodies to illustrate

trained athletes' sensuous knowledge and cultivated embodiment, and the performance of techniques as second nature and unconscious (Throsby 2013; Allen-Collinson and Hockey 2010; Noble and Watkins 2003).

Throsby's (2013) auto-ethnographic research with marathon swimmers speaks to the complexity of training athletes and the multitude of processes involved in reconstituting them to become elite. In her discussion of "corporeal transformation and corporeal knowing" Throsby examines the embodied learning athletes undergo through training. In particular, she explores how athletes' embodied knowledge gathered through training changes who they are as subjects, how they feel within their bodies, and how they see the world around them (Throsby 2013, 14). Throsby demonstrates that "the swimming body *feels* different as a result of the training process" (Throsby 2013, 14 emphasis in the original). She argues that:

> To say that training changes the body is an uncontroversial claim, and preparation for marathon swims exerts both visible and invisible physiological changes. …But training is also sensorially transformative; the swimming body feels differently. This is evidenced, for example, in the acquisition of good swimming technique, whereby the stroke is broken down into its constitutive parts – body position, hand entry, the catch, the pull, recovery, breathing, rotation, kick – and each movement and position is embodied through repetitions before being re-incorporated into the full stroke (Throsby 2013, 13).

This example speaks primarily of the physical training an athlete undergoes to reproduce both his or her physiology and his or her embodiment as an elite athlete, as discussed in Chapter Three. It illustrates that through training 'techniques of the body', thus repetition of a practice with disciplinary techniques of self-surveillance and social-surveillance, athletes' embodiment becomes anew with re-incorporated naturalised techniques. This example also demonstrates that athletes' physically transformative training is necessarily enmeshed with

other training processes. For instance, to master the 'feel' of the stroke, swimmers must be mentally focused and express a culturally appropriate emotional disposition. As discussed in Chapter Six, athletes' emotion training must be so ingrained within their performance that adopting such a disposition in competition is like flicking a switch to 'automatic pilot'. Likewise, part of this embodiment training relates to athletes' elite work ethic, as discussed in Chapter Four, whereby athletes have to learn to normalise and 'push through' experiences of discomfort to train into their habitus a new sense of 'normal' premised on moral and embodied understandings of 'feeling good' (Aalten 2007).

Feel reflects the crescendo of training as it encapsulates athletes' embodiment of "cultivated corporeal knowing", whereby athletes become experts about sporting performance and their execution of sporting techniques (Throsby 2013, 12). This cultivated corporeal knowing is acquired through repetition of movements and techniques that transform athletes' attention from conscious (foreground) awareness of performing techniques to unconscious (background) awareness, and creates their experience of feel as second nature. Noble and Watkins' argue that "consciousness is not a simple or singular category" (2003, 529). For the elite athlete, the crescendo of training exemplifies the complexity of consciousness through the trained remembering and forgetting (foreground and background attention) that is embedded in the reconstituted athlete and is fundamental to experiences of flow.

Throsby's research reveals that "awkward at first, explicit bodily awareness eventually recedes" as the athlete "comes to 'feel' the correct movement" (Throsby 2013, 13 citing Leder 1990; Downey 2005, 49). Downey suggests that through "constant adjustment, not just repetition" athletes learn the difference between 'awkward movements' and 'good technique' and come to feel and know how to

perform movements differently with training (Downey 2005, 49). Thus athletes shift from consciously performing to unconsciously embodying 'good technique' and merging their awareness of performance with an embodiment of action. In this way, 'feel' involves "deconstructing and reconstructing technique: breaking technique down into its key elements so that these can be practised and mastered" and creates the athlete anew (Noble and Watkins 2003, 521).

Potter (2008) similarly discusses professional ballet dancers' trained 'feeling' and experience of kinaesthetic movement. She describes dancers' experience of 'feel' as learning to feel the body in motion: "moving and feeling oneself moving", particularly in relation to understanding the 'feel' of the body in gravity (Sklar 2000, 72 cited in Potter 2008). For Potter, 'feel' is more than training proprioception; it involves an additional layer of knowing that she refers to as "kinaesethia"**:** "a dynamic sense of constantly shifting one's body in space and time in order to achieve a desired end" (Potter 2008, 449). Potter's understanding of 'feel' enables a dancer to "feel motion of one's own body and adjust it in culturally preferred ways" (2008, 449). This feel, or kinaesethia, enables an athlete to train into his or her corporeal knowledge a sensitivity such that the slightest perceived variation can be felt (Wacquant 2004). Noble and Watkins argue that "competence is achieved… when we return much of the bodily process to the realm of the unconscious" (Noble and Watkins 2003, 521). Accordingly, the mastery of technique and the crescendo of training are expressed in athletes' experiences of 'feel' and competence in performing 'forgotten' (backgrounded awareness) techniques. This 'forgetting' reflects 'automation' of techniques and an embodiment of training which is "the necessary stage between learning basic techniques and virtuosity" (Schönborn, 1999 77 cited in Noble and Watkins 2003, 521).

One swimmer, Marko, shared his experiences of feel (and, in turn, flow) with me. Although his experience reflects the crescendo of training, it also illustrates the finitude of moments of flow within the reconstituted elite athlete and the perpetual need for training to elicit the 'feel' (and experiences of flow) during sports performance. He told me:

> At the end of the season you're in such a good place, you just have such a good *feel* of the water: the way that you 'catch the water' with your stroke, the way you travel through the water, it all just *syncs in*. Then, you have a few weeks break (after comps or you get sick) and then you have to work back up to developing that *feel* again: working on your body positioning in the water: how your hips, shoulders and torso are positioned through your stroke.

Akin to Marko's experience, other athletes often spoke of needing to work on their 'feel' or their 'touch' after time away from training. Some athletes experienced 'losing their touch' as a result of long breaks between competitions, sporadic training routines due to travel, a long off-season, or experiences of illness or of injury. Thus intended or unintended breaks in athletes' temporally determined micro-regimes impact on their training. As discussed in Chapter Five, seasonal timing has a significant impact on the athletes' physical adaption and their ability to maintain mastery of their sense of 'feel'. Marko's experience of feel reflects the crescendo of training and, therefore, 'losing feel' is symbolic of an elite athletes' disconnection from training and his or her sense of embodied mastery.

Similar to Marko's experience, Australian basketballer Lauren Jackson spoke of needing to regain her 'touch' through training after having a year out from competition due to injury.

She said of her return:

> For me it's a matter of getting my touch back… Learning to shoot properly again with two legs and doing things the way I used to do them… Even learning to run again was just unreal, but I'm pretty positive after a couple of weeks that it will come back with muscle memory (Tuxworth 2015).

The pain from her injury and related surgeries, and time away from training has meant that her mastery of technique and embodiment as a running, jumping and shooting basketballer have been impaired. In the short term her 'muscle memory' (that is, her background awareness of performing techniques) will be foreground during her rehabilitation, but with time and training she will experience the crescendo of training and regain her 'touch' once again.

Loss of Self-Consciousness and the Paradox of Control

Jordan

As I have discussed, athletes' experiences of flow involve the interlinking processes of training (the physical, embodied, subjective, moral, emotional and temporal processes) reaching a crescendo. In this final section I draw on examples that emphasise a loss of self-consciousness and the paradox of control, as well as touching on other aspects of Csikszentmihalyi's theory. These examples highlight how trained instincts take over and athletes stop consciously carrying out the interlinking processes of training when they are naturally called forth in competition within their embodied performances.

During interviews with basketballers, athletes commonly referred to their own experiences of 'flow' as: "being in the zone", "being hot", "when everything is warmed-up and every shot seems to go in", and "every move – every shot, every

pass and every steal – turns into a masterful play[169]". Another expression basketballers use to express 'flow' is "being wet": "when every move is smooth, fluid, and it just flows" and "making a splash on court" through spectacular performance.

In an interview with one basketballer about his own experiences of flow, we started chatting about examples of "when all the training comes together" in professional basketballers' iconic performances. One example we discussed that epitomises the crescendo of training is that of American basketballer Michael Jordan famously shooting a winning foul shot with his eyes closed. Having already scored an enormous forty-five points in that game, Jordon personified confidence and mastery as he stepped up to the free-throw line and said to his opponent "this one is for you" before successfully shooting the ball with his eyes closed and winning the game. This performance demonstrates all of the components of an athletes' training being drawn together through optimal performance in an expression of backgrounded attention.

As I discussed in Chapter Six, an important part of athletes' reconstitution as elite subjects is through emotion training. Jordan's emotion training is characterised by his confidence in his own abilities. In trash-talking to his opponent he flaunts the ease and naturalness with which he can perform basketball skills, whereby he does not even need to look when he shoots because the correct techniques and successful performance are so ingrained in his embodiment. As an illustration of physical training, as discussed in Chapter Three, Jordan shows the control he commands over his own bodily movements, and point-scoring, with seemingly little effort and a mastery of 'feel'. These movements are so natural and

[169] "Play" in this context refers to offensive executions which result in point scoring and / or preventing one's opponents from point scoring.

normalised within his reconstituted habitus that he is able to push the boundaries and display some flair by closing his eyes while his shoots and highlight his trained 'touch'. Noble and Watkins reinforce my argument through this thesis, and this example in particular, and suggest that this:

> 'feel for the game' is developed over time, and is only acquired through enormous application… the tedious processes of learning that become second nature. The consciousness involved in playing a game, however, is not the same as the consciousness involved in learning it (2003, 527).

Jordan's flashy shot and his trash-talking also reinforces his sense of himself as a distinct and special subject: an elite athlete and, in his case, an iconic sporting superstar. As discussed in Chapter Four, Hughes and Coakley suggest that "being an athlete means striving for distinction" (1991, 363). Jordan's performance not only expresses distinction as an excellent professional basketballer, but it also expresses his exceptional talent and distinct embodied training *among* elite athletes. Jordan's shot also portrays his elite athlete work ethic as it challenges limits of standard technique, conveys the acceptance of risk (shooting the ball with his eyes closed after mocking his opponent) and is symbolic of his training since such a shot is only possible after extensive amounts of practice.

Finally, Jordan's successful shot signals training processes that are evident in performance to the average spectator: the interlinked process of temporal training, and specifically seasonal training and disciplined micro-regimes. As Marko and Jackson's examples above illustrated, 'feel' is often at ites best towards the end of the competitive season. As discussed in Chapter Five, athletes' training changes with the timing of each sporting season and training athletes' 'feel' and providing opportunities for flow is heightened during competition. As Jordan made this shot during his competitive season an element of temporal training would have influenced his performance. Linking temporal training to disciplined

micro-regimes, Jordan's shot illustrates not only his magnificent sporting performances, but also his embodiment disciplinary techniques of micro-regimes for which he was also famous. For instance, his structured routines – created by several service providers – included: gruelling shooting practice in addition to team and individual training with coaches; additional strength conditioning sessions with 'the breakfast club' (a few players from his team would do core strength training on top of the team's weight lifting training); his ritual of eating steak and potatoes four hours before games; and religiously having ice-baths after games (Jordan and Vancil 1993). These are just some examples of the disciplined training that informs Jordan's sporting performance and illustrate his trained elite athlete habitus.

Kelly

During interviews with swimmers about their experiences of flow, as with the basketballers, they spoke of "being in sync", "being in the zone", "flow", "feel", and everything "clicking in". Swimmers also spoke of being "one with the water", experiencing a sense of "almost effortless" performance and "gliding" through the water.

Below is an excerpt from an interview with Kelly (the swimmer whose breathing training I discussed in Chapter Three) in which she shares her experience of flow:

> My best races I can never remember. It all just happens so fast, it just flows. Everything is easy, it feels so good. You *feel* so good, physically and within yourself [emotionally]. Even though you've just busted your gut, there is never any pain when you win gold. You're in the zone. When you watch the film back you're reminded that you were panting, breathing hard, and staggering around – barely able to walk afterwards [across the pool deck] because there is so much lactic [acid] in your legs — but somehow you move. This is always such a surprise to me [when I see the footage of the race afterwards] because all you can remember is how good it felt. …For me those moments after a race were like when I gave birth, there are all these physiological, hormonal things going on that distract you from the pain and the trauma of what you just did. …Sometimes those sessions and experiences of flow and 'being in the zone' happen in training. Out of nowhere — you're tired, or whatever — and it feels smooth and feels really good and you look up at the clock [from the pool when you finish] and it was really fast. You realise all your hard work in training is clicking in.

Kelly's experience of flow involves all of the elements of training woven together in a moment of euphoria and seemingly effortless performance. In Chapter Three I discussed the physical training of Kelly's breath to demonstrate the physiological effects of her training – being able to hold her breath for long durations, at great depths while swimming quickly underwater – as well as the embodied training of making such techniques automatic. In the example above Kelly illustrates the success of these techniques and reveals the other side, after carefully timing each inhale and holding her breath during the race, afterwards she gasps for air, "panting and breathing hard" and is able to let go of the technique. She is so emotionally ecstatic after the race that she even forgets how hard she has just pushed herself, even though her body is still recovering – legs staggering, chest pounding, gasping for air.

Kelly's flow experience also demonstrates her emotion training. As discussed in Chapter Six, emotion training assists athletes to adopt emotionally appropriate dispositions to benefit their performance. Kelly's emotion training, touched on in Chapter Three, uses her breath as a technique to control her focus and overcome anxiety before her races, which in turn enables her to embody confidence. Her ability to increasingly push herself harder in training, and stay under the water while holding her breath during her dives, sets her apart from her competitors. Such practices also illustrate Kelly's elite athlete work ethic and her embodiment of determination, perseverance and competitiveness. In Chapter Four I discussed the moral code in elite sport that informs athletes' training, and how 'working hard' and being disciplined are virtues. Kelly's flow experiences reflect the importance of consistent efforts and the value of working hard since sometimes even in training sessions athletes experience flow.

Conclusion

This thesis has examined how elite athletes are made at the AIS through the complex method of training. Throughout its chapters it has emphasised two significant findings. The first key finding is that training is composed of multiple interlinking elements including physiological, embodied, moral, temporal, and emotional training processes and subject production. The second key finding is that multiple agents are pivotal to this process. Together, these findings show that through training athletes' habituses are constantly worked on by 'experts' and so reconstituted to become elite.

In discussing these findings, this thesis delivers a holistic account of training which includes an examination of the multiple processes of training elite athletes across a wide range of sports. Consequently it provides a marked contrast to other literature that is usually concerned with only certain elements of training

(Sparkes 1999; Young and White 1995) or only some demographics of athletes or with a singular sport (Wacquant 2004; Allen-Collinson 2009; 2011; Markula 2001; McMahon and Dinan Thompson 2008; Pringle 2009; Brownell 1995).

In producing elite athletes, the process of training is primarily concerned with reconstituting their bodily habits to make second-nature the skills and embodied capacities repeatedly practiced in training. Disciplinary techniques of surveillance, punishment and repetition are required to address the tension between old habits and new habituated practices, to ensure that socio-culturally appropriate techniques are embodied by athletes and made normal, automatic and second-nature. Ultimately and in combination, the complex processes of training and of multiple agents' micro regimes transform athletes' habituses and reconstitute their embodied knowledge and corporeal norms into those of elite athletes.

My findings disrupt the taken-for-granted view of athletes' physical training as solely working on a person's physiology: their muscles, their strength and their speed. Rather, I argue that athletes' physical training is complex and contains two elements: physiology training and embodiment training. Thus, Chapter Three disrupted some of the conventional understandings of athletes' training and physiology transformation by contrasting training with 'working out'. This discussion highlighted that in contrast to working out, training is concerned with performance – often at the expense of health – and requires the input of many service providers. This discussion also emphasised the micro regimes of training used involving scheduling, measurement, monitoring, discipline, and manipulation to ensure that athletes' fitness increases, their health is maintained at a functional level, and their sporing performance is enhanced.

To portray how athletes' physical training involves reconstituting their embodiment and habitus, Chapter Three drew on Mauss's notion of 'techniques of the body'. Mauss states that embodiment is a reflection of how bodies learn to move in particular cultural contexts. However, he argues that embodiment is more than a physical process of imitation and also involves psychological, sociological and biological elements. I extended Mauss's view of embodiment to also include emotional, temporal and moral elements that are informed by social factors such as age, class, gender, generation, geographical location and socioeconomic status. Drawing on a series of examples in the literature, including marching (Mauss 1973), walking (Brownell 1995), and throwing styles (Young 1990), I argued, in contrast to Mauss, that body techniques and the process of reconstituting one's habitus are malleable.

To showcase the specificity of embodiment training in creating elite athletes I used the examples of running and breathing to highlight how athletes from different sports use these fundamental bodily movements in diverse ways depending on context. For instance, basketballers and marathon runners use different techniques and embody distinct automatic movements when they run. Likewise, athletes performing strength training, relaxation and visualisation, emotion training and enacting coping mechanisms during experiences of pain, use different techniques to breathe. These breathing techniques are separate again from the technical breathing techniques swimmers embody as a result of training.

Chapter Three also emphasised athletes' embodiment training through an examination of cross cultural influences on playing styles and sporting techniques among basketballers. This discussion drew on my fieldwork observations to suggest that there is an Australian style of playing basketball

which reflects particular cultural values, norms and social mores, and contrasted this with the styles of play demonstrated by international opponents. On a micro level, this discussion canvassed distinctions I had observed in athletes' shooting styles and their use of mimicry as a learning device and as a disciplinary technique. In this way I show that culture influences not only playing styles, but culture (including psychological, sociological, biological, emotional, temporal and moral elements) also sculpts the specific embodiment and reconstituted habitus of the athlete performing.

This thesis also argues that through training elite athletes are reconstituted as moral subjects: they come to embody particular values. I use Foucault's theory of subjectification and 'correct training' to demonstrate that athletes are transformed into "objects of knowledge" (Heikkala 1993, 401) and moral subjects through the use of certain techniques (including hierarchical observation, normalising judgement and examination). My application of Hacking's theory of 'making up people' demonstrates how the biomedical and scientific experts and processes of classification and power/knowledge produce athletes as distinct subjects and special types of persons. In applying Weber to my analysis I emphasised the cultural beliefs around the morality of time inherent in the production of athletes as distinct subjects. Thus Chapter Four examined how athletes' social norms, daily practices and reconstituted subjectivities are further informed by values of commitment and sacrifice, normalised views of taking risks and experiencing pain, and challenging the notion of limits.

Hence I draw on data gathered from track and field athletes to discuss how monitoring performance is inherent in the production and normalisation of an elite athlete work ethic and the treatment of sport as work, and how moral judgements of athletes' behaviour indeed reflect moral judgments of athletes as

persons. In this way I highlight the morality embedded in elite athletes' training, and demonstrate that for an athlete to become elite he or she must be reconstituted as a culturally nuanced moral subject who personifies appropriate values, norms and disciplinary techniques.

This thesis also demonstrates the role of time language in sport, in organising and categorising athletes, structuring their behaviour and actions, conjuring competitiveness between athletes, and objectively marking performance. I suggest that normalised, culturally nuanced, understandings of time in the institutional environment of elite sport are embodied by athletes through disciplinary techniques of training. As a result, athletes are reconstituted as temporal subjects, imbued with values of time and self that are informed by the moral code embedded in elite sport.

My findings demonstrate that the maintenance of athletic bodies requires the kind of strict control typically reserved for the treatment of sick, pathologised bodies. Likewise, in the same way that sick or injured bodies are temporal, and often temporary, elite athletes' bodies are temporal manifestations of training and cultural norms around time. Through an analysis of the myth of 'training the same way all year round', Chapter Five disrupted the view of athletes as always 'competition ready' and, instead, revealed the temporally constrained and seasonally contingent character of the athletic body, in order to achieve peak athletic performance. Through investigations into the seasonally contingent bodies of elite basketballers, the weekly routines of elite basketballers, and the micro regimes of strength training for elite athletes, I emphasised that constraining micro-regimens are fundamental to the production of both the bodies and the subjectivities of elite athletes.

Finally, I also argue in this thesis that AIS athletes experience culturally-specific emotion training. This discussion illustrates the unique differences in expressions of anger between athletes from various sports, how demographics (particularly age, gender and class) inform emotional expression and the embedded morality in AIS elite athletes' emotional management. My findings show that emotion training is essential for the production of elite athletes. Through emotion training athletes learn to manage their emotions within their professional roles, so that the appropriate emotional demeanour is always ready at hand, appearing and unfurling in the right context (Hochschild 2003).

As part of this discussion I stressed that emotion work is not simply about controlling how one expresses emotion. Instead, emotion work involves transforming how one feels, conceptualises and naturalises emotions and emotional responses to reflect the socio-culturally negotiated (regulated) 'appropriate' feeling rules in a particular social context. For athletes emotion training involves learning to "manage and control emotions according to expectations of the subculture… internalisation of values" (Maguire 2011, 415). This emotional management is ingrained in athletes' emotional responses and embodiment, and serves to sculpt their elite athlete habitus (Lutz and White 1986 and Puig and Vilanova 2011, 338).

In combination, discipline and feeling rules at the AIS inform social understandings and expressions of emotions within social interactions between athletes and their coaches and service providers. The example of 'Shit Bloke' demonstrates the normalisation of disciplinary techniques of emotion training, so that elite athletes come to embody and display the appropriate elite athlete attitude.

In summary this thesis argues that elite athletes are made at the AIS through training, which requires multiple agents' involvement in multiple interlinking elements, to reconstitute the habituses of athletes to become elite. Finally, I argue that the cultural production of elite athletes is epitomised during what I refer to as the 'crescendo' of training, when the physiological, embodied, moral, temporal, and emotional training processes and subject production have finally become natural, normalised and second nature. By this time the reconstituted habituses of elite athletes embody the 'feel' and experience the 'flow' necessary to maintain peak sporting performance.

Bibliography

Aalten, Anna. 2007. 'Listening to the Dancer's Body'. *The Sociological Review* 55 (s1): 109–25.

Aaltonen, Emilia. 2013. 'Punching like a Girl: Embodied Violence and Resistance in the Context of Women's Self-Defence'. *Journal of International Women's Studies* 13 (2): 51–65.

Adam, Barbara. 1995. *Timewatch: The Social Analysis of Time*. Cambridge: Polity Press.

Allen-Collinson, Jacquelyn. 2003. 'Running into Injury Time: Distance Running and Temporality'. *Sociology of Sport Journal* 20 (4): 331–50.

———. 2008. 'Running the Routes Together Co-Running and Knowledge in Action'. *Journal of Contemporary Ethnography* 37 (1): 38–61.

———. 2009. 'Sporting Embodiment: Sports Studies and the (Continuing) Promise of Phenomenology'. *Qualitative Research in Sport and Exercise* 1 (3): 279–96.

———. 2011. 'Intention and Epochē in Tension: Auto-phenomenography, Bracketing and a Novel Approach to Researching Sporting Embodiment'. *Qualitative Research in Sport, Exercise and Health* 3 (1): 48–62.

Allen-Collinson, Jacquelyn, and John Hockey. 2001. 'Runners' Tales: Auto-ethnography, Injury and Narrative'. *Auto/Biography* 9 (1&2): 95–106.

———. 2007. '"Working Out" Identity: Distance Runners and the Management of Disrupted Identity'. *Leisure Studies* 26 (4): 381–398

———. 2009. 'The Essence of Sporting Embodiment: Phenomenological Analyses of the Sporting Body'. *The International Journal of Interdisciplinary Social Sciences* 4 (4): 71–81.

———. 2010. 'Feeling the Way: Notes toward a Haptic Phenomenology of Distance Running and Scuba Diving'. *International Review for the Sociology of Sport*. September 46 (3): 330-345

Allen-Collinson, Jacquelyn, and Helen Owton. 2014. 'Intense Embodiment Senses of Heat in Women's Running and Boxing'. *Body & Society*, 21 (2): 245-268

Alvarez, Erick. 2009. *Muscle Boys: Gay Gym Culture*. New York: Routledge.

Anderson, Eric. 2002. 'Openly Gay Athletes Contesting Hegemonic Masculinity in a Homophobic Environment'. *Gender & Society* 16 (6): 860–77.

Anderson, Laura, Travis Triplett-Mcbride, Carl Foster, Scott Doberstein, and Glenn Brice. 2003. 'Impact of Training Patterns on Incidence of Illness and Injury during a Women's Collegiate Basketball Season.' *The Journal of Strength & Conditioning Research* 17 (4): 734–38.

Andrews, David L. 1993. 'Desperately Seeking Michel: Foucault's Genealogy, the Body, and Critical Sport Sociology.' *Sociology of Sport Journal* 10 (2): 148–67.

Aoki, Doug. 1996. ‘Sex and Muscle: The Female Bodybuilder Meets Lacan’. *Body & Society* 2 (4): 59–74.

Armstrong, Gary. 1998. *Football Hooligans: Knowing the Score*. Oxford: Berg Publisher Ltd.

Asad, Talal. 1997. ‘Remarks on the Anthropology of the Body’. In *Religion and the Body*, edited by Sarah Coakley. Cambridge: Cambridge University Press.

Australian Institute of Sport. 2009. ‘AIS Scholarships’. Website accessed 12-02-2009 <www.ais.gov.au/scholarships>.

Australian Olympic Committee. 2015. ‘Mexico City 1968’. Website accessed 15-07-2014 <http://corporate.olympics.com.au/games/mexico-city-1968/history>.

Australian Sports Commission. 2007a. ‘Ausport’ Newsletter. *Australian Government, Australian Sports Commission* 4 (1).

———. 2007b. ‘Residences Information’. Website accessed 02-02-2009 <http://www.ausport.gov.au/visit/residences_information>.

———. 2009a. ‘Fact Sheets’. Website accessed 05-10-2009 <http://www.ausport.gov.au/ais/nutrition/factsheets>.

———. 2009b. ‘Nutrition Department About Us’. Website accessed 1-08-2015 <http://www.ausport.gov.au/ais/nutrition/about_us>.

———. 2011. ‘Strength and Conditioning’. Website accessed 1-08-2015 <http://www.ausport.gov.au/ais/sssm/strength_and_conditioning>.

———. 2013. ‘Performance Psychology’. Website accessed 1-08-2015 <http://www.ausport.gov.au/ais/sssm/psychology>.

———. 2014a. ‘AIS Recovery Centre’. Website accessed 1-08-2015 <http://www.ausport.gov.au/ais/sssm/fatigue_and_recovery/ais_recovery_centre>.

———. 2014b. ‘Physiology’. Website accessed 1-08-2015 <http://www.ausport.gov.au/ais/sssm/physiology>.

———. 2014c. ‘Skill Acquisition’. Website accessed 1-08-2015 <http://www.ausport.gov.au/ais/sssm/ais_movement_science/skill_acquisition>.

———. 2015a. ‘Australia’s Winning Edge - High Performance Strategy’. Website accessed 27-04-2015 <http://www.ausport.gov.au/ais/australias_winning_edge>.

———. 2015b. ‘History and Successes’. Website accessed 27-04-2015 <http://www.ausport.gov.au/ais/about/history>.

———. 2015c. ‘What Is the AIS?’ Website accessed 27-04-2015 <http://www.ausport.gov.au/ais/about>.

Australia’s Chief Scientist. 2012. ‘Running on Thin Air’. Website accessed 27-04-2015 <http://www.chiefscientist.gov.au/2011/05/running-on-thin-air/>.

Bale, John. 1994. *Landscapes of Modern Sport*. Leicester: Leicester University Press.

Bale, John, and Chris Philo. 2002. *Body Cultures: Essays on Sport, Space & Identity by Henning Eichberg*. London: Routledge.

Barker-Ruchti, Natalie, and Richard Tinning. 2010. 'Foucault in Leotards: Corporeal Discipline in Women's Artistic Gymnastics'. *Sociology of Sport Journal* 27: 229–50.

Besnier, Niko, and Susan Brownell. 2012. 'Sport, Modernity, and the Body'. *Annual Review of Anthropology* 41 (1): 443–59.

Bissinger, Buzz. 2014. 'The Boys in the Clubhouse'. *The New York Times*,October 18, Website accessed 13-11-2014 <http://www.nytimes.com/2014/10/19/opinion/sunday/the-boys-in-the-clubhouse.html>.

Blanchard, Kendall. 1995. *The Anthropology of Sport: An Introduction*. Greenwood Publishing Group.

Bloor, Michael, Lee Monaghan, Russell P. Dobash, and Rebecca E. Dobash. 1998. 'The Body as a Chemistry Experiment: Steroid Use among South Wales Bodybuilders'. *The Body in Everyday Life, London: Routledge*, 27–44.

Bolin, Anne. 1997. Flex Appeal, Food, and Fat in *Building bodies*, Pamela L. Moore (editor), New Brunswick: Rutgers University Press184-208.

Bolin, Anne. 1998. Muscularity and Femininity: Women Bodybuilders and Women's Bodies in Culturo-Historical Context. *Fitness as cultural phenomenon* Karin Volkwein (editor), New York, NY: Waxmann 187-212.

Bolin, Anne, and Jane Granskog. 2003. 'Reflexive Ethnography, Women, and Sporting Activities'. *Athletic Intruders: Ethnographic Research on Women, Culture, and Exercise*, edited by Bolin, Anne, and Jane Granskog. New York: State University of New York, 7–25.

Bonaventure, Lionel. 2014. 'Nibali Wins 10th Stage in Tour de France'. *ABC News*. July 15. Website accessed 15-07-2014. <http://www.abc.net.au/news/2014-07-15/nibali-wins-10th-stage-in-tour-de-france/5596648>.

Bordo, Susan. 1999. 'Feminism and Foucault'. In *Feminist Theory and The Body*, edited by Janet Price and Margrit Shildrick. Edinburgh: Edinburgh University Press.

Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Translated by Richard Nice. Cambridge: Cambridge University Press.

———. 1990. *The Logic of Practice*. Translated by Richard Nice. Stanford: Stanford University Press.

———. 2011. 'The Forms of Capital (1986)'. In *Cultural Theory: An Anthology*, by Imre Szeman and Timothy Kaposy. West Sussex: John Wiley & Sons.

Bridel, William, and Geneviève Rail. 2007. 'Sport, Sexuality, and the Production of (resistant) Bodies: De-/re-Constructing the Meanings of Gay Male Marathon Corporeality'. *Sociology of Sport Journal* 24 (2): 127–44.

Brown, Brené. 2013. *The Gifts of Imperfection: Let Go of Who You Think You're Supposed to Be and Embrace Who You Are*. Minnesota: Hazelden Publishing.

Brownell, Susan. 1995. *Training the Body for China: Sports in the Moral Order of the People's Republic*. Chicago: University of Chicago Press.

Burke, Louise, and Australian Institute of Sport Department of Sports Nutrition. 1999. *Survival for the Fittest*. Sydney: Murdoch Magazines.

Bury, Michael. 1982. 'Chronic Illness as Biographical Disruption'. *Sociology of Health & Illness* 4 (2): 167–82.

Cambria, Nancy. 2013. 'Is It Really a Good Idea for Kids to Play a Sport All Year Round?: News. *Stltoday.com*. November 17. Website accessed 14-07-2014 <http://www.stltoday.com/news/local/metro/is-it-really-a-good-idea-for-kids-to-play/article_2e072908-c2d2-5616-8a77-69a1a88f2386.html>.

Carney, Dana R., Amy J.C. Cuddy, and Andy J. Yap. 2010. 'Power Posing Brief Nonverbal Displays Affect Neuroendocrine Levels and Risk Tolerance'. *Psychological Science* 21 (10): 1363–1368.

Carniel, Jessica. 2009. 'Sheilas, Wogs and Metrosexuals: Masculinity, Ethnicity and Australian Soccer'. *Soccer & Society* 10 (1): 73–83.

Charbonneau, Jan, and Ron Garland. 2005. 'Celebrity or Athlete? New Zealand Advertising Practitioners' Views on Their Use as Endorsers'. *International Journal of Sports Marketing & Sponsorship* 7 (1): 35-41.

Chisholm, Dianne. 2008. 'Climbing like a Girl: An Exemplary Adventure in Feminist Phenomenology'. *Hypatia* 23 (1): 9–40.

Clarke, Gill. 1998. 'Queering the Pitch and Coming Out to Play: Lesbians in Physical Education and Sport 1'. *Sport, Education and Society* 3 (2): 145–60.

Coakley, Jay, and Eric Dunning. 2000. *Handbook of Sports Studies*. London: Sage Publishers.

Coakley, Jay, Chris Hallinan, Peter Mewett, and Steven Jackson. 2009. *Sports in Society: Issues and Controversies in Australia and New Zealand*. North Ryde, New South Wales: McGraw-Hill.

Cole, C. L., Michael. D. Giardina, and David. L. Andrews. 2004. 'Michel Foucault: Studies of Power and Sport'. In *Sport and Modern Social Theorists*, edited by Richard Giulianotti. Basingstoke: Palgrave Macmillan.

Collins, Leslea Haravon. 2002. 'Working Out the Contradictions Feminism and Aerobics'. *Journal of Sport & Social Issues* 26 (1): 85–109.

Colvin, Geoffrey. 2008. *Talent Is Overrated: What Really Separated World-Class Performers from Everybody Else*. London: Nicholas Brealey Publishing.

Connell, Robert W. 1989. 'Cool Guys, Swots and Wimps: The Interplay of Masculinity and Education'. *Oxford Review of Education* 15 (3): 291–203.

Connell, Robert W., and James W. Messerschmidt. 2005. 'Hegemonic Masculinity Rethinking the Concept'. *Gender & Society* 19 (6): 829–59.

Connor, James. 2007. *The Sociology of Loyalty*. Canberra: Springer Science & Business Media.

Cornelius, Allen, David E. Conhoy, and Greg Petersen. 1997. 'The Projected Performance Model: Relating Cognitive and Performance Antecedents of Psychological Momentum'. *Perceptual and Motor Skills* 84 (2): 475–85.

Cox, Barbara, and Shona Thompson. 2000. 'Multiple Bodies Sportswomen, Soccer and Sexuality'. *International Review for the Sociology of Sport* 35 (1): 5–20.

Crossley, Nick. 1995. 'Merleau-Ponty, the Elusive Body and Carnal Sociology'. *Body & Society* 1 (1): 43–63.

———. 1996. 'Body-Subject/body-Power: Agency, Inscription and Control in Foucault and Merleau-Ponty'. *Body & Society* 2 (2): 99–116.

———. 2001. 'The Phenomenological Habitus and Its Construction'. *Theory and Society* 30 (1): 81–120.

———. 2004. 'The Circuit Trainer's Habitus: Reflexive Body Techniques and the Sociality of the Workout'. *Body & Society* 10 (1): 37–69.

———. 2005. 'Mapping Reflexive Body Techniques: On Body Modification and Maintenance'. *Body & Society* 11 (1): 1–35.

———. 2006. *Reflexive Embodiment in Contemporary Society: The Body in Late Modern Society*. Berkshire: Open University Press.

———. 2007. 'Researching Embodiment by Way of "body Techniques"'. *The Sociological Review* 55 (s1): 80–94.

Csikszentmihalyi, Mihaly. 1990. *Flow: The Psychology of Optimal Experience*. New York: Harper & Row.

Csordas, Thomas J. 1993. 'Somatic Modes of Attention'. *Cultural Anthropology* 8 (2): 135–56.

Cuddy, Amy JC. 2012. 'Your Body Language Shapes Who You Are TED Talk'. June. *TED Talks*. Website accessed 3-10-2013. <http://www.ted.com/talks/amy_cuddy_your_body_language_shapes_who_you_are?language=en>.

Cuddy, Amy J.C., Caroline Ashley Wilmuth, and Dana R. Carney. 2012. 'The Benefit of Power Posing before a High-Stakes Social Evaluation'. *Harvard Business School Working Paper*, No. 13-027, September.

Dawson, Marcelle C. 2015. 'CrossFit Fitness Cult or Re-inventive Institution?' *International Review for the Sociology of Sport*, June, 50: 640-644.

de Andrade Rodrigues, Heitor, and Suraya Cristina Darido. 2008. 'Sports Technique in Physical Education Classes: A Look at Socio-Cultural Tendencies'. *Movimento* 1 (January): 137–54.

Denison, Jim. 2007. 'Social Theory for Coaches: A Foucauldian Reading of One Athlete's Poor Performance'. *International Journal of Sports Science and Coaching* 2 (4): 369–83.

Desjarlais, Robert, and C. Jason Throop. 2011. 'Phenomenological Approaches in Anthropology'. *Annual Review of Anthropology* 40 (1): 87–102.

Downey, Greg. 2005. *Learning Capoeira: Lessons in Cunning from an Afro-Brazilian Art*. Oxford: University Press Oxford.

———. 2007. 'Producing Pain Techniques and Technologies in No-Holds-Barred Fighting'. *Social Studies of Science* 37 (2): 201–26.

———. 2008. ‘Scaffolding Imitation in Capoeira: Physical Education and Enculturation in an Afro-Brazilian Art’. *American Anthropologist* 110 (2): 204–13.

———. 2010. ‘Throwing Like a Brazilian: On Ineptness and a Skill-Shaped Body’. In *Anthropology of Sport and Human Movement*, edited by Robert R. Sands and Linda R. Sands. Maryland: Lexington Books.

Dunning, Eric, Dominic Malcolm, and Ivan Waddington. 2004. *Sport Histories: Figurational Studies in the Development of Modern Sports*. London: Routledge.

Dworkin, Shari L. 2003. ‘A Woman’s Place Is in the… Cardiovascular Room? Gender Relations, the Body, and the Gym’. *Athletic Intruders: Ethnographic Research on Women, Culture, and Exercise* edited by Bolin, Anne, and Jane Granskog. New York: State University of New York.

Eichberg, Henning. 2009. ‘Body Culture’. *Physical Culture and Sport. Studies and Research* 46 (1): 79–98.

Eitzen, Stanley D. 2000. ‘Social Control and Sport’. In *The Handbook of Sports Studies*, edited by Jay J. Coakley and Eric Dunning. London: Sage Publications, 370–81.

Elias, Norbert, and Edmund Jephcott. 1982. *The Civilizing Process*. Vol. 2. New York: Pantheon Books.

Erben, Michael. 1998. ‘Biography and Research Method’. In *Biography and Education: A Reader*, edited by Michael Erben. London: Farmer Press.

Ericsson, K. Anders. 2006. ‘The Influence of Experience and Deliberate Practice on the Development of Superior Expert Performance’. *The Cambridge Handbook of Expertise and Expert Performance*, edited by K. Anders Ericsson, Neil Charness, Paul J. Feltovich, Robert R. Hoffman. Cambridge: Cambridge University Press.

Ericsson, K. Anders, Ralf T. Krampe, and Clemens Tesch-Römer. 1993. ‘The Role of Deliberate Practice in the Acquisition of Expert Performance.’ *Psychological Review* 100 (3): 363.

Feldman, Sandor S. 1962. ‘Blushing, Fear of Blushing, and Shame’. *Journal of the American Psychoanalytic Association* 10 (2): 368–85.

Finn, G. P. T. 1991. ‘Racism, Religion and Social Prejudice: Irish Catholic Clubs, Soccer and Scottish Society — I the Historical Roots of Prejudice’. *The International Journal of the History of Sport* 8 (1): 72–95.

Fletcher, David, and Mustafa Sarkar. 2012. ‘A Grounded Theory of Psychological Resilience in Olympic Champions’. *Psychology of Sport and Exercise* 13 (5): 669–78.

Folland, Jonathan P., and Alun G. Williams. 2007. ‘The Adaptations to Strength Training : Morphological and Neurological Contributions to Increased Strength’. *Sports Medicine (Auckland, N.Z.)* 37 (2): 145–68.

Foucault, Michel. 1984. *The Foucault Reader: An Introduction to Foucault’s Thought*. Edited by Paul Rabinow. London: Penguin Books.

———. 1989. *Birth of the Clinic*. London: Routledge.

———. 1991. *Discipline and Punish*. London: Penguin Books.

———. 1997. *Sex, Power, and the Politics of Identity*. Edited by Paul Rabinow.

Translated by Robert Hurley. Vol. 1. New York: New Press.

———. 1998. *The History of Sexulaity: Volume One The Will to Knowledge*. London: Penguin Books.

———. 2006. *The Archaeology of Knowledge*. Abingdon: Routledge.

Frank, Arthur W. 2012. 'The Varieties of My Body: Pain, Ethics and Illusio'. *The Routledge Handbook of the Body*, edited by Bryan S Turner. Oxon: Routledge.

Furst, R. Terry. 1971. 'Social Change and the Commercialization of Professional Sports'. *International Review for the Sociology of Sport* 6 (1): 153–73.

Garrigou, Alain. 2006. 'Illusio in Sport'. *Sport in Society* 9 (4): 665–73.

Geertz, Clifford. 1973. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

———. 1994. 'Readings in the Philosophy of Social Science'. In *Thick Description: Toward an Interpretive Theory of Culture*, by Lee C. McIntyre and Michael Martin. Cambridge, Massachusetts: The MIT Press.

George, Molly. 2005. 'Making Sense of Muscle: The Body Experiences of Collegiate Women Athletes'. *Sociological Inquiry* 75 (3): 317–45.

Gill, Lesley. 1997. 'Creating Citizens, Making Men: The Military and Masculinity in Bolivia'. *Cultural Anthropology* 12 (4): 527–50.

Gill, Rosalind, Karen Henwood, and Carl McLean. 2005. 'Body Projects and the Regulation of Normative Masculinity'. *Body & Society* 11 (1): 37–62.

Gleeson, Michael. 2012. 'Pearson Quickest in 100m Hurdles Heats'. *Sydney Morning Herald*, August 6. Website accessed 7-08-2012 <http://www.smh.com.au/olympics/athletics-london-2012/pearson-quickest-in-100m-hurdles-heats-20120806-23q41.html>.

Goffman, Erving. 1955. 'On Face-Work: An Analysis of Ritual Elements in Social Interaction'. *Psychiatry* 18 (3): 213–31.

———. 1959. *The Presentation of Self in Everyday Life*. New York City. Penguin Random House.

———. 1967. *Interaction Ritual, Chapter on Face-Work*. New York: Pantheon Books.

———. 1968. *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. Aldine: Transaction Publishers.

Grandjean, Burke D., Patricia A. Taylor, and Jay Weiner. 2002. 'Confidence, Concentration, and Competitive Performance of Elite Athletes: A Natural Experiment in Olympic Gymnastics.' *Journal of Sport & Exercise Psychology* 24 (3): 320–27.

Green, Jill. 2003. 'Foucault and the Training of Docile Bodies in Dance Education'. *The Journal of the Arts and Learning Special Interest Group of the American Education Research Association* 19 (1): 99–125.

Grove, J. Robert, David Lavallee, and Sandy Gordon. 1997. 'Coping with Retirement from Sport: The Influence of Athletic Identity'. *Journal of Applied Sport Psychology* 9 (2): 191–203.

Guttmann, Allen. 2004. *From Ritual to Record: The Nature of Modern Sports*. New York: Columbia University Press.

Hacking, Ian. 1986. 'Making Up People'. In *Reconstructing Individualism*, edited by Thomas Heller, Sosha Martin, and David E. Wellberry. Stanford: Standord University Press.

———. 2004. 'Between Michel Foucault and Erving Goffman: Between Discourse in the Abstract and Face-to-Face Interaction'. *Economy and Society* 33 (3): 277–302.

———. 2007. 'Kinds of People: Moving Targets'. In *Proceedings of the British Academy*, 151:285–318. London: The British Academy.

Hall, M. Ann. 1996. *Feminism and Sporting Bodies: Essays on Theory and Practice*. Champaign, Illinois: Human Kinetics Publishers.

Halson, Shona L. 2008. 'Nutrition, Sleep and Recovery'. *European Journal of Sport Science* 8 (2): 119–26.

Halson, Shona L., Matthew W. Bridge, Romain Meeusen, Bart Busschaert, Michael Gleeson, David A. Jones, and Asker E. Jeukendrup. 2002. 'Time Course of Performance Changes and Fatigue Markers during Intensified Training in Trained Cyclists'. *Journal of Applied Physiology* 93 (3): 947–56.

Halson, Shona L., and Asker E. Jeukendrup. 2004. 'Does Overtraining Exist?' *Sports Medicine* 34 (14): 967–81.

Halson, Shona L., Graeme I. Lancaster, Asker E. Jeukendrup, and Michael Gleeson. 2003. 'Immunological Responses to Overreaching in Cyclists.' *Medicine and Science in Sports and Exercise* 35 (5): 854–61.

Hardin, Marie. 2007. '"I Consider Myself an Empowered Woman": The Interaction of Sport, Gender and Disability in the Lives of Wheelchair Basketball Players'. *Women in Sport & Physical Activity Journal* 16 (1): 39.

Harris, Rosemary, and Gary Armstrong. 1991. 'Football Hooligans: Theory and Evidence'. *The Sociological Review* 39 (3 (August): 427–58.

Heikkala, Juha. 1993. 'Discipline and Excel: Techniques of the Self and Body and the Logic of Competing'. *Sociology of Sport Journal* 10: 397–397.

Heinemann, Klaus. 1980. 'Sport and the Sociology of the Body'. *International Review for the Sociology of Sport* 15 (3-4): 41–56.

Helliwell, Christine, and Barry Hindess. 1999. 'Power'. In *Sociology: Issues and Debates*, edited by Steve Taylor. London: Macmillan Press Ltd.

Hochschild, Arlie Russell. 1979. 'Emotion Work, Feeling Rules, and Social Structure'. *American Journal of Sociology*, 551-575.

———. 2003. *The Managed Heart: Commercialization of Human Feeling, With a New Afterword*. California: University of California Press.

Hockey, John, and Jacquelyn Allen-Collinson. 2007. 'Grasping the Phenomenology of Sporting Bodies'. *International Review for the Sociology of Sport* 42 (2): 115–31.

Holt, Richard. 1990. *Sport and the British: A Modern History*. Oxford: Oxford University Press.

Howe, P. David. 2003. 'Kicking Stereotypes into Touch. An Ethnographic Account'. *Athletic Intruders: Ethnographic Research on Women, Culture, and Exercise*, edited by Bolin, Anne, and Jane Granskog. New York: State University of New York.

Huff, Joyce L. 2001. 'A "Horro of Corpulence"'. In *Bodies out of Bounds*, edited by Kathleen LeBesco and Jana Evans Braziel. Berkeley: University of California Press.

Hughes, John A., Wes Sharrock, and Peter J. Martin. 2003. *Understanding Classical Sociology: Marx, Weber, Durkheim*. London: Sage Publications.

Hughes, Robert, and Jay Coakley. 1991. 'Positive Deviance among Athletes: The Implications of Overconformity to the Sport Ethic'. *Sociology of Sport Journal* 8 (4): 307–25.

Hutzler, Yeshayahu, and Uri Bergman. 2011. 'Facilitators and Barriers to Participation While Pursuing an Athletic Career: Retrospective Accounts of Swimmers with Disabilities'. *Therapeutic Recreation Journal* 45 (1): 1–16.

Ingold, Tim. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Ivey, Frederick M., Stephen M. Roth, Robert E. Ferrell, Brian L. Tracy, Jeffrey T. Lemmer, Diane E. Hurlbut, Gregory F. Martel, Eliot L. Siegel, James L. Fozard, and E. Jeffrey Metter. 2000. 'Effects of Age, Gender, and Myostatin Genotype on the Hypertrophic Response to Heavy Resistance Strength Training'. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences* 55 (11): M641–48.

Jackson, Michael. 1983. 'Knowledge of the Body'. *Man*, New Series, 18 (2): 327–45.

Jackson, Susan A. 1992. 'Athletes in Flow: A Qualitative Investigation of Flow States in Elite Figure Skaters'. *Journal of Applied Sport Psychology* 4 (2): 161–80.

———. 1996. 'Toward a Conceptual Understanding of the Flow Experience in Elite Athletes'. *Research Quarterly for Exercise and Sport* 67 (1): 76–90.

Jenkins, Mark A. 2005. 'Sick and Tired Athletes'. *Sports Med Web*. Website accessed 16-05-2013. <http://www.rice.edu/~jenky/mednav.html>.

Johns, David P., and Jennifer S. Johns. 2000. 'Surveillance, Subjectivism and Technologies of Power an Analysis of the Discursive Practice of High-Performance Sport'. *International Review for the Sociology of Sport* 35 (2): 219–34.

Jones, Lee, and Joseph McMillan. 1996. 'Blacks, Basketball, and the Predominately White Institution: The Maafa Continues'. *Different Perspectives on Majority Rules*. April. Paper 16.

Jones, Marc V., David Lavallee, and Joanne Thatcher. 2011. *Coping and Emotion in Sport*. London: Routledge.

Jones, Marc V., Roger D. Mace, and Simon Williams. 2000. 'Relationship between Emotional State and Performance during International Field Hockey Matches'. *Perceptual and Motor Skills* 90 (2): 691–701.

Jones, Robyn L., Nikki Glintmeyer, and Alex McKenzie. 2005. 'Slim Bodies, Eating Disorders and the Coach-Athlete Relationship A Tale of Identity Creation and Disruption'. *International Review for the Sociology of Sport* 40 (3): 377–91.

Jordan, Michael, and Mark Vancil. 1993. *Rare Air: Michael on Michael*. San Francisco: Collins Publishers.

Jowsey, Tanisha, Ian S. McRae, Jose M. Valderas, Paul Dugdale, Rebecca Phillips, Robin Bunton, James Gillespie. 2013. 'Time's Up. Descriptive Epidemiology of Multi-Morbidity and Time Spent on Health Related Activity by Older Australians: A Time Use Survey'. *PLoS ONE* 8 (4): e59379.

Katz, Stephen. 2001. 'Michel Foucault'. In *Profiles in Contemporary Social Theory*, edited by Anthony Elliott and Bryan S. Turner. London: Sage Publications.

Kelly, Mark G. E. 2013. 'Foucault, Subjectivity, and Technologies of the Self'. In *A Companion to Foucault*, edited by Christopher Falzon, Jana Sawicki, and Timothy O'Leary, First Edition, 510–25. West Sussex: Blackwell Publishing Ltd.

Keltner, Dacher, and Jonathan Haidt. 1999. 'Social Functions of Emotions at Four Levels of Analysis'. *Cognition & Emotion* 13 (5): 505–21.

Kemper, Theodore D. 1978. 'Toward a Sociology of Emotions: Some Problems and Some Solutions'. *The American Sociologist*, 13 (February): 30-41.

———. 1990. 'Social Relations and Emotions: A Structural Approach'. *Research Agendas in the Sociology of Emotions*, edited by Kemper, Theodore D. 207–37.

Kennedy, Eileen, and Pirkko Markula. 2011. *Women and Exercise: The Body, Health and Consumerism*. New York: Routledge.

Kenttä, Göran, and Peter Hassmén. 1998. 'Overtraining and Recovery'. *Sports Medicine* 26 (1): 1–16.

Kerry, Daniel S., and Kathleen M. Armour. 2000. 'Sport Sciences and the Promise of Phenomenology: Philosophy, Method, and Insight'. *Quest* 52 (1): 1–17.

Kidd, Dorothy. 1983. 'Getting Physical: Compulsory Heterosexuality and Sport'. *Canadian Woman Studies* 4 (3): 62-65.

Kirsch, George B. 1989. *The Creation of American Team Sports: Baseball and Cricket*. Illinois: University of Illinois Press.

Klein, Alan M. *Little big men: Bodybuilding Subculture and Gender Construction*. Suny Press, 1993.

Knight, Anneli. 2012. 'London 2012 Olympics: Australia Celebrates Silver over Gold'. *The Telegraph*, August 6, sec. Sport. Website accessed 8-08-2012 <http://www.telegraph.co.uk/sport/olympics/9455888/London-2012-Olympics-Australia-celebrates-silver-over-gold.html>.

Kravitz, Len. 1996. 'Resistance Training: Adaptations and Health Implications'. *Idea Today* 14: 38–49.

Lafferty, Yvonne. 2007. 'For the Boys: A Qualitative Study of Women's Gender Strategies and Emotional Labour in Professional Boxing'. *Unpublished PhD thesis*: Queensland, Australia: University of Queensland.

LangVid Language Training. 2010. 'Studying Styles: A Guide to Learning Styles'. Website accessed 14-06-2013. <http://studyingstyle.com/tactile-kinesthetic-learners.html>.

Lewis, Michael. 2003. 'The Role of the Self in Shame'. *Social Research: An International Quarterly*. 70, (4 Winter): 1181–1204.

Lewis, Neil. 2000. 'The Climbing Body, Nature and the Experience of Modernity'. *Body & Society* 6 (3-4): 58–80.

Liu, Lucen, and P. David Howe. 2012. 'Phenomenology and Embodiment in Cross-Cultural Sporting Contexts: A Case of Chinese Female Students'. *Asia Pacific Journal of Sport and Social Science* 1 (2-3): 169–185.

Lock, Margaret. 1989. 'Words of Fear, Words of Power: Nerves and the Awakening of Political Consciousness'. *Medical Anthropology: Cross-Cultural Studies in Health and Illness* 11 (1): 79-90

Lothian, Judith A. 2011. 'Lamaze Breathing'. *The Journal of Perinatal Education* 20 (2): 118–20.

Lowe, Maria R. 1998. *Women of Steel: Female Bodybuilders and the Struggle for Self-Definition*. New York: New York University Press.

Lupton, Deborah. 1997. 'Foucault and the Medicalisation Critique'. In *Foucault, Health and Medicine*, edited by Alan Petersen and Robin Bunton. London: Routledge.

———. 1998. 'Risk and the Ontology of Pregnant Embodiment'. In *Risk and Sociocultural Theory: New Directions and Perspectives*, edited by Deborah Lupton. Cambridge: Cambridge University Press.

———. 2000. 'The Social Construction of Medicine and the Body'. In *Handbook of Social Sciences in Health and Medicine*, edited by Gary L. Albrecht, Ray Fitzpatrick, and Susan C Scrimshaw. London: Sage Publications.

———. 2012. *Medicine as Culture: Illness, Disease and the Body*. London: Sage Publications.

Lutz, Catherine, and Geoffrey M. White. 1986. 'The Anthropology of Emotions'. *Annual Review of Anthropology* 15: 405–36.

Lyman, Stanford M., and Marvin B. Scott. 1968. 'Coolness in Everyday Life'. In *The Sociology of the Absurd*, Second Edition, by Lyman, Stanford M., and Marvin B. Scott. New York: General Hall Inc.

Lyon, Margot L. 1995. 'Missing Emotion: The Limitations of Cultural Constructionism in the Study of Emotion'. *Cultural Anthropology* 10 (2): 244–63.

———. 1997. 'The Material Body, Social Processes and Emotion: Techniques of the Body' Revisited'. *Body & Society* 3 (1): 83–101.

Macey, David. 2000. *The Penguin Dictionary of Critical Theory*. London: Penguin Books.

Maguire, Joseph. 1993. 'Bodies, Sports Cultures and Societies: A Critical Review of Some Theories in the Sociology of the Body'. *International Review for the Sociology of Sport* 28 (1): 33–52.

Maguire, Joseph A. 2011. 'Welcome to the Pleasure Dome?: Emotions, Leisure and Society'. *Sport in Society* 14 (7-8): 913–26.

Manley, Andrew, Catherine Palmer, and Martin Roderick. 2012. 'Disciplinary Power, The Oligopticon And Rhizomatic Surveillance In Elite Sports Academies'. *Surveillance & Society* 10.3/4 (2012): 303.

Markula, Pirkko. 2003. 'The Technologies of the Self: Sport, Feminism, and Foucault'. *Sociology of Sport Journal* 20 (2): 87–107.

———. 2011. '"Folding" A Feminist Intervention on Mindful Fitness'. In *Women and Exercise: The Body, Health and Consumerism*, edited by Eileen Kennedy and Pirkko Markula. New York: Routledge.

Markula, Pirkko, and Richard Pringle. 2006. *Foucault, Sport and Exercise: Power, Knowledge and Transforming the Self*. Abingdon: Routledge.

Marsh, Herbert W., and Susan A. Jackson. 1999. 'Flow Experience in Sport: Construct Validation of Multidimensional, Hierarchical State and Trait Responses'. *Structural Equation Modeling: A Multidisciplinary Journal* 6 (4): 343–71.

Maslen, Sarah. 2015. 'Researching the Senses as Knowledge'. *The Senses and Society* 10 (1): 52–70.

Mauss, Marcel. 1973. 'Techniques of the Body'. *Economy and Society* 2 (1): 70–88.

McCarthy, Paul J. 2011. 'Positive Emotion in Sport Performance: Current Status and Future Directions'. *International Review of Sport and Exercise Psychology* 4 (1): 50–69.

McKay, Jim. 1994. 'Masculine Hegemony, the State and the Incorporation of Gender Equity Discourse: The Case of Australian Sport'. *Politics* 29 (1): 82–95.

McMahon, Jenny, and Maree DinanThompson. 2011. '"Body Work—regulation of a Swimmer Body": An Autoethnography from an Australian Elite Swimmer'. *Sport, Education and Society* 16 (1): 35–50.

McMahon, Jenny, Dawn Penney, and Maree DinanThompson. 2012. '"Body Practices—exposure and Effect of a Sporting culture?" Stories from Three Australian Swimmers'. *Sport, Education and Society* 17 (2): 181–206.

Merleau-Ponty, Maurice. 2001. *Phenomenology of Perception*. Translated by Colin Smith. London: Routledge & Kegan Paul.

Mitchell, Natasha. 2014. 'Fit, but Not Healthy'. *Radio National: Life Matters*. ABC. Website accessed 12-12-2014 <http://www.abc.net.au/radionational/programs/lifematters/fit2c-but-but-healthy/5957154>.

Monaghan, Lee. 1997. *'We' are Not Druggies, We're Athletes': Bodybuilding, Polypharmacology and Self-Identity*. Unpublished PhD thesis, Cardiff, Wales: University of Wales

———. 1999. 'Creatingthe Perfect Body': A Variable Project'. *Body & Society* 5 (2-3): 267–90.

———. 2001. 'Looking Good, Feeling Good: The Embodied Pleasures of Vibrant Physicality'. *Sociology of Health & Illness* 23 (3): 330–56.

———. 2001. *Body Building*. Wiley Online Library. http://onlinelibrary.wiley.com/doi/10.1002/9781118896877.wbiehs061/full.

———. 2014. '"Postmodern" Muscle: The Embodied Pleasures of Vibrant Physicality'. *Challenging Myths of Masculinity: Understanding Physical Cultures*, by Lee F. Monaghan and Michael Atkinson. Surry: Ashgate, 15-38.

Moore, Pamela L. 1997. *Building Bodies*. New Brunswick: Rutgers University Press.

Morley, James. 2001. 'Inspiration and Expiration: Yoga Practice through Merleau-Ponty's Phenomenology of the Body'. *Philosophy East and West* 51 (1): 73–82.

Morris, David. 2008. 'Diabetes, Chronic Illness and the Bodily Roots of Ecstatic Temporality'. *Human Studies: A Journal for Philosophy and the Social Sciences* 31 (4): 399–421.

Morris, J. Andrew, and Daniel C. Feldman. 1997. 'Managing Emotions in the Workplace'. *Journal of Managerial Issues*, 9, (3) Fall: 257–74.

Munn, Nancy D. 1992. 'The Cultural Anthropology of Time: A Critical Essay'. *Annual Review of Anthropology* 21 (January): 93–123.

Murray, Samantha. 2005. 'Doing Politics of Selling Out? Lining the Fat Body'. *Women's Studies*, 34 (3-4): 265–77.

———. 2007. 'Corporeal Knowledge and Deviant Bodies: Perceiving the Fat Body'. *Social Semiotics* 17 (3): 361–73.

———. 2008. 'Normative Imperatives Vs Pathological Imperatives: Constructing the "Fat" Woman'. *Australian Feminist Studies* 23 (56): 213–24.

Nakamura, Jeanne, and Mihaly Csikszentmihalyi. 2014. 'The Concept of Flow'. In *Flow and the Foundations of Positive Psychology*, 239–63. Springer Netherlands.

Nelson, Garry. 1996. *Left Foot Forward: A Year in the Life of a Journeyman Footballer*. London: Headline Book Publishing.

Newman, Bruce. 2008. 'Lucky Number Inspired China to Start Olympics at 8:08 P.m., 8/8/08'. *Mercury News*, August 7. Website accessed 03-09-2014. <http://www.mercurynews.com/ci_10124542>.

Noble, Greg. 2013. '"It Is Home but It Is Not Home": Habitus, Field and the Migrant'. *Journal of Sociology* 49 (2-3): 341–56.

Noble, Greg, and Megan Watkins. 2003. 'So, How Did Bourdieu Learn to Play Tennis? Habitus, Consciousness and Habituation'. *Cultural Studies* 17 (3-4): 520–39.

Online Daily Mail. 2012. 'We Need More Money! Australian Olympic Chief Blames Medal Failure on Low Funding'. *Mail Online*. August 6. Website accessed 14-08-2012. <http://www.dailymail.co.uk/sport/olympics/article-2184320/London-2012-Olympics-Australia-medal-failure-lack-funding--John-Coates.html>.

Packer, Martin. 2010. *The Science of Qualitative Research*. Cambridge: Cambridge University Press.

Palmer, Catherine. 2002. 'Introduction: Anthropology and Sport'. *The Australian Journal of Anthropology* 13 (3): 253.

Parsons, Talcott. 1975. 'The Sick Role and the Role of the Physician Reconsidered'. *The Milbank Memorial Fund Quarterly. Health and Society* 53 (3): 257–78.

Pelak, Cynthia Fabrizio. 2005. 'Negotiating Gender/Race/Class Constraints in the New South Africa a Case Study of Women's Soccer'. *International Review for the Sociology of Sport* 40 (1): 53–70.

Penn, Nate, and David Gargill. 2006. 'The Ten Most Hated Athletes'. *GQ*. Website accessed 19-06-2013. <http://www.gq.com/story/most-hates-athletes>.

Petersen, Alan. 1997. 'Risk, Governance and the New Public Health'. In *Foucault, Health and Medicine*, edited by Alan Petersen and Robin Bunton. London: Routledge.

Phoenix, Cassandra, Brett Smith, and Andrew C. Sparkes. 2007. 'Experiences and Expectations of Biographical Time among Young Athletes A Life Course Perspective'. *Time & Society* 16 (2-3): 231–52.

Phoenix, Cassandra, and Andrew C. Sparkes. 2007. 'Sporting Bodies, Ageing, Narrative Mapping and Young Team Athletes: An Analysis of Possible Selves'. *Sport, Education and Society* 12 (1): 1–17.

Potter, Caroline. 2008. 'Sense of Motion, Senses of Self: Becoming a Dancer'. *Ethnos* 73 (4): 444–65.

Pringle, Richard G., and Christopher Hickey. 2010. 'Negotiating Masculinities via the Moral Problematisation of Sport'. *Sociology of Sport Journal* 27 (2): 115–38.

Pringle, Richard. 2010. 'Finding Pleasure in Physical Education: A Critical Examination of the Educative Value of Positive Movement Affects'. *Quest* 62 (2): 119–34.

Pringle, Richard, and Pirkko Markula. 2005. 'No Pain Is Sane after All: A Foucauldian Analysis of Masculinities and Men's Experiences in Rugby'. *Sociology of Sport Journal* 22 (4): 472.

Privette, Gayle. 1983. 'Peak Experience, Peak Performance, and Flow: A Comparative Analysis of Positive Human Experiences.' *Journal of Personality and Social Psychology* 45 (6): 1361-1368.

Probyn, Elspeth. 2004. 'Everyday Shame'. *Cultural Studies* 18 (2-3): 328–49.

Pronger, Brian. 1990. *The Arena of Masculinity: Sports, Homosexuality, and the Meaning of Sex*. London: Macmillan.

Puig, Núria, and Anna Vilanova. 2011. 'Positive Functions of Emotions in Achievement Sports'. *Research Quarterly for Exercise and Sport* 82 (2): 334–44.

Rabinow, Paul, and Robert Hurley. 1997. *The Essential Works of Michel Foucault, 1954-1984*. New York: New Press.

Rabinow, Paul, and Nikolas Rose. 2006. 'Biopower Today'. *BioSciences* 61 (1): 195–217.

Raewyn Connell. 2015. 'An Iron Man: The Body and Some Contradictions of Hegemonic Masculinity'. In *Sociological Perspectives on Sport: The Games Outside the Games*, edited by David Karen and Robert E. Washington. London: Routledge.

Rail, Genevieve. 1990. 'Physical Contact in Women's Basketball: A First Interpretation'. *International Review for the Sociology of Sport* 25 (4): 269–85.

———. 1992. 'Physical Contact in Women's Basketball: A Phenomenological Construction and Contextualization'. *International Review for the Sociology of Sport* 27 (1): 1–24.

Rees, Tim, Brett Smith, and Andrew C. Sparkes. 2003. 'The Influence of Social Support on the Lived Experiences of Spinal Cord Injured Sportsmen.' *Sport Psychologist* 17 (2): 135–56.

Reilly, Rick 2010. 'The Misbehaviour of Athletes'. *ESPN.com*. January 27. Website Accessed 16-7-2014 <http://espn.go.com/espn/columns/story?columnist=reilly_rick&id=4861102&sportCat=ncf.>

Reilly, Thomas, and Ben Edwards. 2007. 'Altered Sleep–wake Cycles and Physical Performance in Athletes'. *Physiology & Behavior*, Includes a Special Section on Chronobiology Aspects of the Sleep--Wake Cycle and Thermoreregulation, 90 (2–3): 274–84.

Rigauer, Bero. 1981. *Sport and Work. Translated by Allen Guttmann*. New York: Columbia University Press.

Ritzer, George. 2000. *Sociological Theory*. Fifth Edition. New York: University of Maryland.

RMIT University. 2007. 'Study and Learning Centre: Learning Styles'. Website accessed 14-06-2013. <https://www.dlsweb.rmit.edu.au/lsu/content/1_StudySkills/study_tuts/learning%20styles/kinesthetic.html>.

Roderick, Martin. 2006. *The Work of Professional Football: A Labour Of Love?*. London: Routledge

Roderick, Martin, Ivan Waddington, and Graham Parker. 2000 'Playing Hurt managing injuries in English professional football' *International Review for the Sociology of Sport* 35, no. 2 (2000): 165-180.

Rose, Nikolas. 2007. *The Politics of Life Itself: Biomedicine, Power and Subjectivity in the Twenty First Century*. Princeton: Princeton University Press.

Roussel, Peggy, Lee F. Monaghan, Sophie Javerlhiac, and François Le Yondre. 2010. 'The Metamorphosis of Female Bodybuilders: Judging a Paroxysmal Body?' *International Review for the Sociology of Sport* 45 (1): 103–9.

Rowland, Thomas W. 2011. *Athlete's Clock, The: How Biology and Time Affect Sport Performance*. Champaign, Illinois: Human Kinetics.

Russell, James A. 1991. 'Culture and the Categorization of Emotions.' *Psychological Bulletin* 110 (3): 426.

Ryle, Gilbert. 1968. *The Thinking of Thoughts*. 18. Saskatoon: University of Saskatchewan.

Salovey, Peter, and John D. Mayer. 1989. 'Emotional Intelligence'. *Imagination, Cognition and Personality* 9 (3): 185–211.

Sandelowski, Margarete. 2002. 'Re-embodying Qualitative Inquiry'. *Qualitative Health Research* 12 (1): 104–15.

Sands, Robert R. 1995. *Instant Acceleration: Living in the Fast Lane: The Cultural Identity of Speed*. Lanham: University Press of America.

———. 1999. *Anthropology, Sport, and Culture*. Westport, Connecticut: Greenwood Press.

Sassatelli, Roberta. 2000. 'The Commercialization of Discipline: Keep-Fit Culture and Its Values'. *Journal of Modern Italian Studies* 5 (3): 396–411.

———. 2010. *Fitness Culture: Gyms and the Commercialisation of Discipline and Fun*. New York: Palgrave Macmillan.

Scheff, Thomas J. 1988. 'Shame and Conformity: The Deference-Emotion System'. *American Sociological Review*, 53, (3) June: 395–406.

Scott, Joan W. 2013. 'Experience'. In *Feminists Theorize the Political*, by Joan W. Scott and Judith Butler. London: Routledge.

Scott, Susie. 2010a. 'How to Look Good (nearly) Naked: The Performative Regulation of the Swimmer's Body'. *Body & Society* 16 (2): 143–68.

———. 2010b. 'Revisiting the Total Institution: Performative Regulation in the Reinventive Institution'. *Sociology* 44 (2): 213–31.

Sedgwick, Eve Kosofsky, and Michael Moon. 1993. 'Divinity: A Dossier; a Performance Piece, a Little-Understood Emotion'. In *Tendencies*, 215–51. North Carolina: Duke University Press.

Segrave, Jeffrey O. 2000. 'Sport as Escape'. *Journal of Sport & Social Issues* 24 (1): 61–77.

Seidman, Steven. 2004. *Contest Knowledge: Social Theory Today*. Third Edition. Victoria: Blackwell Publishing Ltd.

Shilling, Chris. 1991. 'Educating the Body: Physical Capital and the Production of Social Inequalities'. *Sociology* 25 (4): 653–72.

———. 1993. *The Body and Social Theory*. London: Sage Publications, Ltd.

———. 2008. *Changing Bodies: Habit, Crisis and Creativity*. London: Sage Publications.

———. 2012. *The Body and Social Theory*. London: Sage Publications.

Shogan, Debra A. 1999. *The Making of High-Performance Athletes: Discipline, Diversity, and Ethics*. Toronto: University of Toronto Press.

Smart, Barry. 2005. *The Sport Star: Modern Sport and the Cultural Economy of Sporting Celebrity*. London: Sage Publications.

Smith, Greg. 2002. 'Racing against Time? Aspects of the Temporal Organization of the Runner's World'. *Symbolic Interaction* 25 (3): 343–62.

Snyder, Eldon E., and Ronald Ammons. 1993. 'Baseball's Emotion Work: Getting Psyched to Play'. *Qualitative Sociology* 16 (2): 111–32.

Sorokin, Pitirim A., and Robert K. Merton. 1937. 'Social Time: A Methodological and Functional Analysis'. *American Journal of Sociology* 42 (5): 615–29.

Sparkes, Andrew C., and Brett Smith. 2003. 'Men, Sport, Spinal Cord Injury and Narrative Time'. *Qualitative Research* 3 (3): 295–320.

Spencer, Dale C. 2009. 'Habit (us), Body Techniques and Body Callusing: An Ethnography of Mixed Martial Arts'. *Body & Society* 15 (4): 119–43.

Stavrou, Nektarios A., Susan A. Jackson, Yannis Zervas, Konstantinos Karteroliotis. 2007. 'Flow Experience and Athletes' Performance with Reference to the Orthogonal Model of Flow'. *Sport Psychologist* 21 (4): 438- 457.

Straus, Erwin W. 1966. 'The Upright Posture'. In *Essays in Phenomenology*, edited by Maurice Natanson. Amsterdam: Springer Netherlands.

Steinberg, Leigh. 2013. 'Misbehaviour Needs Scrutiny and Perspective'. *Forbes*. July 13. Website accessed 16-7-2014 <http://www.forbes.com/sites/leighsteinberg/2013/07/13/misbehavior-needs-scrutiny-and-perspective/>.

Thing, Lone Friis and Lars Tore Ronglan. 2015. 'Athletes Confessions: The Sports Biography as an Interaction Ritual'. *Scandinavian Journal of Medicine & Science in Sports* 25 (2): 280–88.

Throsby, Karen. 2013. '"If I Go in like a Cranky Sea Lion, I Come out like a Smiling Dolphin": Marathon Swimming and the Unexpected Pleasures of Being a Body in Water'. *Feminist Review*, 103 (March): 5–22.

Trujillo, Nick. 1991. 'Hegemonic Masculinity on the Mound: Media Representations of Nolan Ryan and American Sports Culture'. *Critical Studies in Media Communication* 8 (3): 290–308.

Tulle, Emmanuelle. 2008. 'The Ageing Body and the Ontology of Ageing: Athletic Competence in Later Life'. *Body & Society* 14 (3): 1–19.

Turner, Terence. 1995. 'Social Body and Embodied Subject: Bodiliness, Subjectivity, and Sociality among the Kayapo'. *Cultural Anthropology* 10 (2): 143–70.

Tuxworth, Jon. 2015. 'Lauren Jackson Confident of Playing Soon for Canberra Capitals'. *Canberra Times*. October 5. Website accessed 6-10-2015. <http://www.canberratimes.com.au/sport/basketball/lauren-jackson-confident-of-playing-soon-for-canberra-capitals-20151004-gk16ny.html>.

van Krieken, Robert, P. Smith, D. Habibis, K. McDonald, Michael Haralambos, and Martin Holborn. 2000. *Sociology: Themes and Perspectives*. New South Wales: Pearson Education Australia.

Van Sterkenburg, Jacco, and Annelies Knoppers. 2004. 'Dominant Discourses about Race/ethnicity and Gender in Sport Practice and Performance'. *International Review for the Sociology of Sport* 39 (3): 301–21.

Vealey, Robin S., and Nicole C. Perritt. 2015. 'Hardiness and Optimism as Predictors of the Frequency of Flow in Collegiate Athletes'. *Journal of Sport Behavior* 38 (3): 321–38.

Vernacchia, Ralph A., Richard T. McGuire, James P. Reardon, and David P. Templin. 2000. 'Psychosocial Characteristics of Olympic Track and Field Athletes.' *International Journal of Sport Psychology* 31 (1): 5–23.

Wacquant, Loïc. 2004. *Body & Soul*. New York: Oxford University Press.

Walton, Darren. 2012. 'New Study Shows Tennis Star Roger Federer Is Most Popular Athlete amongst Australian Sports Fans'. *Fox Sports*. October 25. Website accessed 17-02-2013. <http://www.foxsports.com.au/more-sports/new-study-shows-tennis-star-roger-federer-is-most-popular-athlete-amongst-australian-sports-fans/story-e6frf56c-1226503307023>.

Wann, Daniel L., Merrill J. Melnick, Gordon W. Russell, and Dale G. Pease. 2001. *Sport Fans: The Psychology and Social Impact of Spectators*. London: Routledge.

Weber, Max. 2002. *The Protestant Ethic and the Spirit of Capitalism: And Other Writings*. London: Penguin Books.

Whannel, Garry. 2013. *Media Sport Stars: Masculinities and Moralities*. London: Routledge.

White, Jim. 2013. 'London 2012 Olympic Gold Medal Winner Victoria Pendleton Adjusting to Life after Cycling', July 12. Website accessed 15-07-2013 <http://www.telegraph.co.uk/sport/othersports/cycling/10177068/London-2012-Olympic-gold-medal-winner-Victoria-Pendleton-adjusting-to-life-after-cycling.html>.

Wiegers, Yvonne. 1998. 'Male Bodybuilding: The Social Construction of a Masculine Identity'. *The Journal of Popular Culture* 32 (2): 147–61.

Wiggins, David Kenneth. 2006. *Out of the Shadows: A Biographical History of African American Athletes*. Arkansas: University of Arkansas Press.

Wolfe, Tom. 2005. *The Right Stuff*. London: Random House.

Wolkowitz, Carol. 2006. *Bodies at Work*. London: Sage Publications.

Worthington, Everett L., and Glen A. Martin. 1980. 'A Laboratory Analysis of Response to Pain after Training in Three Lamaze Techniques'. *Journal of Psychosomatic Research* 24 (2): 109–16.

Wouters, Cas. 1989. 'The Sociology of Emotions and Flight Attendants: Hochschild's Managed Heart'. *Theory, Culture & Society* 6 (1): 95–123.

Wright, Jan, and Gill Clarke. 1999. 'Sport, the Media and the Construction of Compulsory Heterosexuality: A Case Study of Women's Rugby Union'. *International Review for the Sociology of Sport* 34 (3): 227–43.

Yen, Laurann, Ian S. McRae, Tanisha Jowsey, James Gillespie, Paul Dugdale, Michelle Banfield, Paul Mathews, and Marjan Kljakovic. 2013. 'Health Work by Older People with Chronic Illness: How Much Time Does It Take?' *Chronic Illness*, March, 1742395313476720.

Yiannakis, Andrew, and Merrill J. Melnick. 2001. *Contemporary Issues in Sociology of Sport*. Champaign, Illinois: Human Kinetics.

Young, Iris Marion. 1990. *Throwing like a Girl*. Bloomington, Indiana, Indiana Press.

———. 1998. '"Throwing like a Girl": Twenty Years Later'. *Body and Flesh: A Philosophical Reader* edited by Donn Welton. Cambridge Massachusetts: Blackwell Publishers