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An ethnographic enquiry into the use of sports science and technologies in professional rugby.

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Abstract

Sports Science and Sports Medicine are becoming an inherent part of the landscape of high performance sports environments. Such is their visibility, that there are currently over 25,000 students training as sports scientists alone; a number greater than the other classical sciences combined. Through an ethnographic study of two professional rugby teams over the course of 12 months, it is shown that the ways in which these technologies and knowledge are deployed in the field differ substantially from their academic and philosophical basis. Drawing upon the work of Foucault, Goffman and Bourdieu, it is suggested that the use of science and technologies within the Medical and Strength and Conditioning departments alters in light of the physical location, the staff involved and the perceived attachment of these tools to higher order knowledge structures derived from beyond the immediate field of enquiry. Moreover, it is argued that the justification for the adoption of 'science' in these specific subcultural domains more often relates to social, political and operative means rather than the theoretical bases cited. A typology of use is presented in an effort to clarify the factors affecting the use of Sports Science and Sports Medicine in elite sport, and the implications that these have for the staff, athletes and serving knowledge bases. Notions of identity, surveillance and self governance are central in understanding the relative ease with which technologies of performance have managed to infiltrate the studied environments, and it is posited that similarities may exist in other cultures synonymous with elite sport. This is an ethnography of 'science in action'.

An ethnographic enquiry into the use of sports science and technologies in professional rugby

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PHD THESIS

SCHOOL OF APPLIED SOCIAL SCIENCES

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STATEMENT OF COPYRIGHT

<u>Acknowledgements</u>

Throughout the course of this study, I have had the great fortune to observe and interact with groups and individuals who have challenged me at every level. It is no exaggeration that the time spent in the field with these people has changed my life. It would compromise confidentiality to list any of them here by name and I am disappointed that I cannot do so, such is the impact that some of them have had. I feel proud to count many of them among my friends today.

Finally, to everyone listed here as well as the great number of friends and family who endured contact with me through the course of this process, especially during those times when I struggled to recognise myself; thank you for sticking with me, it can't have been easy to watch. I promise I'll never do it again.

Table 1: CAST LIST: *A summary of social actors frequently referred to in the data set.*

QUEENSTOWN WARRIORS	WYNDHAM CITY WOLVES
COACHING DEPARTMENT	
Riz – *Head Coach* Mervyn – *Assistant Coach (fwds)* Bo – *Assistant Coach (Backs)* Hawk – *Defence coach*	Akela – *Director of Rugby* Mowgli – *Head Coach* Baloo – *Attack Coach* Rama – *Defence Coach* Rikki – *Forwards/ contact coach* Bagheera – *Kicking coach/ medic* Colonel Hathi – *consultant kicking coach* Kaa – *Scrum coach*
STRENGTH & CONDITIONING DEPARTMENT	
Animal –*Head of Strength & Conditioning* Beaker – *Assistant S&C* Zoot – *Intern* Robin – *Intern* Harry – *Intern (left after uni summer holidays)*	Barney – *Head of Strength & Conditioning* Fred – *Senior S&C* Bam-Bam – *Academy S&C* Arnold – *Assistant S&C* Cosmo – *Assistant S&C (academy)* Rockhead – *Intern (nutrition mainly)* Dino – *Intern* Doozy – *Intern*
MEDICAL DEPARTMENT	
Fozzy – *Head of Medical department/ Lead Physio* Scooter – *Assistant/Rehab physio* Dr Honeydew – *Team GP* *A Sports Physician* *A Massage therapist (part time)* Camilla – *Intern* Various consultants/ specialists – rarely on site	Sylvester – *Head of Medical department* Marvin – *Assistant physio* Tweety – *Academy physio* Babs – *2nd academy physio* Elmer – *Massage Therapist* *A GP* *A Dentist* [NB Bagheera also worked in this dept] Various consultants/ specialists – rarely on site
KIT/ GROUNDSMEN/ LOGISTICS	
Eagle – *Head of grounds/ kit* Dibbs – *Matchday assistant/ driver*	Sharkey – *Head of kit/ equipment* George – *full time assistant* Bob – *Match day assistant/ driver*
OTHER	
Bert – *Team manager* Hilda – *Media manager* *Boardmembers* *Shop/ ticket sales workers* *CEO*	Simba – *Team manager* Pumba – *Logistics administrator/ team support* Mufasa – *Pumba's assistant* Rafiki – *Team psychologist* *Academy coaching infrastructure - onsite* *Boardmembers, CEO, Shop/ ticket sales workers* *Off site admin offices*

NB. During reported interactions the researcher is often referred to as Kate, this has been left in place. As such, the researcher's spoken words are denoted by K: ....

CHAPTER 1: Introduction & Entering the Field

Sports science is a rapidly growing discipline, allied to the physical sciences. There are more sports science graduates, annually, than the sum total of students graduating from the classical sciences combined. The costs and benefits of such an increased interest in this area of study and practice remain largely unknown. Although the financial turnover of the fitness media market is indicative of an appetite for such knowledge across society, the impact of such new technologies upon the lives of elite athletes - the group for which most developments in sports science intended - is unclear. It is likely that the 'science' suffix liberally applied to a broad range of practices seeking to enhance human performance, lends power to this fledgling discipline and thus stimulates the broader commercial market. The desire for certitude in the application of this new field of knowledge, and its relational technologies, has created a confused position for those involved in daily interaction with this adolescent profession. The need to gain greater understanding of human achievement, contingent on corporeal compliance, drives a prolific research profile amongst academics involved in sports science. This is a process which is further propelled by product designers, capitalists and athletes themselves; all looking to uncover 'the next big thing' in human performance.

Notwithstanding, to believe that the role of sports science in practice is limited to the pursuit of winning performances is naive. The ways in which sports science and technologies are employed in practice lend themselves to a broad range of purposes within elite sport, with a surprisingly small number of those actually pertaining to the achievement of 'best performances' or furthering the understanding of physical achievement in a sporting context.

The purpose of this thesis is to examine those practices employed in the field, under the auspices of sports science, and consider these within an academic context of sports science. Additionally, it is intended to discuss the types of personnel who are regularly involved in the application of such scientific praxis and the substantive and social roles they hold within the professional rugby club setting. The preponderant

focus of this thesis, however, is to explore the role and impact that the addition of sports sciences to daily life in the rugby club has upon the athletes who readily interact with it. Specifically, sports science will be considered as a tool not only for performance enhancement, but also social, operative and political functions. The impact that these technologies have upon socially constructed identities within the specific culture will be highlighted. Finally, the relationship between sports science (its technologies, practices and practitioners) and other applied scientific disciplines, specifically medical, will be analysed and considered with regard to the impact that these two, often conflicting, practices have upon the lived experience of professional rugby players.

Although the work of Goffman, Bourdieu, and Foucault will be drawn upon throughout the analysis of collected data, it is not intended to undertake an applied evaluation of the rugby club context through the eyes of the given theorists. Moreover, several different schools of philosophy will be utilised to afford understanding to the studied contexts, including theories allied to the philosophy of science, gender studies and social network analysis. The contributing theories will be located within the context of this study in Chapter 2 although ultimately it is intended that a typology of sports science use and impact will be constructed adopting an approach akin to grounded theory, such that the ways in which sports science technologies are enacted by the practitioners and players which utilise them will be elucidated.

The application of sports science and technologies in professional rugby

In recent years, particularly in light of the transformation into the professional era in Rugby union, sports science has occupied an increasingly dominant position in the management of rugby players. Although full time, field based, Sports Scientists remain relatively rare in this field, their visible presence is growing. However, above and beyond the overt practices carried out by a nominated 'sports scientist', the use of sports science, practically in daily life, is now commonplace in a professional rugby club setting. The breadth of personnel adopting means of sports science, as part of their role in player

preparation and performance management, is matched by the depth of impact that such sports science technologies have on the lives of players and other social actors interacting with the rugby club on a daily basis. An extensive array of tools are utilised by coaches, conditioners, physiotherapists, psychologists, doctors and players alike in an effort to acquire a performance edge. Throughout the course of this thesis, it will be shown that many of these sports science technologies have now become so heavily embedded within the culture of the training ground, they are barely recognized as being technologies external to the player; they are merely an extension to the banal activities of their daily existence. The implications of such technologies, and their occupation of such an apparently innocuous position, will be discussed within the context of the experiences of the athletes these technologies purport to serve.

As it stands, rugby union is by no means the most advanced sport in terms of its application of sports science in context. Indeed, the complexity of a team sport environment has arguably attenuated the speed and enthusiasm with which sports science technologies have been adopted in this particular sport. Since 'performance' is multifaceted in all contexts, it becomes difficult to operationalise for practitioners and athletes involved in preparation for competition. This is arguably truer in team sports contexts where the multiple bodies and contingencies determine that performance of the team is incumbent upon the physiologies and psychologies of many individuals within the collective. Therefore, it follows that it is difficult to pinpoint exact areas of performance preparation which would benefit from an injection of technology or 'science'. That said, there remains great enthusiasm for the pursuit of a "silver bullet" when it comes to the use of sports science in professional sport. The absence of any discovery of such a panacea, however, has not prevented the widespread adoption of several sports science technologies as part of the daily rituals at a rugby club.

On entering a high-performance professional team sport environment today one might expect to see, at the very least, the use of heart rate monitoring, GPS systems, dietary analysis, recovery monitoring, psychological assessments, biomechanical analysis and some form of well-being monitoring. This would be in addition to records of training programmes and documentation of the commensurate design process,

treatment records and players' screening data. With regard to intervention, the physiotherapy room would likely be overrun with the latest pieces of treatment kit, rehabilitation devices, information sheets, and preventative tools while elsewhere one can expect to find a storage area full of nutritional supplements, pills and potions; each claiming to give athletes a performance boost. The reality of the situation, which is surely recognized by every single person involved in the subculture at some level of consciousness, is that none of these technologies, in isolation, improve 'performance'. Indeed, it is questionable as to whether, in combination with other technologies, they can give any advantage to professional athletes.

This is not to say that these technologies do not have any impact, however; on the contrary, their influence is felt in every corner of the club. It is thus a central purpose of this thesis to demonstrate the varying ways in which sports science and its technologies affect and effect lived experiences among the athletic community. It will be argued that sports science technologies function in four key ways; theoretical, operational, political and social, within the complex social environment of a professional sports team.

Through sociological analysis of data collected through ethnographic methods, an effort is made to expound the mythologies surrounding those involved in the practice of sports science; the multiple direct and indirect participants in this specialist manifestation of 'science'. It will be shown that sports science, as it is understood within the academic sense, is most often undertaken by many members of the 'backroom' staff, as opposed to those with specialist qualifications or graduates of accreditation programmes. This is not to say that the individuals who 'do' sports science on a daily basis are not qualified to do so; on the contrary, in many respects the practice of sports science in the field, by these organic practitioners, is significantly more advanced than that of said 'specialists'.

The work presented henceforth represents the analysis of data collected utilising ethnographic methods during a full season in Rugby Union. The research was undertaken at two professional rugby clubs (Queenstown Warriors & Wyndham City Wolves) over a period of six months, with the researcher

staying on at only one of these clubs (Wyndham City Wolves) for the remainder of the rugby season (a further five months). Additional data was collected from Queenstown Warriors, during the second half of the season, via semi-structured interviews on two separate occasions when the researcher returned to the club.

Identities have been protected throughout the presented work for ethical reasons. The keen eyed reader will notice that assigned names match up with popular cartoon character names for one team and puppet names for the other. No inference is to be taken from the allocated names, the process was largely random; with alterations only being made to the designated name if it was deemed to overly misrepresent attributions of the character. Such misinterpretation is unavoidable, to some extent, when denominators in the style of nicknames are utilised. Perhaps more generic proper nouns would have attenuated any misunderstanding; though it is fair to say that such alterations in address would not have reflected the reality of life in rugby – where epithetical greeting is the norm.

While sports science and technologies remain the central focus of this thesis, several other pertinent topics will be explored some of which are demonstratively integral to the discussion of science within the context of professional rugby clubs. Specifically, discussions pertaining to the role of sports science practices as methods of surveillance, which may effect the system of culturally imposed self-governance, as well as arguments relating to the philosophy of science itself. In this unique and relatively young field of applied practice, it is hoped to answer, amongst others, the following questions: what constitutes science within the setting of professional rugby union? How is this manifested in daily life? To what extent does this impact upon the lives of the players and staff at the respective clubs, and does this carryover beyond 'working' hours? To what extent can the observed 'science in action' actually be considered to be a science and what are the political ramifications of introducing a new 'science' into a predominantly masculine environment?

There are also a number of themes, undoubtedly worthy of a full thesis in their own right, which owing to the necessary thematic restriction cannot be afforded centrality in discussion. Specifically, the role of women in the world of professional rugby, both in and away from training, is worthy of attention; particularly given the unavoidable gender politics effected by being a female ethnographer and practitioner in the field. Additionally, the nature of health and injury within the unique environment of professional sport will be explored more fully in chapter 6, as the operative milieu vary subtly, yet crucially, from the 'sciences' employed elsewhere in the rugby club.

Nonetheless, theoretically this work is situated between academic and philosophical understandings of what constitutes 'science', and the ways in which each of those come to be enacted in the field. In this sense, this ethnography is a study of 'science in action'; where it will be shown that the influx of new technologies relating to sports and medical sciences has been enabled by the complex transition of physical and biological sciences into a politically charged social environment. The rarely afforded access to highly closed subcultures, often regarded as prestigious to the outsider, enables a unique contribution to the body of sports and medical sociology as well as the substantive field itself.

As is often the case when offering a social commentary, this study will highlight the normative rules and behaviours which apply, often uniquely, to the professional team sport setting; and specifically their divergence from that which might be deemed normal or acceptable in broader societal life. In this sense, the rugby clubs studied do not offer a microcosm of the world we understand on a daily basis outside of sport. Indeed, it will be shown that they rarely offer a valid account of the 'reality' of sports clubs, players and staff portrayed by the media on a weekly basis. The employment of ethnographic methods is vital in enabling the construction of such a picture, in a manner which has not been explored at the level of professional team sports in sociological, or indeed sports science, research to date. Thus, the remainder of this chapter will attempt to construe the values, and limitations, of the ethnographic method in this sense; as it applies to the study of two rugby clubs. Some emphasis will be placed upon the reflexive exercises

undertaken prior to entering the field, and the relevancy which these hold to the research activity in a broader sense.

Chapter 2 consists of a review of literature pertinent to the study of professional rugby and sports science utilising ethnographic methods. Herein, the opportunity is taken to explore the application of theory in contexts allied to the present study as well as examining similar studies which exist pertaining to the research questions adopted prior to entering the field. As such, less emphasis is placed upon the explication of the theories which will be used more comprehensively throughout subsequent chapters in the analysis of field data; with greater emphasis placed upon affording a broad understanding of the state of research in this domain at the time of constructing the research design.

Chapter 3 provides a descriptive analysis of the organisational structures and physical layout of the respective clubs, in order to provide the reader with the relevant context in which to view subsequent data analysis. It is also prudent to explore the nature of rugby in the UK, as it stood at the time of data collection. It is important to address the perception of rugby culture as one which has undergone a significant cultural transformation; catalysed by the adoption of professionalism in 1995. However, the political dynamic has since been destabilised through a string of 'scandals' surrounding the game at the professional level; which have arguably brought the game into disrepute. As a result, the undertaking of this ethnography at such a time of profound uncertainty within the world of rugby, although incredibly difficult at the time, must be viewed as a gift. This chapter then continues with a discussion of the reflexive exercises undertaken prior to entering the field; done so in an effort to negate perceptual bias and to introduce validity to the often highly politicised process of data collection. Following the analysis of the reflexive process, a broader examination of the cultural landscape of rugby union in the UK in 2009/2010 is achieved through the discussion of key events occurring immediately prior to and during the time of this ethnography. These are discussed within the context of data collected in the field over the course of the 12 month ethnography as well as excerpts from contemporaneous media texts.

Through the discussion of a 'typical' day in the two clubs studied, chapter 4 will begin to discuss the full extent of the differences between the two research sites, focusing specifically on the functional roles of sports science. This will lead to the construction of a typology of sports science praxis in professional sport and the application of this typology to the common sites of sports science practice occurring during the course of a season in professional rugby

Chapter 5 considers the role of sports science in its purported capacity to understand the athlete as a part of an eponymous 'player-centred' approach to training. Specifically, the role of athletic testing and measurement will be explored, giving consideration to the degree of congruence between the cited and the actual purposes of these activities. It will be shown that validity is necessarily difficult in this context, owing to the inherent complexities of the environment but, more importantly, the lack of clarity pertaining to the real purpose of employing such measurement technologies.

Chapter 6 will consider the application of the typology identified in Chapter 4 to the scientific practices occurring in the professional rugby team which fall under the remit of sports medicine and the fundamental, and crucial, differences in these disciplines over contemporary sports science utilisation. It will be proposed that an order of knowledge persists within professional sports culture, which spills over from broader society, in which medical knowledge carries greater politic than the newer technologies which have come to be embedded in athletic training.

Chapter 7 will serve to summarise the analysis of the previous chapters and, in doing so, will present a philosophy of science which more adequately reflects the contemporary application of sports science technologies in contexts where performance, careers and wellbeing are intimately tied to their use. The interaction of other sociocultural influences will be considered with respect to the degree to which they distort the application of these sciences in practice. A typology of Sports Science utilisation in the field is presented in light of a discussion of the factors which serve to construct this new 'science' within the socio-political field of elite sports performance.

METHODOLOGY

Ethnographic methods of enquiry have been adopted in this study in order to achieve a greater depth of experiential data (Sparkes, 2009); that which exists beyond, yet is commensurate with, the narrative of the participants. Within this form of research methodology, as is often the case with any method, a broad variety of styles have been utilised in previous ethnographic studies. It is perhaps fair to say that ethnography, and its associated methods, is derived from an anthropological domain (Seale, 2001). However, more recently the benefits of utilising such methods for researching the social have attracted sociologists to adopt the method (Sparkes, 2002). Thus, it seems pertinent to address the question of whether ethnographies undertaken in the name of anthropology, should, and do, differ from those carried out by sociologists. Perhaps the most important consideration here is the purpose of the ethnographic enquiry. Although admittedly a generalisation, sociologists might be charged with the application of a 'science' to their methodological approach (Hammersley, 1992), while a key aspect of anthropological ethnography is a representation of cultures (Geertz, 1973), such that the audience feels an empathetic knowledge of the lived experiences described by the author. This is not necessarily to say that the latter are somehow devoid of theoretical, or structural, direction; on the contrary, such research would be impossible without theoretical impetus, even if only considered implicitly (Crotty, 1998; Blaikie, 2007).

It is fairer to suggest that the interaction with the readership; the engagement, acceptance and active participation of the consumer, is as important as the research exercise itself. Therefore, in writing up the findings of the research, one has in mind the locus of interpretation. That is to say that the sociologist's use of ethnographic methods is contingent upon their own interpretation of the social environment and the communication of this experience is the central aspect of the written ethnography (Sparkes, 2003). On the other hand, the anthropologist is concerned with allowing his audience to live and feel the reported experiences; setting himself up as a medium of transference. Of course, these distinctions are necessarily loose, given the centrality of the author's competency in writing. When appraised in this manner, it can be suggested that ethnographic writing occupies several positions on a continuum of prose; from the

emotive, poetic, styles to the austerity of the functional report, with techniques such as auto ethnography occupying a relatively central position. As C Wright Mills (1959) pointed out, it is a mistake to assume that any one approach to sociological writing offers more value than another. Indeed, Hammersley (1991) advises that no methodological approach can guarantee validity, irrespective of the rigour with which it is applied. Therefore, an erroneous assumption would be to believe that the methodism of the sociologist applying 'science' in their approach is more reliable than the emotive prose of great writers.

This clarification occupies a more central argument of this thesis than it might initially appear; the introduction of science to methodology often carries with it the perception of greater validity, reliability and certainty. This applies then, not only to the methodological considerations enmeshed in this research, but crucially to the substantive element of the research. A synchronous relationship as this also exists in the examination of the Self and the Other in regard to the ethnographic methodology, and again in the analysis of science and practice. At the more poetic end of the spectrum of ethnographic methodology, there is a tendency to construct a position wherein the research is describing, albeit in greater depth than many other research methods allow, the presentation of the Other (Garfinkel , 1984; Robson, 2002; Seale, 2004). Thus, there is an implicit draw towards constructions of difference, in the Derridan sense, via the descriptive labelling of behaviours or appearances within the studied subculture. In describing the Other in this way, an ontological dualism is constructed and reconstructed throughout the research process. At the opposite end of the scale, the sociologist attempting to offer an 'impartial' social commentary by the employment of ethnographic methods, via austerity, often presents an account which implicitly suggests the transcendence of the self on the part of the researcher. Social facts and laws of the subculture are presented, and a logic sought in a calculated way. This is an approach arguably coined by Durkheim in the field of social research; such that the 'being' of the researcher is considered almost negligible. Of course, these are oversimplified, arguably slandererous, explanations of approaches to methodologies of ethnographic research, but the key point remains: the position of the researcher in social research (relative

to the audience, the research purpose, the concept of Self and the Other) fundamentally informs the research activity.

Pursuing validity and reliability in ethnographic research

The nature of ethnographic research methods presents a number of limitations which prevent the application of standard paradigms of validity and reliability. Many of the measures of validity and reliability derived from realist, scientific, traditions are incumbent upon the location of the studied sample within the broader population (Bryman, 2004). From here, a degree of normalcy can be evaluated such that researchers may be able to ascribe this sentiment of truth to the assertion that their studied sample adequately reflects the broader population. However, in ethnographic research where the sample is often taken to be an entire population, albeit a subpopulation or subculture, the research direction dictates that there is little requirement to establish the truth of any claims made within the context of activity beyond the studied environment. Seale (2004) points out that immersion within a particular social group offers naturalism wherein people can be studied behaving normally. Where other methods abstract data from the context in which it arises, ethnographic methods allow the accumulation of a greater depth of data. A corollary of this is that breadth of data, across larger samples or populations, is sacrificed. As a result, the traditional measures of validity and reliability carry little value if applied in this context.

To accommodate naturalism in corroborating the validity and reliability of qualitative studies in social, Lincoln and Guba (1985) propose an equivalent set of criteria to those used in conventional forms of enquiry. However, the authors draw attention to the predicating

assumption that their model relies upon; the notion that multiple realities exist. This falls in line with a social constructionist episteme and indeed coincides with the interpretation of data presented within this thesis. To clarify, Lincoln and Guba's (1985) model rejects the idea that reality is confined to the tangible or sensory systems. Emotions, cognitions and consequential behaviours are considered as being real and multiple within the studied social group. Thus the notion of ontological truth becomes difficult in this new epistemological position and as such Lincoln and Guba (1985) replace internal validity, which they consider synonymous with truth value, with credibility. By credibility, the authors assert that the study findings should be recognisable and confirmable through methods of triangulation. Such translation can be undertaken through interviews which may or may not corroborate the data collected by ethnographic methods; as was attempted in this study. Alternatively conversations with others in similar settings, or allied to the observed setting, to glean feedback in relation to data recognisability may also be used. The second construct of validity and reliability approached by Lincoln and Guba (1985) is that of transferability which they utilise in place of external validity. The lack of transferability of findings be on the studied setting is often seen as a major limitation ethnographic enquiry. However, Lincoln and Guba (1985) apply multidirectional aspect to their term, such that the findings can be considered transferable if the reader can be transported into the environment as well as the traditional understanding of data transferring out studied group. Geertz (1993) laid claim to the quality of his research based on this notion particularly; enabling reader engagement by his rich description of the cultures he studied. In place of reliability, Lincoln and Guba (1985) utilise the notion of dependability. Dependability can be indicated via the records kept by the ethnographic research; notably the ordering of field notes and notes pertaining to decisions made in relation to methods, research direction and data selection.

Finally, this process, which Seale (2004) refers to as auditing, is central in the achievement of Lincoln and Guba's (1985) final facet of their adaptive model; confirmability. Confirmability is offered in place of neutrality or objectivity in the judicial paradigms. The ascription of objectivity to social research has often been cited as being moot and Lincoln and Guba (1985) highlight the importance of the reflexive exercise in achieving confirmability, such that an awareness of philosophical and methodological predilection on the part of the author is reached.

It is also important to note that some years later, Lincoln and Guba and Lincoln (1994) expanded their model to include a fifth criterion of authenticity. It is suggested that this can be partially achieved through the presentation of multiple realities and viewpoints in order to attenuate politicisation of the social data. However, authenticity also pertains to the value of the research findings on the research exercise; which Guba and Lincoln (1994) suggest should expand the body of knowledge, offer new insights on a particular phenomenon or culture, or incite some form of action via audience empowerment. The findings of the research presented in this thesis had the capacity to attend to each of these categories of authenticity.

Locating the Research Exercise

It is important to identify this piece of ethnographic research as being multisited, as data collection was undertaken at two sites which were not geographically close to each other. Falzon (2009) highlights the value and parameters of adopting such an approach in the examination of contemporary cultures, aligning himself with notions of space, which can be derived from the work of Foucault (1984; 2002), in which it emerges that a discursive space is not necessarily geographically bounded. Indeed, contemporary transformations in society, which relate in no small part to the technologisation of cultures at every level, and synonymous globalization, are such that subcultural identities can be constructed and reconstructed in

light of each other, despite the physical separation which may never be reconciled during the life of the culture. The emergence of virtual spaces and global media networks have enabled cultural identification between groups and individuals who have never met. As such, it is now not only feasible but arguably necessary that cultures with shared aspects of identity, or function, share similar social behavioural norms on the ground, despite such factions being invisible to each other. The dilemma, predicted by Geertz (1973), that forced ethnographies and anthropologists to assume that the observation of small sample cultures was capable of being analysed as a microcosm of society (or alternatively selecting very closed environments such as remote tribes or islands, where societal contamination could be considered negligible) seems untenable in contemporary culture. Indeed, ethnographies can now no longer assert that a partial view of the world is being offered in analysing a single site, such is the pervasive quality of contemporary society (Cook et al. 2009); each subculture is inherently, and seamlessly, linked with broader social structures. These social structures clearly pertain to governance (the governing bodies of rugby union being a case in point here), and also to the commercial forces and the multiple stakeholders affiliated to the (multiple) communities in which these rugby clubs survive. In addressing research questions, derived from a consistent philosophy and perspective at both Queenstown warriors and Wyndham wolves, an opportunity is presented in which a social logic might be considered pertaining to rugby, and sports, as a broader cultural phenomena. This in part negates the critique of ethnographic research is having findings which only apply to the setting from which they were derived. However, in adopting a multi-sited ethnographical approach, the criticism that this study fails to conform to being an ethnography in the strictest sense, may hold true.

Marcus and Fisher (1986) argue that the ethnographic readership are increasingly wary of the fallacy of holisitic studies of 'a culture' (Candea, 2009). Indeed, the authors go on to suggest that the cultures being observed during the 80s were in fact constructed in light of their resistance and accommodation of the penetrating political economies of all the cultures and society. It is argued that the contemporary research design is concerned with freedom, complexity and expansion (Candea, 2009: p27), rather than the

adherence to rigid doctrines of scientific research methods. This justification for researching the social beyond the singular geographically bounded site (Latour, 1995) is not without difficulty however; it risks lending credence to an erroneous, assumptive, construction of a seamless interaction between subcultures and broader society. As such, with the purported goal of exploring complexities further, there is the ironic danger of oversimplifying the positioning of cultures at a more macro level.

Constructing "data" from fieldwork

The reality of this ethnographic research, which is long in duration, arduous and absorbing at every level of being, dictates that the voice with which research data is collected, analysed and presented is constantly changing. The engagement with other literature pertaining to previous studies compounds this issue, as many, if not all, ethnographies are presented with purported consistency in methodological position, fieldworker role and, crucially, the writer's voice and style (Sparkes, 2002; 2009). The experience of undertaking the research process beyond this thesis is that all of these are anything but consistent; they vary widely and often. Nonetheless, the tendency towards a prevailing style was sought and, methodologically speaking, a largely realist philosophy was adopted, utilising multiple methods of recording data; such that the austere reportage of 'facts' might be facilitated in one diary, and in several others more free-flowing records could be kept. Amongst the latter there are a range of data types and style; analytic reflections of occurrences in the field, autoethnographic reflections and entries pertaining to the application of social theories to the context. For the most part, these diaries contain descriptions of events occurring throughout the day or records of exchanges between social actors in the field. An effort was made to restrict the note taking to observed appearances, with an attempt to minimise the use of emotive language, as this could be reflected elsewhere. However, somewhat predictably, a complete absence of emotion in writing about a highly charged environment, such as immersion in a professional sports team, is almost impossible (Sparkes, 2004). Moreover, an unyielding adherence to emotional

detachment in the writing of data bears a significant impact upon the nature of the data which come to be collected.

The generation of fieldnotes, therefore, can never be a mere description of reality (Latour, 2007). While it can be accepted, through the study of the social, that subcultural realities exist through generative process, it must also be understood that the creation of written ethnographic data is equally generative. However, a fundamental difference exists: the act of 'writing up' introduces a forced reflexive loop. To clarify, a feeling or state of being which arises as a participant in the subculture may go consciously unchecked within the broader events of the day. However, in producing records from ethnographic enquiry, such experiences are raised to the forefront of daily existence; they are considered, reproduced, and ordered such that they can be consumed again later in the process of data analysis. To assume that the choice of fieldnote entry, in style and substance, arises outside of an emotional or metaphysical process would be naïve. Thus, on several occasions, during the process of writing a fieldnote entry, a self checking process on the part of the researcher arises, where one comes to ask oneself questions such as; is this event important? Why? Do I perceive it to be important because of its impact on the research questions, the social actors or me personally?

> *It feels narcissistic to write up the findings of ethnographic research. A way of escaping this is to retreat into the relative certitude of verbatim exchanges as the central part of data analysis; yet in doing so, the strengths of employing the ethnographic method of social enquiry are diminished. Moreover, the arduous process of undertaking such research is rendered a waste, the full breadth of available data is not utilised in the reconstructed process of writing up. Nonetheless, to rely upon one's experiences and cognitive application to explain a complex social, feels paradoxically, arrogant, and yet insufficient, simultaneously. By way of negotiating this uncomfortable process, it helps to consider the resonance of one's thoughts in mind, and in doing so forces deep contemplation of the ontological questions with which the great philosophers wrestled.*

To share one's thoughts, and thought processes is to invite vulnerability. The magnitude of this vulnerability is determined by one's philosophical perception of being. The position of Descartes were it to be held by a social researcher having just completed ethnographic fieldwork, somewhat dictates that the exposure of one's thoughts in this way is indeed exposure of oneself in its entirety; and offering of ones 'being' for the consumption of the audience. Surely, this is too great a price; no outcome from any research activity could ever recoup that cost and thus any research presented as having come from such a philosophical starting point must have its validity questioned. It is fair to say then, that the forced contemplation of 'being' absolves this difficulty greatly; in recognizing that thoughts are not owned by the individual, nor do they fully constitute that which we may term 'the self', their dissemination and presentation becomes easier. Indeed, one feels a sense of duty to share the thoughts, feelings and experiences generated through the process of ethnographic research. They are not mine. Although my thoughts are me; I am not my thoughts.

Fieldnote entry; reflexive diary, January 2010

Reflections on the experience of being in the rugby club environment

K: What advice would you give to someone going into Queenstown now, or any rugby club...like a new intern just starting out?

Camilla: Don't trust anyone.

Queenstown, May 2010

Camilla (intern) appeared reluctant to expand upon this statement at first, or perhaps assumed that as an insider with shared experience the specific meaning of her statement was to be understood implicitly.

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Indeed, this was arguably the case, but the nature of research and data collection demands that such shared experiences cannot come to constitute valid or reliable data in a research context, and so the issue was explored further through the interaction, utilising the classical forms for prompting, follow ups and probing with limited success. This shortcoming was possibly due to memory recall but more likely, and intuitively, it pertained to the nature of cultural experience being such that the reportage of events of exchanges become inadequate in conveying the meaning and full impact of the lived existence within such subcultures.

C: That's the thing...I can't think of one specific thing, I mean there are loads but when I just describe it- it sounds sort of silly...do you know what i mean? It just wouldn't do it justice.

K: OK, but can you say what it is that makes you say that...'don't trust anyone'

C: Its just...the politics i spose. They're all lying to each other all the time, and its not necessarily deliberate or nasty or anything and they probably don't even know that they're doing it most of the time...but I wouldn't trust any of them now...maybe [XXXX] and [XXXX] but I dunno.

K:When you say they lie..

C: It's not like major scandal things but it's more just being two faced and blatantly saying one thing to one person and something completely different to someone else all within the space of about 10 minutes. Just to try and...i dunno, get ahead or whatever. The biggest lie though is the way they make you believe that they've got your back, like you've seen that...and its not just Fozzy and Scooter that do it, it's all of them. They haven't got your back, they have got their back...they wouldn't think twice about shafting me or you or anyone else to save themselves or get ahead. It's bollocks.

K: Ok

C: So yeah...that would be my advice...don't trust anyone.

Camilla alludes to an insufficiency in the relaying of specific examples as a method of conveying meaning, choosing to speak in the abstract instead. Despite the lack of intimate detail, there is little mistaking the depth of her emotional response to her experience as an intern at Queenstown and the breadth of impact it has left upon her perception of the culture is almost tangible. At Wyndham, Rafiki (team psychologist) recognised the scope of negative emotional evaluations of elite sporting environments and recognised the management of this as one of the most difficult parts of his role.

That's the hardest thing. Disappointment. Not the kind of day to day disappointment in performance on the pitch, but the broad scale disappointment which comes when you realise that this world is not what you though it was. This world that you thought you knew and sort of owned in a way. There's a kind of humiliation that goes with that kind of disappointment...you know in a 'how did I get it so wrong?' sort of way. It's tough, because when you see it happen in athletes like this it's like watching their world crumbling down...it's like you can see them starting to unravel. And people react in so many different ways...to disappointment. And it will have been building and building for a while, from a series of minor events or let downs until the dam breaks and it will look like it's happened from one little thing, which makes it seem even more...humiliating.

Wyndham field notes, May 2010

The experiences of being in the field as a participant are reflected in the voices of the subjects observed as well as being unavoidably embodied on the part of the researcher to some degree. In this admission there is an inherent risk of exposing the study to criticisms of weakness in recognising the fallibility of being a human researcher. This embodiment transcends the cognitive and metaphysical inculcation of *habitus* to the social manipulation and reconstruction of the physical body, and this is particularly pertinent in the

study of subcultures in which corporeal discipline occupies such a central role. Thus, the mechanisms and methods by which data come to be collected, or generated, extends into territory which is difficult to verbalise and subsequently remains grossly underreported in the methodological sections of previous ethnographic works.

> *ethnographers have all too* rarely made *explicit their methods by which the information reported in their descriptive and analytical work was derived. Even less frequently have they attempted systematic descriptions of those aspects of the field experience which fall outside of a conventional definition of method, but which are crucial to the field work and its results.[...] the dearth of such information may appear to be the result of a conviction, among those who know, that experience can be the only teacher. Alternatively, he may suspect ethnographers of having established a conspiracy of silence on these matters.[...] [The Ethnographer] may join that conspiracy inadvertently, or he may feel obligated to join it, not only to protect the secrets of ethnography, but to protect himself.*
>
> *Berreman (2007: 137)*

The difficulties highlighted by Berreman (2007) are arguably augmented within the context of this particular piece of research owing to the data collection being undertaken across two sites. Multi-sited ethnography has grown in popularity and academic recognition in recent years owing to its capacity to reflect global aspects of the studied subcultures.

> *Previously the world system was seen as a framework within which the local was contextualised or compared; it now becomes integral to and embedded in multi-sited objects of study. The essence of multi-sited research is to follow people, connections, associations and relationships across space (because they are substantially continuous but spatially non-contiguous). Research design proceeds by a series of juxtapositions in which the global is collapsed into and made an integral part of parallel, related local situations, rather than*

something monolithic or external to them. In terms of method, multi-sited ethnography involves a spatially dispersed field through which the ethnographer moves – actually, via sojourns in two or more places, or conceptually, by means of techniques of juxtaposition of data.

<div align="right">

Falzon (2009: 2)

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This explanation of multi-sited data collection via ethnographic methods is useful and recognises the multiple ways in which culturally similar enclaves can easily exist, and affect each other, despite being geographically separated. However, Falzon (2009: 2) goes on to clarify the closing remark of this statement in stating that while frames of analysis might be reconstructed in accordance with the locality of the research site, the perspective from which the research is derived is not. Indeed, he is critical of those who suggest otherwise:

I take multi-sited ethnography necessarily to imply some form of (geographical) special de-centredness. I say this because, under pressure, the advocates of multi-sitedness sometimes defend themselves by saying that 'site' does not necessarily mean 'location' or 'place', but also 'perspective'. As I see it, however, multi-sitedness is not synonymous with perspectivism, that would be a sleight, and in any case counter-productive.

In order to offer insight into the reality of this complex research dynamic the following section outlines the nature of the lived experience of undertaking multi-sited field-based research at two male dominated locations where the body, and its role in self presentation, is key.

A week in the life of the researcher

Although no two weeks were the same, in terms of division of time between sites or activities undertaken therein, there was rarely any let up in intensity or volume of work. Henceforth an attempt will be made to describe the 'average' days within a week travelling between Queenstown and Wyndham.

Monday – Wyndham

4.45. Alarm.

5.00 Prepare food for the day (I had to eat whenever I could as my busiest data collection times often coincided with meal times at the club – this was when most players were around and freely interacting with each other and management staff).

5.30. Leave accommodation 1[1] to commute to Wyndham region.

6.30. Train at local branch of my own gym. Attempt to clear thoughts of yesterday and mentally prepare for the day ahead.

7.30/7.45 Arrive at Wyndham to find colleagues at desk already, many having been there from 6.30. Feel guilty.

8.30. Training begins. The morning training sessions were usually a combination of gym based activities and skills training on the pitch; players were split into their respective positional groups for such sessions. Undertake observations or tasks assigned by Barney/Fred/Akela and use opportunity to collect data simultaneously. The richness of data greatly improved when a functional role was undertaken; likely owing to the elimination of

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[1] During the study I stayed in 2 places as Queenstown and Wyndham were approximately 3 hrs away from each other. Accomodation 1 was approx 1 hr commute from wyndham and 2hrs Queenstown. Accomodation 2 was approx 25 mins (up to 1 hr in traffic) from Queenstown.

overt surveillance on my part. However, this richness also increased as I became more socialised into the environment and accepted as a reasonably regular feature at the training ground. Many of my tasks at Wyndham were paper based, or required me to carry pieces of paper/pens around with me and so note taking was far less of an issue here. It was easy enough to jot down notes during the course of my day, relatively contemporaneously and this was enhanced greatly by using shorthand – there was never any concern about people picking up my notes and reading them either here or should i happen to have them with me at the other club.

10.00: usually around this time, once training was under way I could often sneak away and eat something though this would generally be whilst undertaking other tasks for Barney; for example computer based research, reading and summarising journal articles.

11.30 – 13.00: Lunch time at the club. Try to get into players lunch room to socialise with players and gain further insight in to the social arrangement of the subculture. Often collect good data in the S&C office or physio room during this time. This period and prior to the first training sessions were also the times that i would most likely be given tasks by coaching staff or Barney or would be directly involved in interactions with other staff members. Thus, it was always difficult to choose where to be during this time – with players as a cohort at lunch, or with management in the backrooms. I tried to split my time but, truthfully, most of the time I would take the latter option. That said, i would always try to poke my head into the lunch room once or twice during the break each day – even if only under the guise of going to make a cup of tea, or grab a plate of food to (hopefully) eat at my desk later on.

13.00 team meeting. I rarely missed a team meeting as it provided an opportunity to observe the coaches speaking publicly to players and thus evaluate the similarities and differences in

the narratives constructed for this audience compared with those played out in the back room. Also, they were often very inspirational, and at times humorous, events.

14.00 Training. The afternoon sessions were whole squad rugby sessions and followed the structure and themes laid out in the preceding team meeting. Despite being a study of rugby players, ironically there was often less data to be collected during these sessions. Players would be involved on the pitch and from the sidelines it was impossible to hear conversations and it was difficult to evaluate the nature of social relations as they played out during rugby training drills. Similarly, the other staff members on the side lines often spoke less freely during these sessions, perhaps owing to their formality but often exacerbated by the weather conditions which made one want to curl up inside whatever clothing was available. Often I would find myself inside during these times carrying out the tasks assigned to me over the course of the morning or lunch break and this is when it was possible to collect data from those players not involved in training.

15.30/16.00. Training sessions finish, players return to the building. There were occasionally some good opportunities for collection here, but less so than earlier in the day. Often players just wanted to get home as soon as possible and so the interactions observed were necessarily short and time period was often chaotic in the office and medical room. This would make it difficult for contemporaneous note taking; for interactions occurring here the write up would be 15 minutes later at best. That said, a surprising aspect of the data collection process was the realisation that there are actually a reasonably high number of opportunities for getting notes down contemporaneously throughout the day.

16.30. Stationed in the S&C Office with all of the other department members. Generally a quite time with everyone needing to get administrative work done before they could leave. In many cases this presented the opportunity for more in depth discussions and debates about

practice. The staff never left before the coaches had left (who had to walk past the door of the office on their way out).

17.30/18.00: Leave training ground to travel to accommodation 1.

19.00: Arrive home. Turn on computer, write notes. This would involve catching up on notes that had been 'missed during the day' for example interactions that I had been involved in which needed contextualising and typing before i forgot about them. I would also expand upon 'signposts' that I had written for myself during the day. These would usually be one or two words (often quite abstract) which related to a person, phenomenon or event that I felt required exploration or a full character description in order to understand other aspects of collected data.

20.00: Eat something, try to speak to somebody. Anybody. About anything not related to my work/ study (usually not possible)

20.30 go back to desk, write notes in reflective journal which, truthfully, were often prompted by the discussions had over dinner. Prepare notes for tomorrow; plan my day (usually to the half hour), plan my food, pack my bag and occasionally consider things to look out for the next day (more so in the latter stages of data collection)

22.30 Bed

Tuesday – Wyndham

The structure of the day would match Monday with the exception that I would now be preparing to transition into my Queenstown role. This would involve me packing kit for Queenstown in the morning in the optimistic vain that I might be able to get away earlier

from Wyndham and drive to Queenstown that night. This rarely happened and when it did I was often to tired to make the 3 hour drive. Wyndham occasionally had afternoons where no training took place, however this didn't translate to an earlier ending day very often as the time would be filled with meetings and new tasks for me in particular for me to 'get on with while I was away'. Queenstown often did this and therefore the night before i went back to Wyndham or Queenstown, after a period at the other club, it would be necessary to devote several hours to working for them, rather than my phd. Thus bed time would be later than other days with them.

Wednesday – Queenstown

4.00: Alarm.

4.45: Leave accommodation 1

6.45: Arrive at gym early enough to do some token training before the players arrive.

7.30: Rehab sessions at Gym in Queenstown

8.30/9.30: Go to Queenstown training ground. Try to observe some training. Begin working with players in the medical room. Taking notes was usually possible between seeing individual players if not too busy; most often there was a queue of players waiting to be seen for medical attention. Therefore the exchanges witnessed here often had to be written up some hours later and i would only mange to get down sign posts or odd sentences to be expanded later.

13.00: Hopefully stop for lunch. Go over to team room, sit with management for lunch (players and management would never sit together at lunch; the management had their own

corner of the room unlike at Wyndham where anyone seemed to sit anywhere there was space). This was a good time for collecting data pertaining to management relations particularly as many people used it as an opportunity to update diaries etc it was reasonably easy to scribble notes in short hand without drawing attention to them.

14.00: return to the medical room. Meet with other team members/ discuss the day and plans for tomorrow.

14.30: Leave training ground

15.00: Arrive Accommodation 2. Unpack, turn computer on, work on notes.

16.00: Break; usually go food shopping for the next few days or with increasing frequency..fall asleep! Go to gym if missed in morning.

17.30: Work at computer

19.30: Eat something and talk to someone; often the latter did not happen when in Queenstown.

20.00: Work, reflections or personal diary.

21.00: Bed

Thursday – Queenstown, Wendell University training day

5.15: Alarm

6.15: leave Accommodation 2

6.40: Arrive at Wendell branch of Zen fitness, train.

7.30: players arrive for rehabilitation sessions. Assist players and physios in the gym, some good opportunity for data collection here, as yesterday, as movement around the gym is much less restricted than the medical room/ training ground gym & facilities.

8.15: depart Zen for university playing fields.

8.30/9.00: arrive at playing fields, meet up with Fozzy after his management meeting. Set up makeshift treatment room. Assist preparation of kit bags for pitchside duties during session. Assist medical management of players when space and facilities allow. Data recording is easier here owing to the shortage of space freeing up my time to observe other things.

9 – 12: observe daily activities where possible; training, unit meetings. Talk with conditioning staff and analysts.

12 .00/13.00: assist players in medical matters over lunch break. Players eat a packed lunch. Attempt to get a packed lunch if there are any left over, save for later or share with Camilla.

Afternoon session: Observe where possible or assist Fozzy as required, discuss matters arising. Often get assigned tasks which owing to lack of facilities at the training grounds must be carried out at home overnight.

15.30/16.00 leave training ground. Often go for coffee/ meeting with Scooter, Camilla and Fozzy

17.30/18.00: Arrive home to accommodation 2. Work on research notes from day; usually a much higher volume to write up from Queenstown days.

19.30: eat at desk

21.00: work on Queenstown tasks for tomorrow.

23.00 bed

The presented text box, outlining a week in the life of the field work, is indicative of the circumstances in which the collected data was constructed. At the point of exit from Queenstown, the weekly structure altered such that the structure of all training days followed the timetable of Monday and Tuesday (above). Although, happily, the long drives between Queenstown and Wyndham were eliminated, the more orderly

arrangement (and the other subculture members' adhereance) of the working day ensured that the volume and intensity of activity remained high. Indeed, it arguably increased as attendance at all home games was now expected, even if only as a spectator in the players' stand. Thus, while the capacity to write notes during the day was enhanced initially, the greater time demands overall attenuated the scope to devote more time to such activities outside of training hours. Moreover, as time progressed and a greater level of socialisation occurred, a greater number of substantive responsibilities were bestowed within the field. This was likely expedited by the circumstances which predicated my increased presence at Wyndham; there was no longer a conflict of interest with working at another club simultaneously and, at some level, the Wyndham cohort likely perceived a preference for their company over Queenstown's. My full time arrival may have been construed as a demonstration of renewed loyalty to Wyndham.

Existing within and without the Rugby Club

It is evident that the data collection process was demanding in terms of time and work, and this was not without consequence. Personal reflective journal entries offer a dark insight into the impact that such a lifestyle had upon broader aspects of existence.

> *I barely recognise my life or myself anymore which concerns me, particularly when I worry that I might miss the bigger picture. Apparently I'm not the only one with these concerns, today [friend] told me I'm not much fun to be around anymore and they have no idea what it would take to make me happy at the moment. This is the third occurrence like this in as many weeks; my family have lost interest in my study as they no longer have the patience or time to listen to the theoretical sides of my work, or perhaps i lack the patience to explain them sufficiently? Most people are only interested in which famous players are injured this week, what funny jokes happened in the physio room (with players they can see on the TV). I never*

want to talk about these things; not only because it's unprofessional but also because many of the situations or events that interest them (as being 'fun' or enjoyable aspects of working in a rugby club) epitomise the staid gender orders and cultural politics at the core of many problems I see. Thus, to my friends and family, when they do attempt to engage with me and my study I become frustrated and unwilling to talk further. My reluctance to gossip, in order to maintain integrity in my work, is costing me dearly. I have never felt so alone.

Diary, December 2009

It is difficult to convey the degree to which personal relationships were affected by the process of undertaking ethnographic work in the field, particularly in fields relating so overtly to discipline and the body. The inability to communicate or justify new behaviours and lifestyle choices became a source of conflict among friends and family, which augmented any feelings of intellectual and social isolation experienced by many researchers. At times, it seemed easier to attempt to behave in ways as had previously been 'normal' in pre-fieldwork days; socialising more, exercising less, giving less thought to dietary practices, laughing at the banal events of 'normal' people's lives. The fact that this was impossible to do offers testament to the embodiment of the research cultures with which I was involved.

The embodiment of an apposite identity for the field was, as alluded to by Coffrey (1999), active and commenced several months prior to entering the field; through adoption of a rigorous diet and exercise programme to achieve a physical presentation of self which could be taken seriously; not only as a sport and exercise professional but as a female sports scientist entering an male dominated environment[2]. As

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[2] Presentation of a female aspect of identity is unavoidable, and arguably complicated process of body management. Bearing pro feminist sympathies, it seems an almost impossible task to present a female self as neither highly sexualised or politically submissive. Equally, there was a desire not to become masculine as a survival mechanism, and in the process risk inviting debate pertaining to sexuality, or becoming one of the boys. An attempt was made to remain feminine, but not to give way to masculine

the fieldwork commenced it seemed necessary to maintain these lifestyle choices and indeed they intensified as a method of social acceptance and, equally importantly, experiential synchronicity with the actors being observed. It seemed important to experience the pain of corporeal discipline and management of the physical self in order to fully understand and construct a social logic of the domain; as it was for Wacquant (1992) and other ethnographic researchers (Goffman, 1968; Schact, 1997). In the case of the latter however, the preparation of the physical self related in the main to clothing choices and other external props to accelerate acceptance (inc. Jewellery, culturally specific kit – see Van Maanen, 1991) and while Coffrey (1991) for example comments upon the pain of wearing high heels to look like an accountant. This physical demand does not match those required to be 'taken seriously' in high performance sport, where such 'adornment' occurs at a deeper physical and physiological level. The impact of living this lifestyle then, in writing a phd, collecting data, performing a functional role in the field (effectively taking on a full time job), whilst training daily in the gym, dieting and neglecting any form of social life had deleterious effects upon health and wellbeing.

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domination. In time this may have been impossible, owing to the inevitable and pervasive gender order; but by way of managing first impressions, this was the aim. As Warren (1988: 24-25) explains:

> *what is presented to a host culture is a body: a size and shape, hair and skin, clothing and movement, sexual invitation or untouchability. The embodied characteristics of the male or female fieldworker affects not only the place in the social order, to which he or she is assigned that also to the fieldworkers and informants feelings about attractiveness and sexuality, body functions and display.*

...my digestive problems continue to deteriorate and I now can no longer afford the new medication prescribed by the consultant. I'm relying on hideous measures just to get through the week. There is no sign of my menstrual cycle returning and it now seems that such damage may be irreparable. These two issues, coupled with a dysfunctional eating and exercise programme over the last 12-18 months leave me questioning my sanity. And this is worsened by the knowledge that this is all self inflicted.

Diary May 2011

As these problems manifested, from relatively early on in the research exercise, it became increasingly difficult for family and friends to identify with the 'choices' being made in terms of lifestyle behaviours. It seemed obvious that the daily gym visits and erratic eating schedule should desist and yet they rarely did for more than a few days at a time; and only then with great reluctance. Reflexively, this of course pertains to cultural embodiment but more than this to the loss of a stable identity. Through the course of the research exercise it became difficult to negotiate the self within the context of multiple different roles being played at multiple sites. Moreover, the priorities placed on each role were in constant flux; was I a sports scientist at this moment or a sociologist? A scholar or a worker? A friend or a spy?

It is difficult to say whether these experiences could have been avoided, better managed or prepared for in some way. Vast quantities of accounts by ethnographers, documenting their experience of the process, were consumed with an eagerness to accumulate insider knowledge and survival tips and yet, as Berreman (2007) intimates, there is a dearth of literature pertaining to the real impact of undertaking ethnographic research. Perhaps the observation of more alien cultures, as often undertaken anthropologically, absolves some of the issues highlighted here insomuch as there is negligible hope for any researcher to entirely 'blend in' to their research environment. However, it is somewhat disappointing to see such an absence amongst sociological writings where resreachers arguably study more familiar environments. It is often assumed that sociologists with ethnographic backgrounds rarely undertake more

than one ethnographic study in their lifetime owing to the required time commitment and financial outlay; perhaps there are other costs which are equally deterring.

It seems that these issues, reflexively speaking, are of great import to the research exercise itself. Here, some cultural embodiment is necessary, and actively pursued, in order to obtain a richness of data inaccessible to the lay observer; and yet, methodological texts demand that estrangement is vital for success in such studies (Hammersley and Atkinson, 1995; Lofland and Lofland, 1995; Coffrey, 1999). To clarify, it is suggested that success or failure in ethnographic research is catalysed by the capacity of the researcher to maintain role distance; to see the culture, rather than passively become a part of it. Immediately the potential ethnographer faces a paradox: that of simultaneous embodiment and estrangement. Coffrey (1999) argues that in studies of the familiar, rather than the anthropological examination of alien cultures, estrangement becomes even more important. And yet it seems, so does the need for embodiment.

The receipt of meaningful identity roles in the field plays a key role in the situation, and presentation, of self in the field. Coffrey (1999) suggests that this leads to a subsequent *'realising of the self'* (p25). In this regard, the positioning of the self within and without the parameters of the researcher role is the subject of negotiation with the field and frames of the study. In short, adoption of an identity for ethnographic research is complex and dynamic, subject to multiple influences derived from the field and beyond. As such, while it is important to establish a researcher 'role' in the field (in terms of role/field distance), it must surely be recognized that the self transcends this role, and the dynamics of identity reframing and presentation transcend the methodological role-taking of being a participant or an observer.

we [ethnographic researchers] actively engage in identity construction and recasting. It is neither helpful nor accurate to treat these processes as cynical enactments of appropriate field roles in order to acquire rich ethnographic data. It is, on the other hand, easy to stress the need for the adoption of both plausible and professional distance in order to the

ethnographically astute. On the other hand, the actual lived experience of conducting

fieldwork confronts themselves in ways that go beyond the enactment of a work process

Coffrey (1999: 26)

The negotiation of the multiple selves, which arise and transform throughout the course of the research process was, and remain, the most difficult aspect of the project to live with and, as has already been discussed, the ramifications extended beyond behaviour and cognition into emotional and physical manifestations of internal discord. Haraway (1991) offers a functional perspective from which to negotiate the incumbent fragmentation of self (Giddens, 1991; Baumann, 2004); indviduals should view themselves as partial or fluid. In doing so, it is suggested that the self can never be wholly complete in any given context, space or time and is thus able to articulate with other selves. How useful such cognitive framing is in reality is uncertain however, a suggestion that the ethnographic researcher is somehow incomplete at the level of the self, when immersed in the research exercise, seems appropriate.

Professional boundaries and research boundaries

Although the impact of taking a role in the field, both functionally and as a researcher, has been explored reflexively to raise awareness of the potential to affect change in the environment through attrition, it should be clear that this study has never been intended as *action research* (McNiff & Whitehead, 2009). Thus the parameters of the research methodology or occasionally found to be at odds with the professional boundaries derived from training as a sports therapist and sport scientist; the functional roles which were adopted in the field. Such conflicts arose most overtly in the domain of the medical departments at both Queenstown and Wyndham when practices were observed which were at odds, not only with personal philosophies of professional practice but which at times violated professional codes of conduct. Upon such occasions, it was difficult to negotiate the internal battlefield which wanted to simultaneously 'step in' and stop the practices or launch some formal protest on the part of (most of the time) the player; against the need to construct an account of the realities of the studied cultural practices.

It offered little consolation that such a professional laxity was repeated at both sites, in line with previous experiences in other commensurate environments. To have intervened as a professional rather than a researcher would have prevented the documentation of such events as they occurred, and also would have borne serious implications for the nurturing of relationships and survival in the field.

Adopting a role as a researcher in the field

Junker (1960) offers a typology of theoretical roles which can be occupied by the social researcher undertaking observational research in the field. In his typology, Junker (1960) allies the adoption of certain roles as being more or less objective versus subjective, empathetic versus sympathetic. Through his explication of these roles, it becomes clear that he offers the 'observer as participant' role as giving a social researcher the greatest freedom in pursuing their goals. The specifics of Junker's role definitions are outlined as complete participant, participant as observer, observer as participant and complete observer; complete participant is considered the most empathetic and least objective with complete observer being the most objective and empathetic rather than sympathetic. It is argued that the observer as participant role offers a sufficient balance of objectivity and experience to enable valid research in field work contexts. However, it is recognised that the role occupied has scope to change temporally.

Junker (1960) concedes, however, that throughout the course of time in the field, the social researcher may well move between these roles, spending various amounts of time in each. Indeed, it is now accepted that the researcher may occupy two or more of these roles simultaneously within one field setting (Robson, 2002). Socialisation, which occurs with any new member of the subculture (Blumer, 1969), ethnographic researchers included, is such that a relative shift from 'complete observer' to more engaged positions will occur, whether or not one is seeking to collect data. As acceptance within the group increases, so too does the level of exposure to less 'public' data. To reject this process of socialisation would be to attenuate the depth of data accrued during the research process. Moreover, the

tenability of the researcher's position within the group at all may be compromised if they choose to reject their participation in subcultural socialisation.

Upon entering the field, precipitated by the initial meetings with gatekeepers as well as multiple conversations with curious rugby players upon arrival at the club, the purposes of research were deliberately made public, as were the methods. There was no effort to conceal the purpose of the activities embedded within the research. However, as Lofland (1971) notes, the human memory is fascinating in its capacity to forget, and thus it cannot be guaranteed that during every observation that will come to make up this thesis, every member was enlightened to the fact that they, and their behaviours, constituted data at that time. Indeed, this is highly unlikely. Furthermore, the acceptance of a functional role within each of the clubs studied (Sports Scientist at Wyndham, Sports Therapist at Queenstown), likely expedited this process of amnesia pertaining to the research exercise being undertaken. Consequently, there have undoubtedly been occasions when the types of data offered by participants would normally only be gleaned by researchers taking a role of complete participant. This is admittedly both a strength and a limitation of the study. Not only are there great ethical concerns and internal moral dilemmas pertaining to the use of such data, but the exposure to such data in the first place demands that the actors described here become something akin to 'friends'.

The participants' understanding of the social role of a researcher in the study is also sullied by the apparent contradiction in research activity (attempting to elucidate the impact and potential dangers of increased sports science and technology in professional sport) and the fundamental 'job', carried out at the club (the use, and often advocacy, of sports science technologies being central in daily activities of both clubs). It was difficult not to feel fraudulent; even more than an ethnographer normally would.

Entering the Field: a lesson in reflexivity

The need to be a reflexive researcher is championed throughout academic training in the social sciences. Although this sentiment applies to all methodological approaches to social research, it is perhaps even more pertinent when a researcher will be entering the field for extended periods of time; such as in the completion of an ethnography. At the point at which it is decided to undertake research capitalising upon ethnographic methods primarily, an incumbent fear presents itself; not only in deference to the task of field based research, but also with respect to the prerequisite reflexive exercise to be undertaken. This is amplified by the dearth of practical guidance as to how best to set about becoming the eponymous reflexive researcher. Where does one start? And, perhaps more importantly when is the exercise 'complete'? How does one know one is ready to enter the field?

Those who have completed field based, or perhaps any, research understand exactly why those questions remain at best rhetorical, most often unanswered, and at worst totally avoided: there is no answer. In the interests of future social researchers it seems important that an attempt is made to offer more practical guidance in the art of reflexivity. Looking back, having now completed the data collection aspects of the research project, the memories of innocently setting about an exercise in reflexivity remain fresh, potent and daunting; the only comfort to be drawn is from the conclusion that maybe everybody gets it a little (or more?) wrong.

What is reflexivity?

At the heart of reflexivity is the recognition of one's own impact upon reality and predicating views one has about that reality. Upon exploration, it holds that this relationship can easily become cyclical; the predicating views come to construct a reality which reaffirms such beliefs therefore continually reconstructing reality in the image of those preconceptions. Thus, as a researcher entering the field, it is pertinent that an attempt is made to prevent the ignorant portrayal of reality which merely affirms the

connoted positions to which one is predisposed. Failure to do so would result in what is termed 'ecological fallacy': the process of constructing a research design to affirm the consequence (Byrne, 2000). It is suggested that an exercise in reflexivity will primarily serve to expose, and bring to the fore, those views held which will unwittingly underpin the reconstruction of the studied subculture. The recognition of one's own preconceptions, and therefore the capacity to impact upon the studied world, in itself goes some way to attenuating any self-serving aspects of data collection. Specifically, it introduces a self checking mechanism which may preclude a deliberate search for 'evidence' which supports unconsciously predetermined theories about the entered field. That said, the impression of one's own beliefs upon the environment, and its reflected construction within the presented research, cannot be prevented entirely. Indeed, the undertaking of reflexive exercise offers no guarantee of 'objectivity'; it is possible, that the beliefs held about studied phenomena are inaccessible at a conscious level in their entirety (Bryman, 2002; Crotty, 1998). As Law (2004) points out, our complicity in 'reality making' is unavoidable; even in light of the championed reflexive exercise. This would support the suggestion that the cognisable process undertaken, prior to entering the field, inherently lacks the necessary depth to prevent any impact or bias: this recognition, in itself, has profound ontological implications.

Lynch (2000) identifies the work of Goffman (1962) as employing a form of reflexivity he terms 'cybernetic loopiness'; wherein images of feedback form a self reflective account of reflexivity. The self checking which may occur as the result of observing the self during responses to social stimuli positions the reflexive process as a potential mediator of social behaviours in the field. Thus, reflexivity becomes a mechanism of social construction in itself, utilisable by the actors in the field just as much as the social scientists observing them. Lynch (2000) proposes that in the study of social behaviours, where motivated behaviours and their interpretation compose the social order, self reflection has discernible ramifications. Such reflexive influence can be seen in the theoretical frameworks presented by Mead, Schutz and Goffman, and latterly social constructionists such as Searle (1995). This type of self reflection pertains specifically to the monitoring of one's own behaviours and the subsequent construction of social

institutions. Such institutions come to be viewed as objective and distinct from the Society in which they were constructed; thereby affording them some transcendent political capital. These are the reified entities which come to constitute currency within the studied social milieu. To Searle (1995), of course, money is the most obvious example of this and it pertains to the whole of society. However, within the context of professional rugby union, or even sport, having representational honours would offer a similar relevant translational metaphor.

> *Yeah he's always going to be looked after.... he's got caps. If you haven't got caps... or if you don't look like you're going to, you're not big enough or whatever, I honestly think they couldn't care less as long as you turn out to training and bloody rehab once in a while.*
>
> *'Flex' – Queenstown Warriors player*

While the frameworks of analysis offered by Goffman (1986, 1990, 1993), and those used by Hochschild (1983), offer insight into the mechanisms which catalyse this reflexive process in the field, Foucault's work, particularly that pertaining to technologies of the self (1988), and more recently the work of Rose (1999), equally offer a different perspective on the self checking process in strategic social interactions. Throughout the subsequent chapters of this thesis, attention will be afforded to the interactional analyses of field situations utilising the work of the aforementioned theorists.

This behavioural reflexivity, though relevant, must be considered along with other types of self reflection in this context; specifically, philosophical self reflection. This seems particularly important when considering those ideas and practices which may come to constitute 'Science'. The nature of sports science in the UK is such that it is currently subdivided into several key categories, by which practitioners and interventions are organised. The British Association of Sports and Exercise Scientists (BASES)

recognises key groups under which training, support and accreditation pathways are provided independently; physiology, biomechanics, and psychology amongst others. At the level of philosophical reflexivity, it becomes obvious that each group might hold different philosophies pertaining not only to practice, but at deeper ontological and epistemological levels. Within each group, the epistemologies pertaining to markers of performance vary substantively and in the degree to which they might be considered 'objective'. Thus, within the sports science community, there are subgroups, within which an order of knowledge exists: a politic of truth (Foucault, 2007). To the biomechanist a numerative score (e.g. radians of motion, Newtons per metre squared upon impact) may be associated with greater political capital than an athlete's account of perceived restriction in physical ability. To the psychologist it is entirely plausible that this polemic would be reversed.

The discussion of the philosophy of science as it pertains to sports science will form a central part of this thesis and, as such, further discussion will be abated here. However, at this stage it is important to indicate that the philosophical discourse increases in its complexity when it is considered that within each of these groups there is further scope for philosophical reflection and delineation. Taking a sports psychologist as an example, once again, the encouraged development pathways in the UK supports a practitioner aligning themselves with one or more of four key psychological frameworks for practice. The philosophical groundings for each of these are broad and range from Freudian approaches on the one hand, to humanistic approaches on the other (Hill, 1998). Moreover, with little education regarding the centuries old philosophical debates pertaining to relations between the mind and body; practitioners are confronted with a choice between cognitive or behavioural approaches to psychological practice. In an effort to circumvent an, arguably, important process of philosophical self reflection, which is undeniably difficult and uncomfortable at times, CBT (cognitive behavioural therapy) is often presented as a faithful hybrid solution.

Not only is a reflexive appreciation of these issues necessary when observing sports science 'in action', it is also crucial to attend to them at the level of interpretation and analysis of data collected. The nature of

this reflexivity pertains directly to the ontological inferences reproduced in this thesis. It is vital to maintain awareness of the interpretative nature of the sociological study. The structures and frameworks which may be referred to as common often centrally, by actors in the field, as well as during the analytical process, are considered secondary to the agency of the individuals and the groups studied. Thus, speaking honestly and reflexively, it is probable that responsibility will most often be credited to the individuals involved and their constructive capacity as social actors; rather than ascriptions to independent structures. This is not to say that such structures do not exist; on the contrary, a critical realist approach is adopted here in recognising something as real if real in its consequence (Crotty, 1995). However, these structures would not exist were it not for the complicity of the social actors, and their generative potential in 'reality making'. From here then, it is seen that interpretation is grounded in two key schools of thought; phenomenology (borrowing from Heidegger, Sartre, Merleau-Ponty etc) and hermeneutic approaches where the work of Barthes, Derrida and Foucault may have their derivation.

The recognition of this reflexive loop at the stage of interpretation, analogous to the same reflection arising in the midst of social interactions in the field, is important for situating the study of science and philosophy of science in the field. Not only does this reflexive mechanism play a vital role in the self-governance of athletes and the symbolism enacted in daily life at the club, but it will be shown that it is pivotal in the relationship between sport and that which is understood to be science.

Field notes, and analysis and reconstructing the field for academic consumption

As far as the process of ethnographical research might be considered to deconstruct the social field of study, the conclusions drawn, the choices made over what to include as field notes and how best to interpret these data are all generative activities by nature. As such, the act of writing and recording observations, even before the production of a final draft, must be recognised as actively constructing meaning and knowledge (Emerson *et al*., 1995). Atkinson (1990) points out that texts are implicated in

creating reality and should not be considered as transparent or independent reports of reality. That said, the import of a reflexive process at the point of field note interpretation, and writing up, has received little or no attention in literature pertaining to ethnographic methodologies (Emerson *et al.*, 1995).

Emerson *et al.* (1995) remind us that research is a creative and generative process and thus reflexivity involves recognition on the part of the Observer that the record of events kept during the research process do not simply mirror reality; it constitutes as real that which it depicts. Thus, in the process of research, deliberately or not, ontological assertions are being made. The choices made over what to include and the gravity afforded, through record and analysis, inherently reflect the philosophical predilection of the researcher. On the topic of reflexivity, particularly as it pertains to the study of science, Bourdieu (2004:6) argues that *'reflexivity inclines one to an integrative position which consists of bracketing off in particular the opposing theories many owe to the fictitious pursuit of difference'*. Thus, it is suggested that the adoption or pursuit of an assertive theoretical or political stance is inappropriate if a faithful reconstruction of the studied subculture is intended. Latour (2007) expands upon this argument, applying it to the study of groups within society. He reasons that in the study of a group or subculture, the delineation of that group - most often achieved through the identification of difference from other groups - is a misguided practice on the part of the researcher prior to entering the field. While it is accepted that the recognition of group existence in a particular field is vital to explore the cultural field, Latour (2007) is adamant that no attempt to define social aggregates, which affect the social context, be made by the sociologist. With regard to adopting a reflexive stance, Latour's (2007:33) approach is simple *'set up as the default position that the enquirer is always one reflexive loop behind those they study'*. Through this assertion, Latour (2007) is propagating an approach which is, in essence, anti-structuralist; that is to say the participants at the study groups are taken to be as informed, if not more so, than the social observer. Latour (2007:32) sees the typical view of the reflexive social scientist as somewhat contemptuous:

> *for them, actors do not see the whole picture that remain only ' informants'... while the*
>
> *social scientist, floating above, sees the ' whole thing'... scientists are doing '*

reflexively' what the informants are doing ' unwittingly'... in general, what passes for reflexivity in most social sciences is the sheer irrelevancy of questions raised by the analyst about some actors' serious concerns.

Lynch (2000), borrowing from an ethnomethodological standpoint offers an alternative approach to reflexivity which is not so much concerned with epistemological or political aspects of research, but more to do with the praxis of social research. In particular, emphasis is placed upon the actions performed and the 'logics' employed within social settings and indeed its deconstruction and reconstruction through sociological analysis. He advocates such a reflexivity as a solution to the problems highlighted by Bourdieu (2004), Latour (2007) and others; *'it avoids the academic pretensions and fractiousness that can arise from equating reflexivity with a particular intellectual orientation, cultural condition or political perspective'* (Lynch, 2007:27).

Although the arguments of Latour (2007) and Lynch (2000) are accepted, in that an attempt at an exhaustive political reflexivity has not been undertaken, it should be clear that the epistemological premise of this study is largely constructionist and the methodology is ethnographic, employing methods which vary along the scale of participant observation; as is most often the case (Hammersley and Atkinson, 2007). The dynamics surrounding the occupied role, as a researcher with several qualifications attractive to the environment, ensured that the insider/outsider dynamic was as complex as possible throughout the research process. According to Crotty (1995), all that remains to do is to outline theoretical perspectives with which this study is to be aligned. An initial attempt at the reflexivity process seemed to dictate that symbolic interactionism offered the most scope for this field based research. However, the constant reflexive loop, which is undoubtedly catalysed by the perpetual keeping of field notes, led to an unexpected alliance with the phenomenological perspectives which appear to assist greatly in the understanding of 'Science' in professional rugby union.

As previously discussed, in line with advice from the literature, a deliberate attempt was made to enter the field devoid of any political stance. However, the contemporary picture of professional rugby union is inherently political, in very different ways. Thus, in an effort to ensure that, prior to discussion and portrayal of the ethnographic field, analysis remains only *one* 'reflexive loop' (Latour, 2007) behind the observed groups, the latter part of Chapter 3 considers pertinent events occurring in the world of sport which undoubtedly bear impact upon the behaviours of the two rugby teams observed during the study. Additionally a thorough discussion of the organisational, geographical and physical order of the two clubs will be provided such that structural differences in the social order for the two clubs are alluded to from the outset. Prior to this discussion of the specific nature of the research field, it is pertinent to undertake a review of relevant literature which has, reflexively, served to inform the design and production of this study.

CHAPTER 2 – Literature Review

The purpose of this chapter is to introduce key concepts alongside literature which is deemed to be relevant to this study. Of course, it is not viable to discuss every piece of literature pertaining to professional rugby union, neither is it feasible to attempt to review every piece of ethnographic research with potential relevancy. Therefore, an attempt will be made to illustrate the breadth of literature which will bear relevance to the study. However, greater critical analysis will be undertaken with respect to those studies and concepts whose contents will inform the ways in which this study is both carried out and interpreted. Prior to entering the field this research is driven by three key areas: a gap in research pertaining to the lived experiences of those affected by sports technologies, methodological considerations of such research, and theoretical underpinnings. In reference to the last, a brief discussion of key concepts to be employed in subsequent analysis will be undertaken. Specifically, Foucault's ideas pertaining to discipline and technologies of the self, leading into a discussion of self-governance, will be presented. In addition to utilising Foucauldian theory, aspects of Goffman's work will also be employed during the analysis of data collected during the study. However, while a brief discussion of key concepts will be undertaken at this juncture, it is likely that discussion of theoretical ideas would be more fruitful within the context of examples gained in the field. Therefore, the review of purely theoretical work remains short within the context of this chapter, but will play a more substantial role in the analysis of data. Finally, although not occupying a central position in later analysis, Bourdieu's concept of habitus and capital (specifically symbolic) will be revisited as useful conceptual tools for describing behaviour in distinct groups.

Both the context and the theoretical approach adopted determine that identity becomes a consistent point of reference for analysis within this study. Although identity is often discussed as a reified entity, it is noteworthy that varying theoretical definitions of the term exist throughout sociological literature (Lawler, 2008). However, the methodological approach applied here determines, in part, the nature of the operational meaning of identity in this context. While it is not intended to afford coverage to a thorough

discussion of differing approaches to the study of identity, there are key aspects of identity relevant to this specific context, which will be attended to throughout the course of this literature review. Notably, ideas relating to the construction and manifestation of a masculine identity, as well as the embodiment and enactments of sub culturally specific identity will be examined henceforth.

Prior to examining theoretical concepts and pertinent applied literature, a brief discussion of the history of rugby, particularly as it pertains to professionalisation, and its organisational structure will be undertaken, since it has been shown repeatedly that the placing of a subcultural analysis within a broader social structure is vital for effective understanding of observed social processes.

Rugby and professionalism

Ryan (2008) argues that the switch to professionalism in Rugby Union in 1995 was necessarily fast owing to the defection of players to Rugby League where plans for a new super league were emerging. It is, in part, a result of this alacritous move that the concurrent cultural transformations within the sport have been particularly difficult and largely determined by the immediate context. Ryan (2008) suggests that each country has handled the professionalisation of the sport in different ways owing to its local cultural importance, thereby ensuring that the manifestation of this changeover process may differ profoundly from region to region. However, it can be argued that, although an initial stability was achieved in direct response to professionalising the game (i.e. less players moved to play the other code), a global market for players has been constructed, meaning that subsequent tensions between player and club, club and national governing bodies and between local and foreign players have ensued. In this sense, the game still remains in a relative state of turmoil, though this turmoil may present itself in different ways depending on the country the club is in. However, in addition to the cultural and historical differences in the game geographically, the quest for profitability, and synonymously the survival of the game, led to regional stakeholders behaving in different ways to secure their market share. Indeed, Ryan (2008) posits that the

extent to which these stakeholders reflected upon the process and the similar experiences occurring in other sports, whilst making a greater or lesser attempt to square these issues with their cultural values pertaining to the local game, has served to shape the scenery of contemporary Rugby Union.

The impact of organisation upon microlevel processes in the domain of the sports team.

At the level of the rugby clubs involved, the somewhat combative processes crystallise many of the organisational issues faced by modern-day professional sports teams. Parsons (1961) identifies organisations, as opposed to other social groups, as being those with goals. Indeed, latterly organisational sociology has become concerned with the ubiquitous structural characteristics of such assemblages, particularly the centrality of certain characters or cliques over others and subsequent operating group politic (Scott, 1991). However, Dunning and Sheard (1976) refute the notion that organisations have goals, in doing so rejecting organisations as a reified entity, instead suggesting that individuals have goals which may or may not be shared by other members of the group. Preferring to discuss the 'interests' of those involved in rugby organisations, Dunning and Sheard (1976) posit that the actors involved in management may not always be aware of their own prevailing interests, let alone those of the group around them. Consequently, it is fair to suggest that throughout the organisation and management of professional sports club, peoples' interests may be multiple and diverse and this will be examined more closely in the following chapter. The professionalisation of a sport, inherently broadens the range of organisational interests, inviting concerns for solvency, commodification of different parts of the game (including players) as well as nurturing and narcissistic/voyeuristic desires fuelled by mediated public consumption. Therefore, within an albeit relatively small social network of a rugby club, it is conceivable that the primary interests of different members dispersed throughout the network may be substantially different, both from each other but also from the perceived organisational goal at any given moment.

As well as the ways in which their conflicting interests might be played out within the political economy of the club-audience-state triad, it is then shown that similar discords are negotiated on a daily basis within the smaller team-level structure. A clear example of this is seen in the relationships between athletes, coaches and physiotherapists. Although not entirely commensurate, there is considerable overlap between this idea of organisational structure and Nixon's (1992) concept of a sportsnet. However, rather than being motivated by a Parsonsian organisational goal, Nixon's (1992) cultural analysis leads to a more sinister entrapment mechanism being synonymous with the construction of such networks. In particular, it is suggested that both management and other players, in addition to external forces, do not function to serve the welfare of players, but actively propagate a culture of risk. To take a Bourdieusian interpretation on this, a *habitus* is constructed and enacted whereby deleterious actions (such as violence or playing through injury) are normalised, internalised and come to facilitate the acquisition of specific forms of subcultural capital. Roderick et al (2000) highlight the extent to which the unquestioning adoption of a habitus which exalts playing with injuries has pervaded professional football. Indeed, such normalisation of injury has been documented across different sporting disciplines (Curry, 1993; Malcolm et al.,2004; Roderick, 2006a; 2006b). Although some empirical data have attempted to objectify the nature of support (or lack of) through an analysis of treatment of players the results of such investigations have been equivocal. Kelly and Waddington (2006) argue that the overt construction of rules by which the player must abide, where violation results in some form of disciplinary procedure, is central to the construction of power relationships within the organisation. However, their analysis is restricted to the manifest symbolism of abusive or intimidatory interactions following an infraction of agreed group rules. Sadly, the subculturally specific social norms are neglected here, and no attention is paid to the metaphysical or emotional construct which catalyse the internalisation or normalisation of the unwritten codes of behaviour. Roderick et al (2000), referred to attitudes being good or bad, universally perceived as such by players and managers, which are not based upon published codes of behaviour. Furthermore, in later work, Roderick (2006) makes reference to the role of fear, and other such socio-emotional constructs, as motivator to engage in certain deceptive behaviours. Goffman (1966,

1990) places the fear of shame or embarrassment at the epicentre of social interaction when seeking to present a positive impression. It is suggested that such shame or embarrassment is derived from non-adherence to the specific social norms of the subculture. Thus, the communication of such rules becomes part of an active process undertaken by players and management members in a sports team. However, it becomes clear that this communication is not a discreet, one-time event, rather it is part of a broader negotiated socialisation process. At first this appears functionalist in approach, and yet through his work on strategic interaction (1970) and latterly frame analysis (1986), the extent of disclosure of oneself (and notably the extent to which one is a) adhering to rules and b) being truthful) varies from situation to situation. Thus, the constructed environments, as here in the professional sports team, is at once deliberately inclusive, yet simultaneously competitive and alienating. As Goffman (1966, 1970) points out, the level of knowledge one has, and importantly chooses to expose, directly influences power relationships played out in public interactions. Thus, there are situations in which a player might conceivably hide the extent of knowledge they have (i.e. regarding their own injury/training status), if it might serve him well in a coach-athlete interaction (e.g. communication of the right attitude). However, one must consider the gravity of different forms of knowledge in such situations.

Turner (1987) draws attention to the potency of medical knowledge amongst Western society. Indeed, a medical model forms the basis of communicated understandings of many constructs pertaining to elite sport; namely health (dis)ability, psychology and performance preparation. Thus, in conversations between players and physiotherapists or team medics, an inherent power differential presupposes interactions within sporting subculture. As such, knowledge, and rules, transcend the walls of the rugby club. Thus, as has been previously discussed extensively (Quill & Brody, 1996), the playing out of a doctor-patient relationship remains contentious despite occurring outside the formal medical institution. An uncomfortable situation arises whereby a player's knowledge about his body is reconstructed by an external party and, in light of both the operating politic and habitus, is re-embodied. Studies of medical support in elite football demonstrates that the operation of such enigmatic and potentially volatile

relationships outside the structure of the formal medical institution can have potentially dangerous effects (Waddington & Roderick, 2002; Kelley & Waddington, 2006; Roderick, 2006). The normative reference points for good and bad practice, health and ill-health, and acceptable risk, are renegotiated in light of different organisational interests; without the safety nets of standardised medical practice codes.

Roderick (2006) suggests that within the context of professional football, playing and training through pain and injury might be considered normative routine practice to those involved. Indeed, within football, it seems that practices of concealment are commonplace with respect to injuries and Roderick (2006) suggests that both external factors and the need to conform to a masculine identity act as key motivators for such behaviours. It is suggested that such actions among athletes serve a collective function in strengthening social bonds through the construction of shared ideals and mantras; '*no pain no gain*' (Curry & Strauss, 1994; Fussell, 1991; Turner & Wainwright, 1993; Young , White & McTeer, 1994). However, Klein (2001) argues that within the context of body building, the training which occurs in the gym is a series of individual efforts despite appearing to be 'rocking *in collective exertion*' (p147). The organisational structures which pervade all levels of the sport, and the inextricable links to a multimillion dollar industry, have ensured the adoption of individualistic ideologies. Thus, one must begin to question the authenticity of these formed social bonds, to which Roderick (2006b) and Turner and Wainwright (2003) allude, in a climate of increased professionalism in sport. Perhaps the substance of these social ties, or shared *habitus*, pertains most strongly to the continual construction and perpetration of masculine identities. Thus, it is not simply enough to adopt a group habitus, it is vital that the individual makes a conscious effort to offer overt manifestations of the hegemonic identity. Such behavioural efforts are highlighted by the following quote from Fussell (1991:94)

> *The belts, for the most part, were unnecessary in the gym, only needed for back support for a few exercises. But they were vital for purposes of collective identity, which is why they were worn at all times. I'd worn mine on the plane ride out.*

Of course, one comes to understand that such exhibitions of conformity represent only a small part of the ways in which individuals become subjectified in the adoption of a specific subcultural identity. In what Lawler (2008) terms an identity paradox, athletes feel pressures to conform to collective notions of what an acceptable identity is and yet they also seek to establish individual identities. The capacity to effectively negotiate this dilemma, particularly within the team environment remains to be seen. As elite athletes, the individual is inherently driven to achieve distinction and yet his capacity to fully adopt an individual identity is attenuated by the necessary efforts to display the expected identity in order to avoid stigmatisation (Goffman, 1990). On the one hand they must prove that they belong there, but equally they have a need to demonstrate divergent superiority if they are to succeed in pursuing a career. Nonetheless, it is fair to say that, for the most part, the manifestation of both collective identity and the quest for distinction is highly masculinised, indeed the presentation of masculinity and the negotiation of power within all male sports environments is unavoidably gendered.

The dichotomy of strong and weak becomes discussed synonymously with masculinity and femininity respectively in the locker room (Curry, 1991; Muir & Seitz, 2004; Schact, 1997). Adopting a rather structuralist approach, Klein (2001:421) cites the broader socialisation of males in society as the cause of such entrenched views within male sporting subcultures:

> *In enculturating young men, we seek to instil in them the notion that masculinity is determined in direct proportion to the repudiation of anything deemed homosexual. For many, the ultimate man is the most macho-looking and sounding , the most aggressive appearing and acting. "Real" men do not wince in the face of pain or trouble, they do not emote freely. Anything outside this is considered weak and unfit, that is, womanly.*

Numerous studies have examined the fraternal bonding culture which is synonymous with male team sports environments, such as rugby (Birrell, 1981; Chase, 2006; Crossley, 2006; Lorente et al., 2003). Many of these focus upon the construction of a socialisation process, for young males into the subculture,

specifically events surrounding a process of hazing or initiation (Safai, 2002; Muir & Seitz, 2004; Finley & Finley, 2007; Kirby & Wintrup, 2002). Although, hazing, or initiation rites, may not present in the same way in professional rugby set-ups, this is not to say that there is no socialisation process. It is suggested that this will be a process of continual negotiation between players and management, as well as within players. However, in addition to introducing new members into the team, the initiation rites undertaken serve an important role in communicating and establishing a gender order within the team (Connell, 2000; McKay et al., 2000; Flood, 2008). This is largely established through behavioural assertions of masculinity, to greater or lesser extents, on the part of players. The construction of a complex gender order within the team, which is continually reconstructed in light of internal and external factors gives credence to newer theories of masculinity; rejecting dichotomous approaches to the study of gender. Structural approaches to the analysis of gender have been predicated by distinctions between heterosexual versus homosexual tendencies (Butler, 1993), or masculine versus feminine enactment within the context of a hegemonic structure (Hargreaves, 1994). The notion of hegemonic masculinity has proved popular across many areas of sociological study and has been applied to sporting arenas. However, as Hargreaves (1994) attests, at the level of micro-interaction in sport, where ethnographic methods might be employed, the application of hegemonic theory becomes difficult. Within settings such as rugby teams, where masculinity and its presentation through identity are synonymous with social power and symbolic capital, the notion of a political gender order would be unlikely to fit with the operational organisational structure. To clarify, groups will emerge within groups, and 'powerful' figures will present in different situations who may not be synonymous with the specific power roles (such as captain, international player etc.). The circumstances surrounding the team environment (e.g. on-pitch performance) and individual players (e.g. injuries), which are inherently dynamic, offer sites for renegotiation of the subculture-specific gender order and alterations in the presentation of a more or less masculine self.

Connell's (2005) notion of new masculinity is increasingly seen amongst sports stars in the most manifest sense, they are simultaneously violent yet vain, macho yet narcissistic. The emergence of the metrosexual was arguably founded in mediated representation of sportsmen prior to its transcendence of the other societal groups. Harris and Clayton (2007) have undertaken a media text analysis of Gavin Henson, citing him as the first metrosexual rugby star. Throughout their discussion it is implied that Henson differs from other rugby players in many ways, but most significantly in his presentation of identity. The exact meaning of the term metrosexual remains a subject of debate, yet Coad (2008) is determinate in stating that it is not synonymous with the revealing of "a feminine side". It is suggested, however, that male vanity and narcissism are the cornerstones of such an identity label, and similarly, it appears impossible to review any literature pertaining to metrosexuality without stumbling across references to David Beckham (Carmichael, 2006). Consequently, as Coad (2008) points out, owing to one of the greatest celebrity sports stars being labelled as the biggest metrosexual on the planet, professional sportsmen are arguably more readily appropriated as metrosexuals than males in other parts of society.

Although metrosexuality is considered congruent with some notions of 'queerness', a specific facet of its character relates to the adoption of the 'gay lifestyle' (Coad, 2008). Specifically, this refers to the adoption and propagation of a clone culture, based upon a desire to acquire a certain look or way of being;, however, more important here than the relationship of such an identity to homosexuality, is a commodification of masculinity as it pertains to the body. The adherence to the metrosexual identity is invariably synonymous with another form of corporeal discipline, yet in this case the motives are aesthetic rather than functional. Therefore, rather than the accumulation of bodily capital, as discussed by Wacquant (1995) being the result of a training regimen and functional needs to survive in the sports arena or society itself, a more 'ornamental' capital is available to the professional sportsmen. Although this type of ornamental capital bears little currency in the athlete's success as sportsmen, its synonymity with the professional era in sports is poignant. As athletes, and more specifically, their bodies, become commodities within the subculture of their sport, it becomes increasingly apparent that they also become

the means of production for enterprise beyond this relatively closed world. The symbiotic relationship between sport and the media creates both supply and demand to this new form of corporeal commerce; from which Harris and Clayton (2007) suggest rugby players are no longer exempt.

The compatibility of a metrosexual identity and engaging with rugby culture appears at first to be difficult, since hyper masculine presentations of self have long been synonymous with rugby culture; particularly since it has been argued that such cultures have been constructed in direct opposition to 'queerness' (Connell, 2005). However, it has been argued that the homosocial behaviours exhibited by team members in a 'jock' culture (Sparkes et al., 2007) are often circumvallated by actions which may be interpreted to have homosexual bearing. Nonetheless, the commodification of the specific form of masculinity and the voyeurism, which is incumbent in metrosexual culture, would suggests that, contrary to first impressions, there is potential to some congruency between being both a rugby player and a metrosexual. The most interesting aspects of this paradoxical existence would surely be seen out at the level of the individual and his behaviour in face-to-face interactions at the rugby club with teammates. Indeed, even a narrative or behavioural analysis on the part of the metrosexual rugby player would offer great insight into the ways in which this new presentation might be negotiated in daily life. It is unfortunate, therefore, that Harris and Clayton's (2007) analysis is limited to textual analysis of media representations of the player (Henson), despite the authors' recognition that the mediated notion of metrosexuality has little place within the multiple masculinities played out in daily life. Nonetheless, a discussion of metrosexuality, as attached to tangible facets of Henson's public and private persona ensues.

Given that the term metrosexual was coined by the media, is attributed to players by the media and the commodification of such an identity facilitated by the media, it is perhaps unsurprising that a metrosexual identity is connoted through media texts. Indeed, one might accuse Harris and Clayton's (2007) research of being ecologically fallacious . The media texts analysed act as signifiers (as described by Saussure, 1998) serving only to allude to the signified notion of a metrosexual rugby player. They act to propagate cultural distinctions of a metrosexual identity, which is ironically dissociated from an embodied form of

any such identity. The enactment of a metrosexual identity, or any other form of identity for that matter, amongst professional rugby players remains unexamined in contemporary sociological literature.

The body

Within the context of elite sport, the construction of identity becomes enmeshed in the disciplining of the body. In this sense, due to both the functional need for acquiring certain physical characteristics, in addition to an identity aspiration, the body becomes an overt mechanism for the presentation of identity. Not only that, but it becomes a highly visible record of the identity construction, and reconstruction, process throughout an athlete's career. In the following passage, documenting his physical state in the build up to competition, Fussell (1991:193) highlights the markers of a continuous physical disciplining process but also the ways in which these markers are assessed and normalised by the other members of the subculture around him.

> *Then why did I feel so awful? Thanks to the rigors of my training, my hands were more ragged, callused and cut than any longshore man's. Thanks to the drugs and my diet, I couldn't run 20 yards without pulling up and gasping for air. My ass cheeks ached from innumerable steroid injections, my stomach whined for sustenance, my whole body throbbed from gym activities and enforced weight loss. Thanks to my competition tan, my skin was breaking out everywhere. Vinnie and Nimrod explained that all this was perfectly normal.*

In his reflection upon training to become a bodybuilder Fussell (1991) alludes to the ways in which his identity and his physical appearance become unavoidably linked. Indeed, his concept of self becomes contingent upon the external measurement of his body, either through social appreciation, as above, or through the 'objective' measurement of the body.

I couldn't stop. Seventeen inch arms were not enough, I wanted 20. And when I got to 20, I was sure that I'd want 22. My retreat to the weight room was a retreat into the simple world of numbers. Numerical gradations were the only thing left in my life that made sense, Twenty was better that 17, but worse than 22. Bench pressing 315 was better than bench pressing 275, but worse than 365. I was reduced to a world where such thinking ruled, and it was only by embracing it that I could sleep at night.

Fussell (1991:122)

In this sense, the measurement tools and even their output are afforded agentic force by Fussell (1991); his identity (that which might be considered to be a social construction) has become inherently shaped by the arbitrary or inanimate. In this regard, although he makes no attempt to align himself thus, Fussell's (1991) observations might be considered congruent with analysis via actor-network theory (Law, 2004; Latour, 2005). From this perspective, the social is considered to be constructed from the inanimate (technologies, buildings, resources) as well as the actors themselves, coming together to forma symbiotic network. In an era where such measurement and relentless monitoring of athletes is continuing to rise, largely under the auspices of Sports Science, one must question the impact that this has upon the construction of individual and collective identities in sporting subcultures.

Following an extensive ethnographic study of a specific disease (atherosclerosis) and associated medical practices, Mol (2005) came to suggest that medicine, in all its facets, comes to enact the disease. In essence, her work alters the way the technology and the body are viewed; it is shown that medical processes and protocol do not serve to offer knowledge about the body so much as shape the way the disease is constructed. Thus, this *knowledge* about the body is constructed from the processes of measurement and examination. In this sense, it can be seen that not only do the actors involved (doctors, patients, nurses, scientists) have the agentic capacity to shape a patient's reality, but the technologies that they utilise also do. If one considers this in terms of the body as related to elite sport, for example, it

comes to be that the technologies used to discipline or treat the body come to define that which is understood as the body. Several conversations may occur every day about a player's body in the broadest sense, but the concepts used to describe, and the technologies relied upon to justify, corporeal observations, determine that in each of these interactions the body may represent a slightly different thing. To apply Mol's (2005) idea to the sporting setting, an elevated blood lactate sample is not the same entity as extreme burning pain described by player (arguably caused by said lactate), nor is it the same as the biochemical pathways cited by the team sports scientist as explanation. Nonetheless, while each description serves to justify the respective actor's position (ie, requesting rest or massage versus greater provision from monitoring), the technology employed (lactate analyser) and the output that it provides are consciously and deliberately adopted to confirm their construction of reality. This predicament was mirrored in the words of Fussell, in the example given above, where the numbers associated with his physical form came to enact his physical condition and transcended his sense of self. Therefore, as Mol (2005) states, it is 'enactment' rather than a concern for knowledge or ontology, which is most important in such settings. Through the recognition of the complexities involved in enactment, Mol (2005), argues that while conceptions of the body, and concurrently one might infer identity, are multiple, they need not necessarily be considered as fragmented in the postmodern sense. The body is many things, viewed in many different ways, but these are co-ordinated rather than dissociated from one another.

However, a problem exists in acceptance of such a model when entering into the ethnographic field; the potency of a scientific model (most often considered synonymous with medical practices), is such that it may come to overpower the concept of the body on a daily basis. Although Mol (2005), argues that we can talk about the body in many different autonomous ways, some voices will always be heard more loudly than others. The work of Roderick (2006) attests this, consistently demonstrating the power of medical or scientific concepts of the body over football players' understandings of their own condition. Invariably, such an ontological power differential, results in the individual becoming alienated from their own body, pain and treatment. Therefore, it may be difficult to observe the relativist ontology in action,

which accompanies a multiple or complex notion of the body, the political climate will likely influence the presentation of normal and acceptable understandings of such concepts. Methodologically then, the literature to date appears to conspire to suggest that neither purely observational, nor wholly narrative/textual accounts of the body in society are adequately able to convey all aspects of the lived experience of being a professional rugby player. Moreover, analyses synonymous with actor-network theory assume a cognate and deliberate agency amongst all individuals within the group, towards constructing and maintain the network at its core; there is an assumption that all parties work towards a functional end (Latour, 2005). In this sense, it can be argued that the emotional and political aspects of the self are of lesser import that those of the group in the daily functioning of the subculture. While such an approach may hold true when viewing a group from an external, unsocialised, perspective, it sheds little light on the microsocial circumstances which come to construct the athletes' lived experiences of high performance sport (Shogan, 1999)

In Wacquant's (1992) research, based on his three year ethnographic study in a boxing gym located in a suburban Chicago ghetto, it is demanded that in order to understand the social actions of those involved in corporeal crafts, it is imperative that the socialised body takes a central focus in analyses of the subcultures. Therefore, a methodological shift must occur, wherein the researcher becomes an enacted body, not only observing but engaging in the disciplinary practices associated with the sport and, more importantly, the social milieu. It is suggested that the advantage of such an approach is to negate the preconstructed theoretical gaze which transcends analysis of mediated sports stars. To clarify, Wacquant (1992) is proposing that distanced analysis of sporting subculture, either through analysis of mediated texts or via interviews, abstracted from the field in which their content was constructed, fail to comprehend the nature of the subculturally specific social. Thus, while the examination of narratives which arise in the field may serve to reveal facets of the operating social forces, which are context specific, the analysis of narratives constructed outside the subcultural domain may merely serve to propagate misinterpretations of the culture. As Ricoeur (1990) explains, in the construction of narratives,

a process of emplotment occurs whereby the individual constructs a story, relying on certain events over others, which serves to justify their actions or way of being. Consequently, if the narrative is constructed outside the referent setting, the rules of justification are derived, at least partly, from the social norms of the immediate setting, rather than the norms of the subculture. For example, it is entirely conceivable that a narrative constructed to explain ways of behaviour by rugby players would alter substantially were it to arise in a press conference as opposed to the changing room. The legitimisation of behaviours occurring within subcultures where corporeal practices are central, like any other relatively closed group in society, come to construct a logic of practice (Wacquant, 1992), which one can only begin to comprehend when situated within the conditions under which it is played out.

Wacquant's (1992, 1995, 2006) work has been repeatedly labelled as Bourdieusian in approach, and with good reason. His notions of bodily capital and logic of practice have been extended directly from the work of Bourdieu (1979) and, it seems, with little transformation from their equivalent forerunners. However, to accuse Wacquant's work as being uni-locular from a theoretical perspective would be short-sighted. The recognition that there is a logic to be found within the microinteractions occurring within a pugilistic subculture leads Wacquant (1992, 1995, 2006) to incorporate areas of Goffman and Garfinkel's work. Indeed, he draws the audience towards Wittgenstein, possibly by way of offering reflexive insight into his ontological preferences. Although a Wittgensteinian ontology appears not to work with ethnomethodological or ethnographical study, through Wacquant's (2006) extended diaries it comes to be seen that such an ontology offers an epistemological, and therefore methodological, guide to fieldwork which would eradicate unnecessary, and potentially misguided, conjecture on the part of the researcher. Such an approach has strengthened, rather than hindered Wacquant's (1992, 1995, 2006) work. The common misconception of Wittgenstein's work is that it disregards that which cannot be discussed objectively. This is not so. Wittgenstein recognises the existence of the metaphysical in ways previously unimagined by his contemporaries and predecessors (Grayling, 1988). However, Wittgenstein acknowledges the limitations of language to adequately confer such constructs. Therefore, it is left to the

researcher to comment only upon that which can be captured in language, behaviour or sensory measurement and not to lay claim to a greater capacity to communicate the incommunicable. Although this makes for a methodologically tidier piece of work, one cannot help thinking that is also somewhat of an escape route from broaching complex ideas as they arise in the field.

It is perhaps a result of such ontological preferences that Wacquant's (2006) work comes to discuss collective behaviours and values as central to the understanding of the boxing subculture. It is clear that Wacquant is interested in the structures which shaped collective behaviours and the ways in which structural forces of the urban ghetto transcend the domain of the gym. Wacquant (1995) describes the relationship between the gym and the outside street as being born out of their symbiotic opposition; it is at once constructed from the street, while offering members protection from whence it came. In coming to this conclusion, Wacquant (1992, 1995, 2006) reaffirms the necessity, as stated by C Wright Mills (1970), to examine the social milieu within the context of its social history and its place within broader social structures. The relevance of his approach to the domain of the professional rugby team may not be as coherent as in Wacquant's (1995) study. The increasingly globalised nature of the game means that the structural forces which may come to shape the subcultural behaviours are unlikely to be geographically located within the society outside the club. Indeed, it is possible that many of the players and coaching staff will not be from the area surrounding the club; meaning that the social history and position of the club, may be substantially different to those of the players which constitute the squad. Subsequently, it is anticipated that the transcendence of social forces from broader social structures may be more complex and less immediately visible during this piece of research. That said, it is important to note that the key concern of this thesis is to examine the ways in which science and technologies come to interact with athletes engaging in high performance sport and the impact that this has upon their lives and the functioning of the subculture itself.

Any criticism of Wacquant's (1992, 1995, 2006) body of work is derived from what has previously been outlined as a strength. The emphasis upon collective behaviours and values, without much more than

allusion as to their conveyance, raises certain questions in relation to the way that accumulation of capital and playing out of a logic of practice is manifested on an individual level every day. In Wacquant's work, there is a feeling that the smallest dominator is the boxing club, despite clear evidence in his fieldwork data of there being groups within groups inside the gym. Wacquant (2006) discusses the hierarchy of power within the gym, but its negotiation and the dynamic forces that shape it daily are discussed implicitly, if at all. This is undoubtedly a symptom of an overreliance on Bourdieu's approach to social analysis, where key criticisms relate to the inability of a Bourdieusian framework to adequately represent the complex nature of power relationships in microsocial systems (Adkins & Skeggs, 2004). Although Wacquant (1992, 2006) turns to Goffman at times, his application remains close to Goffman's earliest works: those which failed to effectively negotiate the internalisation of structural forces, and their subsequent manifestation through interaction. Of course, once one loses examination of cognitive structures, the application of names to associated collectivity (e.g. habitus) is no longer sufficient, and a venture into the meta-cognitive and metaphysical is almost certain to follow. As discussed, such an approach would have required an ontological shift on the part of Wacquant, the result of which would be an entirely different study. So, while one might argue that an attempt to utilise Goffman's work on frame analysis or Foucault's works on power and discipline might have elucidated some aspects of life in the boxing gym, it would likely have been at the expense of the entire study as it is recognised today; such a trade-off would be wasted.

Before moving on from the discussion of Wacquant's (1992, 1995, 2006) work, it is worth addressing the most common critique of adopting the ethnographic method with a view to discussing broader social structures which transcend the observed subculture. Traditionally, ethnographical observation methods have been criticised for their lack of generalisability and their inability to comment beyond the idiosyncrasies of the world immediately before them. However, discussions have moved on in this area, and while issues of research role distancing remain contentious, as in many available methods, McAloon (1992) condemns the dichotomising of macro versus micro methods for elucidating political and cultural

forces in sport. Indeed, he argues that the sustained ethnography may be the only method capable of generating certain, necessary data pertaining to an elite high-performance sports culture, in particular.

Perhaps the most comparable study to have been undertaken in recent years was a two and a half year ethnography with a professional rugby team by Howe (2001, 2004). Howe's (2004) primary concern pertained to the increased presentation of pain and injury among players during the time he was there. It is suggested that a primary causal mediator of this increase related to the commercialisation of the sport and the subsequent demands placed upon players and management infrastructures to cope with a more physical game. Howe (2004) proposes that the application of ethnographic methods in this context offer the capacity to most adequately comprehend the breadth and depth of the impact of pain and injuries upon players and their immediate cultural surroundings. He suggests that it is the personal relationships formed during participant observations which catalyse data collection, offering a unique insight into a relatively closed subcultural environment. However, in neither the recording of his initial study (2001) nor its subsequent reconsideration (2004) were the methods clearly presented; other than to state his role as '*massage therapist, water-boy and general gofer*' (2001:297). Moreover there is negligible insight into the reflexive processes through which he might consider his identity as an insider or outsider within the club, or indeed the extent to which his data might be considered to adequately represent the subculture. In turn, the assertions of causality (for example that players' bodies are commodities to be employed or that deliberate increases in pain caused by a physiotherapist speeds up recovery in the long run) remain unsubstantiated by any of the presented data. Thus, in terms of demonstrating the efficacy of ethnographic methods in this context, ambivalence remains the order of the day. It is unfortunate that there is not more 'raw' data from fieldnotes included, or published elsewhere. In the chapter allocated to this ethnography in Howe's (2004) publication, a different tack is adopted whereby two thirds of the chapter is afforded to an epidemiological comparison of physiological/medical studies into rugby injury. In the end, less than five pages are offered to discuss the ways in which pain and injury are discussed by players and consequently there is little scope to comprehend the ways in which identities, lived experiences and the

immediate environment are influenced. Howe's (2004) most central assertion relates explicitly to the nature of his role within the club, either as researcher or masseur, in that he suggests that players would only talk to him about injury if it was related to their athletic aspirations, and often were most vocal about minor injuries through which they continued to train and play. Howe (2001) suggests that the latter served two functions within the team environment; firstly it offered an excuse for subsequent poor performances and secondly it is asserted that such behaviours facilitated the acquisition of kudos within the club owing to the player's ability to handle the pain. Interestingly, despite utilising Bourdieu's (1979) notion of *habitus*, Howe (2004) chooses not to discuss these events in terms of *symbolic power* or *masculine dominance*. Indeed, concepts relating to gender and masculinity are entirely absent from Howe's (2001, 2004) work, which is surprising given their prominence in contemporary literature pertaining to similar contexts.

Rugby, performance and technology

There has been a rapid growth in the development of sports science technologies, and a synonymous growth in the number of graduates from sports science degree programmes across the UK. Indeed, the number of students leaving university with a degree in a sports science related subject exceeds the combined number of scholars from classical science disciplines (HESA, 2007; The Royal Society, 2006). The average entry requirement for these courses is 249 UCAS points [BCC in old money] (Guardian, 2009), and thus the power that such sports science practitioners come to have over elite athletes lives is worthy of investigation. While other researchers have considered the transformations occurring in high performance sport in light of an increased level of technological deployment, few have considered the impact of these changes upon the team environment and, more importantly, the welfare of athletes. Hoberman (1998) argues that the use of technologies in sport is inherently dehumanizing for the athletes involved. However, this might be also extended to those who deploy these technologies. To clarify, the

positivistic methods of use predicate a highly structured, often prescriptive, way of utilising technologies, most often grounded in surveillance and measurement of the subjectified. However, to date no research has been undertaken into those who use technologies upon others. Although limited, some research has considered the impact of dehumanizing technologies upon athletes. Butryn (2003) considers the extent to which athletes subjected to technologies might be considered 'cyborgs'. Furthermore, a typology of sports technologies is proposed consisting of 5 different classifications; self, landscape, implement, rehabilitative and movement/evaluative technologies. As a descriptor of methods of employment, such a typology may prove useful, yet it is difficult to say whether the same categories might transfer to a rugby environment. A strength of Butryn's (2003) study is the inclusion of narratives generated by athletes themselves, rather than an abstracted analysis of *technocultures*. However, through the construction of this typology, the first category (self technologies) leaves scope for misunderstanding, since a notion of technologies of the self (Foucault, 1991) is also relevant in this context.

The altered relationship with the self, which may arise in the discursive space afforded by technological interaction, has been examined by other academics such Haraway (1991) and Magdalinski (2009). Haraway's (1991) work offers some overlap with the previously discussed research, where dehumanisation and cyborgification occur as a result of interaction with the types of processes and technologies which are allied to performance sport. Magdalinski (2009) on the other hand examines the articulation of sport, technology and the body from a point of view relating to attitudes to competition. In doing so, increased use of technologies is considered synonymous with a desire to win (at all costs) and as such arguments are drawn in line with traditional neo-marxist paradigms of sporting purity, amateurism versus professionalism and hegemonic structures within sport. Shogan (1999) also considers the ways in which high performance athletes are constructed through processes of discipline, borrowing from Foucauldian perspectives relating to technologies of the self. In this literature, a glimpse is offered into the darker ramifications of such disciplinary processes within the context of a competitive arena and the difficult, and complex, locations of 'ethics' and ethical practice within such climates.

In this thesis it is suggested that the use of technological interventions in elite sport is synonymous with complex power relationships operating in the subculture owing to the increased level of athlete surveillance available to management structures. The impact of this surveillance is incumbent upon both parties, since the player will alter his behaviour in light of the knowledge that he is under surveillance. From here, an active involvement in a process of self-governance begins. In this sense, the sporting subculture acts as a microcosm for viewing the concepts outlined by Foucault (1991) and Rose (1999), in action. Moreover, the potency of this self-policing in the professional rugby environment is amplified as it becomes internalised and enacted as a part of employment contingency. Not only is the corporeal monitoring a potential mechanism for social control, but the efficacy of the measurement methods employed will come to bear direct relevance upon a player's success in that environment. Thus, those who utilise technologies in sporting subcultures are unavoidably afforded immense power over members of the team.

The following chapter is concerned directly with a discussion of the organisational and physical layout of the clubs involved. Whilst viewed "on paper", there is a clear hierarchy in which the coaching staff and board of directors reign supreme, the power afforded to those utilising technologies in practice means that the political dynamic throughout the organisation is altered. Specifically, those actors who utilise sports and medical technologies on a daily basis at the club become key in the negotiation of the politics between player and coach; their capital is greatly enhanced by "new" technologies and associated data output.

CHAPTER 3: Setting the Scene – Structures, Layouts and Political Climates

The purpose of the following section is to outline the multiple structures in operation at each of the clubs studied. Over the following pages, these will be discussed primarily in a functional sense, though it is recognised that such an approach is inherently limited in offering any insight into the way that each social environment and network functions in reality. Nonetheless, it is important to address the organisational structures, at least as they are referred to in official club texts and presented for consumption within the respective subcultures. In the first instance, two organisational charts (figure 3.1 and figure 3.2) are presented for the Wyndham and Queenstown management structures, respectively. Following that, the physical layouts of the training facilities, in the broadest sense, are presented for each of the studied clubs. The purpose of this is to demonstrate, with relative objectivity, the fundamental differences in the arrangements of facilities for training players at each club. It goes without saying that the standards and arrangement of facilities at each club is a partial reflection of the financial position of each organisation; it became clear very quickly that Wyndham had significantly more, secured and disposable, economic capital than Queenstown.

Organisational structures
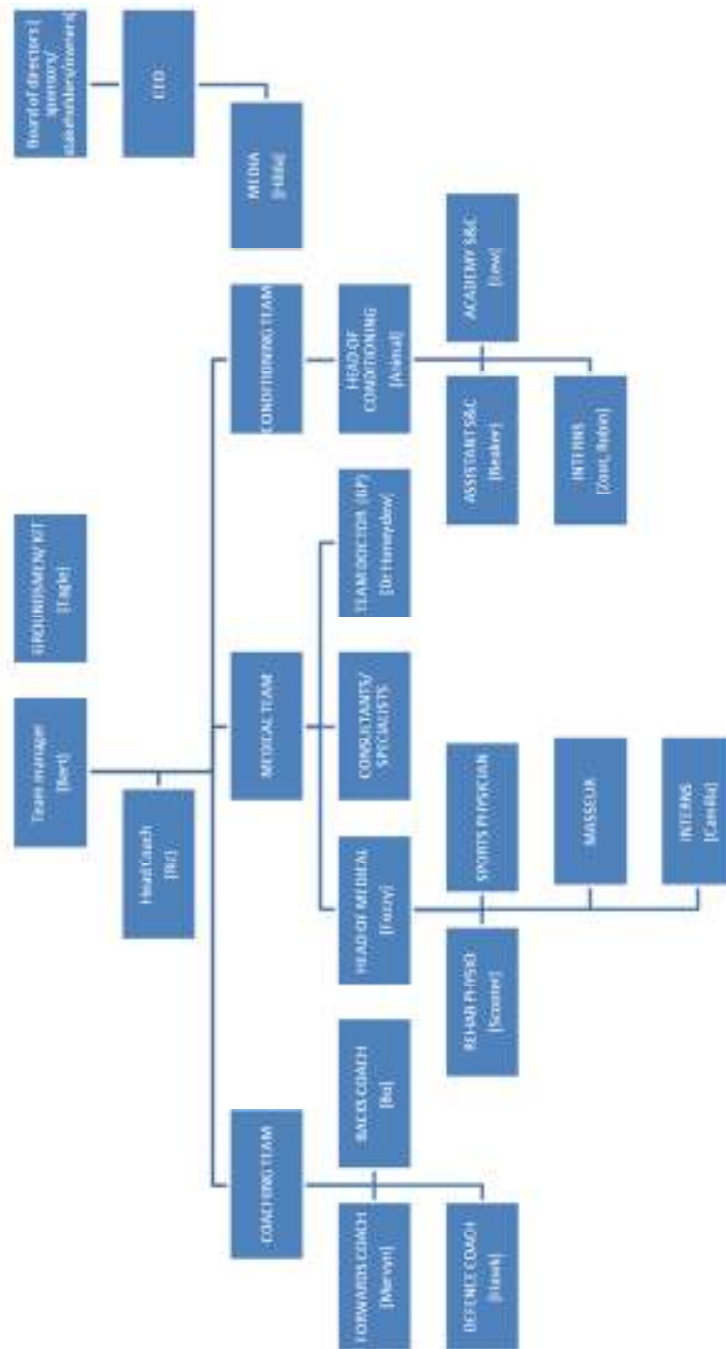
Figure 3.1 Organisational chart for Queenstown Warriors management

77
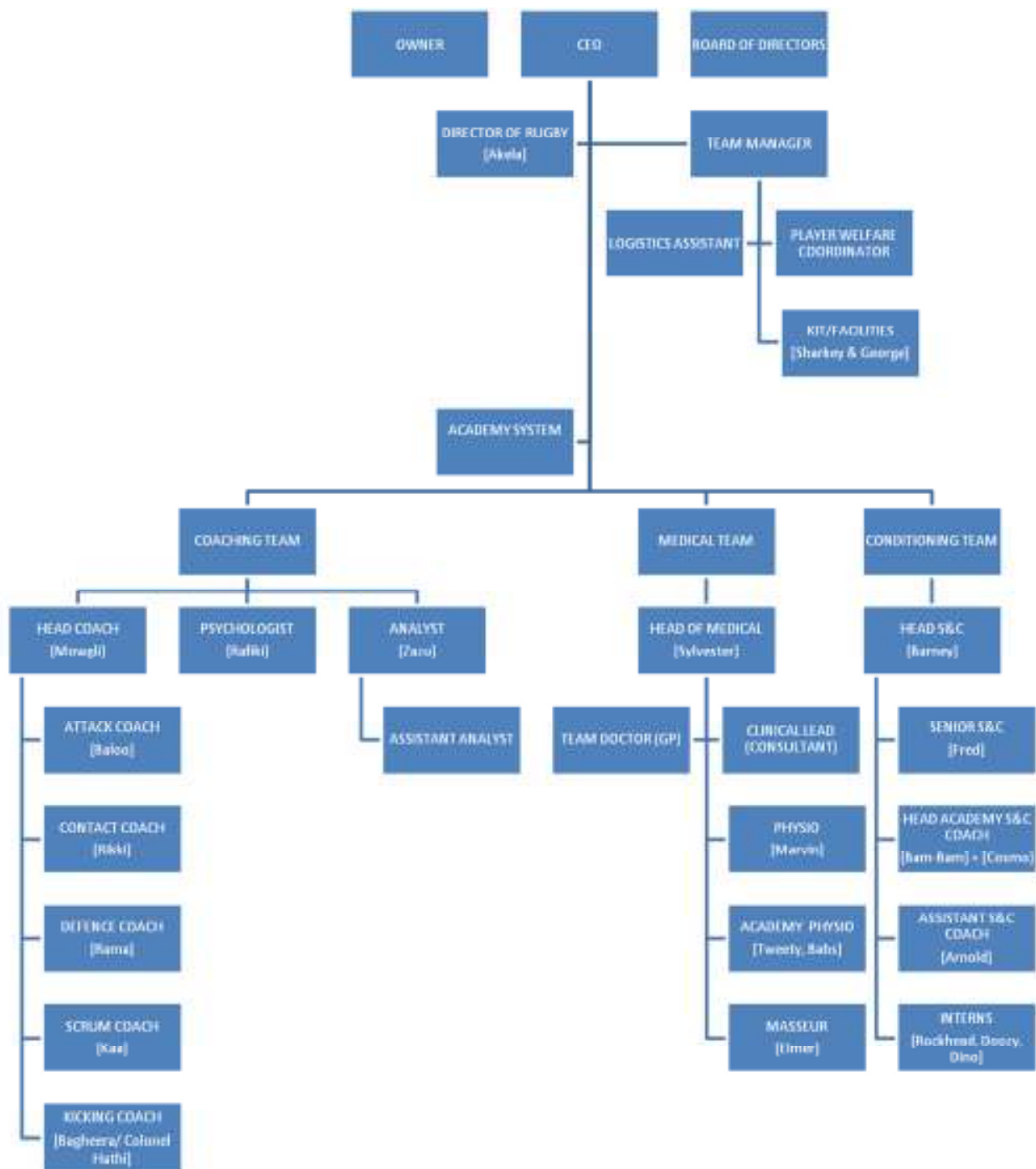
Figure 3.2. Wyndham City Wolves Management Structure

When viewing the organisational structure charts (figure 3.1 & 3.2) for Wyndham and Queenstown respectively, there are two striking differences at the outset. Firstly, the Wyndham chart is much fuller

than Queenstown's; the staffing numbers across the board are consistently higher. Also, the Wyndham structure is more integrated, particularly at the upper levels, than at Queenstown. Specifically, as an employee at Wyndham, there was no secrecy about the closeness of the owner, CEO and board of directors to the daily running of the club. Indeed, they, or their representatives, would regularly be seen at technical team meetings during the training week. At Queenstown, this never happened. Indeed, as a worker located towards the bottom of the organisational chart, one would struggle even to identify the face of a board member. There would be one exception to this, a gentleman (a former international rugby player), who would come in and receive free treatment from the head of the medical department periodically during the week, after training hours.

Another key difference, which it is fair to say, is not adequately reflected in the presented organisational charts, is the relationship between senior training squads and the academies at each of the clubs studied. At Queenstown, although some academy staff would be seen around the facilities, it would be rare to see any academy players on site at the same time as the senior squad; unless they had officially been called up to train with them. Most of the academy integration with this professional side was directed through the semi-professional representative side, or local semi-professional teams affiliated with the club. There was very little crossover between the medical care, and strength and conditioning support, for the academy/semi-professional players and the senior squad set up. The management of players in these different groups was entirely separate, and fell under the responsibility of people outside the organisational chart shown in figure 3.1.

At Wyndham, as can be seen in figure 3.2, the academy system occupied a central position within the main senior squad training structure. The academy staff were all based in the same building as the senior squad coaching and player management staff; the head of academy conditioning had his desk in the senior squad conditioning office (and assisted with senior squad conditioning on a daily basis), the academy physiotherapist was resident in the main training centre medical room during senior squad hours, and the academy coaches had their desks in the main coaching office, along with the director of rugby and his

coaching team. Several (8) 'senior' academy players trained full-time with the main training squad on key training days each week, as part of a broader integration programme, encouraged by the director of rugby. Indeed, during several team meetings over the course of the season, the director of rugby went to great lengths to assert that, while the official squad size was registered to 35 players, the 'real' training squad was over 40, because it included senior academy players. This was often presented as part of a philosophical message pertaining to a deliberate absence of hierarchy amongst players and staff. Of course, it can be reasonably argued that is impossible to create a team or social environment which is entirely devoid of hierarchal relationships (Foucault 1988; 1989; 1991). The very nature of human interaction, throughout the construction and reconstruction of subcultures, demands the negotiation of power, at every level, and is enacted in each individual and their interactions in the social environment (Bourdieu, 1979; Foucault, 1991; Goffman, 1986).

A further point of difference, which separates Wyndham from Queenstown in their staffing structure, is the relatively large group of employees whose sole responsibility pertains to player welfare: an additional separate group of employees who reported directly into the team manager and had very little responsibility for player preparation, in a performance sense. However, their role was clear and appeared to grow across the season, evidenced by the recruitment of the player welfare coordinator halfway through the season. Personnel working under the department of player welfare and logistics, leaving 'kit' aside for the moment, looked after such things as travel and accommodation for away trips, as one might expect. However, at Wyndham a great priority was placed on care for the families of players and staff, as well as personal development programmes for anyone affiliated with the club. Thus, these staff members undertook many varied roles, which one might consider to be beyond the remit of a standard employer. For example, they would organise coffee mornings for wives and girlfriends, in order to bring them into the team. There were fitness sessions arranged for wives and girlfriends, barbecues for families, trips to the pantomime, spa days, and special arrangements at matches for players' partners and families. There were special group Christmas dinners, complete with entertainment, organised so that no players or

families who came from overseas would eat their Christmas meal alone. This department, with input from coaches and the team psychologist, also arranged for any players to receive additional education while at the club. The breadth of opportunity in this regard was quite surprising; there was assistance for players wishing to attend university courses or other formal educational qualification courses, there were courses arranged in manual skill sets (such as bricklaying, kitchen fitting, plumbing, car maintenance) in order that players might pursue alternative careers such as this post-rugby, or merely for personal interest. Additionally, there were workshops run for players to learn how to manage their finances, improve their computer skills, learn how to 'network', understand the process of starting a business and popular seminars on how to play the stock market. In addition to these more formal programmes, a lecture series was undertaken in which 'inspirational' or 'motivational' speakers would visit the club over a lunchtime, have lunch with the players and give a speech on a particular topic; most of them pertaining to their life experiences (in business, elite sport, injury rehabilitation, living in the public eye, etc).

At Queenstown, this type of player support was visibly lacking; though this is not to say that they did not have such systems in place, merely that these weren't obvious to somebody working at the bottom of the organisational chart. There will undoubtedly have been assistance for players moving from overseas, in terms of arranging housing and there was also some hospitality laid on for wives and girlfriends of players during home games; they were assigned one of the boxes in the hospitality suite, which they shared with the injured and non-selected players.

Logisitics

At Queenstown, unlike Wyndham where a large team was employed for such purposes, most, if not all, of the logistics management was undertaken by the team manager ('Bert') himself; but he was often assisted by 'Hilda', who looked after media and PR. Indeed, it was Hilda who seemed to know the most about individual player situations, in terms of their family lives, problems with payments and contractual issues;

she often seemed to be involved in the management of such problems as they arose at the club. It is difficult to say whether she was completely, and officially, involved in the processes surrounding resolution of contractual or personal issues of players, or merely that she was involved through association (the vicinity of her desk to the team manager's office and the CEOs desk). This, coupled with a willingness to divulge information, perhaps through the shared bond of gender, meant that as a researcher and 'employee', she appeared to have access to the most private strata of information in this subculture. She had a highly perceptive grasp of the political dynamics in operation at Queenstown, and recognised them with an honesty that few others were afforded. At the manifest level of conversation, particularly in the presence of others, there would rarely be any reference made to personal grievances, conflicts in philosophy or alliances between staff and/or players, as one might expect. For the most part, such subtleties are perceptible only through a process of assimilating contexts and tones utilised in many conversations, often over a significant period of time. As an ethnographer it is relatively rare to be aroused to the personal and professional conflicts of social actors in the early stages of contact with the subculture. However, on the occasions that it was possible to spend time with Hilda alone, or even better in the shared company of one of her close 'allies', a great depth of such information could be gleaned. Her heightened perception to the nature of the subculture in which she was surviving, remarkably well as the only full-time female employee, is perhaps what led her to attempt to accelerate my socialisation process on arrival at the club. Having only been introduced to Hilda, briefly, but obviously having indulged in the usual social greetings when passing, it was affecting when she approached me after lunch during my second week at the club.

H: You must be the Ph.D. student working with Fozzie.

K: Yes that's me

H: How are you getting on? Settling in all right? Not getting too much grief?

K: No, no it's fine

H: Good. If anyone gives you any trouble just you send them to me love. I know how to sort these boys out; they're pretty simple creatures as I'm sure you'll soon learn. Just use what you've got to get what you want!

[I laugh]

H: Seriously, you wouldn't believe how hard it is to get these boys to do some media interviews

K: Really I thought they would love that?

H: Yeah you'd think so, but they always happen outside of training hours and no one wants to come back in, but like I say I can get them to do anything. The boys are the easy part, it's the management you need to worry about!

K: Really?

H: The politics here are ridiculous, whoever you think is in charge most probably isn't. If you want the truth eagle runs this place; you don't want to get on the wrong side of him. Do you know what I mean? He can make or break you.

K: Oh right. Thanks.

H: You can have that little tip for free! We'll talk more [she laughs and goes to leave] just don't take any shit all right?!

Queenstown field notes July 2009

The kit man rules… okay.

As time progressed at Queenstown, it became apparent that Hilda's analysis of the political situation had been incredibly accurate, and incredibly honest; particularly as pertained to Eagle (the head groundsman) and the degree of capital that he held throughout every level of daily operations. In a similar way to Wyndham, Eagle, who was responsible for looking after the grounds, facilities and kit, would report directly into the team manager. However, in an attempt to reflect the hierarchy, more realistically, on the organisational charts (figures 3.1, 3.2), it is seen that the groundsmen at Queenstown (headed by Eagle), appear almost upon the same level as the team manager and board of directors. Indeed, Eagle arguably held greater influence, and capital amongst the board of directors, than Bert (the team manager). This is perhaps an indictment of Eagle's effectiveness as a social actor within this particular subculture; he knew everybody and engaged in jovial conversation with anybody entering the environment. This was particularly true of those situated towards the bottom of the organisational chart; he knew every intern's name, and made great efforts to know as much of their business as possible. Within the context of social network analysis, and the Queenstown organisation, Eagle, although not being involved in player preparation or management, would exhibit high centrality (de Nooy et al.,2005; Scott, 1991). Indeed, he would likely be the most central node on a social network chart; there would be very few edges which did not have direct contact with Eagle. This would hold to networks constructed from professional, social, and political relationships in operation at Queenstown.

At Wyndham, functionally, the organisational chart (shown in figure 3.2) more accurately reflects the position of the kit/facilities Department (here headed by Sharkey); the line of reporting is much clearer, and the responsibilities and activities of Sharkey and his department extend very little into the domain of other professional practices at the club. Interestingly, however, were a social network to be constructed of the Wyndham politics or social behaviours, it is likely that Sharkey, too, would hold a high degree of centrality. However, the key difference between the two clubs in this regard is the level of transferability of this social capital, both into political capital in terms of social interaction, and also into that capital

which comes to be enacted within functional aspects of working life at the training ground. At Wyndham, Sharkey has significantly less power with the board of directors, and his relationship with the team manager is clear; he is subservient. Indeed, Barney (head of strength and conditioning at Wyndham), and Sylvester (head of medical at Wyndham), would not capitulate to Sharkey, should any conflicts arise. The same cannot be said at Queenstown, where conflicts between Eagle and Fozzy (head of medical at Queenstown) or Animal (head of strength and conditioning at Queenstown), would often end up in Bert's (Team Manager) office, with Bert having to negotiate directly with Eagle on behalf of Fozzy and Animal; it would be rare that Fozzy and Animal would emerge victorious, and if they did, balance would inevitably be restored eventually. There was always a cost.

Having complained about the lack of water in the medical room for some time, with both Camilla and I beginning to have chapped hands from the lack of heating or soap available the issue played out more publicly today between Fozzie and Eagle. Eagle had come into the medical room to check up on kit prior to the preseason training camp.

Camilla: Hey Eagle, when you gonna fix these bloody taps?

E: I beg your pardon?

C: These taps, we've got no hot water... Fozzie has been on at you for months now. He said it has been since most of last season!

E: Camilla I have got absolutely no idea what you're talking about. Fozzie has never said anything to me about that, have you? [He turns to glare at Fozzie, who looks uncomfortable, yet is unable to avoid this confrontation]

F: Well I have. I told you about it..

E: When?

F: I've mentioned it a few times mate..

E: First I've heard of it. That's the trouble, if you can't speak to me, you can't communicate, then I don't know what's going on and what needs doing. Camilla if I'd known about it I would have fixed it. I don't appreciate is being implied that I'm not doing my job.

F: No one's saying that..

E: That's what it sounds like, and all because you can't man up and ask me to help you.

F: [attempts laugh] Okay then Eagle... please can you have a look at taps and get some hot water running for the girls?

E: Well I'm pretty busy now getting ready for camp and sorting out the ground ready for the season. If you'd mentioned it earlier I could have done it straightaway but now you're going to have to wait. [He turns and walks out of the medical room calling out 'sorry girls' over his shoulder].

<div align="right">

Queenstown field notes August 2009

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Though it is beyond the scope of this thesis to do so, an interesting exercise would be to undertake social network analyses of the two clubs studied. Specifically, constructing several networks, each with different purposes (i.e. political, professional, kinship, social) for each club might offer some appealing results; it is hypothesised that the structural equivalence between the networks constructed at Queenstown would be very high, while there would be broader, and significant, differences at Wyndham. To clarify, it is likely that a capacious social network analysis undertaken at Queenstown would show a high correlation between social and political capital and the functional workings of the club on a daily basis. At Wyndham, the structural equivalence, or transference, of socially political relationships would be less manifest in the functional organisation of the club. While Sharkey is both popular and influential amongst players and staff at Wyndham, he does not bear the gravity to effect changes in the management

of players and the club. The same, arguably, cannot be said for Eagle at Queenstown. With this in mind, it seemed important to heed Hilda's advice and stay on Eagle's right side.

[11am team room/ rugby club bar]

Fozzy and I arrived in the team room to meet up with Scooter and Camilla who had just been off site with a player to do pool based rehabilitation. They were in conversation and we went to join them after making tea. As we sat down, Fozzy and I were discussing the best way to move forward with the management of a player we had seen that morning, whilst Scooter and Camilla were hunched over a training programme, just finishing off their duties. As the four of us finished off our respective conversations to speak with each other more informally, Eagle (who had been sat across the other side of the room having coffee with some board members who had dropped in) shouted across.

E: Well isn't that a picture that tells a thousand stories. Talk about a split down the table. There's definitely two camps living within the medical department aren't there?! Not even speaking to each other now eh?

At this, it became clear that there was a perception of the medical department in the broader 'club' which did not necessarily hold true within our daily relationships. There was some conflict between Fozzie and Scooter and indeed between Fozzie and Eagle, but Camilla and I had not deliberately taken any stance, or alliance. Clearly this was not the perception to Eagle, and I was aware that he now viewed me as being on Fozzie's 'team' and in doing so I was in danger of crossing him through association.

Queenstown field notes November 2009

In the above exchange, Eagle is referring to the political dynamic which operated in the medical team at Queenstown. Specifically, his reference to it indicates the extent to which it related to situations beyond

the microstructure of the medical team; the relations which were enacted within the medical team were a presentation of events arising in the broader political climate of the club.

The position of medicine in the structural order of a rugby club

Referring back to the organisational charts (figures 3.1, 3.2), it is perhaps in the medical teams at the respective clubs that the greatest difference in structure is observed. From an organisational point of view, both teams had a 'head of medical'; Fozzy at Queenstown and Sylvester at Wyndham. Both Fozzy and Sylvester were physiotherapists, and had an Assistant physiotherapist (Scooter at Queenstown and Marvin at Wyndham) working under them. However, owing to the structural positioning of the Academies, in reality, Sylvester had an additional physio (Tweety, the Academy physio) reporting directly into him, whom he could call upon, to undertake any additional workload with the senior squad. Both teams had a masseur (Janice at Queenstown; Elmer at Wyndham), a team GP (Dr Honeydew at Queenstown. Dr Wiley at Wyndham), and several consultants and specialists, to whom they would refer players as required. In terms of staffing numbers, the medical team at Queenstown outweighed Wyndham; this is the only department in which this was true, in every other case Wyndham had higher staffing levels. Queenstown's medical team was bolstered by the addition of two full-time sports therapists, both full-time students; myself being one and the other (Camilla) an undergraduate placement student from a 'sandwich' sports therapy degree. Queenstown also had a sports physician, who came into the club once a week.

The greatest difference between the two departments, however, was not necessarily the number of staff; it was the structural organisation of the departments. As can be seen from figure 3.1, despite having a 'head of medical', functionally Fozzy operated on a similar (at best) level as the consultants and Dr Honeydew (team GP). Indeed, before the season began, and whilst negotiations pertaining to undertaking fieldwork at Queenstown were taking place, Fozzy held the newly acquired role of 'head physiotherapist' owing to

the early departure of the previous lead physio, and the new appointment of a rehabilitation physio (Scooter). Thus, many of the conflicts which played out within the medical team over the course of the data collection period oftentimes related, directly or indirectly, back to the political issue surrounding who was in charge. Dr Honeydew had been working with Queenstown Warriors over many years, covering match day duties and attending the club regularly during the training week. However, this year the situation had changed slightly, and it became clear through the course of several social interactions that she was in attendance much less than she had been in previous seasons. In some situations it was attributed to external pressures beyond the club environment, and at other times various social actors at Queenstown attributed it to a poor working relationship, or power struggle, with Fozzy.

> *Scooter: Its tough because on paper [Dr Honeydew] should be reporting into Fozzy but it seems that in previous seasons she has pretty much run the department…and she's very, very close to the management – Bert, Eagle and a few of the board members. I dunno the ins and outs of it but she's got a lot of weight around here and I'm not saying anything but it's tough for everyone, players and all, especially when Fozzy is trying to assert his power. And you are a big part of that.*

> *K: What? How do you mean?*

> *S: Well you're someone he's seen to have brought in; a PhD researcher and we're all adding to his numbers. I mean…how many times in the last few weeks has he gone on about the size of his team…the fact that he is 'head of medical' and has a team of 4 that he oversees. [Dr Honeydew] never had that…for the last ten years or whatever it's pretty much been her running it from off site with a physio working on the ground. Big change. And it's a rocky adjustment period for them all and unfortunately me, you and Camilla are caught up in it. We've been brought into the middle of something, and it sometimes feels like we're moving targets eh?!*

As is reflected in the organisational model of Queenstown, the lack of clarity surrounding leadership was also regularly negotiated within the team of practitioners working with players on a day-to-day basis.

At Wyndham, structurally, functional roles were much clearer. There was no question that Sylvester was head of the medical team, and it was he who coordinated the department, the management of players and all the staff therein; doctors included. This is not to say that the situations arising in the department were devoid of conflict, but it is fair to say that the chain of command was, overtly at least, always much clearer.

> *Player: Marvin, can you tell Barney and Fred that I'm good to lift in the gym today please?*
>
> *M: You need Sylvester to do that..*
>
> *P: But you've looked at me…you can see I'm Ok. It feels fine.*
>
> *M: You know that's not how it works…you need to be cleared by Sylvester to update the activity list. I can't just sign you off mate.*
>
> *P: Oh for fuck's sake… [player storms out]*

Wyndham field notes, March 2010

Beyond the gym: strength and conditioning in the organisational structure

Structurally, the two strength and conditioning departments at Queenstown and Wyndham were similar. Both had a clearly defined head of strength and conditioning and assistant strength and conditioning coach along with an academy strength and conditioning coach, and interns. However directly under the head of strength and conditioning at Wyndham (Barney) is a senior conditioning coach (Fred), who has

been with the club for many years. Operationally, Barney looked after 'backs', and Fred looked after 'forwards'. Bam Bam (the Academy conditioner), assists Barney and Fred with the senior squad to a much greater degree than his job title would suggest. Arnold (assistant strength and conditioning coach) was very much 'the new kid on the block', having only just graduated from university. The combination of his youth, his apparent attachment to an academic understanding of elite athletic performance management and his having completed work experience with two other rugby clubs, alongside his university studies, were often a source of derogation within the department. The reality of his role at the club, particularly at the beginning of the year, was not greatly different to that of an intern, though as time progressed he was given more responsibility. By the end of the season he had acquired a few players of 'his own' for whom he was allowed to undertake supervised programming; however, it became commonplace for Bam-Bam to be offered first refusal on additional responsibilities with the senior squad as they arose, rather than Arnold; despite Arnold having been employed specifically to work with the senior squad, whilst Bam-Bam's job role technically pertained to academy conditioning.

Barney: Ok so we all sorted for this weekend Fred? The interns done the bag of death?

F: Yeah mate, all over it

B: Arnold, we're gonna get Bam Bam to help out at the match this week. I know it's down as something in your job mate, and you'll do it eventually, but just while we get settled with the new coaches and players…we're gonna get Bam Bam to do it..

A: Oh, OK

B: It's not a big deal mate…it's just that he's been around a bit before and it will be easier to start with. We'll get you in for games once the season gets going though mate..

A: OK. Cool.

Wyndham field notes, September 2009

It is difficult to ascribe causation to the continual overlooking of Arnold in favour of Bam Bam, there are several potential reasons for this; it is possibly a consequence of Bam Bam's ability as a conditioner, which, according to players and staff within and without the organisation, is exceptional. Perhaps, however, there were certain political forces in operation, which disfavour overt demonstrations of trust in 'outsiders' entering into this new territory; particularly young men. In short, it is likely that there were some power-plays being undertaken which pertained to masculine identity and symbolic domination, in which a masculine order is observed through its perpetual construction and reconstruction in daily life. A further exploration of this dynamic might reveal more emotion-related responses to the newly constructed social environment in the Wyndham strength and conditioning department; there is significantly more symbolic capital associated with working (or saying one is working) with the senior squad, rather than the Academy. It is undoubtedly important to both Barney and Fred that, particularly at the outset during Arnold's socialisation, Bam Bam was confirmed as being of greater professional, symbolic and political import than Arnold.

At Queenstown, the common feature of bearing relatively reduced staff is replicated in the strength and conditioning department. With Animal at the head, looking after the 'forwards', the other conditioning coach (Beaker), takes care of conditioning the 'backs'. Thus, the player groups for which the first and second conditioning coaches are responsible at Queenstown and Wyndham are reversed; at a technical level, this undoubtedly has some impact on the focus of player preparation within the respective departments (At Wyndham the lead takes the 'backs' and the second in command takes the 'forwards'; at Queenstown the lead takes the 'forwards' and his assistant programmes for the 'backs'). Although this slightly falls beyond the remit of this thesis, it is fair to say that the differences between the management of these departments are likely to be related to resources and staffing levels, rather than substantive elements of the role. At Queenstown, the Academy conditioner (Lew) has very limited contact with Animal and Beaker, not to mention the players; unlike at Wyndham, where Bam-Bam enjoys a particularly close relationship with Barney. In short, responsibility for player preparation falls entirely on

the shoulders of two men at Queenstown, and, despite the squad size being slightly smaller overall, the workload undoubtedly proved too great at times.

Team room after lunch

Animal (to Beaker): You finished your programmes yet?

B: I've just got 5 left to do

A: [raises his eyebrows] Oh right. I finished all of mine last night…you wanna get moving on them son, we need to get them out.

B: Yeah I will…it won't take me long now [Animal leaves].. He's taking the piss. I'm only having a cup of coffee and I've not stopped all morning while he's done shit all. He's got such a nerve…It was me who mentioned programmes to him last week. I've been working on mine for the last 4 weeks and he hadn't even started…it hadn't even occurred to him that we'd need new programmes for the next phase… and you know what will have happened?? He won't have done them, he'll have got the interns to do the work as part of their 'training' and I'm left to do all the backs on my own, plus do all the gym sessions, the whole squad warms ups and cool downs and time the sessions as well…while he pisses about in the office. I was fucking running water this morning too..and then I get that?! It's bullshit. I bets it's not like that at Wyndham is it Kate?

Queenstown field notes September 2009

Like their medical departments, the Queenstown conditioning department propped up their diminutive staffing levels through the utilisation of interns. There were two full-time interns, one recent graduate (Zoot) who had some experience of working in professional rugby from undertaking a placement year during his university studies, and Robin, who was another undergraduate participating in a placement 'sandwich' at Queenstown. During preseason, the Queenstown strength and conditioning department also

had received additional assistance from a local student at home on University holidays (Harry), who, somewhat unsurprisingly, did not return during any of his other breaks from University.

It should be noted here that there is both the scope and the need to write an entire thesis on the way the internships are conducted at professional sports clubs. The way that such 'staff' are treated at times is nothing short of abhorrent. The magnitude of issues surrounding the use of students, recent graduates and interested hopefuls as workers in this setting is greater than can be fully covered in the presentation of this study; though there is more than enough data to present a concerning picture of the lived experiences of volunteer workers in professional sports teams.

Wyndham also made considerable use of interns in the strength and conditioning department; indeed, they were afforded structured roles within the organisation, though this may not have been entirely intended. To clarify, despite their best efforts, Barney and Fred had been unable to recruit a full-time strength and conditioning intern, to work with the senior squad and, as a result, ended up with a number of interns being loosely affiliated with the club during the course of the season. It is possible that the nature of the job is not conducive to attracting commitment from young, qualified individuals looking to break into professional sport. Sourcing and retaining 'good' interns is notoriously difficult.

> *Barney: What is it with these interns eh Kate? We can't get interns for this place…are we that bad?*
>
> *K: What do you mean? No one applies?*
>
> *B: Oh we can get 'em in but they piss off halfway through the season*
>
> *K: I suppose it's not the greatest job is it though..*
>
> *B: Yeah but we've all done it…every one of us in this room has had to do our fair share of shit work starting out. It's not like we get 'em to clean boots or scrub showers or*

There was one placement year student of nutrition (Rockhead), who, owing to the nature of his sandwich course requirements, was committed to undertaking a year with the Wyndham Wolves. Rockhead was initially appointed to work alongside a consultant nutritionist (Mr Slate), who was contracted to work with the club part-time over the course of the season. Unfortunately, within a matter of weeks of the season starting, it became apparent that Mr Slate would be unable to fulfil his contractual obligation in terms of hands-on time at the club. Since Wyndham had taken on Rockhead, it seemed Mr Slate felt that he was able to add sufficient value through the knowledge that he could share (via e-mail attachment to Rockead, and occasionally Barney and Fred), particularly given that he was committed to working with several other athletes and teams; thereby, rendering regular club visits to Wyndham somewhat inconvenient. Unsurprisingly, Wyndham terminated Mr Slate's contract prematurely and, judging the appointment of a replacement consultant to be too disruptive, decided to see out the season with Rockhead undertaking all daily nutritional duties, overseen by Fred. In essence, then, for most of the season the nutritional requirements of 40 elite athletes were left under the supervision of an intern who had completed two years of a non-sport specific nutrition degree. Rockhead was never visited by his supervisor, nor did Barney engage in any formal contact with Rockhead's university.

This lack of formal university contact was echoed amongst the two sandwich interns at Queenstown; particularly Robin. Neither club appeared to receive any extensive, formal, documentation pertaining to the details of necessary placement activities, or pathways, in order to fulfil the requirements of the university course. Although there was no observed supervisor in the cases of Rockhead and Robin, Camilla's supervisor came to visit her at the club and was in regular contact with her via e-mail; stepping in to resolve any issues as they arose. Her role in negotiating the power differential between Fozzy and

Camilla was crucial in effecting changes within the Queenstown medical department; changes which extended beyond the immediate situations involving Camilla only.

Discussion with Camilla regarding the visit of her university supervisor – they had met after training one day last week while I was at Wyndham

It was good actually, I mean I wouldn't say it went well but it was really good to have someone fight my corner. She bought up the fact that they have never given me any kit and basically said it was unacceptable and then she asked Fozzie about my hours and how long they were and he totally tried to bullshit her…he was like 'yeah yeah she can have time off whenever she likes and the hours aren't that long' and I was like 'hang on a second, what about when you said I had to come in and work on Saturday mornings – even when you weren't there' and my supervisor followed it up and said that she had seen my training log and stuff and that the hours I was working were incredibly antisocial and while it was important that I took it seriously and showed commitment it was unfair to expect more than full time commitment from me. It was good. He agreed and tried to backtrack, and I know he was just trying to get away with it but hopefully things will get better now.

Queenstown field notes December 2009

Camilla's account of her supervisory process is markedly different to Rockhead's, both substantively and symbolically. Both of the student-supervisor relationships observed perform an important social role in their presence (or absence) and in the opportune narrative construction on the part of the interns.

Rockhead: my supervisor is a fucking twat. I hate him…the guy is an idiot.

K: [I am shocked by this statement] Really?

R: Yeah he hates me… as soon as I said I wanted to work in sport he fucking gave up on me, stopped talking to me. He actually turned his back on me during the placement module

lectures. He's supposed to be coming down next week to see Barney and that but he's not

coming now. I reckon he's done me a favour.

K: I would have liked to meet him..

R: Nah he's an idiot.

K: Do you not need him to come down to confirm part of your placement module, as part of
the assessment or anything?

R: I guess not..

K: You ought to make sure, you don't want to end up failing the module or only just
scraping through because of something like that. Do you need to get stuff signed off from
Barney?

R: No, I don't think so…

K: What does it say in your module guide?

R: Leave it Kate, it's fine. I'll speak to Barney later.

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Wyndham field notes Feb. 2010

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In the situation which played out between Rockhead and his supervisor, he was afforded the opportunity to position himself as an ally to the club rather than to his academic institution via narrative construction pertaining to his supervisor's character and the nature of their relationship. This simultaneously sought to confirm him as an insider, rather than outsider, whilst also affording him the opportunity to verbalise a popular opinion amongst applied practitioners; that academics are devoid of value in the real world. Not only are professional scholars deemed to have lost touch with the realities of working practice, and the cultural transformations which have occurred in their specialist field, but they are accused of actively avoiding (re)engagement with real-world application of their theoretical knowledge. Insofar as the

process of socialisation goes, symbolically at least, the narrative constructed by Rockhead pertaining to his supervisor's competency and willingness to visit the club, acts as a catalyst to authenticate him as a member of the Wyndham 'subculture'.

[I walk into the S& C office while Rockhead is talking to Barney and Fred about his supervisor's cancelled visit]

R:…Yeah so you don't need to worry about it now.

B: He's just not coming? Does he want to rearrange?

R: Nah, it's fine. Save us all the bother..

B: It's not a problem mate, but if you're sure. You just let me know…

R: Nah its fine. The guy is a complete idiot. You'd hate him. He hasn't got a clue about how things work in sport, or in the real world for that matter. And he's an arrogant fucker too.

Fred: Standard…fucking academics.

K: Oi!

Fred: [laughs] sorry Kate.

B: You don't count Kate! When's your supervisor coming down?

K: Soon.

Wyndham field notes February 2010

Camilla's relaying of her relationship with her supervisor has an entirely different impact upon her social position and symbolic capital within the Queenstown subculture.

C: Did [supervisor] get in touch with you Fozzie? She said she was going to follow up with you after our meeting.

F: Yeah I had an email from her. I haven't replied yet, but I'll get back to her later.

C: I think she wanted to know about some of the stuff we talked about.

F: Yeah OK. I'll speak to Bert about getting some more kit sorted out for you too.

C: Thanks. That would be awesome.

Queenstown field notes December 2009

By introducing her supervisor into the subcultural negotiation, pertaining to her position, Camilla effectively disperses some of the power which can come to be enacted by interns in professional rugby clubs. Specifically, the inclusion of an external source of symbolic capital substantiates her position beyond the subcultural institution in which she finds herself for a relatively temporary portion of her university training. The effect of aligning herself with her university supervisor, and commensurate processes allied to the efficacious undertaking of an internship, she protects herself partially from the political forces and hierarchies in operation at the club. In short, the intervention of her supervisor offers some shelter, or resistance, to the overt domination and exploitation of volunteers at rugby clubs. It is difficult to say exactly why she chose this approach, rather than that of Rockhead; which appears to be the more common. Perhaps it is an effect of her gender, and an intrinsic perception that greater refuge from masculine domination and symbolic violence are required for her, in particular, or it may pertain to her motives for undertaking the placement. Camilla knew very little about rugby, prior to entering the field, and admitted early on that this placement had been intended for another student at her university, who had pulled out at the last minute; she had only agreed to accept it days before starting. Thus, she arguably had little to gain by actively engaging in a socialisation process into this professional sports club; it held little symbolic capital for her.

I know that I'm supposed to be in awe of a lot of these blokes but I don't even know who they are. I' go home every night and sit on the web site trying to spot the ones I've seen and trying to learn their names but it's massive information overload. I sort of feel bad too because there are blatantly some of them who think I should know who they are and I don't recognise them. Like [player] came and introduced himself to me and I was just like 'oh right, nice to meet you' and that and he looked proper put out. I think he expected me to fall at his feet. I dunno who the fuck he is!

Queenstown field notes August 2009

Rockhead, along with all the other interns observed over the season, clearly felt that the symbolic capital gained as a result of working (or saying one has worked) with a professional rugby team was far greater than the symbolic capital associated with the acquisition of an undergraduate degree. Most likely, it is this perception amongst candidates for internship, which facilitates the construction and reconstruction of power differentials, leading to their alienation. Unsurprisingly, there appears to be little urgency amongst professional sporting institutions to reconstruct this aspect of their social environment. Indeed, having malleable individuals, blessed with a degree of naivety associated with inexperience, who are overcome with a willingness to please and demonstrate a need for acceptance, undoubtedly benefits such organisations greatly.

[I had requested the opportunity to formalise the process of hiring interns in light of Barney's complaints about the quality of candidates and their retention in the role. I advertised the role formally and attempted to put in place a structured programme of development for the following year. We received over 100 applicants despite the role being advertised as being unpaid.]

I was sorting through applications for the internship today when Akela (head coach) came in and enquired after what I was working on.

K: I'm trying to shortlist that candidates for the internship, we've had over 100 and many of them have masters degrees.

A: Really?

K: Yes, I'm amazed. It's impossible to separate them, and this is for a job making protein and running water for us…for no money at all!

A: I don't understand Kate, why would they apply if they have masters degrees – don't they know what the job is?

K: Yes, I advertised it with a detailed description. They're desperate Akela. Absolutely desperate to get into this world. It seems they are willing to do anything to get in.

A: Unbelievable. We can't have people like that doing that kind of work though…

K: Well I suppose everyone has to start somewhere though..

A: Yes but…jeez.

<div align="right">Wyndham field notes April 2010</div>

The Rugby club monarchy: A comparison of coaching departments at Wyndham and Queenstown

The coaching departments, arguably both in their structure and approach, offer the greatest difference between the two organisations studied. The distinctions which were alluded to in other areas of the respective clubs, in terms of staffing levels, resources and arrangement or personnel, are greatly amplified in the analysis of coaching arrangements at the Warriors and Wolves. Referring again to figures 3.1 and 3.2, it is possible to see that the Wyndham coaching team is twice the size of that of Queenstown.

Queenstown

Whilst Riz occupies the position of head coach at Queenstown, in reality he is rarely involved in coaching the team 'hands on'. As such, the practical aspects of all coaching activities are undertaken by Mervyn, Bo and Hawk. Indeed, throughout the duration of data collection at Queenstown, the number of occasions during which Riz could be observed participating in training sessions with the players was incredibly small, nor did he appear to engage with other members of staff, particularly in matters of rugby. As a researcher, operating as a sports scientist and sports therapist at Queenstown, a position they have never been able to afford to fill officially, it was surprising that the diminutive number of interactions with Riz never had any basis in Rugby. This was a pattern which appeared to repeat itself again and again when observing his interactions with other staff members throughout the organisation.

Riz: So how are you getting on?

K: Good thanks, I'm learning a lot. Thank you for letting me come.

R: You're at Wyndham Wolves as well aren't you?

K: Yes, that's right.

R: I live around there.

K: Really? [It is quite some distance away]

R: Yes, how do you get there? Do you drive?

K: Yes

R: You don't go on the [motorway] do you?

Y: No I get off the [motor way] around [town] and go across country from there.

R: Yes that's what I do, it's a little bit longer sometimes but you never get caught in really bad traffic. Do you go through [another town]?

K: Yes

R: And that ridiculous roundabout?

K: [I laugh] Yes, its crazy.

R: I know, a roundabout where everyone goes the wrong way. There must be so many accidents there.

K: Mmm

R: Right well, see you later

Queenstown field notes July 2009

Riz: You know that thing when your phone vibrates and you can feel it in your trouser pocket?

K: Yes.

R: It's weird isn't it how it can be in your left pocket but your right leg vibrates.

Beaker: I've never had that happen.

R: Well my leg just vibrated and my phone is in the car. I think my leg has got a sixth sense. [he leaves]

B: What the fuck?

K: No idea.

Mervyn coached the forwards, and also outwardly took on the role of a coordinator; he was arguably the head coach in reality, with Riz as a director of rugby, though this is not how the structure was presented for public consumption.

Player: So you've been around here for a while now Kate, and you're studying what's going on.

K: Yes

P: I wonder if you can tell me, what exactly does Riz do? I mean do you sit in coaches meetings and stuff because honestly I have no idea what his role here is. I know things are different here to what I'm used to…but I'm used to having the head coach actually coaching you know? It seems to me that Mervyn is the head coach and I have no idea what Riz does. I really don't.

Although Mervyn and Bo were both listed as assistant coaches, there was no question that a hierarchy existed in which Mervyn was the senior. Mervyn had a long history with the club, having played and coached at various different levels throughout the structure of feeder teams and development squads. He was incredibly open about the probability that his never having coached elsewhere was a hindrance to his career; something which he voiced early on in the season, during one of many discussions about this research being undertaken at the club. Mervyn was clearly ambitious but lacked confidence in his ability, having had no referent mechanisms of coaching evaluation outside this small subculture.

It would be an understatement to suggest that the time spent at Queenstown was turbulent, but, early on, at least, it was difficult to ascertain whether this was the 'normal' cultural habitus; when Mervyn

announced that he was leaving halfway through the season (some weeks before my departure), it was perhaps an indication that the observed difficult times at Queenstown were exceptional.

Bo, although having grown up relatively close to Queenstown, had spent the latter stages of his playing career, and amassed the formative years of his coaching experience, hundreds of miles away. His return to Queenstown, it emerged, was catalysed by the national governing body of the sport; in essence, he was brought in to address some of the shortcomings, in terms of resources and staffing, at Queenstown. Suffice it to say that this caused some animosity towards him, particularly in the early stages, and much of this came from the existing management setup at Queenstown.

They all see me as the blue eyed boy having been sent in by the [sport's national governing body] they think I'm some sort of spy or something. And it's not like that, we all want the same thing...to see this team do well and start achieving. Sometimes it's like I'm walking around with a target on my back. You must feel a bit like that too do you, what with working with Wyndham? [I smile and nod my agreement] It's hard, when you can see that changes need to be made but you just face barriers everywhere, 'cos they think you've got another agenda or something...or maybe it's just that they hate outsiders coming in. I mean so many of these guys have been here for so long, they forget that there is a life to professional sport which involves change and you can't just hang on to the past. It's hard. And it upsets a lot of people, even if we all ultimately want the same thing...

Queenstown field notes August 2009

The relationship held with Bo was augmented by further shared experiences; he knew many of my colleagues at Wyndham, and held them in high esteem, often asking for his regards to be passed on.

Bo: How's it going down at Wyndham?

K: Yeah really good thanks..

B: How do you find Akela?

K: I really like him actually, he's not like any other coach I've worked with though.

B: [laughs] No he's pretty unique. He was like that as a player too. I was speaking with [a current Wyndham player] the other day on the phone and he said that Akela hasn't changed at all. He reckons he's still playing the same tactics in rugby too.

K: [I laugh]

B: And how are [player] and [player] doing?

K: Yeah good, complaining about the fitness sessions but you know!

B: I miss those guys. Will you pass on my regards?

K: Yes of course!

Queenstown field notes November 2009

It was exchanges such as these which highlighted the precarious nature of the socialisation process in subcultures such as professional rugby teams. Specifically, the political dynamics, which may not be manifestly observed in the early stages of social contacts, play a crucial role in determining one's position within the group, and consequently one's level of acceptance. An overheard conversation with the wrong person may inadvertently symbolise alignment with them and thus, by default, lead to alienation from another group. Therefore, interactions become the mechanism for the generation and acquisition of symbolic capital in such contexts, as Bourdieu (1979) argues. However, these interactions can also rapidly depreciate that capital; they can create a symbolic debt. Such a statement may sound like an overreaction; of course, such positioning, and symbolic debt, is reversible, though this process takes significantly longer to 'bounce back'. Notwithstanding, the symbolic debt, which one might accrue in

one microsocial, or clique, within the subculture is almost invariably balanced by the acquisition of symbolic capital in another. For example, alignment with Bo may well have caused some symbolic debt amongst the stalwart staff members at Queenstown, yet it undoubtedly generated symbolic capital not only with Bo, but with his network; which in this instance, included many acquaintances at Wyndham. However small, and often insular, the world appeared in the separate subcultures at Queenstown and Wyndham, it quickly became unavoidably apparent that the world of rugby is barely any bigger.

In addition to Mervyn and Bo, there was a further coach (Hawk), a former player, who worked part-time at the club with the specific task of improving the team's on-field 'defence'. Hawk began working with Queenstown shortly after pre-season commenced, and his appointment was welcomed by players, staff and fans alike; he had been a popular and incredibly successful player, both with Queenstown and other, more successful, teams further afield. Hawk had several other business commitments, which undoubtedly generated significantly more revenue than his role at Queenstown. However, owing to personal circumstances, which in the interests of maintaining anonymity will not be discussed here, it is likely that this part-time coaching role was appealing for an intervening period. It is noteworthy that he too has now departed Queenstown, and did so in the early part of the following season, with no reason being cited in the media reports of his resignation. It is fair to say that, during the successful parts of his playing career, and presumably in his career beyond Queenstown, Hawk had become used to a standard of life that was simply not replicated at the Queenstown training ground and, on several occasions, he appeared shocked at the environment in which training was undertaken.

I was stood outside the makeshift medical room at the university playing fields when Hawk came storming in saying 'this is ridiculous, it's a fucking joke', Beaker came in shortly behind him. I asked what was going on.

B: There's no balls. Nobody thought to bring any rugby balls to the rugby training session. We're trying to get hold of some now. Hopefully the university have got some we can borrow.

An absence of the necessary kit at Queenstown was not uncommon. Indeed, prior to entering this research field, having been aware of this club for some time, it was anticipated that the facilities available, particularly as they pertain to sport science, would be diminutive. However, the absence of the most basic requirements for undertaking a rugby session (i.e. rugby balls) was totally unexpected; one would not imagine this situation arising at the most amateur rugby set-ups in the country, let alone in a 'professional' training environment. In the time spent at Queenstown, the failure to provide rugby balls for training was observed twice, an insufficient number of bibs (coloured tabards utilised to denote opposition players during drills or training games) of the same colour was commonplace, but more worryingly, the problem of having anywhere to train at all, was presented most weeks, if not daily, in one form or another.

Eagle won't let us on to the pitch so we're screwed really. I mean how can we prepare for the first game of the season when there's nowhere to train. It's all very well going up to [university] once a week but it's not enough. We need to train on a full size pitch and we're stuck with the allotment. And look at the surface it's a nightmare, it's so uneven. We're gonna have ankles and knees [injuries] all over the place today. Shall we take some bets on how many injuries we pick up during the session?

As the season progressed into the winter months, not only did the usual problems of pitch size when using the allotment exist, but the drainage was so poor that it regularly became waterlogged and therefore unusable. Nonetheless, there were several occasions where there was nowhere else for the players to train

and therefore they were forced to undertake training drills on an area of grass, which in no way replicated the conditions of a rugby pitch and was entirely uneven underfoot. Come November, the allotment provided ankle deep mud in places. It is not surprising, that the players and staff, although the latter rarely voiced it, became increasingly concerned about injury and the increased training load and energy expenditure associated with training on such a surface.

> *Cotterpin [player] comes into the team room during training to get some tape for his ankle.*
>
> *C: This is fucking ridiculous [Flex (player) comes in shortly behind him] What the fuck are we doing out there? Seriously…*
>
> *F: I know mate, I can't see a fucking thing, and its knee deep in some places. You've got no idea where you're putting your feet. It's like training in quicksand.*
>
> *C: It's like the fucking Somme…there's men going down all over the place!*

> *Queenstown field notes September 2009*

It became a regular feature of the training week that the squad would travel to use University playing fields for the training activities scheduled for one of the main training days. This provided a solution from a coaching and the technical point of view, but it presented several key issues in terms of player support from a medical (physiotherapy treatment) perspective, as well as for the nutritional and sports science support requirement. On these days, players were provided with a packed lunch consisting of a sandwich, some cherry tomatoes, two hard-boiled eggs, a yoghurt and a cereal bar, which was the only meal they received all day; there was no provision for hot food, which was problematic in the winter months. Medical support was forced into the first aid room at the training ground; there was space, just, for two treatment beds, but very little freedom to move around, with four therapists battling for the necessary clearance space to treat players.

It was freezing at training today, nobody wanted to go outside and the size of the makeshift treatment room meant that there was no justification for the 4 medical practitioners to be indoors. Since Fozzy and Scooter refuse to do any massage treatments (they appear to consider it 'below' them) there was a need for Camilla or I to remain inside. However, there appeared to be little reason for either of the physios to be there, particularly when there was a requirement for one of them, at least to be present pitchside at the training session. In the end, I packed a medical bag and went outside to provide cover. Several players and some staff members (Beaker, Animal and Mervyn) asked where the physios were, and why I was covering training. I lied and said that they were treating players inside. I'm not sure why I covered for them.

Reflective diary, Queenstown, November 2009

Queenstown's use of the University playing fields was not the only example of the club needing to use offsite locations in order to provide sufficient training stimulus; all rehabilitation sessions, swimming sessions, speed training sessions, fitness testing, and any indoor sessions were all undertaken at various different locations up to 15 miles away from the club. The inability of Queenstown rugby club to provide a training ground, which could support any more than 50% of the training load weekly, is an indictment of their financial situation and the priorities of the management board.

Hilda: I've spent the morning researching the cost of an awning.

K: A what?

H: You know, an awning? To go out the front of the clubhouse so that the board members have somewhere to go outside and smoke.

K: Really?

A: Yeah, five grand. Five grand it's gonna cost for the one they want!

K: Are you kidding me? Five thousand pounds? They surely aren't going to sign off on it…I mean we can't even get the medical supplies we need.

H: Yeah of course they will, because its what the chairman wants, they won't bat an eyelid at that. You have to remember that they will see the benefit of that straight away. They don't understand the benefit of more strapping tape or treatment stuff or training kit or whatever. As far as they are concerned that stuff isn't necessary, 'cos in their day they never had any of that and if they can play rugby without it then…

K: You're joking?

H: I wish I was sweetheart.

Queenstown Field notes December 2009

The above exchange pertaining to finances at the club was enabled by the relationship held with Hilda, as previously alluded to. Access to this type of data, as part of the performance team at Queenstown, would have been impossible and would likely not have been considered fully by the players and staff involved with the production of on-pitch accomplishments. To clarify, within the microcosm of the training day, awareness of the nature of the role of the board members is limited to a vague understanding of their involvement in approving financial demands for contracts or new equipment. The idea that these men have an interest in the details of the way money is spent, because of their personal needs (for example the acquisition of a shelter, under which to smoke on match days), rather than medical equipment or greater staffing resources, would find no place in the habitus of the staff preparing a professional rugby team. At both Wyndham and Queenstown, there was a perceived need to construct a logical, evidenced proposal for any new funding requirements; this often involved some form of written proposal or presentation to the board. It is unlikely that the applicants for such funding would consider that a board member might willingly spend thousands of club money on a relatively luxurious item, unrelated to team performance,

without such measured consideration. In short, the priorities of the management, on the business side, arguably differ substantially, and necessarily, to those held by the performance management team.

> '*At the moment, in this environment, there isn't a drive to find out about the latest research. It's more, stick it in Google, find out what's on the internet and do it that way. But then you've got to look at the flip side of that which is that they are doing it that way because they haven't got access [...] Personally for me I think as a department we should have access to some kind of research journals so that if we're not sure about research programmes for a certain injury [...] we can go and look at it [...] It's not [that] the organisation don't allow us to have access to it but it's not seen as a necessity.*'

> <div align="right">*Scooter, Queenstown interview*</div>

Wyndham

The Wyndham coaching team consisted of a head coach (Mowgli), an attack coach (Balloo), a defence coach (Rama), a forwards coach (Rikki), and two kicking coaches (Colonel Hathi and Bagheera). Colonel Hathi was a consultant and was therefore only on site for the major training days; a few months into the season he was dismissed by the club since they had deemed Bagheera to be capable of carrying out all of the kicking coaching responsibilities. It is understood that Colonel Hathi's daily fee was incredibly high, and in reality the impact that he was having across the squad was relatively small, since he only worked with a couple of players most of the time. Bagheera's situation was quite unique in his official reason for being at the club, that is to say his position of employment resided in a different department. He was qualified to work in the medical or conditioning departments yet in the early stages of preseason, his talents pertaining to kicking strategies and technique, from his past experience as a player, were called upon to assist in Colonel Hathi's absence. As the weeks progressed, Bagheera began to take on more and more responsibility in the coaching department, and eventually moved up to the coaching office full-time,

where he was given a desk. He retained some contact with the medical department during the training week. However, his number of hours of hands-on treatments decreased significantly, and he only treated a couple of high profile players with consistency. His absence from clinical activities notwithstanding, Bagheera retained match day responsibilities; running onto the pitch to treat players as they went down with injuries during the game. The head coach and director of rugby undoubtedly will have viewed this as an ideal arrangement; a legitimate cause for a coach to be regularly running onto the field during matchplay. The final member of the specialist coaching team (Kaa) was a coach employed specifically to work with the technical preparation for the scrum; he would usually spend half an hour at the end of units sessions with those players involved in scrummaging.

In addition to this coaching team, Wyndham Wolves had also appointed a director of rugby (Akela), who was the public face of the team. Ordinarily, it would be common for the director of rugby to take a less involved role in the physical practicalities of coaching during training sessions. However, Akela was intensely involved in every full rugby session, and always ran the team meetings. During 'units' sessions, where players were divided up to practise technical skills allied to their positional role, the other coaches would take charge of their relevant groups and associated meetings, but beyond this Akela was not only in charge on paper, he was so in reality.

The relationship of Akela, in particular, to the coaching team at Wyndham sits in stark contrast to the relationship of Riz to his coaching team at Queenstown. One would anticipate that Riz, being head coach, would be intimately involved in every field based session, while Akela, as the director of rugby, might take a less direct role in terms of interacting with players and training. Indeed, the opposite was observed at the respective clubs. Thus, where Wyndham had seven to eight coaches vying for hands-on time with the players, Queenstown really only had three.

Other members of the organisations

Both Wyndham and Queenstown had a performance analyst, who worked closely with the coaching team to provide video footage and commensurate analysis of given variables (e.g. tackles made, tackles missed, lineouts won, minutes played.) to assist with the coaching strategy and to enable players to review their own performances. Each of the respective analysts also had a part-time assistant who could help out with coding the performance data as necessary. Functionally, the role of a performance analysis team within professional sport is relatively consistent, in terms of the analysis of their own teams. However, at Wyndham, the analyst was charged with several additional duties above and beyond the analysis of the Wolves' performances. Firstly, and somewhat crucially at this level of competition, the Wyndham analyst (Zazu) undertook analysis of opposition footage in preparation for the upcoming game. Secondly, he was responsible for preparing PowerPoint presentations, which included the use of video clips, for each of the coaches to use during their speeches in the team meetings, which happened every day. Thirdly, he was responsible for the production of visual aids for the learning of team 'moves' (for example, lineout moves, kicking strategies, scrummage calls) and feedback sheets about individual player performances in the previous game. Finally, he was regularly required to put together video montages, at the request of various coaches, to motivate or entertain players. Essentially, it seemed anything which required computing expertise (for example, preparation of schedules, reports, graphs) were passed on to Zazu.

In addition to this coaching setup, Wyndham also had a team psychologist (Rafiki), who was responsible for working with players to understand psychological or social aspects of their performance or personal lives. A great deal of his time appeared to be spent dealing with issues which arose outside the club, and also instigating personal development programmes for individual players. Rafiki, in this sense, was a little more like a performance Lifestyle consultant than a sports psychologist, in the technical sense. It was Rafiki who arranged for various speakers to come in as part of a lecture series, and also stimulated the arrangement of 'skills for trade' training, personal finance workshops, and education programmes which were run through the club. Although he would attend all outdoor training sessions, standing on the

sidelines and observing players and coaches, he would not be seen in the 'normal' role of a sports psychologist working with a player on the field, taking him through pre-performance routine for example, or teaching him visualisation techniques. The point of overlap of duties that one might normally expect to fall under the remit of a team psychologist, and Rafiki's role, lay in counselling the players when they had problems. Consequently, an interesting dynamic was constructed between Rafiki and Timon (the club chaplain), who equally saw himself as offering a counselling role to players.

Grimsby (player): I can't stand him [Rafiki], I'd never go and speak to him.. I just wouldn't. It's like he's always on the look out, I never know what I'm supposed to say. It's like he's constantly interrogating you…I feel like I'm gonna trip myself up or something.

H (player): I quite like him, I talk to him quite a lot…

G: What about?

H: Just whatever you know, general stuff, stuff going on outside the club, troubles at home..

G: Troubles at home? You talk to him about that stuff..

H: Yeah…I do

G: I just don't trust him with that stuff and for performance stuff I just don't need any help. I've been doing this a lot longer than he has…I'd much rather speak to Timon (club chaplain) than Rafiki.

H: Timon?

G: Yeah

H: What do you talk to him about? Faith and stuff?

G: Yeah, we talk about that but other stuff too. I just feel like I can trust him not to talk to anyone else about it…you know more than Rafiki. Cos' he leaves here at the end of the day…and they don't pay him.

H: What's that got to do with it?

G: I dunno, but fucking if a coach wants to know something and they pay Rafikis wage, well..

H: Well what?

G: Well it'd be hard I s'pose..

H: Yeah well I'm not really into all that God stuff so…

Wyndham field notes, May 2009

The physical environments at Queenstown warriors and Wyndham Wolves

Figure 3.3 shows the layout of the training ground at Queenstown, while figure 3.4 offers a comparison with the training facility at Wyndham. Although they are not to scale, there is a clear difference in the size of the two sites; each of the training pitches at Wyndham are slightly larger than a full-size rugby pitch, while the only full-size rugby pitch at Queenstown is the match day pitch, which Eagle prevented the squad from using for training purposes other than the captains run (a one-hour walk through the day before a game). Interestingly, Queenstown owned their training facility, whilst Wyndham rented theirs; this can be seen through the presence of multiple sports facilities (tennis courts and cricket pitches) at Wyndham, which are used by other sports clubs. Nonetheless, despite owning their training ground, Queenstown have allowed another sports club to build a clubhouse and practice space in the middle of their real estate, thus preventing them from having a full-sized training pitch. Conversely, the Wolves

retained almost exclusive access to the entire facility during the training week, owing to their hours of training falling outside of school or sports club training times. The only periods of time that this did not hold true was during school holidays, when there would be children's rugby activity camps occurring at the same time as senior squad training, though owing to the size of the training facilities this rarely caused problems.

Not only did Queenstown have a resident sports club in the middle of their training facility, which was utilised on a daily basis owing to the older demographic of its users, but they also rented out their function hall for line dancing classes several times a week.

> *I was late into the lunch room today (the club bar) and as I ran across to the building I could hear music blaring out of the function hall – current chart hits. I couldn't understand why this would be happening in the middle of the training day until I saw that there was clearly a line dancing class going on, indicated by the shouting instructor over the PA system. It made it impossible to hold a quite conversation over lunch. The kitchen is situated directly between the bar and the function room and the lunch protocol at the club is such that players queue up in to the kitchen to be served food by the two staff members (who are also the club cleaners). I joined the queue behind the players.*
>
> *K: I had no idea that this went on…it's a bit bizarre isn't it?*
>
> *Player: What line dancing?*
>
> *K: Well yes, I mean in the middle of the training ground on our training days..*
>
> *P: Yeah it is bizarre…slightly disturbing actually…particularly watching pensioners getting their groove on to the pussy cat dolls on a Tuesday lunchtime. [I laugh]…I'll never look at Nicole Scherzinger the same again [he mock shudders]*
>
> *Queenstown field notes, July 2009*

The presence of these outside parties at both the Wyndham and Queenstown training grounds would arguably negate the labelling of these rugby clubs as 'total institutions' in the Goffmanian (1961) sense. In the strictest sense, Goffman (1961) defines total institutions as those which are inaccessible to any social actors other than those who are involved, often incarcerated, within a clearly defined subculture. However, it can be argued that, owing to the nature of the 'visitors' who share the club training grounds,

that is to say they are equally private 'special' groups, that the institution of the rugby club is by no means open to *public* access. To clarify, the exclusivity of the sports teams utilising each club's facilities, and indeed the private school with whom Wyndham share access to their ground, remain relatively closed, with negligible crossover interaction between the rugby teams, and these other subcultures. There is very little observation on the part of either group; neither is the audience for the other. Within his concept of the total institution, Goffman (1961) draws attention to the relevancy of the physical domain of the subculture; its organisation, physical layout, condition and the barriers that these material factors, in themselves, create within the social interactions that arise in the operating subculture.

The extension of the rugby club into other aspects of players' lives, beyond work, corroborates the suggestion that such organisations might be considered in terms of being total institutions. Although Goffman (1961) dictates that a key feature of a total institution is that the normal delineation between sleep work and play, as being undertaken in different geographical spaces in normal society, is broken down; a crucial feature of his definition of total institutions is clearly manifested in the rugby club environment:

> *... all phases of the day's activities are tightly scheduled, with one activity leading at a prearranged time into the next, the whole sequence of activities being imposed from above by a system of explicit formal rulings and the body of officials. Finally, the various enforced activities are brought together into a single rational plan purportedly designed to fulfil the official aims of the institution.*

> *Goffman (1961:17)*

Thus, while players do not sleep or conduct all aspects of their daily lives within the confines of the training ground, thus deeming such organisations not to be total institutions, there are certainly similarities. A further key similarity lies in the organisation of personnel within the institution of the rugby club; again, this coincides with Goffman's definition of a total institution, wherein a fundamental

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split between a large managed group (inmates/players) and a small supervisory group (staff) exists. Typically, staff are able to conduct a normal life beyond their standard working hours, while the inmates are not. The nature of professional rugby, particularly in the area surrounding the Queenstown club, is such that many players now occupy a celebrity status, and are frequently the subject of media attention, which, in itself, further attenuates their capacity to live a 'normal' life outside the rugby club.

The relevance of Goffman's (1961) definition of a total institution lies in his insistence on the anchoring of the subculture to the physical structures within which it is constructed and played out. More traditional definitions of social institutions are often more esoteric and ethereal, placing almost singular importance upon the generation of culture through social activity by the actors alone. Goffman (1961) allows consideration of the culture such that it transcends the 'social', the physical and, importantly, the self.

The difference in physical arrangement at the two clubs differed in several ways above and beyond the obvious disparities in overall extent of facilities. Although Wyndham's facilities spread over a greater geographical area in total, all the staff and players, when not training, occupied workstations within the clubhouse. Moreover, the area within the clubhouse to which they were confined was relatively small; there was very little distance between the most senior members of staff, the most junior, and players. Thus, the housing of working practices within close proximity to each other, inside the clubhouse at Wyndham, propagated a functional and relatively effective working environment. Conversely, the key departments within Queenstown's management organisation often appeared to work, professionally and socially, in isolation; and this was undoubtedly compounded by their physical isolation around the training ground. As can be seen in figure 3.2, the coaching office was located at the bottom end of the training ground, and while it was housed in the same building as the team room, they were separated by the function hall which was often occupied by external parties (for example, the line dancing classes). Also, while the strength and conditioning team had a marked office within the clubhouse, at the bottom of the training ground, which was to be shared with physiotherapists and any other staff members who needed desk space, their functional 'work' was most often isolated to the area surrounding the gym.

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Likewise, the medical room was located underneath the stadium stands in the top right-hand corner of the training grounds (figure 3.3). It would be difficult to identify a position further away, physically, from the coaching department. It is perhaps unsurprising that members of the medical team often commented upon the feeling of distance from, and the difficulties in communication with, the coaching side of the Queenstown management.

Not only do Queenstown and Wyndham's facilities differ in terms of quantity of resource, there is a marked difference in quality. Queenstown's facilities are dilapidated to say the least, with reports of asbestos having been a problem in recent years. In the clubhouse, the team room is actually a social bar area, which is reminiscent of a working men's club. Indeed, it is likely used in a very similar manner on evenings and weekends. The carpets clearly haven't been replaced in the club's recent history, as evidenced by the texture underfoot and pervasive smell of stale beer. The intervening areas, between the bar and function room for example, often smelled strongly of industrial disinfectant and coupled with the toilets facilities, came to remind one of a school. Wyndham's clubhouse on the other hand, was relatively new, and of contemporary design; constructed from glass, hardwood and metal. It was surrounded by a number of decked balconies which looked out across the fields behind the training ground. Inside, the upstairs rooms, where the team room was, were laid with solid wood flooring, matching tables and chairs and the occasional leather sofa. The walls were adorned with framed international jerseys signed by famous players, certificates and trophies, and professional photographs of successful teams that have used the club. This is in stark contrast to the overcrowded noticeboards surrounding the entrance to the clubhouse at Queenstown, with some photocopied photos of players, most often captured drinking at the bar with popular patrons.

While it will be elucidated further during the discussion of sports science in strength and conditioning practices, it is worth drawing attention to the differences in the gyms at Queenstown and Wyndham. At the beginning of the season, Wyndham, having just moved to this new ground, were utilising a semi

permanent 'tent' to house the gym facilities, while a new gym was being built adjacent to training pitch one.

> *Barney: So this is our gym…a tent in the car park! We're trying to think of a name for it.*
> *The white house maybe?! It's only temporary though and it's got everything we need. I*
> *mean we should be out of here by the winter months…it will be fine. And it's got all the kit*
> *in there. I know it's not ideal, but actually I think we can make it work pretty well. But*
> *there's no way that we'd put up with training in here in the winter – it'd be too cold. I'm*
> *not risking injuries because of cold muscles. But the new place we're getting is going to be*
> *impressive, it's gonna be huge with everything we need – we've designed it ourselves. So*
> *we're pretty lucky, not many conditioners get to do that. So this is only temporary. Our new*
> *place should be much better than what you're used to down with Queenstown! [I laugh,*
> *trying hard not to show any allegiance to either team with whom I work] Can I show you*
> *the site where the new gym is going to be?*
>
> *K: Yes please, I'd like that.*
>
> *Wyndham field notes, July 2009*

This was clearly a source of shame for the conditioners, as and when they discussed their facilities with anyone else; however, in reality, the size, quality of equipment and breadth of equipment was greater than that observed in Queenstown's full-time facility. At the beginning of the season, Barney had expressed concern that the squad might be stranded in the tent over the winter months; conditions which he felt to be unacceptable for training the soft tissues of elite athletes. Suffice it to say there was an eagerness for the new gym facilities to be completed as soon as possible, to avoid such problems. However, when viewed in the light of Queenstown's facilities, a corrugated iron shed, Wyndham's problems seemed somewhat trivial, particularly in terms of temperature control. There were no windows in Queenstown's gym, owing to the structure of the building, and in summer it became excruciatingly hot, with only a single door to

open for air, while in winter, players would train in jumpers, hat and gloves, in order to withstand the cold. The only heating inside the shed was provided by some electric heaters, which were placed high up on the walls. Their positioning was indicative of an installation having been undertaken by personnel not involved in sport, or possibly even experienced in the heating of public spaces. Heaters had been placed directly in front of the squat racks, where the players trained. Thus, not only did the heat sit in the top half of the shed, quickly dispersing through the numerous gaps in the corrugated iron, but it was during their phases of work that players received the most additional heating. Logical thought, pertaining to performance of physical activity or labour, might have suggested that the areas in which players rest between phases of work, would have been more apt for the installation of heating devices.

The gymnasium facilities at both Queenstown and Wyndham had some storage cupboards and a couple of shelving units in which players' programmes were kept. At Wyndham, an intern would go to the gym before each training session and place a copy of an individual player's programme into their folder, which was then placed inside a personalised pigeonhole in which players could also keep personal items such as weightlifting shoes. At Queenstown, however, such a resource was not available, and as such within the storage cupboards were often just piles of loose papers outside of individual players' folders, kept in a rather chaotic manner. Although this storage was available for training programmes at each of the respective clubs, there was no facility at either site for strength and conditioning coaches to sit and write their programmes within the confines of the gymnasium. At Wyndham, there was a clearly defined strength and conditioning office adjacent to the medical room; each full-time conditioning coach had their own desk there, and the location of the office meant that free access was available for players at any time throughout the training day. Additionally, within the corner of the medical area, the medical team had a separate office in which they were able to undertake their administrative duties. At Queenstown, a small office was assigned to the strength and conditioning and medical staff, which was to be shared. There was insufficient desk space or chairs to accommodate all full-time staff, and as such there was a daily battle to secure space within the office. There was no official appointment of desks to staff members,

though there were underwritten 'rules' pertaining to where each person was ' allowed' to sit. The head of conditioning occupied the desk which looked out over the grass area, dominating the window in the office.

Animal: You can sit anywhere you like in here love, anywhere at all. Just grab a chair.

K: OK, thank you.

A: Anywhere except there [he points to a chair], that's my chair. Fozzie reckons that's his desk [he points to the other side of the room] but it's not really...you can sit there if you want.

K: OK, but just not there right? [I point at his seat]

A: Exactly.

Queenstown field notes, July 2009

The head of the medical department, somewhat symbolically, controlled the desk area directly opposite; with his back to the head of conditioning. Anybody else, by and large, had to just sit where they could. This undoubtedly played a role in the professional productivity of both departments, and moreover, the capacity to undertake focused and motivated research and development. Furthermore, the innate difficulties between the two departments attempting to share this incredibly small space, dictated that personnel would spend as little time in there as possible. Subsequently, much of the medical administrative activity at Queenstown was undertaken in the physiotherapy treatment room (figure 3.3). Adjacent to the sink was a small workspace, where, if one was willing to stand to work on one's computer, some tasks could be carried out, though there was no Internet available, rendering research impossible. Within the main treatment area of the physiotherapy room at Queenstown, there were three beds available for treatment, while at Wyndham there were four. However, given the reduced number of staff at Queenstown this was often sufficient. The size of the area available at Queenstown meant that

there was a significant risk of overcrowding during peak times (i.e. immediately prior to the field based rugby sessions or matches). For this reason, Fozzy (head of medical) placed a line of tape on the floor across the doorway between the treatment room and a small area of dead space outside; a rule was introduced that there would be no more than three players in the treatment area at any one time. This rule was strictly enforced even during less busy times, with Fozzy often insisting that a single player go and stand behind the line of tape and engage in the group conversation from outside of the room. Were he to be questioned on this, it was always maintained that the rule stood for everyone in every situation; though in reality, it didn't. High-profile players would rarely be subjected to the humiliation of 'standing behind the tape', particularly in times when overcrowding clearly wasn't an issue. Thus, the introduction of this rule, under the auspices of health and safety, enabled a form of symbolic violence on the part of Fozzy; affording him the capacity to assert his political dominance within his territory.

The cultural landscape of professional rugby union; a contemporary picture

An often neglected facet of reflective practice relates to an analysis of the contemporary framework, or immediately historical landscape surrounding the subject matter (Crotty, 1998; Bryman, 2004). While it is fair to say that in many anthropological studies an understanding of one's predicating judgements pertaining to broader cultural histories is of greater import than the relative trivialities of the day; when, as in this case, a 'one-off' turn of events is played out in the media, the impact is exploitative of the symbiotic relationships between clubs, governing bodies, the media, and the consumer. As such, an amount of reflexivity needed to be afforded to the events unfolding within the world of professional rugby union.

The scandal arising in rugby union over the Spring/Summer of 2009, subsequently to be known as 'Bloodgate'[i], described henceforth, cast a shadow over the sport at the time during which the period of field-based data collection was being organised for this study. By the time access was gained to the field,

at the start of the 2009/2010 season, professional rugby union was considered to be in a state of turmoil. This turmoil had been compounded by a number of serious allegations pertaining to drug use by players at another premiership rugby setup (Bathgate)[ii]. As field work commenced, if the media were to be believed, there was a state of unrest, not only within rugby but across professional sport in the UK, which demanded a show of strength by clubs, athletes and/or their governing bodies. Interestingly at the time, the RFU (the governing body of rugby union in England) appeared to wash its hands of the Bloodgate saga; declaring publicly that 'the affair was now closed' (Guardian Sport, 2009). Ironic then, that at the time of writing, narrative texts pertaining to Bloodgate continue to occupy a place in contemporary news coverage. Indeed, for the first time, that which the RFU felt able to absolve themselves from, came to the attention of broader societal judicial processes, through criminal investigation and the enquiries of the General Medical Council. The involvement of the GMC, however, was not universally welcomed. Indeed, some 'rugby circles' have openly condemned the governing body for intervening in areas that do not concern them:

> *How many of those who judged her [the doctor involved], and issued the warning,*
>
> *have experience of the unique pressures visited on a medical sports specialist such*
>
> *as Chapman...It's not your cosy doctor's surgery or even an A&E department. It*
>
> *makes you wonder whether the GMC terminology should be changed – how about*
>
> *hippocritic oath instead of Hippocratic.*

> *Nick Cain, The Rugby Paper, 5th September 2010*

Were the press to be believed, and the RFU for that matter, by the time the preseason 2009/10 commenced, Bloodgate and Bathgate were all but distant memories; as clubs settled back into the job at hand, tumultuous happenings off the pitch bore no impact upon daily life at professional rugby clubs across the UK. One of the most profound experiences then, upon entering the field, was the realisation that this was anything but true. Not only were the affairs of Bloodgate and Bathgate having an impact at

the level of policy and player management procedures within the club, but they remained hot topics of conversation.

> *Fozzie: I mean it could have been me, that's what's really scary. I could be the one being hauled up right now and I mean I just said I'm not gonna do it any more.*

> *K: I guess it happens in every club...*

> *Fozzie: I dunno now, that's what I always thought I suppose, what I'd been led to believe 'cos that's what they wanted. But Mervin had me doing all sorts.... we could have got done for exactly that, I could be in a whole world of trouble right now. I mean I'm really losing sleep over it. I've got a family. If they want to carry on with that sort of stuff then they can go through somebody else cos' I'm not going to do it and I told him that. I don't want to be any part of it.*

Having worked in rugby clubs before, even at the highest level, I was not immune to socialisation process, and during this exchange I fought hard to hide my shock that such practices were occurring. As a consumer of the media reports I knew it was likely that these things were happening on a more widespread scale, but I had never considered them the 'norm'. Had I shown my shock, or any sign of condemnation I feared for the efficacy of my relationship with this man; who I know will likely come to be a key player throughout the season. It was important that I came across as 'one of them'.

<div align="right">

Queenstown Field notes, August 2009.

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The belief amongst the media and the governing bodies of rugby was arguably naive in believing that the issues surrounding Bloodgate would just disappear or die down. 18 months later, yet another development in this saga had arisen; the physiotherapist implicated at the centre of the scandal was struck off by the

Health Professions Council. In some circles this judgement has been deemed as unfair, particularly in the light of the outcome of the General Medical Council's hearing pertaining to the role of Dr Wendy Chapman in the same incident. Dr Chapman has retained her license to practice, despite causing intentional physical harm to a rugby player in order to cover up the use of a fake blood capsule. Steph Brennan, the physiotherapist, has been struck off for giving the fake blood capsule to the player, under the orders of the head coach, Dean Richards. The media circus which surrounded this entire scandal, and indeed the Bathgate situation, served to highlight the rules and norms, legalities and political dynamics which operate inside sport; offering an insight into the extent to which these are irreconcilable with those of broader society. However, this development may yet draw attention to the fallibility of the governing bodies surrounding medical practice in this country. Specifically, the striking off of a health practitioner is something which usually only is permitted, as punishment, in light of serious questions over their fitness to practice. Writing in the Daily Telegraph (15th September 2010), Brian Moore questions where Brennan misdiagnosed or mistreated a patient. There is little question that he set out to deceive within the context of the spirit of the game of rugby, yet arguably there is very little evidence of malpractice, on his part, in the care of his patients; the same cannot be said of Dr Chapman. Thus, the positioning of both the General Medical Council and the Health Professions Council as somehow greater judicial bodies than the RFU, or indeed the internal punitive systems within the clubs, throws the spotlight back on to the nature of medical power both within sport and society at large. The manifestation of medical power within the context of professional rugby union, at a macro and micro level, will be discussed in greater detail in Chapter 6.

Although the impact of Bloodgate has received greater coverage in the media than Bathgate, the impact of the latter upon daily life in rugby clubs has been profound; greater measures have been taken to police the behaviours of players outside of training hours. To an extent this has always been an incumbent facet of athlete management; though it is fair to say it has often been unsuccessful. Indeed, the intrusive nature of approaching the issue of recreational drug use outside working hours, as employers, where there is no evidence of delirious effects upon 'work performance' proves difficult from an ethical standpoint.

Nonetheless, it offers an apposite site for sociological analysis and the work of Foucault (1991) in particular has been applied to the surveillance of athletes with some success (Shogan, 1999; Foster, 2005). However, in light of the publicity surrounding Bath players' use of recreational drugs outside rugby training, clubs and governing bodies have taken measures to formally address such behaviours directly and, less formally, attempt to buffer the catalytic potential of the media in such situations.

Having come back from the gym towards the end of the session in order to get some work done, I overheard the conditioner return and inform the players in and around the Physio room that there was a meeting upstairs. Arnold asked Fred whether he was supposed to go and what it was about. Fred said that none of us needed to go and that it was about Drugs. I thought nothing of it and assumed it was to do with WADA updates and acceptable supplement lists. I had forgotten about the recent incident in the news of Bath players and alleged cocaine use as well as my previous conversation in Queenstown about a player who had been seen taking drugs on a night out because it was better for his body than alcohol.

Some time later, a player came in

Fred: *How was the meeting? Anything new?*

Player: *Yeah, kind of. They were offering players the chance to come forward if they'd accidentally taken something.*

Barney: *What, like cocaine?*

Player: *They were sort of offering like ..... if you went to see them and fronted up.*

Barney: *What and in return they'd keep it quiet?*

Player: *Yeah, and protection if something came out.*

Fred: *Media management. Fuck*

Barney: *Jesus*

The use of drugs within sport remains potent in its effects upon sporting subcultures. It is perhaps the fact that it is now no longer surprising to hear that athletes have used drugs, which confirms that it is positioned as a potentially inflammatory issue, feared by governing bodies and sports clubs across all sports. Sports consumers have become accustomed to the disappointment of hearing that great athletes have been involved in an illegal drug use; whether performance enhancing or recreational (Petroczi & Naughton, 2007). Although narratives are presented regularly by athletes widely admonishing the use of drugs by fellow competitors, the substantive elements of these announcements is often grounded in notions of meritocracy with incumbent romanticised, publicly appealing, notions of 'fairness'(Magdalinski, 2009). The reality of athletes' perceptions of drug use, at the day-to-day level may differ somewhat. From the experiences noted in the field, discussed henceforth, it appears there is a widely held belief that drug use both recreational and performance enhancing is rife within a certain area of the UK among the rugby community.

Although a researcher, 'networking' with other sports scientists and experts was an inherent feature of functional duties whilst in the field. Invariably, the nature of the interactions held with such individuals was predicated by a discussion of the substantive elements of the PhD being undertaken and the types of data collected. On one occasion in particular, conversation came to centre, briefly, upon the use ergogenic substances and technologies in the pursuit of performance in elite rugby union. On several previous occasions during conversations, at The Warriors particularly, the topic of steroids and illegal ergogenic substances had arisen. Here, sitting in a coffee house with an eminent expert in the field (though not allied to either studied club), a greater depth of enlightenment was afforded into the extent to which such practices may be encouraged within the sport of Rugby Union in the UK.

SS: They're just obsessed with size.

K: Yeah I know...there are a few boys who have pretty much given up hope of ever playing representative rugby because they don't think they can get to be big enough to pass the screening programme. It's a shame because they are closing off their talent pool.

SS: Well it just means that these young kids are going to do whatever they need to make it. I mean it's everything there isn't it. It's like a bubble. But then [the sports scientist] reckons that [imitates speech marks with fingers] anyone who's not on growth hormone is going to be

K: He said that?

SS: Yeah, tries to make it sound like it's not official, but he's pushing it

K: But I don't get it – I mean in the grand scheme of things GH won't make that much difference; in fact isn't all the recent research showing that its not the key factor in anabolism that we thought?

SS: Yeah exactly. And what the idiots don't realise is that GH causes everything to grow. If you have something like a tumour, then that is going to grow too. It's just stupid. It's beyond irresponsible.

K: I can't believe it.

[He shakes his head in disbelief and apparent disappointment]

It is clear, from the field notes, that this conversation arose within the context of ethical and philosophical concerns pertaining to the training and application of knowledge by 'sports scientists' in Rugby; many of whom hold positions of great power over athletes' lives. The sports scientist, in particular, to whom this

eminent sports scientist was referring had not actually received any formal training in sports sciences, physiology, medicine or even biological sciences. His background (afforded symbolic and social capital through his acquisition of a PhD) is in computer sciences; though upon several occasions during conversations with those who work with him I was reliably informed he had a strong interest in sports science. It is important, within the context of this study to identify those in charge of the popularised technologies, with respect to their qualification to administer their use and concomitantly propagate the technologies of the self within athletes. When viewed in this way, the implications of such an arrangement highlight the importance of this study of sports science in action.

> *'He's a Doctor of Computer Science, but the guy is fascinated with Sports Science...reads about it all the time. And that, for me, makes him a Sports Scientist'*

> *Head of national sports science setup*

> *-----*

> *'Apparently he's planning to build a sports science lab like they have at AC Milan. It's going to change the face of [the region's] rugby [he gives a wry smile]'*

> *Really?*

> *Yeah he's been off all over the place having meetings with all sorts of people.*

> *Outside of rugby?*

> *Largely, yes. He's been spending a fair bit of time in Eastern Europe, trying to pick up the latest thing.*

> *The Eastern bloc training machine eh?*

Yeah. It's a bit of a worry if you ask me. We could do with looking at who and what we've got in front of us to be honest. But they're all getting obsessed with size. You've got to be a certain size to make it in rugby around here. It's all numbers.

Medic for the national squad

The nature of social ethnographic data to date determines, perhaps, that it goes without saying that exposure to different kinds of data is contingent upon the depth of one's involvement or position within the subculture. It is erroneous to suggest that much research has failed to access the truth; indeed, in doing so one raises several questions pertaining to truth and truth claims in these contexts. Indeed it is an unfair indictment upon the subjects of social research to suggest that they might indulge in the propagation of mistruths or dishonesty. However, it is fair to say that different types of truth present themselves in different contexts and that levels of candidness in exchanges and interactions with members of subcultures are contingent upon three key cues: 1., The other people present at the time of interaction, 2., The degree to which the researcher is considered part of the group. 3., The desire of the reporting individual to share a piece of information based upon their perception of its consequence. With respect to the last, this might be motivated by multiple interests; not least the security of the individual's position as 'good' in opposition to the construction of a villain in their narrative. These precepts notwithstanding, the honesty with which some players chose to speak about potentially inflammatory topics was often alarming within the context of the field work for this thesis.

Having spoken with Charlie for some time, whilst waiting for ceremonial activities of this event to run their course, we have of course touched upon my background and the fact that I had done some work with another rugby team alongside this one. We spoke at length about many different issues and differences between the two clubs

and cultures; particularly the aspects which pertain to player preparation-the area

for which I am known at the Wolves.

C: What do you think about the drug problem there?

K: How do you mean?

C: Well it's pretty widespread isn't it?

K: Do you mean social drugs or like steroids and stuff?

C: Well both I suppose I was thinking about steroids really... the juice!

K: Yeah I heard that, but to be honest it's difficult to say. Unless you're doing it

yourself I don't suppose it's something I'd know about...I'm sure its certainly not

something that people are keen to mention. But I'm not going to lie; I've heard a few

rumours.

C: I heard that almost all of the young players are doing it. That's what I heard. Do

you know [player]?

Errm! [I try to remember] Oh you mean [player] [I refer to him by his nickname]!

C: Yeah yeah. I went to school with him. And he said that when he got to [that part of

the world] he was amazed how many people were doing it.... it's pretty bad eh?

K: Yes I think it's terrible and it's even worse if people know that it's going on and no

one is doing anything about it. Because that is going to encourage it and create a bit

of a culture you know?

C: Yes exactly. I can't stand it. Because I worked so hard last year to try and gain

weight and get 'big as', I was told that's what I have to do if I want to make it and so

I ate and ate and trained and trained. You won't want to hear this but I ate so much crap just to try and get big. And it worked. But I felt like shit, because I'm used to my mom's cooking and she's a really good cook does really healthy stuff for me always has and now all of a sudden I'm just eating rubbish and feeling like crap. But it worked though.

K: Yeah I know, everyone was amazed by how much weight you gained over the summer.

C: Yeah, it was literally from eating burgers and fried food and chocolate and just utter crap.

K: I suppose then maybe you can see why people turn to steroids?

C: No not really I mean you don't know anything about what it is. I reckon some point you're gonna feel like crap whether it's now or 10 years down the line. And don't get me wrong, I love rugby, but I know it's not my life - it can't be it's too short. And that shit is just not worth it.

Wyndham field notes May2010

It took some time before exposure to such a depth of honesty arose in the field; presumably as a function of trust or familiarity. However, a surprising phenomenon presented itself outside the rugby club setting. When in social situations and the nature of my research was discussed, similar conversations would occur.

Man: So you're the one who is handing out all the steroids and shit are you?

K: What do you mean?

Man: Well they're all on it, aren't they? That's what I heard...

K: Really..? I've not seen anything like that going on

Man: Well you must know that [player at another, relatively local, team] is on it. It's common knowledge man. Loads of them are, just look at [another player], I went to school with him and he was a little weed, then all of a sudden he gets massive. There's loads of them on it I swear, its part of the culture.

K: Is that right? And why do you think that would be?

Man: It's the way the game is going isn't it. You got to be big if you want to have half a chance of playing, especially for [your country], I mean it's all very well being small and fast and whatever, but if you've got one of those All Black's running towards you... they want to be massive don't they.

It would appear that there were several different 'landscapes' pertinent to the culture of rugby at the time of this ethnography; each of them wholly different and contingent upon the nature of one's role as a participant in the game - whether a player, manager, friend or fan. It was anticipated that once I was considered to be 'in the know' a different type of narrative would emerge from all with which there was interaction. However, it was expected that at the outset players would replicate narratives pertaining to the condemnation of drug use, with greater sympathy for sport related drug offences shown as researcher familiarity increased (possibly as a sign of guilt or involvement); however, the opposite often proved to be true.

The thing that gets me about drugs in sport actually isn't the whole cheating thing. I mean I get that when it comes to something like athletics where people have won medals..... and I understand all those arguments about the loss of earnings and the person who came second... it's not just that they've lost out on a medal, they have lost out on all the sponsorship for their career. It could be millions and millions – fact. And even if they get given the medal after all, they would never have got that money or the income. But you never hear of them having to pay back all the millions that they get in

sponsorship deals off the back of winning a massive competition. But when it comes to rugby the worst thing about it is that they could really injure you..... I mean if you're lining up opposite somebody who has taken steroids, you know, they're that much stronger and bigger they can cause that much more damage, when they hit me, they are not just robbing a medal... they're potentially ending my life.... and I know that sounds melodramatic but it's true; people don't think about the injury cost in rugby. And I wonder if those people who I'm lining up against, if they're taking steroids and they caused serious problems - or let's say they actually kill somebody - in my mind not only would they get away with murder but it would be completely premeditated. So although the cheating side of things is bad and immoral and whatever... I think in this context, in contact sports, it's so irresponsible. It's criminal. They could really do some damage and they don't think about that, they just think about themselves and getting as big as they can... anyway, that's what I think.

Curly, Wyndham Wolves player

This quote from a player is particularly enlightening, as it is demonstrative of the fact that players are giving a great deal of consideration to the issues which occupy thoughts of social scientists and scholars of sport (Messner, 1990). Indeed, it is fair to say that they often afford central issues greater reflection, or are more 'in touch' with a certain form of reality, than the practitioners who hold positions in their support structure. At times in the 'backroom' offices of strength & conditioning (S&C) and sports medicine, there was a perception of distance between the everyday lives of the players and their interaction with the support structures at the club. This proved a reminder of the multifaceted nature of player preparation and the remoteness of the physical preparation of athletes within the context of their identities as professional rugby players. Negotiating this realisation often proved to be difficult within the training environment and became a common source of conflict at both clubs.

A player was asking Scooter about his week away with a football team and

asked him if he was keen to move to football.

S: No, they're a bit precious and I love rugby.

P: I would

K: Really?

P: Yeah, I don't even like rugby.

(I laughed, assuming he was joking)

P: even your free time isn't yours…… I've been playing since I was 7 and I

don't even like it any more. It's ruined my social life.

S: Are you kidding? I'd have loved to do what you do.

K: Yeah, but it's got to be draining hasn't it – I mean it consumes your whole

life.

P: Exactly, although we don't train much time wise, I'm always working on it,

looking after myself, not drinking. It ruined my time at Uni. I mean you can't just

go and do whatever you want on a day off 'cos you're thinking about having to

train tomorrow or recover – it's like you never get to have fun.

<div align="right">

Queenstown field notes September 2009

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The idea that trainers, physiotherapists, coaches and sports scientists have an incumbent understanding of the realities of the players with whom they work is, quite simply, misplaced. The ontological perspectives of each management group often differ substantively from each other and, more significantly, from players. The long standing debates pertaining to the efficacy of ex-players automatically becoming

involved in the management process offers a discursive space to elucidate the political relations between the various actors involved in professional sporting subcultures. In viewing the ways in which science and medicine are 'done' in high performance settings it is intended to elucidate the impact that such technologies and ideas have upon sports performance as well as the lives of staff and athletes involved in these subcultures. As the previous field note excerpt demonstrates, many of those involved in player management have aspirations (or regrets) to have been in the position of players. Indeed in an exchange with the Wolves' Sports Psychologist he highlighted the widespread jealousy which underpins management cultures in elite sport.

Rafiki: Would you want to be an athlete Kate?

K: (I think for a while before answering). No I don't think I would actually. I mean I've had a taste of what it would it would be like, previously as a skier, and it was nothing like what these boys do; and no, I don't think i would. Is that bad?

Rafiki: No, it's not bad at all. It's refreshing. It's nice for me 'cos that makes two of us in the whole club.

K: really?

Rafiki: Do you not think every other person at this club wishes they could be a player? I mean, if you offered them the chance tomorrow to swap places with a player, they'd all jump at it.

K: Do you really think so?

Rafiki: Can you think of anyone who doesn't want to be a player? Honestly. Take your time. Think through each of the coaches, physios, everyone...

[I was unable to come up with any names.]

Wyndham field notes February 2010

This quote serves to reinforce the need to examine sports science, and the notions of player support, from multiple perspectives; remaining cognisant of the potential for multiple experiences of reality within the single subculture. The challenge then, is to explore the philosophies (multiple) of sports science which are operating at each of the studied clubs, and within these clubs, presenting them within the context of that which operates as a coherent social reality on a daily basis.

The purpose of this chapter was to outline key themes of further discussion throughout the course of the thesis. In discussing the cultural and political climate in which this ethnography was undertaken, the presence of multiple perspectives, and subsequently different experiences, pertaining to the environment of professional rugby has been indicated. Within this, the importance of reflexivity, not merely the reflexive exercise, has been highlighted. Indeed, it will come to be seen that the presence (or absence) of a 'reflexive loop', at both the researcher and participant level, comes to be integral in understanding the nature of being in this highly specific subculture. Chapter 4 explores this notion further through the presentation of an average day at each of the studied clubs, and the experiential anomalies which present themselves among the players and staff at the respective workplaces.

CHAPTER 4: Daily Life in Professional Rugby

The purpose of this chapter is to describe the way in which each player's training day begins; manifestly at their respective clubs, and latently far earlier than their arrival at the training ground. Through the course of this analysis, the notions of identity will be explored as well as the central role which surveillance performs within the remit of sports science and associated technologies. Indeed it will be shown that the methods of surveillance have multiple effects upon the identities of the players and staff involved with creating and maintaining athletes and performances.

It is important to recognise the inherent limitations and flaws in undertaking such a task as a descriptive exercise pertaining to two collectives. It should be clear that multiple lives are being discussed and analysed within the context of sociological theories. That is to say, there are multiple players from two clubs, offering up the substantive elements of that which constitutes data in this context. However, the inherent complexity of data often lends itself to post modern discussions of fragmented identity (Giddens, 1991; Bauman, 2004; Lawler, 2007); each player represented occupies multiple roles within and without the rugby club setting. The interaction of these multiple identities, particularly as they pertain to life outside the rugby club, extends beyond the scope of this chapter. As such, the focus of the coming analysis will reside within club training sessions or games and, occasionally vast, moments in between; during which period the club culture might be deemed to become 'praxis' most fervently.

Although analysis here is deliberately restricted to the times at which players manifestly fall under the gaze of the rugby club's player management structures, it should be noted that the impact of the club undeniably transcends the time spent involved in official club activities. Indeed, the control of the club is felt even before the player gains the consciousness of the day.

I usually get up around seven or 7:30, it really depends on when training is. That pretty much dictates what time my day starts.

<p align="right">*Wyndham player July 2009*</p>

<p align="center">.....................</p>

It depends if I got to go to rehab or not. I try to go when it's in [nearby city], because that's where I live and it means I can get an extra half hour in bed. At least. But now they're taking a register it means that I have to get over to Zen Fitness in Queenstown at least once a week, usually twice to be honest. And it's a nightmare. I mean the roads are dreadful so it means leaving my house at 6:45 to get here in time for 7:30 rehab. It's a fucking nightmare.

<p align="right">*Queenstown Player September 2009*</p>

Here it is seen that players at both clubs have the parameters of their day defined by the club, and this is a narrative that repeats itself again and again among players. Interestingly, Queenstown players take umbrage at this level of control, whereas the Wyndham players on the whole rarely attribute the structure of their day, beyond training hours, to the governance of the club.

Hammerhead (player): are you driving in from [nearby city] everyday then?

K: Yeah

H: How is that?

K: It's a bit of a nightmare sometimes with all the roadworks

H: Yeah it depends what time you leave

K: It seems to be earlier and earlier that you have to leave to get here though

[Another player, Cantus, joins the conversation]

C: I know, you used to be able to leave at seven and get here in time to rehab but now you're screwed if you leave it that late

H: It's 'cos of the [major upcoming sporting event]. The Highways Agency are gonna get a massive fine if the roads aren't sorted for it, and they have now decided that they just have to get it all done and hang the inconvenience. So if something needs doing just dig it up, rather than staggering it at all, you know.

C: Well it's screwing me over, if I get threatened once more about rehab, I swear to God I gotta thump someone.

<div align="right">Queenstown fieldnotes August 2009</div>

The threats to which this player refers pertain to attendance and compulsory rehab sessions in the morning before training at Queenstown. At the beginning of the season these sessions were optional and, ironically, reasonably well attended. However, as the numbers of players attending started to dwindle, the Queenstown management (primarily, Fozzy, the head physiotherapist) instigated the taking of a register at each session. As the season progressed into November, further sanctions became prevalent, where players failing to reach the required number of sessions per week (operationalised again by the head physio alone) would result in an escalation of grievance to the hands of the coaches for reprimand.

Honk fish (player): 6:15 I was up this morning to get here for this. It's fucking ridiculous. And where are the fucking physios?

Cotterpin (player): [laughs] They're having a lie in, mate.

H: It's a fucking joke! Not a physio to be seen.

Tumbrell (player): Alright mate, calm down! I'm sure they're very busy with very important things [he says sarcastically, raising an eyebrow to me]

H: they better be..... Kate, Are you doing the register?

K: No, I don't think so.

H: Can you make sure they know I'm here. Cos it will be just my luck that they won't see me and they'll accuse [another player] of signing me in or something when I hadn't turned up and I've already being hauled up to [forwards coach] over this...

K: Really?

H: Yup

K: What did he say?

H: Not much, but I'm not in his good books anyway because of all this shit with [another club] and that's all I'll need. I'll never play first-team rugby again.

K: That's not really got anything to do with the rehab register though has it?

H: What else d'you think they use that information for? They will hold it over you won't they? They all know we want to get selected

K: I don't think that's why Fozzie does it.

H: Then why the fuck does he do it? Hmm? Seriously. And don't tell me you haven't given it any thought...

<div align="right">

Queenstown fieldnotes November 2009

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Although the Wyndham players seem less aware, or offended, by the clubs diktats over their waking hours than the Queenstown Warriors players, their first official daily interactions with club life centred around overt mechanisms of power. Upon driving into the club's training ground there is a reinforcement of the politic between coaches (management) and players with the appropriation of car parking. Coaches

are permitted to park in a smaller area within 200 m of the entrance gates, immediately in front of the physiotherapy suite. Players on the other hand must drive the perimeter of the main training fields and park on the other side of the building, in a larger car park. It is also noteworthy that interns (including myself) are also required to park here. Indeed, parking in the wrong place can often be seen as a sign of arrogance which is greatly magnified if someone enters the building, for the first time in the day, through the door to the physiotherapy unit rather than through the changing rooms on the other side of the building. On several occasions the late arrival of players, being dropped off in the 'coaches' car park by someone else, drew the attention of all those giving and receiving treatment in the glass fronted physio room.

Elmer (medical team member): Oh hang about, look at this fellas... [points to car park]

Cogswell (player): Who is that?

Elmer: it's Pieface (player) being dropped off by his missus

Ranger (player): Oh my god she is fit [Pieface's partner is driving the car]

Elmer: Yeah, come on love, get out of the car.... Oh bugger it, she's not getting out

Sylvester (medical): What is he playing at? He's got a nerve getting dropped off there. He could at least get her out if he's going to take the piss.

Elmer: Exactly

Sylvester: Lock the door, I'm not letting him in. He can fucking walk around

[They eventually let him in, then tackle and jeer at him as he walks through, though comments are restricted to his lateness rather than his 'missus']

Wyndham field notes, November 2009

While the geography of the training ground dictates that the view from the medical room is restricted to the immediate car park in front of the building, it is noteworthy that the coaches' office is situated directly above the medical room and has floor-to-ceiling windows which cover the entire front of the office, looking out across the car park to the training field and entrance gates. In this sense it can be argued that the coaching office enables the construction of a panopticon (see Foucault, 1991) in every sense. From there, it is possible to see who is entering and leaving the training ground at any given time; there is no hiding place. Even as a volunteer at the club, on the few occasions where traffic hold-ups caused a delay in arrival at the training ground, there was a definite concern as to whether or not anyone was in the coaches' office to witness such tardiness.

As I arrived late this morning I tried to see if there were lights on in the coaching office- i.e. whether anyone was in. Unfortunately, owing to my lateness the sun had already risen and, glancing from the entrance gate, it was difficult to tell who was in there let alone whether they were looking. Aware that they could see into my car, for some reason it seemed important that I was not seen to be attempting to look into their office as I drove past. I couldn't help but observe how full the coaches' car park was, however, and this told me all I needed to know. Later on, as I finished my initial duties of the day, I walked out of the cave to almost bump into Rama (assistant coach) who immediately commented upon my tardiness 'running late this morning Kate?', 'The [Motorway] is a nightmare' I replied. 'I managed to get here okay' he said. But at that point, I knew I had no leg to stand on. It felt like I had lied to him, even though I was telling the truth. Such was the potency of this small, outwardly light-hearted, exchange that I knew the traffic was not an acceptable reason to be late for training; even if it was only 10 minutes later than usual. The fact that the coaches elected to come in extra early (completely separately from any other training ground staff member) was also unimportant here. I somehow felt I should have known about those factors (Akela's

(head coach) last-minute early meeting and the [Motorway] traffic) and made more of an

effort.

When Foucault (1991) utilises Bentham's panopticon prison as a model of effective human surveillance, the physical geography of the system is of prime importance. The 'all seeing' Tower occupies a central position within the institution and, importantly, it is impossible for inmates to tell whether or not there is a disciplinarian in residence within the observation tower at any given time. In this sense, it is a relatively straightforward theoretical transference of this concept to the structural layout of the training ground at Wyndham Wolves, as previously discussed. However, as Foucault points out, the purpose of the panopticon is not merely the punishment of prisoners; indeed, its effectiveness lies in the capacity for discipline. Specifically, its purported strength lies in the capacity to reform the character of inmates. Thus, returning to the previous excerpts, the location of the coaches' offices encourages self-discipline on the part of players and staff and, crucially, offers ample ' opportunity' to reform through self-governance. It is this self-governance which occupies the central arguments of Foucault's thesis in Discipline and Punish and in his later works pertaining to technologies of the self. Foucault (1984; 1988; 1989; 1991) argues that the strength and efficacy of an institution, in relation to control of the actors/workers contained therein, lies in its ability to capitalise upon the phenomena associated with self-governance. Although it keeps all members of such an institution ostensibly under surveillance, and here at Wyndham maintains records of such surveillance in the form of daily player measurements upon arrival, it is the result of such surveillance which is most fruitful. Thus, in transferring notions of surveillance to industrial praxis, and in response to contemporary cultural transformations, different approaches to surveillance, beyond panopticism, begin to emerge.

Within the rugby club, these methods of surveillance are multiple and operate at different epistemological levels. It has already been shown that the self-governance arising from club life extends to the raising of

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consciousness first thing in the morning and continues to operate through geographical layout, which shares many attributes with Bentham's panopticon. However, where in a contemporary office, for example, employees might be required to 'swipe in' to a building to gain access, simultaneously logging their arrival time, no such mechanism is in place at the rugby club. Clocking in is replaced by a more intrusive surveillance tactic at Wyndham, which is justified through its deliberate alliance with 'science'.

Body weights, piss pots, and well-being: opportunities for first impressions at Wyndham

Once players have parked in the main car park, they enter the clubhouse through a small reception area and into a main corridor leading to several changing rooms, with a door at the far end leading into the medical area which requires a security code to gain access. Immediately as the players enter the corridor, there is a small table set up, administered by the strength and conditioning department (often the interns), upon which players will find two foolscap folders and several urine sample pots; each labelled with their initials. In front of that table is a weighing scale. Every morning, players are required to open the relevant folder (either forwards or backs), find the sheet with their name on, record their body weight and fill out their daily well-being scores. The latter are based upon a Likert scale and are concerned with factors such as energy levels, sleep quality, levels of soreness etc. Players are then expected to locate their sample jar, affectionately termed 'piss pots' at Wyndham, and provide a urine sample before commencing their training day. Players must then collect their kit for the day, which has been laid out in accordance with their allocated squad number, and has been washed and prepared for them; such that all training squad players are wearing the same kit for the day. On exiting the changing room, they must deposit their urine sample back on the table for subsequent analysis.

It would be difficult to argue that this exercise is any more than an augmented and more invasive form of surveillance, which undoubtedly impacts upon players' propensity towards disciplined self-government. Indeed, there is a vast body of research which extends across disciplines, such as health and business,

which champions the value of 'journaling' and rating subjective aspects of being and/or performance, as a valuable tool for self-awareness and development (Ewles & Simnet, 2003). The premise of such approaches for achievement or behaviour change has been linked to the elevation of certain behaviours or perceptual phenomena to the forefront of consciousness, thereby eliciting change through heightened self-awareness. For example, it is now widely accepted that the act of keeping a food diary, without any concerted effort to change habits whatsoever, acts as a mechanism of behaviour change (altered food consumption) in and of itself (Ewles & Simnet, 2003; Naidoo & Wills, 2000). Indeed, it can be argued that this is merely an extension of the Hawthorne effect, or the basic tenets of quantum physics: that the observation of the phenomena acts to alter the very nature of the phenomena being observed. Therefore, this surveillance technique, used in the well-being forms at Wyndham, can clearly be allied to a mechanism of behavioural control; although it isn't overtly recognized as such.

The discussed strengths (as a catalyst of social control) in this surveillance technique are not acknowledged by the management staff at Wyndham. Indeed, the recording of markers of well-being at Wyndham is associated with an ontological truth claim; that these scores reflect the nature of players' 'being' at a given moment. However, the grasp of this relationship, between surveillance and being (and truth), is somewhat predictably unstable. Indeed, when challenged, such techniques are attributed to 'science'; an attribution which, ironically, demonstrates the potency of the scientific label, irrespective of an ontological stance. This undermines the justification of adopting the systematic measurement of player well-being. In order to clarify this point, it would be necessary to examine the ontological claims which have, rightly or wrongly, been synonymous with the use of science in daily life at the rugby club. However, for now it is sufficient to assert that ontologies of truth have historically not survived in the philosophical analysis of the sciences (Bourdieu, 2004; Bryman, 1988; 2004). The inability of science, or more precisely, the scientific method, to adequately represent *being, dasein*, or *aufklerung* has led to a separation of knowledge and truth. In particular, notions of being have consistently proved to lie beyond the epistemological remit of science and the scientific method; it is arguably this separation which is at

the root of the positioning of the social sciences. Moreover, these ontological difficulties in separating being, or truth, from knowledge, provide a basic point of departure and even Wittgenstein (Grayling, 1988), who is often credited with fathering the positivistic modes of scientific enquiry, the scientific method, or that which demands such respect and borrowed name of science, concedes that these forms of science are restricted in their capacity to reach the multiple and various depths of truth. However, any inadequacy in this regard remains science's strength. And so, to return to the scientific analysis of well-being scores at Wyndham: ascription of the name *science* to this practice of surveillance undertaken by strength and conditioning staff comes to weaken the justification for doing it.

K: do you find these forms useful?

Arnold (Junior S & C): Yeah, it's something I've bought in actually. I'm amazed that Barney (head of S & C) and Fred (senior S & C) didn't do it already, or at least something like it.

K: Really?

Arnold: Yeah, all the clubs I heard of do something like it. I mean, I think we did it slightly better than most at [the club he did a university placement with], but I thought it was standard practice. It should be anyway.

K: What makes you say that?

Arnold: Well, you should know…. there's loads of research that shows how important it is to monitor players.

K: Yeah, but I'm never sure how much to take from that…

Arnold: How do you mean?

K: I mean, if you have staff who don't know their players, then I suppose it's useful. I mean, if they never talk to them or ask how they are. But if you know players well, isn't there an

argument that a coach or conditioner would be far more likely to pick up something not being right than a player filling out a form?

Arnold: Well no, I don't think this would be instead of that, you'd still know players and that.

K: Well then, if it's not to pick up problems, what is the point of it exactly?

Arnold: [pause] It's just a more scientific way of doing it

K: So do you incorporate POMS* into it then?

Arnold: No no… I mean, that would be too much. You just have to have something that the guys can do quickly and easily when they come in

K: Oh right.

Arnold: Otherwise they just won't do it

K: I see. We get pretty good compliance then? As that was always a problem when I worked at [another club]

Arnold: Yeah, it's pretty good. I mean, like you say it's always gonna be difficult. But we do pretty well here. There's always gonna be some guys, you can't get

K: Why is that?

Arnold: Well, they just hate doing it, all of them do.

K: Why do you think that is?

Arnold: [he shrugs] Cos they are fucking lazy.

[The players have to walk around the table to get into the changing rooms - laziness seems like an odd excuse to me. I asked the intern, later, if I could look at the recording

spreadsheet over the season so far. Compliance was rarely over 50%, and on several days there were less than five players who had completed the forms]

*POMS : Profile of Mood States

In the above exchange, when questioned as to why surveillance of players' well-being is undertaken (or indeed was previously not undertaken by Barney and Fred), Arnold retreats to the relative safety and certitude of 'science'. Science, and the associated eponymous research, has an omnipotence which is almost beyond question, while simultaneously absolving Arnold of responsibility. This secondary effect is a common indictment in the behaviours of actors involved in rugby clubs; and, certainly where player management and the justification of one's position is involved, science becomes a catalyst in this absolution. In this context, science has undergone a cultural transformation in which it is both central and yet external to the domain. Rather than the perpetrator of doubt and uncertainty, continually challenging the presentation of reality, science becomes an unyielding anchor of erudition.

It is interesting that the purpose, and indeed the impact, of monitoring well-being among players remains unexamined by the staff involved, almost deliberately so. At times, it seems as though there is uncertainty surrounding why such an exercise is undertaken at all. This is apparent in Arnold's justification of his new project at Wyndham. However, when asking others about the purpose of such analysis, explanations are equally bereft.

K: How come you never fill out your feelgood [well-being form] in the morning?

Flotsam (player): What's the point? I mean, it's not making any difference is it? If I'm sore well… if it's bad enough, I go and see a physio. And if I'm tired, what are they gonna do?

K: Well you know, if you report poorly on a few things they might adjust your programme for the day

F: That's bollocks. That would never happen. They probably don't even look at it. And if they did, I'd probably just get called over in training. Or someone would just come and convince me that I'm really fine. They've never altered my training just 'cos of that (points at form). Maybe if I was (high profile player), they would, but then he pretty much does what he wants anyway. I bet he never fills that in either does he?

K: Probably not

F: See. Total waste of time.

In practice, the feedback from this exercise is passed on to Barney (head of strength and conditioning), who would pass anything on to Akela (head coach) if necessary. In reality, he would speak to the player before doing so, to further investigate. However, such is the nature of Barney's, and Fred's for that matter, relationship with the players that they could always explain why a player had reported in apparently anomalous ways.

Arnold: Wart (player) is reporting really high soreness today

Fred: Yeah, he had a pretty tough session with me yesterday

Barney: I think he killed him! It looked like he was pretty close to death at one point there [Fred and Barney laugh]

Arnold: He's reporting pretty bad sleep too….

Barney: Yeah, that's not surprising…

Fred: He's fine mate…

Here, the findings of the well-being monitor were totally disregarded, and such an exchange was commonplace. Although substantively variable, the outcome was invariably the same; the judgement, understanding and 'feeling' of the relevant strength and conditioning coach superseded any score or profile collected at the front door in the morning. These discourses provide an apposite site to explore the nature of science in practice, and come to raise questions about the philosophical nature of science in such contexts. It can be argued that a new doctrine is emerging which relates to the application of scientific knowledge in performance sport and, moreover, through such a difficult process of application, a new philosophy of science is emerging which fits more appropriately with the contemporary climate. That said, these particular conversations always occurred in the 'backroom', away from the public and, equally importantly, away from players. To the player, there was no ambiguity presented about the use and value of these monitoring techniques and participation was wholeheartedly encouraged; though rarely pursued beyond verbal group reminders. This situation continues at Wyndham, in that everybody 'knows' that players hate to complete well-being questionnaires daily, despite the simplicity of the task, only taking seconds of time, and yet nobody is ever able to offer a valid explanation as to why such aversion from players persists. Nor indeed is anyone able to offer comprehensive justification for undertaking the task at all.

Some months into the season at Queenstown, a similar system was adopted; although they wisely encouraged an intern to approach the players individually and collect data, rather than leaving an open folder out in a public space at the club. This was possibly owing to the absence of an appropriate public space through which every player passed each morning. Notwithstanding, the players did not even have to fill out questionnaires themselves, but they still hated to do it. And after a couple of weeks, the system was aborted because the intern was beginning to feel alienated.

It is perhaps testament to the depth at which surveillance comes to act upon the individual that all those involved in the system, whether as a subject or as an administrator, come to reject the practice or actively seek out avoidance strategies. More compelling, however, is the inability of anyone to explain their

aversion to the process, and yet they maintained their paradoxical pursuit of an adherence to monitoring each other without any tangible benefits.

The other aspects of Wyndham's player monitoring strategy (urine samples and body weight recording) arguably have a more scientific basis. Both of these techniques serve as indicators of hydration status. An alteration in body weight from one day to the next is indicative of a change in total body water. A reduction is likely to be associated with dehydration (McArdle et al., 2001), while an increase is most likely to be associated with a higher than usual carbohydrate consumption; which causes increased water retention in the muscle belly (Beachle & Earle, 2003). However, the urine sample is also used to test the players' hydration status, via analysis of urine osmolality (essentially urine concentration). A high score is indicative of dehydration and any player recording a high value would be encouraged, theoretically, to rehydrate as soon as possible to attenuate the decrement in performance associated with dehydration. However, adherence to urine analysis and body weight records is even poorer at Wyndham than the completion rates of well-being questionnaires. Again, when strength and conditioning staff were questioned on this, no real justification was forthcoming. However, during the early part of the season, an interesting trend began to emerge; those players from overseas, who had just arrived at Wyndham, repeatedly came in dehydrated according to the osmolality scores. Additionally, several players were encouraged to gain weight, despite performing well at their previous clubs overseas at their current playing weight.

Zeus (player): I was a little weed when I arrived.

K: Really?

Zeus: Yeah, I was only just over 100 kg, and I worked hard to gain weight. I got up to 106 kg by the time the season had started, but it was hard work eh?!

K: That's impressive. Particularly given how much running there is in pre-season

Zeus: I know and weight always just falls off me as soon as I start to run. It was hard.

K: What is it like having to gain weight?

Zeus: It can be really tough; I mean it's not what you're used to… so getting on the scales can be weird. But you know it makes everyone happy and I'm here to do a job.

K: And did you feel better with the extra weight?

Zeus: I dunno… I guess so. I have had a pretty good season so far!

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Wyndham field notes May 2010

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This extract offers some potential explanations for why avoidance of the weighing scale may occur; it becomes the source of approval or external validation. Here, Zeus equates the output of the weighing scale as being linked to his capacity to 'do a job'; his professionalism. It is entirely understandable, then, that if a player perceives that something as trivial as a scale reading affects the way his professionalism is measured, and by virtue his symbolic capital, he will avoid public monitoring. This is particularly true if he perceives there to be broader ramifications, which might pertain to selection or the retention of the coaches' favour. It is important to reiterate here that the players do not have a complete understanding of where these data go or what they are used for. At no stage during the observation period by the club was any attempt made by backroom staff to explain who has access to the data players provide daily, or the impact it has on their immediate experience of the club. There was no real effort made to reassure players that the collection of well-being data was purely for their own benefit, nor, equally and importantly, were there any guarantees made that the coaches (all those involved in selection) would not get to see the output generated by players. It is possible that withholding this information was deliberate at some level on the part of the S&C staff: a perception of coach, or higher, involvement in the process on the part of the players would augment the political gravitas of the process. Thus an open admission that it was "only" used by S&C staff could threaten the already diminutive level of compliance with the process. Although,

if one was ever to question the staff collecting his data they would indeed offer such assurances at the manifest level, it can reasonably be argued that, at a deeper level, these practitioners knew they could not make such guarantees. Quite simply, the reality of the situation is that sometimes coaches, or those impacting upon the selection process, would see or hear of the scores generated by individual players. However, of greater significance is the inevitable truth that the scores are not collected solely for the players' benefits. The process is politicised in many overt and covert ways.

Although the ways in which these surveillance data are utilised and appropriated cannot always be guaranteed, indeed it might be argued that those administering the process are mindful of the potential depth and breadth of its impact, it does undoubtedly form a part of the daily socialisation into club life for the players; whether they actively participate or not. The reluctance to strictly enforce the collection of these data at Wyndham opens up a discursive space in which there is the first opportunity for political resistance on the part of the player

> *Fred: No, I don't want anyone standing by the weighing scale or the feelgood table.*
>
> *K: Why not?*
>
> *F: It's just not the way that I want things done*
>
> *K: I'm not sure how you are going to get better compliance..*
>
> *F: I just don't want interns hanging around there; there are better ways to spend our time. I don't mind them collecting scores from the boys while they're in the gym but...yeah, let's leave it at that. [Fred leaves]*
>
> *K [to Arnold]: I don't get it, one minute there is a big push on making sure everyone weighs in and does it but we don't want to enable it..*
>
> *A: They...the boys just have to do it*

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K: But they don't do it. They just don't. If it's that important…if it's about being scientific then we should be doing it properly and formalising the process. Not just picking up scores whenever and wherever.

A: It's their job, we shouldn't have to stand there and write down scores for them, they should just be able to write it down for themselves. They're just lazy..

K: Well then how do we get them to do it? There's no point just complaining that they don't and then not changing anything.

A: They just need to be told…Akela needs to say something about it. It has to come from the coaches, they won't listen to us. And I think Fred knows that…that's why he won't put anyone out there. It'd be a waste of time.

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Wyndham field notes, September 2010

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At Queenstown, when this process is undertaken, avoidance or resistance by players is almost impossible, as the well-being data are collected by an intern who deliberately seeks players out to gain their input of the day. Since any resistance to the process is aimed at the club management rather than the young intern tasked with collecting data, although they often complained, outright refusal to participate was never witnessed. This was likely a manifestation of unwillingness on the part of the players to punish the intern.

Player: Oh no…not again. Go on then..

Intern: I need your scores…

P: Do they actually make any difference? I mean does Mervyn actually pay any attention to what I'm gonna put down? Does he read it? 'Cos if he does I'll write you an essay.

<div align="right">

Queenstown field notes October 2009

</div>

The difference in the construction of these two events at the respective clubs ensures that they occupy different functional roles at the level of the social construction of daily, individual and collective experience. At Wyndham, as previously mentioned, this overt process of surveillance represents each player's first physical interaction with the club, as a social rather than physical institution, each day. The nature of this process at Queenstown, occurring later in the day, if at all, and being unavoidable, arguably renders it less effective, or potent, from a sociological and functional perspective.

Immediately following their experience with the feelgood piss pots at Wyndham players proceed further along the main corridor to collect their kit for the day which has been washed and chosen for them by the backroom staff. Although each piece of kit has been adorned with the player's initials, they are laid out in squad (not playing) number order, on the floor, along the corridor wall. Above the neatly piled kit, which is bound together with tape displaying the player's number, is a piece of paper which identifies the players squad number. As the season progressed, rather than re-print the sheet, or update it as players came and left the club, neat rectangles were cut out next to the numbers of players who have left; a constant reminder, as symbolic as it is bizarre, that anyone can be cut out of the squad, neatly and easily. As new players join, they visibly inherit these previous players' numbers rather than officially have a number assigned to them, the sheet on the wall is not amended, instead there is an extra piece of tape on their bundle signifying that it is theirs. All of which adds to the feeling of temporariness.

The daily ritual at Wyndham, described throughout the last few pages, covering player monitoring and kit dissemination, offers an insight into one of the many paradoxical practices which occur in the rugby club setting; undoubtedly catalysed by the perceptions of what it is to be 'professional'. An ex-player would undoubtedly view such practices as luxurious, possibly precious or pretentious. Indeed, the coaches and management staff certainly view them as a luxury.

Ironically, these practices can equally be viewed as alienating and, at times, oppressive. The relinquishing of control from players, even over something as outwardly trivial as kit preparation, can become dehumanising (Hoberman, 1992). Here, at Wyndham, by 8:30 a.m., the club has already decided at what time the player will get up (and will also have exerted indirect influence on what he eats and drinks before leaving the house), what he will wear that day and, if the club is successful in its surveillance quest, they will have evaluated players' body weight, hydration status, mood, sleep amount and quality, energy levels and motivation to train. Moreover, an unavoidable judgement on the part of the backroom staff will have been made pertaining to the content and adequacy of the individual's lifestyle choices over the last 24 hours, as well as an interpretation of the individual and collective 'attitude' to training that day.

Early starts at Queenstown Warriors; rehab, rituals and roll call

The structure of training days at Wyndham and Queenstown differed substantially, and the nature of the programme at Queenstown makes an uncomfortable start to the day in many different ways. Firstly, the start time is routinely earlier owing to the insistence of the head of medical department's demands that the players engage in one hour of rehab (rehabilitation) before the training day begins in earnest. A secondary result of this arrangement is that, medical staff aside, coaches and other backroom staff often start their day later than players at Queenstown. At Wyndham there is an, albeit nonverbal, understanding that staff (particularly strength and conditioning and medical) should be at the training ground at least one hour before players. In terms of understanding the social dynamic at Queenstown, this arrangement is a little difficult as it propagates a political dynamic between players and backroom staff and also between the medical team and the other departments involved in backroom player management. The second factor which makes the situation socially difficult is the physical arrangement of these rehab sessions. Owing to the restricted facilities at Queenstown's training and playing ground, the sessions happen at a local health

club, which is part of a popular chain of gyms (Zen Fitness) offering private membership to paying guests. Most of these sessions happen at the health club location approximately 1 km from the training ground on the main road. However, once a week when the team trains at the university playing fields in Wendell (a neighbouring city), the sessions take place at the Wendell Branch of the gym. For many players, these Wendell sessions are more convenient, as approximately half of the squad choose to live in Wendell rather than Queenstown; it is a more vibrant cosmopolitan city and has less socio-economic deprivation.

At the time it was difficult to ascertain exactly why, but, as a sociological researcher, the observation of players' first daily interaction with the rugby club institution being carried out in a more 'public' space than the official training ground, was always a source of unease.

Relatively early on in the season, the head of the medical department insisted that the sessions become compulsory, since a decreasing number of players were attending as the training (playing) load increased. As a result of this enforcement, he decided that attendance records should be kept, and tasked the interns with noting down the names of attendees at the rehab sessions. This became a sizeable undertaking, politically as well as functionally, and impacted upon a great many people; the medical staff, interns, players and management. Many of these came to resent the process, and indeed the sessions themselves. Moreover, the role appropriated to an intern has made it difficult to them to establish a position within the group.

> Intern: Has anyone seen [other intern]?

> Scooter: No mate not for ages

> Camilla: He's doing the register I think. He was down at the front desk for a bit but I haven't seen him in a while.

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Intern: We're supposed to be doing stuff for Animal in 5 minutes back at the training

ground.

Fozzy: Well he's not going until he's done the register…

Intern: Oh right, well what should I tell Animal?

Fozzy: I'm not really bothered mate as long as I get a list of players. He should chat less to

players and it'd be done by now.

Queenstown, field notes December 2009

Through this process, it was seen that the Queenstown players also interact with the surveillance methods as their first point of contact with the club on a daily basis. However, this type of surveillance differs crucially from that seen at Wyndham; not so much in method, but certainly in its ramifications. At Queenstown, the methods are overt and enforced; that is to say the players were told, outright, that non-attendance would be reported to the coaches. Thus, their level of individual autonomy was overtly diminished. Any resistance on the part of the player was therefore total, overt and necessarily considered; there were no mistakes to be made. If the player chose not to attend, he was aware of the full scope of the consequences, and the potential for falling out of favour with the coaches and those involved in selection. Therefore, while there were far greater numbers of players vocalising their complaints are Queenstown, ultimately, few exercised their right to resist attendance and the commensurate surveillance process. In this sense, the process of taking a register elicits a relatively infantile behaviour amongst the Queenstown players; they may kick up a fuss, but will always capitulate.

I mean, what's the fucking point of this? Just put down whatever you think, I don't care…it's

not gonna make any difference is it? Either that or Merv is gonna look at it and accuse me of

having a bad attitude. He's already had me in twice last week to give me a bollocking about

missing rehab, 'cos Fucking Fozzy has been on to him. Even though he [Fozzy] knows why I

wasn't there…I'd cleared it in advance and had done my rehab at the gym near my mother's house. It's fucking ridiculous…I'm not doing it…..ok just put down 3's for everything. We'll see what happens eh

Player, Queenstown field notes, December 2009

When contrasted with the more sophisticated methods of surveillance at Wyndham, disguised as palliative care, there were rarely such overt remonstrations. But, interestingly, greater numbers of players exercised their capacity to exhibit total resistance (i.e. avoidance of the surveillance process). Moreover, the methods employed at Wyndham led to greater self-government on the part of the players, with the club impacting across players' daily lives in the broadest sense. Perhaps the most interesting facet of this, almost dichotomous, difference in player responses to surveillance is that the Wyndham players do not complain very often at all. It would appear that they are unaware of the process of governance being enacted within, and upon, them. Indeed, it is only during conversations, wherein such thoughts might be inadvertently provoked, that the few most inquisitive players show some cognisance of the surveillance process to which they are subjected.

The financial status of Queenstown Warriors and the chain of health clubs, at which their rehab sessions were undertaken, coincided such that access to the gym became jeopardised a few months after the playing season started. The relationship between health club staff and members of the Queenstown staff, and players, became strained such that merely gaining access to the facility each day became a site of political negotiation.

Scooter: you've heard about the Zen fiasco have you?

K [I had been away at Wyndham for a few days]: No, what?

S: We all have to have membership cards to get in…all the time.

K: Even for rehab sessions?

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S: Yep.

K: You're kidding [I had been taking the opportunity to arrive early and train in the Zen gym before rehab]...that's going to mess up my training programme! [I laugh]

S: Tell me about it – me too.

K: Where do we get the cards from?

S: Bert's giving them out...I think he may have run out though. I think he gave the last ones to [male S&C interns].

K: Did you get one?

S: Nope.

K: How exactly are you and I going to run the rehab sessions in the morning?

S: Excellent question Bakes.

Despite the discomfort inherent in the developing situation at Zen fitness, there seemed to be a thinly veiled reluctance upon the part of the Warriors administrative management team to rectify the situation in the short term. Moreover, the head of the medical department came to share their ambivalence somewhat. This was surprising, initially, as it was his political and professional domain which was being affected. Amidst the daily chaos which ensued upon entering the fitness club, the inability of players to sufficiently complete their rehab programmes, set against the emphasis placed upon the compulsory need for such interventions, Fozzy's behaviour appeared to defy logic. Upon reflection, it came to appear that there were some unexpected benefits from the awkward political situation arising at Zen fitness; within the context of overt player surveillance, Zen fitness removed the need for anyone in the medical team to take a register. Fozzy managed to negotiate that an intern, always from the conditioning department rather

than medical, would go to front desk and take a photocopy of the signing in sheets. This requirement was being heavily policed by the Zen fitness management, removing Queenstown's visible intervention in the surveillance process, and as such the surveillance of players became much less arduous for Fozzy and those of us in his team. The resistance by players to such monitoring now either went unnoticed or was directed at the Zen receptionist. This was played out most fully when, as negotiations between Zen and the Warriors deteriorated further, Zen placed a cap on the number of Warriors staff and players allowed on site at any one time.

I arrived at Zen to see half of the squad queuing out of the door of the building.

K: What's going on?

Beaker: [Assistant Conditioning Coach] They're not letting us in unless we have an ID card

K: ID card?

B: You know a membership card…and then they're only letting a certain number in at the same time

K: Are we over that number?

Player: Yep! It's one in one out at the moment..

K: Are you serious?

P: Apparently Zen is the latest nightclub in Queenstown!

[I lean forward and see that Fozzy is at the front desk talking to the Zen reception staff, at the same time Scooter drives into the car park]

Scooter: What's going on here?

B: One in one out mate…they're not letting some of the boys in.

S: What?? [he walks to the front of the queue to join Fozzy, it is clear that Fozzy has become agitated with the staff…Scooter appears to have negotiated some sort of access, Fozzy walks back towards us as the players file in]

F: What a nightmare..

K: What's happening?

F: They've let us in for now, but we're only allowed 5 staff in..

B: What? Why?

F: I don't know. I dunno what's going on, it's ridiculous. So Scooter has gone in and I'll go back in now, [Intern] and [Intern] are already in so…

B: We're not getting in?

F: Well we can't all be in there.

K: Its OK, I'll go back to the training ground…what about Camilla?

F: She can come in, and then if you like Kate you can come in when I leave for the management meeting in about 25 minutes..

B: No forget it, Kate, you go in…I'll go back to [the training ground] and get some programming done or something. This is fucking stupid.

Queenstown field notes, November 2009

As previously mentioned, the broader result of this situation with regard to the daily roll call of players was that the surveillance was no longer seen to be undertaken by the Warriors management. As such,

there was less scope for players to negotiate with the intern taking a register to 'put an early arrival time' or a positive comment upon the players 'attitude' at the rehab session. Protected by a frequently cited need to adhere to health and safety requirements, the Zen receptionist could record accurate arrival times of all players and staff members; which were innocently passed on to an intern, for whom she likely felt some sympathy.

Here, an example is offered of the ways in which the structure of rules, which are perceived to be constructed beyond the social, are equipped with a political gravitas, which comes to be enacted upon the social actors. It is this perception of a higher order knowledge which affords 'health and safety requirements', in this context, potency as an unquestionable perpetrator of action. Foucault (1969) comes to attribute such unquestioning acceptance of such rules, or adjudicatory tools, as being the product of socially constructed ontologies of knowledge. Within the domain of the legal, or specifically the penal, the political force afforded to the 'word of the law' is most often unchallenged by the majority of society; particularly those who perceive themselves to play no role in the (re)construction of such specific knowledge and the resultant laws, which propagate situation specific governance. Here, in the attribution of surveillance to 'health and safety requirements', the pseudo-legality of the context is afforded political and symbolic capital, through its perceived synonymity with legislative affairs of state. It is anchored to a broader societal governance, and thus deemed to be beyond the scope of resistance within the subculture. Thus, there is much to be gained politically in encouraging an ontological attachment to knowledge structures, which can be represented as having developed in an esoteric manner beyond the immediate social environment.

While the political situation at Queenstown has enabled the attachment of the surveillance process to legal structures which exist beyond the remit of the club, Wyndham arguably achieved the same ends through the attachment of their surveillance process to a broader, esoteric 'science'. The attachment of the behaviours encompassed in the process of player monitoring to higher order knowledge structures affords them power (Foucault, 2002a; 2002b). Ironically, were these processes to be more closely allied, or

discussed within the context of, the *being* or existence of each player, which would be aligned more closely with relativist or realist ontologies of truth, player monitoring within the social context would likely carry a diminished symbolic value.

Already it is seen then, that several factors come to affect the potency of practices allied to sports science within the rugby club setting. Firstly, the geographical, or physical, location in which these processes are carried out has a direct impact upon the direction of any resistance; towards or away from club management and practitioners. Secondly, the symbolism, and commensurate power, associated with these practices is greatly amplified by the anchoring to higher order knowledge structures. This is augmented further when such structures are perceived to exist beyond the micro subculture of the rugby team; those which have been constructed in broader, 'informed' society, often historically. Thirdly, the personnel involved in the observed practices also impacts upon the ways in which players respond socially and politically. This is true both of the individuals who are manifestly involved in the delivery of sports science and interventions, or data collection in this context, and also those who are less visible (i.e. coaches/management) who might be perceived on the part of the player to be involved in the processes.

As the analysis of the players' day, and season, progresses, it is seen that these three mediators retain their potency in other contexts arising throughout the rugby club. The degree to which practices are anchored to knowledge constructed beyond the confines of the rugby club, especially where science is concerned, will be shown to be important in the negotiation of daily practice amongst specialists at the clubs. Often, the greater the grounding in 'hard science', the greater the respect afforded to such knowledge. It is somewhat ironic then, that as this contingent attachment to external knowledge increases, the comprehension on the part of the individuals involved in the process (both practitioners and players) decreases, sometimes to the point of little or no understanding of the theoretical basis of the practices which come to be employed as standard. The political and symbolic capital of the individuals involved in administering the process (manifestly and latently), understandably and predictably informs the way in which any sports science interventions are utilised and accepted in the club. If there is clear involvement,

or endorsement, from a coach or member of the senior management team, compliance on the part of the player increases and overt forms of resistance dissipate.

In terms of the physical locations wherein praxis of sports science are undertaken regularly around the club, generally speaking, as the day progresses, players' movements are restricted to key areas beyond the rugby training pitch; the gym, the physiotherapy room and the team room. Of each of these spaces, it is arguably the gym, and its associated practices, which might be considered most closely allied to sports science. Therefore, the remainder of this chapter will be devoted to the discussion of strength and conditioning departments at Queenstown and Wyndham.

Driving to the gym

Following their first interactions with their respective clubs, either through rehab at Queenstown or surveillance procedures onsite at Wyndham, on most days players head to the gym to undertake their first formal training session of the day. Interestingly, at both clubs, many players drive directly to the gym. This is perhaps more understandable at Queenstown as players have had to drive from an external site, where they have just undertaken their rehabilitation sessions. However, even when players have stopped in at the team room or coaches office prior to the gym session, many would get back into their cars to drive the 300m to the gym. This always seemed odd amongst an elite athletic community. More alarming, however, was that several players at Wyndham would also drive to the on-site gym from the clubhouse rather than walk the length of the car park. When questioned about this oxymoronic behaviour, it was always surprising that both players themselves and practitioners would ascribe the activity to laziness. It had been anticipated that some attempt would be made to construct a reasoned argument for undertaking such behaviours; for example, conservation of energy prior to an intense bout of physical exertion in the gym, or not getting cold before strenuous exercise.

Walking across the car park to the gym..

Player [slows his car down and winds the window down] you going to the gym? do you want a ride?

K: Yeah ok [I get in feeling it would appear rude if I didn't, aware of my distance from this group.] Are you really driving to the gym?

P: [laughs] Yes...you forget that I'm from [another country] we are born lazy!

K: But I mean driving to the GYM! That's a whole other level...

P: Yep, we are a whole new level of lazy!!

Wyndham field notes, January 2010

There are many physiological explanations for ordering the day in this manner; gym training before rugby training. Undertaking weights or conditioning, intensely, later in the day when players are in a fatigued state not only guarantees a poor quality of conditioning, and likely reduced efficacy of practice, but greatly increases the chances of injury occurring (Beachle & Earle, 2003). Again, there are political implications entwined in the structuring of the day in this manner; it is somehow more 'acceptable' to acquire a training injury on the rugby training pitch than it is in the gym. Gym based injuries, where the environment is considered to be controlled, are deemed to be both avoidable and unacceptable.

Fred: Yeah I'm really not happy about this weights sessions in the afternoon on Tuesdays..

Barney: Yeah I know mate...I've argued with them [coaches] about it but it's not gonna change

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F: Yeah but we're not gonna get what we need out of it are we? What they want players ripping muscles in the afternoon doing plyos or Olympics in the gym do they?

B: Yeah yeah I know mate…we're just gonna have to make the best of it. Obviously we can't do certain things but it doesn't have to be a totally wasted session, we can use if for top ups and some functional stuff.. They're always gonna put rugby training first.

F: They can do that in the afternoon..

B: Well every other day that's the way it's going. It's just one day mate…we can put up with it

F: Whatever..

[I notice Bam Bam and Arnold staring resolutely at the floor]

Wyndham field notes July 2009

This deliberate avoidance of injury risk in the practitioner's territory is socially motivated by a desire to safeguard players' well-being, and certainly this is the most cited reason for precaution and concern in this regard. However, at an operative and political level there is undoubtedly an interest in obviating blame for injury to players which, in essence, equates to an immediate devaluation of club assets; if a player is unavailable for selection, particularly if they are a 'star' player the financial ramifications for the club, at every level, are impacted. Therefore at both clubs, it was observed that certain training practices which one might consider to be important in the preparation of elite rugby players were deliberately avoided owing to their high risk nature.

Barney and Bam Bam are talking about speed training

Barney: Yeah we probably don't do enough speed training do we? I dunno, what do you reckon?

Bam Bam: Yeah I dunno, I sometimes think we could do a bit more. Maybe just with some players.

K: Do you not do any?

Barney: Well we do lots of specific gym based power stuff you know but we don't really do your classical sprinting sessions you know, like on a track. I used to do it a lot, but I don't anymore

K: Why's that?

B: I think it's only useful for some people and in certain situations you know. Plus some people think it causes injury.

Bam Bam: Yeah, we picked up a few hamstrings here a few years a go when [former head of conditioning] was here.

Barney: Yeah I'm not convinced that it actually does cause injury, I mean there's so many factors, someone's hamstring is gonna go because of other stuff more likely than doing a sprint

Bam Bam: Yeah but if it goes during that running session then that's it, no ones gonna look at the other factors.

Barney: Exactly, and that it's then those sessions will just get cut [clicks his fingers]. Do they do much at Queenstown Kate?

Wyndham field notes July 2009

Halfway through the season at Wyndham, the lack of sprint training for players, particularly those who play on the wing, was highlighted by the management team for a number of performance related reasons. As such, avoidance of such techniques was no longer viable on the part of the strength and conditioning

staff; it became evident that speed training would have to be undertaken with at least three of the squad members. The solution here, in itself, highlighted the reluctance of Barney (head of strength and conditioning) to assume total responsibility for players' welfare during the sessions involving higher than average risk training techniques; the players were sent off site to undertake sessions with a specialist sprint coach at a local athletics centre. In short, the geography, the personnel, and the knowledge order were manipulated in the most overt sense. This undoubtedly altered the political dynamic of such sessions within the club, their perception by management and players and, crucially, the ascription of responsibility for the consequences of their sessions. Queenstown also took a similar approach to their speed training, opting to employ an off-site sprinting coach. However, the way in which this type of training was scheduled into the training week differed subtly between the two clubs. Queenstown would devote an entire morning or afternoon session to such off-site activities; during this time the forwards (players) would practice their lineouts and scrums off site while the backs would participate in speed training. As such, the higher numbers involved in this specialist sprint coaching session determined that the sessions were necessarily more generic; catering for those occupying sprinting positions as well as inside backs, whose position dictates a more continuous intermittent running profile (Duthie et al., 2005). Perhaps unsurprisingly then, players not only felt that these sessions were less than beneficial, but the injury risk associated with them was diminished, carrying a commensurate reduction in intensity to accommodate slower players. Moreover, there was some resentment on the part of less involved players (both forwards and backs) at the inconvenience of having to travel to an offsite session which at times they considered pointless. At Wyndham, the situation was managed slightly differently such that the small number of players selected for sprint training were required to undertake these sessions outside of squad training hours. One might anticipate that this would be a source of animosity; however, the exclusive nature of the sessions created the opposite reaction in players. These sessions became the source of symbolic capital of the players involved, affording them the opportunity to utilise their attendance as the substantive element in social interactions around the club. This specific form of symbolic capital was bolstered further when a 'celebrity' sprinter joined them during one of their training sessions. The careful

management of the situation at Wyndham ensured that, far from players considering themselves as alienated workers being forced to do unpaid overtime, the participants became the envy of the other players, or workers, around them, despite receiving no additional remuneration for their extracurricular efforts.

> *As I walk through to the S&C office there is some excitement in the physio room, spilling into the office, relating to the sprint sessions that some of the players had undertaken off site with a famous sprinter.*
>
> *(player): Ah mate you should have seen it...he is fucking rapid. I was nowhere near him.*
>
> *(player): Did anyone give him a challenge?*
>
> *(player): Nah not really....oh nah nah actually Duckula got pretty close*
>
> *Duckula: I was miles off!*
>
> *Optimus: No you were closer than anyone else – I reckon if it had been longer you could have beaten him*
>
> *[Duckula laughs]*
>
> *(Player): I wanna have a go!*
>
> *Wyndham field notes. September 2009*

As has already been alluded to, the fear of having a player pick up an injury during a session is a key moderator for many of the training practices which occur under the remit of the strength and conditioning department. The potency of injury, and injury risk, as modifiers of sports science practice is manifested in the relationship between strength and conditioning departments and medical departments in the preparation of elite athletes. At both Wyndham and Queenstown the relationship between the two departments was invariably difficult, offering a discursive space for the negotiation of power, overseen by

the coaching management. The attribution of blame within the context of player injuries or well-being ensured that relationships and communication between the two departments was always strategic; neither wishing to place themselves in the line of responsibility for damage to club assets.

Although many injuries sustained on the rugby pitch might outwardly be assumed to be attributable to acute contact or occurrences within the game, oftentimes a post match attributional search would arise in which an attempt would be made to determine whether or not an injury was preventable. Where any ambiguity pertaining to this decision existed, coaches would immediately approach the medical department for clarification, who, sensing imminent blame, would highlight high training loads (the remit of the strength and conditioning department) as a causal factor. Therefore, both at Queenstown and Wyndham, the coaching management introduced a policy of ensuring that a physiotherapist was present at all rugby and non-rugby sessions; including those occurring in the gym. However, at neither site was this policed in any way, since coaches rarely attended non-rugby training sessions; therefore, the overseeing presence of a physio in the gym, without a coach, was sporadic and usually only occurred if the sessions coincided with their one-to-one rehab of an injured player.

As one of many examples, the relationship held between the conditioning staff and medical staff, as it played out in the geography of the gym, was symbolic of the highly territorial nature of the rugby club gymnasium. Unlike other areas of the training ground (the training pitches, the medical room, the team room and interconnecting areas), the gym remained relatively closed to the public. There was no reason to walk through it or past it, unless it was your business to be in there. As such, the gym, specifically the weights room, offers a unique site for analysis of rugby players, their trainers and the operating social climate. In many respects, it epitomises, and often exaggerates, the social identity of a professional rugby team and the individuals within it. This closed inner sanctum of the rugby club offers protection, safety and a form of freedom for those within it and is simultaneously uninviting, even threatening, to anyone deemed to be an outsider. In this regard, it can be compared closely to Wacquant's (1992; 1995) experiences within a boxing gym in downtown Chicago. In his analysis, Wacquant (1992; 1995)

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describes this social institution as having been constructed, or defined, in symbiotic opposition to the world that surrounds it. Whilst affording legitimacy to the violent behaviours encompassed in athletic preparation, particularly in the pugilism of Wacquant's (2004) case study, the gym is also a site of mental, corporeal, and social disciplining. In this sense, the weights room offers an alternative set of social rules to those by which players must abide, which exist in more public areas of the rugby club, and indeed the rugby player's life. As Dunning and Sheard (1979) point out, the game of rugby itself requires that those involved abide by a set of paradoxical rules; to be brutal and violent on the pitch and then transform into gentlemen immediately as the final whistle blows. Within the training environment, the relationship between the gym and the rest of the training ground is such that the physical geography of the gym creates a quasi institution within the broader institution of the rugby club. Here, there is scope to adhere to hyper masculine stereotypical norms associated with rugby players, whilst simultaneously enacting a broader process of self discipline, through training methods. Within other areas of the training ground, where there is an increased risk of public, media or management presence the presentation of such aspects of self would be unacceptable and would bear the risk of being labelled 'unprofessional'. Thus, while arguably creating one of its own, the gym offers respite from the wider panopticon of the rugby environment.

Within the confines of the weights room, players are free to explore the boundaries of those aspects of identity which are most readily attributed to the stereotypical rugby player role. The hyper masculine implications which are associated with overt displays of strength and explosive power, and which often belies a channelling of violent precepts, is not only accepted, but encouraged. Moreover, they are legitimised by science; in order to achieve the necessary physiological adaptations and training effects, it is crucial that intensity is applied to the activities taking place in the gym. Indeed, numerous studies exist which purport causal, linear relationships between maximum effort during gym-based activities and markers of beneficial physiological adaptation and muscular/athletic development; for example the manipulation of testosterone, growth hormone and the elicitation of beneficial muscle damage (Beachle &

Earle, 2003). Essentially, within the rugby training gym, violence and injury are encouraged, and is justified by the academic findings of sports science scholars. This is not to say that such injury and violence are functionally commensurate with those which occur in criminal acts, or indeed those which may spill over on the rugby pitch. However, there is certainly functional equivalence with those high-intensity activities which routinely elicit muscle damage on a rugby pitch (e.g. high-intensity running, tackling, contact with the ground, catching, passing, kicking, scrummaging). Thus, it can reasonably be argued that the sustenance of a climate which promulgates the channelling of violence in the task of corporeal discipline offers substantial benefit to the rugby training environment. In allocating such activity to a specific, and confined, vertical space which is governed by different people (strength and conditioning specialists), who legitimise the governed behaviours through deliberate attachment to higher-order knowledge structures (sports science), the paradoxical existence of the hyper masculine rugby player is perpetuated within the desired identity of the professional athlete.

It is perhaps unsurprising then, that Pringle (2001) describes his experiences of adopting a rugby identity as being part of the larger fragmented self. His discussion of masculinity, through Foucauldian analysis of his own identity narratives, highlights the difficulty in understanding identity in such contexts, either as being post-modern or post-structural. It is perhaps fair to say that the contemporary construction of masculinity within the paradoxical climate of the metrosexual male not only exists within the professional rugby club but does so in its dichotomous extremes. A professional rugby player is at once demanded to be the epitome of masculinity, machismo and physical dominance whilst occupying the role of an erudite, self disciplined role model. Connell (2005) directs us to the notion of multiple masculinity; which, on the surface, assists in elucidating the complex presentation of such forms of identity and a rugby club setting.

It would be erroneous to suggest that this single dichotomy of masculinity presents itself in the same way, amongst every player, in each of the clubs studied. Although the negotiation of this incumbent paradox of masculinity interacts with each player's formation of identity on a daily basis, the multiple social histories, ambitions and athletic potential of individual players determines that there are multiple forms of

masculine identity presented within the same gym during a session. For example, differences were observed at Wyndham between those players who had received their socialisation into rugby through an academy system, against older players who had experienced a traditional introduction to the game through the club rugby scene.

> *In the gym, players were working in pairs, I was observing rather uncomfortably as I had no functional role.*
>
> *Grimsby (player): Are we nearly done yet? How many more sets? This is the last one right?*
>
> *Archimedes: I fuckin hope so! Mate I'm getting too old for this shit...go on your turn. [He 'spots' for Grimsby's set]*
>
> *Grimsby: Shit, this is shit. Like its gonna make any difference to my game any way. [Archimedes laughs in agreement...a song comes on the music system and Grimsby calls over to me] hey! Who sings this song?*
>
> *K:[I listen for a moment] it's the Script I think..*
>
> *A: It's pretty appropriate I think… [the lyrics relate to falling to pieces]*
>
> *G: I'm fucking falling to pieces!*
>
> *Wyndham field notes, July 2009*

The two players highlighted in the above excerpt were approaching retirement age, and within the studied season would both have to make decisions pertaining to whether or not they would wish to renew their contract for another season. Both players had reached the pinnacle of their career and had performed at a level that most other squad members could only ever hope to aspire to. It was interesting to observe their reluctance towards gym based training; it would have been anticipated that a certain 'work-ethic' would have been instilled across their prestigious careers which would still persist through habit, if nothing else.

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It became clear that their strategic withholding of effort in these sessions had a symbiotic effect of withdrawing them from the competitive element of training which was encouraged in the gym; propagated by both S&C staff and the players themselves. In this regard it became clear that an overt resistance to actively engaging in the session served several purposes. Firstly, it preserved their masculinity in avoiding public exposure by younger players, who now have higher levels of 'fitness'. Secondly, it performed the functional purpose to which they allude themselves; it reduces pain and further muscle damage which can limit performance in older athletes due to prolonged recovery times and, finally, it serves to bolster their masculinity.   With regard to the latter, in this strategic interplay the older players manipulate the social situation, which bears potential to diminish their symbolic capital with regard to their masculine identity, in turn creating a situation in which they acquire both symbolic and political capital and, in doing so, confirm their masculinity among their team mates. In their repudiation of the training programme given to them by Barney (Head of Strength & Conditioning) they offer a display of resistance to the power structures within the club. Over the following weeks, these players, occasionally mirrored in other older players, reproduced similar patterns of behaviour when approaching fitness related (rather than skill related) aspects of training. Furthermore, their discipline in arriving on time, and adequately prepared, for such sessions diminished, and yet they were never publicly reprimanded; as other younger players frequently were.

The symbolic capital that these players held as 'relative celebrities' in the field of rugby, and the political capital which comes to be commensurate with that status, supported their masculine dominance even as their physical capacity to fulfil a masculine role became less than their twenty year old counterparts. Although not realising it at the time of observation, the above excerpt documents one of the last times that these two players appeared to participate in a standard gym based training session with their respective training groups. Indeed, it offers a relative start point for an ongoing process of covert political negotiations between the players and the staff involved in the club. To adopt an analytical approach allied to symbolic interactionism, through the continuous reproduction of the public behaviours outlined above,

Grimsby and Archimedes challenged Barney's political, masculine, dominance over them. Through the reticence to overtly discipline these players himself, Barney (and subsequently each member of staff working 'below' him) became subject to a power structure in which he would struggle to regain control over these players, even when they were 'on his territory'.

This situation would likely have persisted, and indeed escalated further, across the remainder of the season were it not for a lingering problem with Grimsby; he gradually gained body fat as he withdrew from all forms of fitness training. The monitoring of body fat, and its resolution when concerning deviation from 'ideal' arises, falls firmly within the remit of the strength and conditioning department and was thus Barney's responsibility by default. Skinfold measurements were routinely taken by Rockhead, an intern who Barney took on with the proviso that he would also be supervised by Mr Slate, an off site 'consultant', though this contact rarely occurred. Such was Grimsby's symbolic power within the entire club that Rockhead needed very little encouragement to avoid taking his skinfolds.

> Rockhead: Err...Grimsby mate...I've gotta get your skinfolds today
>
> Grimsby: Are you serious?
>
> Rockhead: Yeah, Barney needs 'em...
>
> Grimsby: He's got them, we just did them last week.
>
> Rockhead: yeah, but we have to do them again...I dunno what it's about, I've just been told to get them today. That's all...
>
> Grimsby: What's the point? We only just did them...they aren't gonna have changed. I'm not doing it; if Barney needs them get him to speak to me. He's already got them... [Grimsby walks out]
>
> K [to Rockhead]: What was that about?

Rockhead: I've been told to do his skinfolds and he just wont do it, I've tried 3 times now and he ain't gonna do it and Barney just tells me to get em' and what the fuck am I supposed to do?

K: He is right though...there isn't any point in doing them every week, I mean if we're being scientific about it.

Rockhead: Yep, I know. You don't have to tell me. But this isn't about science is it?!

<div align="right">

Wyndham Field notes, Feb 2010

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This game of cat and mouse continued for a relatively short space of time, during which it became increasingly apparent that no member of Barney's team (leave alone the intern, Rockhead) would have sufficient political force to counter Grimsby's now omnipresent masculine domination. Rockhead's closing comment in the above excerpt alludes to his cognisance of the political aspect of these negotiations with Grimsby as being more important than the substantive, scientific, element of the exercise of recording players' changes in body fat. This offers an insight into the nature of sports science utilisation in professional sport, which will be discussed more fully in due course; that most often, the application of sports science in such contexts is politically and/ or symbolically motivated.

Over recent months, Grimsby has been around the strength and conditioning office and physiotherapy room much more frequently. Indeed, on several occasions, always when there is no other strength and conditioning staff member around, he has come and sat with me in the office and we have enjoyed several interesting conversations. Given his experience in rugby, and at this club, he has been able to offer me a valuable insight into several aspects of my study and, in turn, has shown great interest in my findings so far. This level of interest has not necessarily be afforded by any other person I've had contact with through the course of my ethnography, and the opportunity to speak openly and honestly about such topics is incredibly welcome to

me at this stage in the process. Already, I'm experiencing the intellectual and social isolation promised to me by my supervisors when I initially took on this project. It is certainly an unlikely friendship to have developed, particularly as my colleagues appear to fear him at some level; they capitulate to his demands during almost every negotiation I observe. And yet, to me, he seems entirely reasonable. Perhaps it is because I'm a relative outsider, as he now appears to become himself, or perhaps it is owing to my gender-I hope not.

Reflection, Wyndham, April 2010

Within a few days of writing this particular reflective piece, the reason for Grimsby's increased presence in the strength and conditioning office, away from the other squad members became clear; Akela (director of rugby) had pulled Grimsby out of training and was refusing to consider him for selection, or rejoining the training group, until he had reduced his body fat percentage to a more 'acceptable' level. Thus the increased opportunity for social interaction with me, and a likely perceived need to escape the coaches' gaze whenever possible, precipitated the formation of our unlikely relationship. However, as unfortunate as it is to admit in many respects, the sustenance of that relationship was undoubtedly enabled by the gender order; at no point could I threaten his masculinity, for as long as we were on our own. Only through public, or witnessed, humiliation could these interactions destabilise his position of masculine dominance within the group.

Above and beyond Grimsby and Archimedes at Wyndham, there were other older players who were handled differently to the younger members of the group and this pattern was reciprocated at Queenstown. Indeed, patterns emerged in the identity roles adopted by older players within the respective squads; there were those players like Grimsby and Archimedes who 'got away with' managing their training loads differently owing to their exceptional skill levels on the pitch. In many respects it can be argued that such players are able to hide any deficit in fitness with their superiority in technical and

tactical play on the field. Indeed, they come to construct narratives which contain an operational bias towards such beliefs; often asserting that additional conditioning would fail to improve their performance and may even come to damage it.

> *Player: Fozzy mate it's my back isn't it….and they're making me squat. You've gotta tell them that I can't do it.*

> *F: How can I do that? I can pull you out – if I do then you can't be available for selection.*

> *P: But they're making it worse. If I don't squat I'm fine, if I do then there's more chance that I wont be able to play at the weekend. If I don't do their fucking sessions I'm fine. I could barely move this morning let alone sprint. There's no point in me being on the pitch if I can't fucking run is there? I'm supposed to score tries and defend…how can I do that if I can't stand up straight…. Oh fucking whatever…it's fucking killing me, but don't worry about it I'll dig in while you lot do your best to fuck me up.*

> *Queenstown field notes December 2009*

Another identity role which appeared to be commonplace amongst older players at both clubs was the 'warhorse'. These players would often be described as good servants of the game, leaders by example, good heads and reliable souls; such rhetoric is espoused during the commentary of many international rugby games. The management of these athletes again differed from the majority of the squad, but in crucially different ways to that of players such as Grimsby and Archimedes. Here, the focus was entirely on physical preservation of the athlete; in essence the conditioner's concern was to put such players through the smallest training load possible to ensure maximum recovery, without compromising fitness or performance at the weekend. These players epitomised many qualities associated with masculinity, often carrying the physical scars and mental strength which has come from years of experience, and survival, in the game. Their resilience affords them respect, as players, leaders and hypermasculine role models; although their behaviour around the club often embodies that of the revered professional.

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Strategically the 'warhorse's' masculinity is preserved by deliberate demonstrations of disappointment and frustration at being removed from training. Thus, team mates and colleagues often bear the opinion of these men that they are desperate to train with 'the boys' and it is not their choice to be doing otherwise. Once again then, it is through displays of resistance to their strength and conditioning coach (public remonstration of frustration etc.) that their masculinity is secured.

Upon manifest evaluation of these types of exchange, between the Strength and Conditioner and the 'warhorse', it would appear that the crucial difference between such interactions and those previously discussed would be the outcome; the conditioner appears to 'win'. Unlike in the earlier examples relating to Archimedes and Grimsby, where the players appear to prevail, and in doing so acquire symbolic capital; here Flounder & Spiky, for example, defer to the Strength and Conditioning Staff. Subsequently, following a logic as applied to Grimsby and Archimedes, it would be expected that public capitulation such as is displayed in these exchanges would be damaging to the masculine identity of the 'warhorse'; he might be seen as redundant, incapable or lesser than his younger teammates. Curiously, these forms of interaction, and commensurate relenting outcomes, also seem to raise symbolic capital, enhancing their masculine identity as much as their equally resistant colleagues', if not more so. Thus, in this particular power struggle is can reasonably be argued that the 'warhorse' is in fact also the winner; and though the methods are more complex, their identity and social position is stabilised. The same cannot be said for the position of players such as Grimsby and Archimedes who, as has already been suggested, became increasingly alienated from the squad and staff at the observed clubs with their superiority becoming wholly contingent upon their capacity to be skilful on the playing pitch. To this type of player, the impact of an injury, for example, would have far greater ramifications upon their social identity within their respective clubs.

Although the sample size was relatively small, owing to the limitations of the ethnographic method, it is a potentially noteworthy observation that the 'warhorse' identity role in older players was most readily exhibited by forwards while the 'superstar' role was adopted by older players among the backs groups at

each club. This pattern prevailed at both clubs and is worthy of further investigation at multiple clubs, perhaps through the use of alternate, more sympathetic, methods. Nonetheless, anecdotally it seems likely that such identity roles persist beyond the two rugby clubs studied. The adoption of these different forms of masculine identity roles, in an advancing career, is likely to be the result of a number of complex processes which may correlate with the positional group to which the given player belongs. For example, the nature of the game is such that the physiological, physical and technical demands placed upon these different groups of players varies substantially; as, crucially, do the frequency, severity and the commonalities in injuries sustained during the course of a rugby career.

Amongst the younger players at Wyndham there appeared to be a difference in public behaviour, which extended into the gym, between the players who had come through a structured academy system from an early age and those who had taken a more recreational path into the game. The version of self which was presented was one which communicated an identity which pleased coaches, and those others seeking evidence of a professional 'attitude' among players. Specifically, the management team praised the overt manifestations of self governance which these young players appeared to embody.

> *Akela: I look at these boys and I am astonished. They are so, so professional, their attitude…they're so disciplined and determined. The rest of the squad could learn a lot from them I think. What do you think it is about them?*

> *Head of Academy: They're just a good group of lads, they've always had that work ethic about them and they've all come through together. They've listened and done what's asked. That's it. They're hard workers.*

> *A: I think they're phenomenal, a real asset. They put some of these other boys to shame. Seriously.*

> *Wyndham field notes, March 2010*

Through this external validation, the technologies of the self which have been taken on by the academy players are politicised further; an evaluation of positive presentation of self is publicly ascribed to them by the establishment's power (coaches). Through such interactions, the habitus of the group begins to transform; indeed, it is arguably exchanges such as these which come to reconstruct the culture of the rugby club. However, the potency of these discourses in their capacity to alter the reconstruction of contemporary culture is contingent upon the political and symbolic capital of the actors involved. It is suggested that the greater the political capital of the individuals who praise and confirm the internalisation of self governance, the greater the capacity to inform the perpetual construction of the team culture. As such, at Wyndham, such exchanges, as above, afford the younger players a level of symbolic capital amongst their peers which elevates them to a more equal standing amongst the group (superstars and warhorses withstanding). By further politicising an already highly political process, in the embodiment of technologies of the self, an inevitable outcome is that other squad members will engage with such behaviours. However, it is possible that they will actively resist such alterations in the presentation of their identity and this is highly dependent upon their own symbolic and political capital; their position within the group.

Queenstown Gym: I had been observing the players for some time and Kermit in particular. Kermit is well known as a talented player but has been consistently overlooked by the national side. This has most often been attributed to his size, as well as the quality of other players in his position nationally. The current phase of gym training is deliberately focused upon adding 'size' to players through muscular development. As many of his peers relish this process he shows reluctance to participate and seeks to avoid his 'sets' several times through the course of the session. While other players shout and cajole each other into action, at one point he lays down on a lifting bench and closes his eyes with his hood over his head. The fact that he still has a jumper on is indicative of the level of intensity in his training in this sense. I ask Beaker is he's Ok and Beaker replies 'yeah, this is standard,

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he's just not interested in weights...can't see the benefit. He knows [national squad] are never gonna look at him so he just doesn't bother and he can't see that it will much improve his game. He's quite an intuitive and sharp player and really has no interest in getting big...I spose he reckons it might slow him down. I dunno. And the other lads take the piss cos hes that much weaker in the gym so...' To view this player's behaviour within the context of his peers, particularly those others who are on the peripheral radar of the national squad offers stark contrast. Indeed, I can't help wondering if it's not rather brave to resist conforming.

Queenstown field notes, November 2009

It is here, in the analysis of the complexities surrounding the presentation of identity in daily life at the rugby club that the complexity of social behaviours, and their motivators, comes to be exposed. Although arguably strategic at some level, the power structures which permeate the visible workings of the training ground come to be enacted, or resisted, by the individuals involved in training for rugby. The mechanisms by which this occurs are neither conscious nor instinctive in their entirety. Indeed, it is seen that the interaction of sports science with the validation of a defined set of social postures (interpreted by the collective as a 'good attitude' or 'professionalism') transcend the physical being and the overt, substantive, linguistic exchanges observed. The attachment to metaphysical constructs, such as emotion, ego or habitus, catalyses behavioural responses and thus informs the political dynamic within the group. In recognising and validating the actions of younger players, in their pursuit of unappealing behavioural profile, the coaches afford these players capital (symbolic and political) while simultaneously effecting a reflexive search on the part of other group members. The witnessing of the younger players acclamation has the capacity to present a threat to their social position within the group, through a temporary equivocation of their identity. Where there is uncertainty, an alliance with fear or potential risk of public failure and humiliation, Goffman (1963; 1983) protests that an individual will seek to confirm their identity and social position forthwith, utilising any available and appropriate resources. To adopt a

Bourdieusian framework to expand this further, players will seek to demonstrate or even enhance their capital through the course of the subsequent public behaviours. The forms of capital readily available to rugby players and athletes, in the context of the gym especially, strongly pertain to masculinity and specifically masculine domination (Bourdieu, 2001); however, it is important here to discuss the transferable nature of different forms of capital in this environment (the training gym/pitch). The symbolic capital, which is derived from masculine dominance can be, to an extent, transferred to bolster social and political capital much more easily than in broader society. This is because the capital, in all its forms, which acts as currency on the training ground is highly specific to this cultural arena; while it may extend to the sport of rugby, and possibly other sports, with relative ease, its value diminishes greatly beyond this. In essence, the forms of capital utilised on a daily basis are constructed within the institution of the rugby team, and are all-encompassing therein, but like a localised feudal system, they do not export readily to other social settings, where different rules and orders operate.

The forms of capital which exist with the greatest value at the clubs studied inherently relate to the body and consequently the disciplining thereof. Historically, the apposite body shape, that which might accrue the most capital, has been large in size and synonymous with notions of (hyper) masculinity (Coad, 2008). However, the latent cultural shifts which have arisen in broader society, helped in no small part by the sports and fitness industry, has introduced some equivocation pertaining to the understanding of masculinity and (hyper) masculine body types. The emerging culture of the metrosexual male (Coad, 2008) has been incorporated into the culture of rugby union (Harris & Clayton, 2007), following an increasing presence in other sports, particularly football. This cultural transformation, which somewhat coincided with the professionalisation of rugby union, has arguably led to a conflicting social landscape within a team of male athletes. The older males within the group, whether 'warhorses' or 'superstars' still exhibit, and revere, more traditional forms of the male identity, while the younger players personate aspects of metrosexuality.

In this sense, the coaches' public praise of the academy products not only catalyses the negotiation of social power within the group in the immediate short term, it confirms and perpetuates a broader cultural shift, in which the younger players are thus better equipped to survive; their situation specific capital is of greater worth. Moreover, this marks an important change in the habitus of the training rugby player and collective squad. It pervades the manifest presentation of being and comes to be enacted by the athlete in and around the training ground as well as in broader interactions beyond the club. Bourdieu's (1979) notion of habitus bears great relevancy here, as an understanding of the relation of the body and social subjectivity is sought. In the concept of habitus, Bourdieu (1979; 1991) indicates the metaphysical aspects of being, specifically that which comes to constitute context specific, 'common sense', as being closely related to corporeal praxis. Wacquant's (2004) work clearly draws heavily upon this symbiotic form of cultural socialisation, where the acquisition of habitus is heavily adhered to the physical labour occurring within the space of the gymnasium. The enactment of the operating power structures and social rules is confirmed to the physical discipline of the body, which not only serves as a potent constructor of identity, but inculcates the habitus of the group. That which occurs in the training ground, and especially in the gym, is educational: it teaches players how to 'be'. In this context, for the most part, this edification enables survival of the athletes. However, situations arise in which it can legitimise the destruction of athletic identity. The role of sports science in this nefarious process has, through the deliberate attachment to higher-order knowledge structures, acquitted the strategic social behaviours in the political operations of the observed subcultures.

In the most overt sense, sports science is most readily implicated in the social domain of the rugby team through the process of physiological fitness testing of athletes. The mechanism by which the repeated testing of players throughout the course of a season is undertaken is the subject of Chapter 5, where it will be shown that often times, such assessments serve multiple functions beyond the purported analysis of physiological fitness.

The purpose of this chapter was to introduce the daily working practices of elite rugby union teams and the ways in which players interact with the club, sports science and each other. Through the presented discussion, both surveillance and identity emerge as central themes and notions of habitus, self-governance and corporeal discipline were introduced to the contextual argument. The import of masculinity in mediating political dominance among members of subcultures was highlighted and it was shown that, despite cultural transformations in the understanding of masculine identity, a gender order is still exploited and reconstructed through social interactions in the gym. However, the necessity to include gender relations in the analysis of work undertaken at the training ground is not to suggest that gender is the most important construct for analysis in this thesis. Indeed, the departure of this study from the previous work of scholars such as Wacquant (1992; 1995; 2004) Connell (2000; 2008), Messner (1992) and Schacht (1997), relates less to the identification of new forms of masculinity within the context of professional sport, over amateur sport; the concern here is the ways in which these forms of masculinity interact with, and are affected by, the use of sports science technologies in such settings as the rugby club gym. To have any hope of elucidating this, it is most important that an understanding of the ways in which sports science is employed, in context, is achieved. Through the longitudinal analysis of observational data collected at two professional rugby clubs during the course of this ethnography, supported by the completion of an academic training programme in sports science and several years of working as a practitioner in amateur and professional rugby settings, it is proposed that science is used in several ways within the context of elite sport. Specifically, it is proposed that a typology of sports science utilisation may be constructed in order to expand the body of knowledge pertaining to the application of sports science.

CHAPTER 5: The use of Sports Science Around the Training Ground

The previous chapter considered the ways in which sports science facilitates the enactment of the politics of the training environment amongst players, aiding in the process of identity construction, and reconstruction, at the club. The emphasis in chapter 4 was upon the characteristics of sports science interaction with the everyday activities of the club, through surveillance and negotiation of roles within the group. As elucidated by the work of Foucault (1984; 1989; 2002a; 2002b; 2007), knowledge becomes a source of political negotiation and a source of capital with which identity roles can be confirmed. This, coupled with the inherent reliance upon surveillance techniques, situates sports science technologies and processes as key facilitators of self-governance. Although surveillance is shown to be omnipresent at both clubs, often disguised as some other exercise for alternate purposes, sports science is heavily implicated in the more overt processes of player assessment; specifically the physiological testing of athletes. Through this process, which is ongoing across the season in its various forms, sports science is charged, implicitly, with the task of defining the complex notion of performance. Of course the derivation of 'performance' is not only broad, but unique, and encompasses physical, physiological, psychological and social factors. However, sports science is most readily considered to be concerned with physical and physiological aspects of performance. In this sense, fitness testing is demonstrably acknowledged as a key tool of any practitioner adopting sports science in a professional capacity.

Athletic testing in professional rugby union: methods, objectives and purpose

At both Wyndham and Queenstown, preseason was considered synonymous with fitness testing and a prolonged period of fitness training, prior to the season commencing in earnest. The preseason period began early in July and ran through until the first game of the competitive season at the beginning of September. Both squads undertook a variety of fitness tests in the first few days following the squad reconvening after their off-season. These tests were re-administered approximately 8 weeks later, after a

period of intense training and a preseason training camp, with a view to evaluating the efficacy of the respective conditioning coaching teams programmes, and also making judgements pertaining to performance improvements. Of course, at the point of retesting, training camp friendlies notwithstanding, the players had not demonstrated any form of competitive rugby performance. Thus any implicit or explicit judgements of performance based upon those sports science test results are inherently lacking in validity; the definition of performance in rugby union is unequivocal, as Barney states:

> *It doesn't matter what you do or how much kit you've got. All that matters is what happens on the pitch. If we're winning then it's all good, if not then that's when fingers get pointed. You can be the best conditioner or sports scientist in the world, Kate, but the truth is that we all live and die by what this group of blokes do on the pitch*

> *Barney, Wyndham field notes, August 2009*

Despite this clear realisation of the futility of producing such testing results, there was always great excitement relating to results from any formal physical testing of players at Wyndham; this was true of periodic assessment and skinfolds, the regular testing of power in the gym and mostly the battery of tests undertaken during preseason. Several academic texts outline the numerous standardised physiological tests which can be utilised with elite athletes, and many offer a recommended battery of tests to be utilised with rugby union players. These recommended tests were largely adhered to at both Queenstown and Wyndham, although there were some subtle, yet crucial, differences between the approaches at the two clubs. Wyndham undertook all of their testing at the training ground, while Queenstown utilised a local university facility.

Having discussed the discrepancy in training ground facilities between the two clubs in greater detail in Chapter 3, it would appear to be a necessity that Queenstown took this approach. However, rather than opting to test at the usual pitches, utilised for off-site rugby sessions, they tested at an indoor athletics centre. Moreover, their strength testing was undertaken back at the training ground in their dilapidated

gymnasium. As MacDougall et al (1991) point out, the key decisions that a practitioner or coach must make when selecting methods for testing players relates most directly to specificity. If one wishes to have a clear understanding of markers of specific aspects of fitness (such as VO_{2max}, lactate threshold etc), then laboratory-based testing should be undertaken. The trade-off here is that the controlled environment of the laboratory bears little relation to the reality of the demands of the sport. Thus, field-based testing methods, while lacking the ability to make definitive statements about physiological markers, often yield more sport specific, and arguably more useful, data for the coaches. It is interesting then, that the Queenstown conditioning and coaching staff elected to undertake field-based testing in a semi-controlled environment, with surface conditions that did not replicate rugby playing conditions. In such circumstances it is difficult to see where the value in such a data collection process lies; it is certainly not in its scientific or theoretical analysis and its specificity is also compromised. This is not say that such testing is pointless, it undoubtedly serves an important function, but here it is seen that it is less likely to be related to the science of exercise. It should also be noted that Wyndham can also be accused of shortcomings in their approach to testing, to be discussed henceforth, which exposes this exercise and fitness testing as performing a functional role which is entirely removed from measuring physiological 'performance'.

"On your marks": running based fitness testing at Queenstown and Wyndham

At both clubs, all of the fitness tests utilised, outside the gym-based strength measures, were running based; undoubtedly selected with regard to their sporting specificity. Both clubs tested speed and acceleration of players by getting them to sprint through timing gates set out at various standardised distances. This enabled quantification of sprint times and acceleration over relatively short distances, as is appropriate to rugby. The length of the full sprint course was 20m and this is commensurate with time motion analysis of rugby game data which offers evidence that sprint distances rarely exceed 17 m in situ.

Moreover, these differences are only seen in players who are positionally classed as outside backs (Duthie et al., 2005) constituting less than 20% of the squad of either club. Following this it is interesting that Wyndham only tested their backs in this particular test, while Queenstown tested all players; perhaps an indication of a truer alliance to evidence-based practice on the part of Barney and his team at Wyndham. As previously mentioned, as with all running tests undertaken, Wyndham carried out the assessment on grass while Queenstown utilised an indoor athletics track. As a result, Wyndham's players could test in their rugby boots while Queenstown's players had to do so in trainers; footwear they wouldn't normally train, let alone play, in.

Testing anaerobic capacity is notoriously difficult in field sports players outside the laboratory, and Queenstown utilised a standardised test commonly known as a phosphate decrement test. The test, as alluded to in its name, is considered to assess the depletion of the phosphocreatine energy system and its capacity to power repeated sprint performances. However, the interaction of energy systems at the onset of exercise is such that no single activity can be attributed to one energy pathway only (Bouchard & Taylor, 1991; Maughan et al., 2002). Indeed, the physiological capacity required to withstand the intermittent stress of undertaking such forms of testing, in repeated sprint formats, is now generally accepted to be an indicator of aerobic capacity (Glaister, 2005); specifically, the capacity of the aerobic pathway to enable regeneration of ATP to fuel the repeat performance of the phosphocreatine and glycolytic metabolic processes. Therefore, not only does the growing argument that the phosphate decrement test fails to measure that after which it is named, hold true, it actually fails to reflect the anaerobic capacity of an athlete directly. Again, this is not to say that the exercise is wasted; it provides a reference marker for future tests; it performs an operative role. Moreover, an experienced practitioner develops a 'feel' for good and bad test performances. However, it must be conceded that the function of such testing is not related to the higher order science, or physiology, to which it is publicly ascribed.

Wyndham have dropped the phosphate decrement test from their battery for two key reasons; firstly as a result of the methodological limitations and secondly because they have adopted a test protocol used by

the National training squad. The new test is not more rigorous, in terms of analysing physiological markers of performance, on the contrary it is arguably less so. However, it is alleged to be more rugby specific owing to the inclusion of backward running and 'down ups', considered to simulate the process of going to ground during contact in a rugby game.

> *That's the thing with all of these tests. None of them actually tell you anything about the physiology of that, so you can't get caught up in that. At the end of the day you've got to decide does this stress my athlete in a similar way to what he'd go through on a rugby pitch or wherever.... then you can use it as a test to see where they're at. Nothing more. It's never gonna be perfect*

> *Barney, Wyndham field notes, August 2009*

This declaration by Barney indicates that while the role of sports science testing in context diverges from the theoretical or academic purpose, it performs a functional or operative role in the environment; which enables practitioners like him, Fred, Bam Bam and Arnold to be more effective in their role. In gaining an understanding of 'where [an athlete] is at', they can use this to benchmark future efforts by the same player, and also to evaluate other squad members within the context of each other.

To summarise thus far, then, it is seen that sports science methods can perform an operative role in the environment which often bears little relation to the theoretical function from which such processes and technologies were derived. It will be proposed, as an expansion of the discussions undertaken in Chapter 4, that sports science also performs social and political roles within the rugby training subculture. A clear example of this is apparent in the procedure utilised to test the aerobic capacity of players at Wyndham.

The Bleep Test

The bleep test, or the multistage fitness test to give it its proper name, is a field based fitness test developed by Leger and Lambert (1982) which has been widely used by teachers, coaches and sports scientists owing to its ease of administration and its suitability for assessing large numbers of subjects simultaneously (Cooper et al., 2005). The protocol for this fitness test consists of shuttle running between two lines spaced 20 metres apart, with athletes aiming to complete each shuttle within the timescale indicated by an audible beat from a standardised test recording. The frequency at which each 'bleep' is emitted increases as the test progresses through various levels. Failure to reach the line before the bleep indicates test completion on the part of the subject; the level at which they retire from the test is recorded and taken as their score. There has been some longstanding debate in the academic literature pertaining to the degree to which the score achieved in the bleep test correlates with VO_{2max} (Ramsbottom et al., 1988; Palickza et al, 1987). Nonetheless, despite the lack of reliability in the test's capacity to predict physiological processes or performance, Wyndham adopted the test and stipulated an arbitrary level to be achieved by all players.

> *Barney: You looking forward to testing Kate?*

> *K: Yes I am*

> *B: You must be horrified...*

> *K:What you mean?*

> *B: With us doing the bleep test! It's like being transported back a few decades hey?*

> *K:[I laugh] Why are you doing it?*

B: Akela wants it done. Not because he thinks it's a good test but because it's a good way to see who's got it you know? He reckons the competition is good for the lads, see who can take it, see who steps up... who just quits. It's an attitude thing.

K: Oh I see...

B: He might have a point I think, it will be interesting to see what happens. Just don't hold it against us!!   *Wyndham Fieldnotes July 2009*

In this context, as a sports science tool, the bleep test performs an entirely different function; it is neither a scientific instructed investigation of physiological function, nor is it an operative to serve as a marker of training programme efficacy. It is recognised directly as being a social tool; a mechanism by which the sociopolitical relations between players can be expounded in a public manner. Moreover, it is simultaneously a sociopolitical intervention, undoubtedly altering player behaviours as they seek to confirm their identities within the subculture or group.

The players were asked to split themselves into two groups, not necessarily forwards and backs, although this is how the two groups ended up splitting themselves, ironically. One would anticipate that backs would want to be paired with front row forwards in order to give a good account of themselves relatively speaking, however the forwards seemed to stick together; none, presumably, wanting to be exposed by any of the backs. Despite being split into two, the groups are still large; over 20 players in each, and within these two groups smaller groups began to form; where players sought to team up in pairs. I overheard several conversations wherein players agreed to help each other through the process, offering to be somebody's 'wing man' or 'buddy'. On the surface it appears to be a bonding exercise - players become closer by making such partnerships; solidarity in adversity. However, as the testing drewcloser an alternative

view of this process emerged as it became clear that players were using each other to try to get a better score.

Player: I know that if I stick with [player] he'll get us to at least level 13, and after that I know I'll be all right.

Player 2: I know the worst thing is you get stuck next to somebody slow, you've got no hope. You need to be near someone who is going to do well.

Wyndham field notes, July 2009

In this extract, the intention of Akela is beginning to emerge in reality; although appearing to bond on the surface, competition between players is ignited. This competition, and the negotiation of interaction between players within and without the test scenario, has propagated the negotiation of identity and roles within the group. Moreover, this process has been firmly and overtly anchored to a process undertaken in the name of sports science. Not all players bought into this process of social manipulation however; Grimsby appeared to recognise the game immediately.

Grimsby: Barney, what levels we have to get to?

Barney: Just do your best mate

Grimsby: Yeah yeah... what level are we talking? Is the minimum we have to get 12? 13?

Barney: [laughs] Get over 13 mate and I'll be happy!

As I watched the test Grimsby ran constantly throughout, got to level 13.1 and walked off the test course. He came and sat next to me.

Grimsby: Didn't fancy doing the bleep test with us?

K: No thanks! Brings back old memories of school PE lessons! It looks like you found that pretty easy though?

Grimsby: [laughs] I wouldn't say that..

K: I reckon you definitely could have kept going

Grimsby: You don't miss a thing do you?! What's the point though? I got told to go about 13 and I did! 13.1, job done.   *Wyndham field notes July 2009*

Upon reflection, this demonstration of resistance at the very beginning of the season by Grimsby, likely laid the foundations for a difficult relationship with the coaching staff. As discussed within the context of his behaviours in the gym in Chapter 4, Grimsby, to a much greater degree than other players, demonstrated resistance to the power structures in operation at Wyndham. This is likely due to his experience, ability and age which combined to confirm his identity within the group; an identity which was synonymous with significant symbolic and political capital which he often used to great effect in strategic interaction.

As previously mentioned, the majority of the tests undertaken at the beginning of preseason were repeated approximately 8 weeks later; at the point of retest it serves everybody's interests for the scores to have improved. However, this is most true for the conditioning staff.

Fred: That's the thing about preseason, it's our chance. Which is great because it means we actually get to make a difference fitness wise, but also means we are fucked if things don't work out properly. I mean fitness is always going to improve, you get anyone doing training for eight weeks and you can see an improvement, but it's a matter of making sure an improvement is better than just what would happen if they are left to their own devices. And also there's injury... if we get injuries 'cos of fitness... shit. We are up shit creek.

Wyndham field notes August 2009

As such, it serves the conditioning staff's best interests to ensure that players also have a desire to perform better in their fitness tests. If a player doesn't buy into a sense of urgency, or necessity, in outperforming their initial preseason test scores then the conditioning teams' position becomes threatened within the subculture, and specifically the management organisation. In order to achieve this commitment from players, one method adopted by Barney and Fred at Wyndham, and Animal at Queenstown, was to emphasise a causal relationship with physiological capacity explicitly, and athletic identity implicitly.

> *Animal: You see boy, when I look at these results, first thing I do is I think about the difference between these and what the top players in [national squad] are doing. It gives me an idea of where you're at.*

> *Queenstown field notes August 2009*

In making such comparisons, the practitioners involved in the evaluation of test results are engaged in a process of validating an individual players' level of 'professionalism'; where international players are considered to be the epitome of a professional rugby player. At Wyndham this process was further augmented by the explicit use of sports science testing as a facet of contractual obligation in the role of being a professional rugby player. As the season progressed, it became clear that one player was not functioning within the group; he was discussed as being a negative influence around the team and also a bearer of substandard performances on the pitch. He did little to disguise his loss of motivation and this manifested itself on the training pitch, in the gym and around the clubhouse. Eventually the management group decided that he should part company with the club; however, they were faced with difficulties pertaining to the termination of his contract and the legal issues associated with that process. It emerged that a clause in the contract of professional rugby players at Wyndham pertains to the maintenance of a requisite level of fitness. The multifarious reality of defining fitness, particularly within the context of a complex team sport such as rugby, has already been alluded to and therefore establishing that a player has failed to meet this obligation is incredibly difficult. Wyndham's head coach [Akela] insisted that Barney

find a way of proving that this player (Rudy) was in violation of his contract; Rudy was made to rerun the bleep test.

Barney: Bam Bam, mate, I've got to do this bleep with Rudy... you be all right to sort my boys out?

Bam Bam: yeah no worries

Barney: Fred are you gonna be with me or are you going out with Bam Bam?

Fred: When's he running it?

Barney: I want to try and get it done while everyone's out of the way, I want to try and keep it quiet. I reckon we could go out now and get it done.

Fred: Yeah let's go

[At this stage I wasn't aware of what was going on, but I knew that there had been some problems with Rudy. I had assumed he was doing a fitness test as part of a return from injury-it wasn't until later that Barney explained the situation]

Barney:.... Yeah Rudy is in trouble. But I don't even think he realises how much. I decided to run a bloody bleep test of all bloody things. He didn't even try. All he had to do was get a 10 and he just fucking dropped out. I was literally there screaming at him trying to get him to hang on, 'cos that was literally his lifeline and he fucked it.

K: Did he know why he was running it?

B: Fuck. I dunno. He's an idiot

Wyndham field notes, October 2009

There is not the scope in this thesis to discuss the complex nature of contractual issues involved in being a professional rugby player. However, it is fair to say that the handling of contracts in this unique environment appears to differ substantially from other areas of employment in broader society. It is perhaps as a result of inflated wages that many professional sports people claim, that the negotiation surrounding their terms of employment are necessarily altered. However, one would anticipate that this would lead to a greater rigour to be applied to the processes surrounding the negotiation of service to the club, or cessation of such contracts. The witnessing of players' experiences in this regard, at both Queenstown and Wyndham over the course of the ethnography would suggest that this is not the case, indeed the opposite often seem to hold true; players' affairs in this context are often handled poorly and were subject to the whim and predilection of the management cohorts. As an example, in addition to that alluded to in Rudy's situation at Wyndham, at Queenstown the team manager 'inadvertently' e-mailed a player's contract to everybody on the squad mailing list, myself included. It was widely known that this player had been negotiating the terms of his contract, through his agent, and the rumour was that he was asking for more money and as such had held off re-signing for Queenstown. Although Bert (Queenstown team manager) did attempt to rectify his error by immediately e-mailing the full mailing list and asking them to delete the previous e-mail containing Cecil's contract, and asking individuals not to look at it, it can be argued that the damage had been done.

Strength testing

In many respects, the objectives and methods applied to testing strength in elite rugby union players can be as contentious as the testing of their aerobic capacity. This is owing to a similar problem pertaining to the operationalisation of rugby specific fitness; power is arguably far more important than strength (Bompa & Claro, 2008). However, historically fitness training and testing of rugby players has been strongly allied to their capacity to lift large amounts of weight in the gym-based setting. Moreover,

players appear to derive some pleasure from this form of corporeal discipline which occurs in the name of being a professional rugby player.

> *The boys love it though don't they.... I mean spending 6 to 8 weeks in the gym just getting massive. I fucking love it. And it's summer too... shirts off, your body is getting into the best shape it's going to be all season, and it's when the most people are gonna see it too*

> *Cotterpin, Queenstown field notes, July 2009*

This assertion by Cotterpin, which was echoed by a number of other players, if not the majority, was a little surprising owing to the clear lack of specificity involved in the type of training to which he refers. Having assumed that players had an innate love of rugby, as the game, it had been anticipated that the disciplining of the body which occurs around that sport, and particularly that which bears no visible equivalent to game-based activities, would be a source of resentment among players. Instead it seems that the opposite was true. It is possible that this social phenomenon, relating to the preparation of elite athletes, played some role in the prevalence of strength testing, as opposed to power or functional fitness, in the preseason battery of tests. It is fair to say that strength testing was more central at Queenstown during this phase and, somewhat ironically, was incredibly limited in its scope. Players were required to perform three strength tests, exerting sufficient effort to achieve maximal capacity in each movement; a barbell squat, the benchpress and a prone pull. Unlike other forms of testing, which had occurred off-site, the administration of this test had a greater reliance upon self-governance on the part of the player; players worked in pairs or small groups and recorded their own best scores under the supervision of Animal. The nature of this setup, coupled with the small, closed space in which testing was being undertaken, created a unique atmosphere and undoubtedly performed a social role.

> *'The atmosphere in the gym today was like nothing I've seen before. Players were screaming at each other, often swearing, under the guise of encouraging each other to perform maximal lifts during strength testing. I could hear them long before I entered gym*

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building. The heat was stifling outside, and stepping through the door into the corrugated iron workhouse, the increased heat and smell of sweat hits you like a wall; like getting off the plane in a hot country. Players were focused, and the friendliness I had experienced on being welcomed into the club seemed to have disappeared; all of a sudden I was very aware of my size, my inability to add anything to that environment and the irrelevancy of any concerns I harboured about the methods by which these players have been tested over the last few days. I felt out of place and in the way.'

Queenstown-reflective diary, July 2009

....

I walked into the gym, having being outside observing the backs skills session - a session that had been opportunely shoehorned in to maximise player utilisation and minimise hanging around - to observe the forwards testing session. It was hot inside the 'tent', but nothing compared to the Queenstown testing session last week. Immediately to the left as you enter the gym, there is a novel training machine designed for training players to be able to 'drive a maul', or power through another player with a tackle contest. It involves players crouching in a semi-scrum position, placing their head between two pads and driving their legs as hard as they can along a short metal track. The pads are attached to a fearsome rig upon which weighted plates can be added for the greater resistance. Today they have the [PAD], rigged up to it and players were required to record a good output on that as well as move a significant, increasing, amount of weight on the machine. The [PAD]monitor, having initially been positioned so that Fred could see the output, was now facing towards a growing group of players who were taking turns in testing and cheering each other on. It had become a voracious spectator sport and the cheers had been audible, while I was outside-the excitement grew such that other people from outside began to crowd around the

gym entrance to see the 'show'. When I spoke to Fred about it afterwards he admitted that players ended up doing far more repetitions than they were supposed to, probably because of the atmosphere. I was interested to know what impact he thought it would have upon the 'assessment' results. He was ambivalent, and I sensed that it would be unwise to press him further.

Wyndham field notes July 2009

This 'testing', which has an ongoing role across the training season, in many respects took on a life of its own. As indicated in the above excerpt, the impact that it has on players' behaviour is not consciously considered, although implicitly an awareness must exist. However, it appears that there is no reflection, on the part of Barney or Fred, upon the sports science implications of this device. Here, in the above example, which was reconstructed on many occasions throughout the season, the PAD has changed the intensity and duration of the training session. The theoretical underpinning of sports science application most readily cites the manipulation of these two variables as the most potent determinants of different forms of physiological adaptation (Beachle & Earle, 2000). Thus, the PAD, having been brought in as an austere, functional and objective technology of sports science has paradoxically undermined the forms of sports science which traditionally dominate the applied setting of training athletes. To clarify, the introduction of technological gadgetry under the auspices of introducing more sports science, has been at the cost of the fundamental principles of creating, or preparing for, sports performance. Here, the social identity of the PAD dominates over its potential theoretical or operative value, and in doing so, though the actors involved may not realise it, it has undermined their identity as proficient practitioners of sports science.

Although the PAD offers a tangibly more technological visage, this discourse shows similarities with the relationship between players, staff and the well-being monitoring discussed in Chapter 4. In the recorded exchanges with Arnold, it is clear that he believes the introduction of this player monitoring system is

driven by sports science, yet upon closer inspection it not only lacks the necessary scientific rigour to be deemed as such, but it again undermines the practitioner's identity: specifically, their capacity as humans, and professionals of the duty of care, to actually know their athletes.

Alongside well-being and gym-based monitoring, Wyndham also utilised heart rate and GPS monitoring of players during each on pitch training session. Such technologies are commonplace in most football and rugby teams and are used, operatively, as a method of monitoring training loads. However, within a few days of arriving at Queenstown, it became clear that no such technologies were used, and this was always assumed to be as a result of limited financial resources. The player [Tosh] who had just joined the club, having spent time playing for a club in a different country, appears not only surprised or disappointed at this, but seemed to feel that it would be impossible to perform at a professional level if the team did not have access to such technologies.

Bert and Bo were talking to Tosh (player) on the side of the pitch and I had noticed Riz (head coach) occasionally coming across to join in. Marvin (coach) was stood some metres away, although clearly within earshot, but he appeared to be making a deliberate effort to engage with the 'captains run' (the last walk-through as a team at the end of the training week, before a game). The behaviour of the coaches, particularly Riz, who as previously mentioned rarely appeared to be engaged with the playing side of squad preparation, was in itself a symbol of Tosh's status and the capital he held as a player. This performance was a display of deference towards Tosh, though he may not recognize it himself-I'm pretty sure all of the other boys did. I could hear that he was talking about facilities and asking Bert when they were going to improve.

B: Well… we mightn't have the best of everything but you work with what you've got, and considering… we're functioning pretty well

T: Yes but I mean look at the fuckin state of the fuckin ice baths and that fuckin little bit of grass we're supposed to train on… I'm just sayin it's not competitive

B: I hear that..

T: I mean you haven't got any of the boys heart rated up [he looks over to me] I mean, that's the bare minimum, you've got to get heart rates, haven't you Kate?! Especially on a captains run [he turns back to Bert]…. I mean look at [player] running there… that's way too high intensity the day before a fuckin match….

[I was overcome with a desire not to be drawn into this conversation, especially as it was likely to lead to questioning about what they do at Wyndham, so I left, pretending I had to go and do something]

In this excerpt, the player is not necessarily looking to win at all costs, and while he shows some cognisance of the theoretical reasoning given for using heart rate monitors, his key concern is with identity; the professional identity of the team. However, like the previous examples given, the employment of heart rate monitoring, despite its widely quoted theoretical underpinnings for practical application, equally has the capacity to undermine identity; particularly that of the practitioner or management to utilise it. Before discussing the ways in which this frequently occurred at Wyndham, with occasionally serious consequences for the players implicated, the following excerpt adds depth to the complex and difficult relationship between the culture of Queenstown rugby training, the resistance to new technologies and the difficult relationship with sports science knowledge.

Scooter sent me over to the analysis office to try to find another tripod, so he could complete a movement analysis assessment of [player]. As usual, no one had checked that the equipment was all present or in working order before beginning such a task, and so I ran the

length of the training ground to hunt for it, knowing that Scooter and the others were waiting. The room was a mess, as usual, and I began rummaging through the shelves and boxes, coming across plenty of broken kit and outdated training manuals. I didn't find a tripod, Waldorf (analyst), must have taken it with him, but I did find a polar team system: A full set of heart rate monitoring equipment which enables simultaneous recording of a whole team. It has just been chucked on the shelf and was hidden under lots of other stuff - it looked like it had never been used. I struggled to contain my frustration.

Queenstown fieldnotes November 2009

Reflecting back upon this record, it is possible that Queenstown recognised the issues associated with the application of external technologies to the management of athletes, and thus took an informed decision not to use the heart rate system available (at the time this system would have been considered the best of its kind). However, intuition suggests that the neglect of this technology was an overt display of resistance to new forms of knowledge. The inability of any coach or practitioner to use it effectively, and the unwillingness to acquire that capability, rendered this inanimate kit a threat to the identities of the management. Its use threatened the traditional style of the individual coaches, and, more broadly, the club. Thus, it was easier to retreat to the more comfortable position of outwardly rejecting most of that which came from a theoretical science application, grounded in higher-order knowledge; until adherence to such knowledge or sciences could be utilised to confirm their identity and justify their position or behaviours.

It's all very well, you read your books and your mates doing their experiments up in the labs and whatever. But it means nothing here sweetheart. I've got 12 years of experience, and you can't teach that. You can't just go and do a course. I know what works…

Animal, Queenstown field notes, July 2009

This extract from an exchange with Animal was one of many which played out repeatedly during the time spent at Queenstown, each with remarkably similar themes; those with theoretical or academic knowledge cannot be useful in the real world and, moreover, such knowledge bears little currency where experiential and tacit capital were of central order. It was a tiresome debate, and fortunately one which, although present, did not dominate in the same way at Wyndham. This is likely due to their adoption of many technologies which were developed from academic explorations of knowledge, irrespective of the reality that they may not bear any relation to that derivation when utilised in the field.

Using heart rate and GPS to 'quantify' the effects of training at Wyndham

At the beginning of the season, Wyndham invested several thousands of pounds in a new heart rate monitoring system, to replace their old equipment. It was hailed as being a spectacular piece of technology owing to its capacity to generate a 'training effect' for each session; an arbitrary figure on a scale of one to five, which allegedly indicated the degree to which a given session had elicited a physiological adaptation in the athlete. It is beyond the remit of this thesis to undertake a full explanation of the way in which this training effect score is generated, but it is important to note its derivation, particularly in light of political capital it came to carry at Wyndham. Training effect is based on a phenomenon termed excess post-exercise oxygen consumption (EPOC), which charts the recovery of the oxygen uptake (V_{O2}) curve following cessation of the exercise stimulus. The nature of the V_{O2} trajectory alters in response to exercise intensity, which bears implications for understanding the metabolic demands of an activity.

> K: What exactly is the training effect figure? I mean, what does it mean?

> Arnold: It just shows how hard the session was…. if it is above a certain value. Then we know you're getting adaptation

K: Really?? How?

A: It's based on EPOC

K: Yes but…. I don't understand…

A: The greater the EPOC, the heart of the session so….[looks at me as if to say 'this is obvious']. What's your problem?

K: It's a heart rate system. It's not measuring oxygen consumption.

A: Yeah, but heart rate and oxygen consumption correlates pretty well*

K: That's a big assumption to base it on… but okay then…. how long to players wear the belts for after they're finished?

A: They take them off straight away.

K: So we don't measure the post exercise rate either? [he looks puzzled]... we get training effect from excess postexercise oxygen consumption, but we don't measure oxygen consumption or postexercise heart rate… I guess that's why I'm confused.

A: Yes, but, it's just a useful number isn't it.

K: Ok

*NB. This is not true in many exercise in conditions, and recovery of heart rate and oxygen uptake tend to differ substantially

Wyndham fieldnotes January 2010

Upon deeper investigation, the sports scientists behind the new heart rate system allude to the recording of an echo of a respiratory marker in the heart rate profile which enables the EPOC, and thus training

effect, quantification. Still, even within the system, the multiple levels of measurement and assumption appeared to leave ample opportunity for error to occur. Notwithstanding, in the (mis)interpretation and management of these data, the capacity for error is amplified several fold. Throughout the course of the season this heart rate monitoring system, and the apparent unquestioning trust in the arbitrary training effect score generated for each player and each session, became a source of latent conflict with Arnold, in particular. His apparent shortcomings in the academic knowledge required to challenge the assumptions, and limitations, of the technology he deployed transformed into a complex interactional relationship with anyone whom he perceived to have more context specific knowledge, or cultural capital. Amongst the other members of the subculture, Arnold made great efforts to attach his role, and his sub-cultural identity, to the higher-order knowledge afforded to this technological intervention; it gained him symbolic capital in the professional field. This is particularly true because other members of the subculture equally lacked intricate understanding of the implied scientific knowledge. However, Akela introduced another level of complexity to this; not only could he challenge Arnold's assertions, derived from this technology, in his capacity as head coach (maximum symbolic and political capital), but he maintained the dual role as a practising applied scientist, within which a strong knowledge of physiology was crucial.

Earlier in the day, Akela had come into the cave, greeted me and said, 'I want to speak to you and Arnold together, after training'. When Arnold came back into the room I questioned him on it.

K: Why does Akela want to see us?

A: What do you mean?

K: He just came in and said that he wanted to sit down with you and me. Any ideas what that's about?

A: Oh! It will be about the heart rate stuff. I collected some data overnight on some other players and he will want to talk about that.

K: Oh, I see. I didn't realise that we were doing that.

A: Yeah, yeah. This is something that Akela mentioned and I thought I'd get on and do it

K: Right

A: Do you want to have a look?

K: Well, yes please.

A: Okay, I can show you later.

I knew straight away that it was unlikely that I'd get to see any of the data before it was presented in front of Akela. I also know that this meant there was a pretty high chance that I'd end up looking like an idiot in front of the head coach, because he would ask me questions about sports science, which I'd be unable to answer. It was clear from the way that he had addressed me this morning that he had assumed that Arnold and I were working together on this; the truth is it was the first I'd heard about any of it. Subsequently, when the players and staff (including Arnold) went out to train, I wasted no time in getting to grips with the physiology of heart rate, heart rate variability, heart rate recovery and the erroneous conclusions that are regularly drawn from the use of heart rate monitors in these contexts.

Wyndham field notes, January 2010

In the above extract, the introduction of a sports science technology clearly bears influence far beyond its theoretical or operative form. It has transformed into a weapon of social and political means. Instead of clarifying that which arises in the environment, it has introduced conflict and, more specifically, a cascade of behaviours between myself and Arnold, which threaten our identities. The interactional style has become strategic, to the point of deception, with each of us seeking attachment to higher order knowledge

in order to confirm our position and, in the most extreme sense, survive. In the following excerpt, written in reflection upon the event described above, the fear and uncertainty which is motivating the situational behaviours is almost palpable. Reflecting back on this excerpt now, the signs of defensive plays in response to a perceived threat to identity, and social loss of face, are clear in the writing; if nothing else, this is indicative of a shift in researcher role to a more participatory, insider, existence.

> *I felt as though I was being tested; not so much by Akela individually, but by the environment. There was no question that here was a battle for symbolic capital. Since moving to Wyndham full time, after leaving Queenstown, I had expected my role to be renegotiated within the team and particularly my political position. I find it interesting that Arnold is the staff member who appears to feel most threatened by me; he seems to seek out opportunities to question my knowledge and expertise. The opinion that his former university is superior to all others in the preparation of sports scientists is very thinly veiled by Arnold. Indeed, he seems to show very little credence to any other academic institution or school of thought. He often takes the opportunity to drop names in front of Barney and the others, and feign surprise when I haven't heard of them; though he never seems to recognise that the breadth of his contacts are incredibly naive.*

It is noteworthy, within this particular conflict, which played out over several weeks, the recognition of the change and social environment, which is synonymous with the structural change in this research project (cessation of data collection, by ethnographic methods, at Queenstown), and the negotiation of researcher role. Goffman (1974) indicates that the manufacture of negative experience in the social, arises when organisational structure becomes destabilised. Specifically, the addition of a new team member, or department (or in this case, the permanent and committed presence of a previously part-time colleague) introduces a 'trial frame' to the organisation, which necessarily differs from the established frame. This trial frame, through its mere creation, opens up the discursive space for the negotiation of power much more readily than would arise in settled frame or organisational arrangement. It is perhaps

the addition of this level of structural uncertainty which categorises that which can certainly, in hindsight, be referred to as negative experience; as opposed to the less intrusive negotiation, which arises in the more banal interactions occurring in daily life at the training ground. The strategic negotiation of position continued with Arnold, and the following exchange offers insight into its culmination with regard to my involvement.

> *Later, when Akela comes into the cave, I am in conversation with Barney. He walks straight over to Arnold and hands him the heart rate monitor that he has been wearing for training.*
>
> *Ak: How quickly can you get me that information? - because I really want to see it.*
>
> *Ar: I can download it straight away. It will take a couple of minutes. [I am really interested in this response from them, since he has an entire squad worth of heart rate monitors to upload as well as the GPS data from the training session that has only just finished. The politic presented to him through his interaction with the head coach is so blinding that it takes precedence over that which he was employed to do. Not only that but one must question the value of analysing data off a coach's heart rate from a training session in which he cannot be considered to have fully participated.]*
>
> *Ak: Okay, good. I'll be straight back. [Of course, he doesn't come straight back, but it is at least 40 minutes before he returns]*
>
> *Ak: Kate, have you had a look at this?*
>
> *K: No Akela, I haven't. What is it?*
>
> *Ak: It's my data from wearing one of the monitors. I wore it overnight to see what happens during sleep you know?*
>
> *K: Oh, Okay.*

Ar: I've got the stuff from the training session this afternoon, so I've got these two reports.

Ak: Yes, yes. I'm less interested in that. I want to have a look at the overnight stuff; what have you got from my sleep?

Ar: Well, unfortunately, it didn't really work. Sometimes that happens, the contact slips or something.

Ak: Shit. You're kidding me. I can't believe that….. Okay, okay, never mind.

Ar: I've got this from when Ziggy (a player) wore it though. [Then hands Akela a report which was stuffed in his in tray]

Ak: Right, so what's this?

Ar: Well, one from when Ziggy wore it overnight during what he thought was a good night's sleep and the other one is when he went out for a few beers. I got him to wear it on a night out, told him not to worry about it, to do what you would normally do, just so that we have an idea of what's going o in terms of recovery.

Ak: My goodness! Have you seen this Kate?

[I walk around to Arnold's side of the desk and Akela shows me the reports; the reports Arnold had promised to show me earlier]

K: Oh wow! That's interesting isn't it, just looking at the difference. [There are two graphs; one is all green – allegedly indicating good recovery (parasympathetic the dominant), and the other is almost all red showing a high sympathetic drive – apparently]

Ar: So this one [red] is showing that he's not really recovering at all.

Ak: So he was on a night out here was he? Out drinking with the boys? Man, that's not good... so was this a big night out or is this just if you're home and have a few drinks?

Ar: err err .... I think this is reasonably normal night out and I think a few of the boys went out, had a few drinks you know. I guess it shows the impact of alcohol on recovery.

Ak: Yes.... Kate, what do you think?

K: Well, it's certainly interesting, but I think it's important that we know what he was doing on each of the nights. I mean, if this graph is coming off a few glasses of wine and dinner with friends, then that's a worry for me; if it was a one-off big night out, well, actually, I think that there's a time and a place for that. So I guess we need to know the circumstances behind what we're looking at here and until we know exactly what was going on we can't necessarily make any judgement. Particularly, remember, as this is only attempting to indicate a parasympathetic versus sympathetic input to the heart and as I understand it there is no theory or research which suggests you can't be recovering while you're sympathetically dormant. But it does give us something to think about.

Ak: Yes, I see your point. Can you do some more research on this for me? What I want to know is how much recovery do these guys actually need and what is the likely impact of a night like this?

K: Yes, of course, but I think that equally important is that we work out if there are things we can do to minimise the impact, rather than just labelling behaviours, or nights out, as bad or good or forbidden. Perhaps there are some things that we can implement here, at the club, which means that what players do outside of training has as little impact as possible on the things that we're looking at improving.

Ak: Yes, yes, great!

K: Okay, I'll have a look at it.

Ak: Excellent, thank you Kate. Thank you Arnold.

[I walk back around to my desk and wonder if I can actually feel proverbial daggers being shot in my direction from Arnold]

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Wyndham field notes Jan 2010

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Reflecting back on this period at Wyndham, the aggressive nature of the situation and the way in which it is played out is regrettable; yet at the time it seemed vividly necessary. This sentiment was already shared by Arnold, who in the course of this interaction went on to undertake this strategic negotiation of his position at Wyndham to a new level; he pointed out the flaws in the presentation of professional identity of players. Although still a relative outsider, it seemed clear that such a deliberate, negative, disclosure to a coach about a player violated some type of social rule; it could directly damage the player's career. This is not to say such issues should be ignored. However, the impact of Arnold's behaviour was such that, later that week, Akela interrogated another player in the presence of several key staff, with regard to his lifestyle beyond the club.

Merlin comes into the cave to drop off his GPS unit. Seeing an opportunity Akela asks him about the nature of drinking around the club and his behaviours. I have a feeling that Merlin carries a reputation as a relative party animal amongst the squad and his discomfort is palpable during the following interaction.

A: So tell me what you do at bedtime?

M: What do you mean?

A: I mean what is a standard routine that you would have? What time would you go to bed for example?

M: I usually try to be in bed by 11 or 11.30 at the latest.

A: And what would you be doing before that?

M: Um, well I would have eaten a few hours before, maybe I'd have a snack if I was hungry and maybe watch some TV and then go to bed.

A: You watch TV right before bed?

M: No, no I don't have a TV in my bedroom, sometimes read but, to be honest, I'm usually so tired I can just go straight to sleep.

A: And what about drinking? How often would you have alcohol?

M: Well, I'd have a couple of beers after a game with the boys, but other than that I don't really drink much in the week.

A: Would you sometimes have wine with your dinner or… ?

M: Yes, maybe sometimes, maybe but not really….

A: And, on a night out how much do you think you would drink?

M: I'd have a few beers you know, nothing extreme because especially the last few weeks we've had so little time to train because we've had short turnarounds, so I'd say I'd be pretty careful.

A: Yes, yes and on a night out, what sort of time do you think you would go to bed?

M: Well it would vary, coach, depending on the training week and the game

A: Yes, but on average?

M: It's hard to say

A: Well, what about Friday? What time did you go to bed on Friday?

M: Well, we were playing away so by the time we got home it was late and I guess I maybe stayed out until one.

A: And then you went out Saturday as well?

M: Well, I just caught up with the boys for a couple on Saturday.

A: Because here I'm looking at this and it looks like Ziggy didn't go to bed until…. Is that Arnold?

Ar: About 4.30

A: I mean, that is late. How can you hope to recover?

M: I don't know coach. I think this weekend was a little bit of an exception though, because we played on Friday….

A: Yes, but you didn't do this did you?

M: Um… probably not coach, but we all went out. I think it's good for the team. It brings everybody together coach.

A: Yes yes, I understand that, but it's a cost thing, we have to balance our priorities Merlin.

M: Yes, I appreciate that coach.

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Wyndham field notes, Jan 2009

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In his work pertaining to professional football, Roderick (2006) indicates the growing degree to which the work of professional training extends beyond the training ground, into the immediate lives of players outside 'working hours' and indeed into their life trajectories in a broader sense. Such concerns hold true

for professional rugby players in a similar regard, although it might be argued that the intense physicality of the game is such that the impact upon this life is unavoidably greater, at least in the corporeal sense. Nonetheless, here we see that the introduction of sports science and technology has also extended the level of intrusion into players' home and personal lives. Wyndham had begun to monitor some players' heart rates overnight, during sleep, an exercise which, according to players, was uncomfortable and inconvenient, owing to the equipment worn (again drawing into question the validity of measuring an 'average' nights sleep). When Ziggy (player) had agreed to wear the monitor as a favour to Arnold, as he had been interested in what happened on a night out; it is unlikely that he had anticipated that the data will be handed to the head coach, resulting in his reprimand and exposing his teammates to similar ordeals.

Beginning as an assessment tool, becoming an intervention, and finally manipulating the social environment at individual and collective levels, the increased use of technology at Wyndham reveals itself to arguably be agentic in its existence. It is naive to think of these weapons of sports science as being passive, or even objective, during their deployment in the field. Within the context of the testing equipment: the PAD, GPS units, the well-being monitor and heart rate system, it becomes clear that these tools occupy theoretical, operative, social and political roles in the training environment. Moreover, while they may hold one of these identities in isolation, within a given situation, it is more likely that they occupy many of these roles simultaneously. The introduction of these technologies is thus worthy of serious consideration, beyond that which currently enables their infiltration into the environment of high-performance sport to occur with relative ease. It is also apparent that, despite the social construction of some of these technologies as tools of assessment, it is often difficult to separate those which measure athletes objectively and those which come to constitute an intervention in and of themselves. The following section takes a closer look at those aspects of sports science which might more readily be considered as part of an intervention strategy to support, or enhance, the performance of an elite athlete.

Optimising performance: sports science technologies as methods of player improvement

Following comprehensive assessment of the athlete, in the gym, on the pitch, in the medical room, as well as through numerous consultation procedures with coaches, nutritionists and often psychologists, intervention is sought in order to optimise the presented profile of the athlete. In this sense, it is fair to say that the assessment process inherently signifies the athlete as not being good enough; that is to say that in sports there is always room for improvement. The mechanism of intervention varies widely, and encompasses a broad range of experts in its scope. Indeed, the expert knowledge of those bearing no contact with the club is heavily relied upon in the administration of building a better athlete. The scientific nature of the knowledge which underpins athletic preparation is such that the evidence bases, and therefore the experts, are located beyond the field of sport. For example, the training methods employed to elicit specific physiological adaptations are underpinned by the biochemical research of scientists often working in medical, biological or human sciences fields. The application of their findings to a sporting domain is left to practitioners, or applied scientists. Even so, the latter often undertake 'applied' studies in controlled environments with populations which do not readily translate to the reality of the training environment. This is owing to the restrictions associated with methodological rigour, access to research subjects and a preference for identifying causal relationships between interventions and markers of performance (Byrne, 1998). In recent years, a great deal of attention has been afforded to the role of nutritional interventions and performance enhancement (Petroczi et al., 2007). Indeed many student research projects focus on the role of caffeine and/ or carbohydrate in exercise testing. Such a focus is understandable, given the centrality of metabolic function upon prolonged or intense bouts of exercise, in both normal and athletic populations.

Moreover, the supplement industry has fostered a cultural transformation, whereby the presence of bespoke nutritional products is commonplace in professional rugby clubs. Additionally, athletes seeking to optimise their performance, either directly or via the avoidance of ill-health, readily turn to supplements such as vitamins or herbal products, to support their job efficacy as an athlete. Several

studies undertaken with athletic populations have suggested that over 80% of athletes utilise some form of supplementation regularly (Burns et al., 2004; Erdman et al, 2006; Taich, 2007), and yet when questioned, athletes rarely perceive their efficacy very highly as an intervention strategy (Burns et al., 2004). Petroczi & Naughton (2008) surveyed over 800 high-performance athletes in the UK, and discovered that of those who regularly utilise supplements, 82.6% used more than one supplement, with significant numbers (11.5%) reporting use of five or more products simultaneously. Of the products investigated vitamins (multivitamins, vitamin C., Iron) were common, presumably employed for health benefits or protection. However, it emerged that the use of creatine, whey protein supplements and caffeine were becoming commonplace among approximately one third of the studied athletic population.

Additionally, the presence of herbal products in the nutritional regimes of athletes appears to be increasing (Petroczi et al., 2007; Petroczi & Naughton, 2008). An indicator that this reliance upon supplementation has become a cultural phenomenon is the emergence of a 'profile' of supplement users. Mazenour et al. (2008) suggest that young males (under 23 years old) are likely to utilise supplements as a corollary to their athletic preparation, while Petroczi & Naughton (2008) suggest the most common user is male, aged between 24 and 29 years old and is involved in professional sport. The latter conclusion is interesting as it specifically pointed to an interaction with *professional sport*. Within the rugby training environment, the presence of such products was indeed commonplace; not only that but the utilisation of such supplements was presented as a facet of *being* a professional rugby player.

Wyndham Wolves were the beneficiaries of a lucrative sponsorship deal from a sports supplementation company and, therefore, the branding of the products was visible in several areas of the training ground: the medical room, the kit room, gym and coaches' office. For the most part, however, as appears to be the norm at most rugby clubs, the control of the supplements fell under the remit of the strength and conditioning department. As such, the strength and conditioning office was often cluttered with stacks of various sponsored products.

I was sat alone in the [office] today, working on some research for Barney, when Elmer (massage therapist) started shouting about some [supplement brand] boxes having been dumped in the medical room. He got some of the others to help them to shift them into our [strength and conditioning office]. There were eight in total, each one being approximately 80 by 50 cm, emblazoned with the product logo. When he had finished, I couldn't see past them, and could barely move. I am struck by the omnipresence of that logo, it is everywhere in the club, but it particularly dominates the [S & C office]. As a matter of interest, I decided to look in every drawer and cupboard in the room and as I had suspected, found at least one [sponsor] product in every one…

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Wyndham field notes, December 2009

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At Wyndham, the supplement sponsor provided products for performance and health; the latter really being restricted to a multivitamin complex. Above this, they provided various different protein powders; each containing different sources of protein or altered carbohydrate protein ratios. Some contained creatine, along with other ingredients, and each different product is marketed such that it is inferred that it will elicit slightly different ergogenic effects when ingested by the athletes. These products, when made up by the interns (usually Rockhead at Wyndham) take the form of a milkshake, which players were expected to drink after each session.

There are two protein tubs which Rockhead and Doozy (interns), used to mix up players' protein after each session. This involves using an industrial stick blender to mix the contents of different [supplement supplier product] tubs with several litres of milk, up to twice per day depending on the training schedule. The tub has a tap on the front and players can help themselves to protein, as they exit the gym or come in from rugby training, using plastic pint

glasses provided. The club gets through over hundred litres of semi skimmed milk per week

in engaging this practice, and several hundreds of cups in a relatively short space of time

<p style="text-align:right">Wyndham fieldnotes, February 2010</p>

Each day, varying amounts of protein made by the interns was thrown away; it can not be kept as the 'experts' behind these products argue that the protein begins to 'de- nature' as soon as it is mixed. During the course of the season at both Wyndham and Queenstown, several conversations occurred relating to how efficacious it was for interns to mix protein before the session started; how long it could be kept for, and still be valuable for consumption.

Cosmo (assistant academy coach): I heard protein denatures within 20 minutes. Is that right Kate?

K: I'm not sure, I've heard a few different timescales……

C: 'cos we mix it well early… I remember they used to leave it out all day... and sometimes I've seen these interns just add to the morning's batch to top it up for the after noon.

K: Really?

C: Yeah… I never used to do that… it's pretty bad, eh?

K: Mmm… I'm not sure I'd drink it.

C: I mean, it's got to have lost all of its value by then hasn't it? It must have done?!

K: Dunno.. all I know is that it stinks if you leave it around for any amount of time… Rockhead made me smell the inside of the protein tub the other day..

C: It's fuckin disgustin isn't it?!

K: It's horrible!! And that was after he'd sterilised it with Milton!!

C: [laughs] Yeah, gross. Imagine what it's doing to your insides..

<div align="right">*Wyndham fieldnotes August 2009*</div>

In the above exchange, the relationship between science, or expert knowledge, and tacit knowledge is exposed as being conflicting. The conversation which begins as being derived from higher order knowledge, or science, quickly becomes confused by the experiential knowledge of being. The implicit discussion of physiological processes surrounding supplement preparation and use for performance enhancement is negated by the intuitive analysis of the ways in which the product might behave in reality (with its unpleasant side-effects) amongst the training environment. As a young strength and conditioning practitioner (Cosmo) enacts the classical discourse between the political strength of allying one's professional practice to 'scientific' evidence bases, with the reality of being an athletically proficient human with rich experiential data to draw upon. Although his arguments and presented approach as a professional must be constructed in the context of the former, he clearly reconciles this continually with his other forms of knowledge, which may often differ ontologically from the 'science' he references.

In contrast to Wyndham, supplements were less prominent at the training ground, beyond the confines of the gym, at Queenstown. This was owing to the restricted funding available for such products and the absence of sponsorship from a supplement supplier. Their allocation of supplements was diminutive, and related to the interaction with the sport's governing body. This was owing to the national squad nutritionist's undertaking work at Queenstown and recommending their adoption of his own company's nutritional products. This political dynamic had cultural implications for the way that many players viewed supplementation at Queenstown; especially the younger, local, players who were theoretically eligible to play for their country. It was inferred that the international players used these particular products, and therefore, albeit subconsciously, it is likely that a form of causality was constructed between such supplements use and achieving representational honours. This is not to say products would

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be judged as being nutritionally superior to any other products, on the part of the players, but there was favour, and potentially symbolic capital, to be held in ordering directly from the national team nutritionist.

Cotterpin (player): I have got to get some more stuff from [nutritionist]… I'm all out of protein.

K: Why do you use that stuff, rather than [X or Y supplier]? Is it is better?

C: I'm on the radar for [national squad], and so I've got to look keen haven't I?! You've got to jump through the hoops, haven't you?! But it's all right, he gives it to me cheaper than it would be for me to buy [other products] at Tesco.... and it's all the same shit.

Queenstown field notes September 2009

Such sentiments were echoed by other players at Queenstown and Wyndham, with reference to the need to present certain behaviours in order to achieve certain ends, or foster beneficial relationships: this relates directly to the work of Goffman (1971) in the presentation of an apposite form of self, and such interactions can certainly be deemed to be strategic. However, the use of such products is not a cynical exercise for the players involved, despite the previous examples suggesting that the utilisation of supplements relates less to science and more to social conformity. There is, culturally, within rugby a co-dependent perception between supplements' use and being professional. Indeed, it is considered necessary in order to perform, and be considered at an elite level in this sport.

I mean look at us, we haven't even got any protein. It's a fucking joke. We're like an amateur team trying to compete in professional competitions… every other club has got creatine, protein, beta alanine, and what ever the fuck else you lot have up at Wyndham…. and we've got fuck all. Seriously, how do they expect us to be taken seriously and perform at the highest level?

Rumple (player), Queenstown field notes December 2009

This argument is interesting for a number of reasons; firstly, because the supplements have been afforded symbolic capital within the clubs' (sport's) culture; and secondly, because the player feels he is not professional (despite his inherent job and life situation) owing to the absence of such products, but thirdly, the substantive element of this argument is, in itself, fascinating. Here, Rumple is referring specifically to a protein supplement, and yet protein is abundant in the western diet. It is a fundamental macronutrient, which is consumed in the diet of every human and is abundantly available in society. Moreover, it is available in greater quantities, and at much less cost than the wholesale, and the trade, prices of these bespoke sports scientific products. Whey protein supplements are the most common form of sports protein supplements used by athletes (Petroczi et al., 2007) and average at a retail price of £2 per serving (3-400mls) in the common market, and yet whey is derived from milk (less than 50p per 3-400ml). Petroczi et al. (2007) point out an incongruence between the rationale for supplement use and practice; however, the experience recorded over the course of this ethnography would suggest that this is a mere fraction of the broader incongruence.

The social and cultural alliance with professionalism afforded to these products has exposed a confusion between performance enhancing intervention and athletes' behaviours, which is part of the broader discourse between scientific, higher order knowledge, and the experience of being. The implications, which are borne out through the disciplinary practices concerning the body, are broad and transcend athletes' identities, and subsequently affect their confidence in their capacity to know their *self* and to know what is best for themselves as individuals and athletic performers. This is indicated in the common contradictory practices of these young male rugby players, who consume several protein shakes each day as part of their routine of being a professional rugby player. However, many of them refused to drink milk, as they perceived doing so to be bad for them. To the external observer, both practices seem nonsensical in their own right, irrespective of the blatant contradiction.

Pellinore (player): I need my protein to be mixed with water.. I can't have the stuff out of the

tub

K: Why?

P: 'cos it's made with milk, and I'm trying not to have dairy..

K: But it's whey protein..

P: Yeah, I know, it disagrees with me because your body can't really process dairy.

K: Oh I see..[Barney intervenes]

B: Yeah, that's no problem mate…we'll get one of the interns to do a separate shaker for you

P: Thanks Barney..[player leaves]

K: I can't help but say something] but it's whey Barney… it is dairy!

B: Yeah…I know.. sometimes you just have to make 'em happy..

Although this bizarre situation seems outwardly amusing, it is in fact indicative of a broader confusion and in particular an ontological shift on the part of players, in which they have come to believe that the package products available from sports nutrition companies are superior to natural food sources containing commensurate macronutrients. Indeed, given the research of Petroczi et al. (2007; 2008), it seems plausible that some form of Giddensian *hyperbolic dissociation* is occurring, in which the athletes are so far removed from the process of performance enhancing nutritional intervention that they fail to recognize, during the interaction with these products, that which is happening: *their* deliberate introduction of food into *their* body. Although not investigated from a sociological position, Petroczi et

al. (2008) state that young athletes appear to be less health-conscious and more performance focused; strong terms, indeed.

It is possible for a player to be ignorant to the notion that these protein supplements are derived from dairy products, and simultaneously consider them a superior source of dietary protein to the foods occurring in their natural state (i.e. said dairy products or the animals which bore them); it seems that the level of scientific intervention, or processing, involved in the manufacture of these products directly influences their symbolic capital within the environment; and this holds true for other forms of sports science intervention. The greater the scientific process involved, the more credence it is given in the training environments. This is amplified further if the knowledge is of a higher order; that is to say it can be attributed to 'experts', which are defined and instructed beyond the field of rugby and/or sport.

The dangers of cross contamination in sport: supplements, ideas and knowledge

Using supplementation protocols in professional rugby as an example, it is a shame that identities and various forms of knowledge can come to be contaminated by science and its associated processes occurring beyond the subcultural setting. A postmodern analysis of the situation might lead to the description of the term 'fragmented' to the operating identity of the rugby player in this context. Specifically, in order to survive as a professional rugby player, or to achieve that eponymous identity, the social actor must adopt multiple aspects of different identities, to perform effectively, and do so in order to acquire the requisite symbolic capital to succeed in his goal. However, not only might these behavioural facets of identity(ies) be at odds with his own sense of self, but the 'correct' actions might be at odds with each other, even within the same geographic, temporal and social space. With regard to the previous example given at Wyndham, relating to the personal oxymoron of being a professional (because one consumes protein shakes, but also bearing a professional concern for human physiological function in refusing to consume dairy) it is easy to see how an individual's notion of personal identity becomes

confused. Baumann (2000) suggests that in situations such as this, where one is seeking to establish personal identity, a collective, social identity is used as a proponent of meaning. Thus, without deference to the broader social identity of the group, playing out of personal identity is precarious and insecure. It is in the affordance of security that sports science comes to operate in its most potent form. The player seeks certitude and external validation of his identity role as a professional rugby player, and looks to 'science' to provide such evidence, in an esoteric manner. Thus, the concept of evidence-based practice, as a common currency of applied sciences, extends far beyond the validation of results from experimental and cohort studies; it offers evidence against which athletes can confirm their identity.

In occupying such a crucial social, and substantive, position, science is inherently afforded symbolic and political capital; as are those individuals who appear to understand it, or identify themselves as 'experts'. The key problem here is that the experts of the science, or elucidatory knowledge, itself not only reside far beyond the totality of the subculture, but they are entirely faceless to those who employ their work. In this regard, this knowledge is orphaned; unattributable to anyone within visible reach of the athletes and practitioners who use it, subsequently absolving them of responsibility when adopting or deploying it. It is, therefore, both the cause and the excuse very often when things go wrong in professional sport. Again, using nutritional supplementation as an example, the notion that a product is good, safe or effective because it is 'backed by science' pervades athletic behaviours in this domain.

In the intervening period between 2003 in 2008, Rugby union had the highest number of positive drugs tests across all sports investigated by UK sport (Informed Sport, 2010), and at the time of writing, three further rugby union players have tested positive for a banned substance, which has been traced back to their nutritional supplements. The supplements have been provided by the respective clubs' sponsors, and handed out by the strength and conditioning staff in a similar manner to the way things happened at Wyndham and Queenstown; observed in the course of data collection for this study. Of concern, in these more recent cases, which sent a shock wave around professional sports teams, owing to the high profile of the supplement supplier, the manufacturer was able to provide certification of batch testing for the

products. Above this, there is little else that practitioners, or athletes, can do to ensure product safety; and yet, legally, responsibility lies with the athlete himself to ensure he does not ingest a prohibited substance (WADA 2010). In this particular situation, the player, practitioner at the club, and indeed the supplement supplier could be deemed to have done all they could; the IRB have also maintained their duty in rigorously testing athletes to 'keep rugby clean'. The blame amongst the rugby world is ascribed to the process; the processing of the products was contaminated, or the scientific testing of the product was fallible. Science, in its faceless form, was at fault; not the people.

In 2007, the laboratories charged with testing such supplements as utilised in both rugby clubs, each product readily available to buy on the high street, found that 25% were contaminated with steroids and 11% were contaminated with stimulants; showing an increase of 10% on steroid contamination from a previous study undertaken in 2004 (Geyer et al., 2004). The nature of the situation adds a further level of complexity to the arguments relating to doping in sport; it introduces the notion of intentionality to the arguments. Waddington and Smith (2009) argue that drugs testing and associated reprimand are present in sport to protect the health of the athlete and to preserve fairness in competition. Their arguments developed, similarly to other sociologists such as Coakley (1998) before them, to discussions of wilful deviance among athletes in order to win at all costs. Klein (2001) has written about the attachment of bodybuilders identities to steroid abuse in that specific subculture, and the context specific legitimisation which occurs among users. However, this situation differs crucially; not only do rugby players not necessarily know if they are ' cheating', but supplement use has become a facet of a 'professional rugby players' (rather than amateur) identity. In this sense, it is proposed that both identities and knowledge have become contaminated by external 'science' in metaphorically commensurate cross contamination as in the ergogenic substance itself. Without wishing to appear naive, perhaps the players have no desire to cheat, or even ' win at all costs'; perhaps they just want to be confirmed as having the identity of a professional rugby player. In an earlier chapter, an example is given of a player who is vehemently opposed to drugs cheats in rugby union; yet he was observed along with all other team members utilising

protein post training and taking additional products home with him for personal use as part of his broader nutritional programme.

The faceless entity, which is presented as 'science', must also take responsibility for many other performance interventions. As has already been mentioned, numerous studies support the performance claims associated with caffeine ingestion, and in the strength and conditioning office at Wyndham there was routinely a stack of trays containing cans of a well-known stimulant, caffeine and taurine based, drink for players to consume freely. Similarly, rehydration salts sachets were offered to players by way of aiding optimal pre-match hydration. One would normally only see people consuming such products after a bout of diarrhoea or vomiting. In the course of the ethnography it was never inferred that these products were taken to win at all costs, or even to gain a performance edge. On the contrary, it appeared that such measures were undertaken to responsibly prevent a reported performance decrement which arises in highly trained individuals following heavy training. The implication of only minor dehydration, or glycogen depletion, upon performance is widely documented and authors associated with such study often recommend optimal concentrations of carbohydrate and electrolytes to attenuate performance decrements (Armstron, 2000; McArdle et al., 2001). Indeed, such advice is now commonplace in any exercise physiology text and yet is rarely cited as being 'ergogenic'. The same follows the protein ingestion, creatine use and is becoming more visible in the prescription of multivitamin strategies for athletes (Petrroczi et al., 2007). It is unsurprising then that product manufacturers such as those supporting Wyndham and Queenstown have sought to develop products which contain these championed nutrient levels. Moreover, in creating these products for the common market, where competition is rife, the addition of ingredients which will enhance the layman's perceived performance (and therefore bolster sales over that of the next competitive brands) would be commercially attractive and, worryingly, this often involves the inclusion of unregulated 'herbal' ingredients. Perhaps this is where another problem lies; there is no clarity as to whether these products are truly made for athletes or for the general public. Consider also that a strong performance of the team sponsored by a particular product manufacturer will

also likely enhance sales in the public domain. Thus, the consumer also now becomes a stakeholder in the science which comes to predict some of the observed behaviours arising at the rugby club.

Considering this as a vastly broader picture than initially imagined, even within the context of current medical and sociological literature, perhaps the cases where players resisted taking such supplements become more interesting than those where players observe the normative practice of unquestioningly accepting the products prepared for them by the strength and conditioning staff.

Spiky (player) had been asking about the nature of my PhD quite a lot recently, and in honesty it was nice to have someone to talk to about it. We were talking about the different types of technology is available in the name of sports science, and I wanted to propose nutritional supplements as being similar. He was interested in my argument..

S: I'm sure you're right, I mean you can't see their effect on how they work in the same way as other things like in the medical kits or heart rate monitors though.

K: Yet it seems that their use is pretty common...

S: A bit too common, if you ask me, and it actually gets you down a bit, Kate. I remember being away with [another team] at camp and in one sitting I had to take 15 tablets.

K: [I am shocked]... You must have been rattling!

S: Yeah! But your body just doesn't want them... it doesn't matter what it is... your throat just kind of closes up!

K: I can imagine... have there ever been any that you've refused to take?

S: [he hesitates]....Mmm.... we were once given something... I dunno what it was... but it made a load of us lose the skin off our fingertips.

K: Really?

S: Yeah.. dunno what it was... and a few of us just went, you know what?! No.. I'm not doing it

K: Wow. Did everyone suffer with it?

S: I don't think so... to be honest, a lot of boys just don't take [other team nutritionist's] products anyway... and to be honest, it put me off for a while.

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Wyndham fieldnotes May 2010

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In the above example, although he hesitates, it is interesting that Spiky considers himself to have resisted taking the particular products. Of course, in reality, he didn't; he took it seemingly unquestioningly, and stopped in light of an adverse reaction. If the adverse reaction had not occurred, it seems almost certain that he would have continued the prescribed supplementation programme for as long as he fell under the charge of the team nutritionist. Although, as previously mentioned, a growing number of players across the season showed some resistance to nutritional supplements, in requesting that they be prepared without milk, at both clubs only one player totally refused to use supplements.

" Merlin walked into the strength and conditioning office today, while I was sat alongside the tub of protein left out by Rockhead, after he had prepared individual servings for certain players.

M: You don't take that stuff do you Kate?

K: [I turned around, having not heard him coming]. No, Rockhead left it there earlier

M: I should hope not, it is shit!

K: You not a fan?

M: No way.. I don't touch the stuff

K: Really? [I am genuinely surprised]

M: No... not any more

K: Why not?

M: I had kidney stones when I was about 20 and I swear it was because the coach made me take loads of that shit in my late teens.... they wanted me bigger... and your system just isn't built to deal with that stuff. I mean look at the label... half these boys [he is referring to strength and conditioning staff] don't know what the fuck any of these things listed are. It's shit [he walks out]

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Wyndham field notes March 2010

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In the above example, the player shows an identification with his experiential knowledge, rather than capitulating in deference to higher order, external, science. It is a strong stance to take and to the outside, it appears to show something akin to integrity. However, this player was one of Wyndham's most highly paid athletes, he has international honours and is also advancing in years within the context of a rugby career. It cannot help but be considered whether, were he a younger player (of the typical demographic profile previously outlined), perhaps with less natural talent, this resistance would occur at all. In terms of identity, such resistive power-play would be destabilising.

Before moving on from nutritional supplementation, it is worth noting practices surrounding the management of these and other sports science technologies at the ground at Queenstown and Wyndham. Despite the potentially serious consequences which might arise if something ' goes wrong' in the use of such products (ultimately leading to career cessation or serious harm to the athletes), a disorganised, messy, environment did not seem to lend itself to protecting the player. This is in addition to the apparent lack of care taken over expensive equipment as alluded to previously.

I arrived in the office this morning having been at Queenstown last Friday to find absolute bedlam. There were people and boxes everywhere. I couldn't find anywhere to sit, there was no space along the interns' worktop and there was barely any floor space either. This is a situation which has been developing slowly over the last few weeks and is most likely, in part, a symptom of the growing entourage of staff working at Wyndham. There are now so many work experience students and interns that I struggle to remember each of their names. It is interesting, therefore, that Wyndham always refer to themselves as a family and it makes me feel that it's certainly a family I'm not part of; a kinship or family is rarely associated with members who don't know each other's names, backgrounds or business. As families go in the S & C office at least, the tribe is beginning to resemble something akin to Lord of the Flies. This caring community has descended into squalor and I can't help thinking that there is a little nuance of every man for himself. As I struggle to find somewhere to sit, carrying all my bags for my day's work, I'm forced to stop when I can't get past the corner of a desk for people, equipment and boxes. Though I'm aware that I'm disgusted with the state of the place, I'm equally shocked since the boxes contain protein supplements worth several hundreds of pound and equipment which is worth several thousands of pounds, and here I am literally tripping over it.

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Here, not only is the treatment of the product concerned, so too the ever-growing number of people involved in managing the players. It is questionable whether more people enable a broader coverage of support, or whether they merely introduce more gaps through which responsibility can fall.

Although the contemporary, increasingly commercial, landscape of sports science technologies for elite sports performance is such that there are almost infinite permutations of interventions available, or in use, at the studied subcultures; an analysis of each and every one would add little to this thesis. This is owing

to the lack of additional understanding such data would give; a similar narrative would be replicated in each instance. However, one final intervention, which might more fairly be classified as a measurement tool, if such delineation were possible or important, is the collection of session RPE.

RPE is an acronym for 'rating of perceived exertion', and it is utilised commonly in laboratory based physiological exercise testing. Indeed, a specific RPE score is one of the indicators in establishing VO_{2MAX}. In such contexts, the values are based on Borg scale (McArdle et al.,2001), where the athlete gives a score between six and 20 to indicate how hard they perceived a given bout of exercise to be. Again, in this context, such measures are contemporaneous. The RPE is also utilised in the field and is highly visible at Wyndham after every field based training session. However, the method by which it is employed differs: scores on a one to 10 scale and they are taken post-session. In the interests of methodological rigour, this mutation has obvious implications. However, in this form of data collection, it can be argued that the truest indicator of the status of players is afforded to the management staff, as heart rate, in particular, is subject to alteration in light of chronic stress or fatigue, for example. Through RPE, an alternative training load can be calculated multiplying the squad average score by the length of the session in minutes. Indeed, some leading academics consider this to be a serious contender for being the gold standard of expounding training load and monitoring for overtraining (Beachle & Earle, 2000). However, as with all other sports science interventions utilised by the strength and conditioning teams at Queenstown and Wyndham, RPE reveals itself to be subject to the same typology of use; theoretical, operative, social and political. Operatively, this tool holds the greatest value for Barney at Wyndham. And interestingly, the addition of more tangible technologies, with their perceived heightened sensitivity and accuracy, may serve to enhance the validity of the RPE method. This is for two reasons; firstly, players may believe that heart rate will expose them if they're not truthful in affording an RPE score for the session, and secondly, they would likely perceive this measure to be taken less seriously than the heart rate and GPS data, thereby negating the need to give anything but a truthful score. Nonetheless, at Wyndham Barney placed great emphasis on continuing to collect RPE scores, which he did himself rather

than delegating the job to an intern (note that heart rate, GPS, well-being and strength data, were collected by Barney's subordinates); at Queenstown this was undertaken by an intern. Barney maintained that it was the best way to get 'a feel' for how the squad 'was', which he accordingly used to adjust the intensity of his programmes and the subsequent sessions.

Rugby Training:

B: Archimedes RPE?

A: 12 (the scale is 1-10) Does that get me out of weights?

B: Seriously

A: 10 then

<div align="right">

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It is admittedly noteworthy that the player implicated in the above exchange is Archimedes, again, who has demonstrated his capacity to resist on several occasions throughout the course of data collection undertaken at Wyndham. Nonetheless, the exchange is demonstrative of the social cognisance of the implication of this form of player monitoring. Archimedes introduces the notion that the measurement process is political and strategic; moreover, it is a dialogue of negotiation, not merely the passive, relatively objective, exercise of collecting realistic data, which represents the contemporary state of the subculture or athlete. Thus, even this tool of sports science, which arguably lays less claim to objectivity, higher order knowledge structures or an alliance with faceless science, is still subject to a similar corruption as the other more heavily technologised methods used in the field. Moreover, it becomes another victim of a paradoxical relationship with knowledge in sports science in particular. Like the PAD, the heart rate systems, and indeed the supplementation strategies, the introduction of ' science' as a suffix to the practices employed has the unintended consequence of moving practitioners away from being scientific. That is to say that in failing to apply the techniques in the manner intended, as derived

from the scientific enquiry and academic settings, the purpose is negated and the validity questionable. The data collected during the course of this thesis would suggest that the technologies of sports science are used to present a collective image of being more scientific, and synonymously more professional, whilst enabling practitioners to acquire symbolic capital to their alliance with higher order knowledge structures derived from beyond the immediate subculture. However, the faceless nature of this knowledge, or those who built these technologies, creates the scope for error in their field based application, leaving their use to be valuable in an operative sense the best. Realistically, these technologies fulfil sociopolitical functions for the most part, and this, though it may not be apparent to the practitioners as actors themselves, undermines their capacity, their tacit knowledge, and their claim to be 'scientific' in their practice.

This paradoxical notion of sports science, and the application of technology to performance preparation, adds a new layer of complexity to an area which has received little attention in the literature. Previously, discussions have centred around the corporeal discipline inherent in producing elite sporting performances (Cole, 2004; Sparkes et al., 2007). However, more recently, Magdalinski (2009) looked more specifically at the use of external technologies to enhance the body or strive for sporting excellence. In doing so the use of technology in sport is exposed as having an alliance with professionalism, thereby integrating with traditional discourses pertaining to amateurism and professionalism in sport. To oversimplify this incredibly, an ideological dichotomy appears to exist wherein an athlete has a ' win at all costs' attitude or participation for the love of the game; the former being synonymous with technologised forms of training. This is an argument taken up by Beamish & Ritchie (2006) and expanded through an analysis of the development of high performance sport, derived from sociopolitical dynamics of the Eastern bloc in the 20th century. However, Magdalinski (2009), progresses this argument, significantly, in the identification of a complex and confused discursive space, which enables such technologies to flourish. Rather than determining that these athletes who utilise sports science technologies as willing to do anything to win, there is an indication that the relationship between the athletes and the intervention is

complex and as yet undefined: such that it offers a unique site for the negotiation, and understanding, of identity. The purpose of this thesis is not to enter into neo-Marxist discussions of ways in which sports science, in its faceless form, may threaten the purity and beauty of sporting endeavour, nor is it to pass judgement on whether or not sports science should be a part of sport at any level. The purpose is to understand whether sports science is used (the answer: unequivocally, yes) but more than that is to appreciate how it is used and for what purpose(s). The examples given throughout this chapter, as observed during ethnographic research, would suggest that the people involved in administering sports science interventions (e.g. Animal, Barney, Fozzy, Fred, Sylvester, Arnold etc) are not doing so, all of the time, with the end goal of achieving a best athletic performance; at least not directly. In fact, it is argued that, more often, the sports science which happens in situ serves social or political motives, before performance purposes.

Through the course of this chapter, sports science has been discussed within the context of player assessment and subsequent intervention, although it has been shown that it is often difficult to separate the two; forms of assessment used regularly at the two clubs, in and of themselves come to catalyse behaviour change in athletes. It is then suggested that the engagement of sports science technologies in the observed subcultures is not necessarily confirmation of the adoption of a ' win at all costs' attitude on the part of the players concerned. On the contrary, in many cases the use of sports science is so entrenched in the culture of professional rugby that failure to engage with it would be commensurate with cultural resistance, and therefore would threaten the identity, and position, of the player. This is understandably true of the players who are younger, who appeared to be as motivated to have their identity confirmed as a professional rugby player, as they are to 'win'; although it is accepted that there is often significant overlap. However, the quest for identity confirmation is not restricted to the younger members of the subcultures, indeed, the instability which is commensurate with approaching the end of an athletic career was discussed in chapter 4. Additionally, professional sport, and particularly rugby union,

owing to the high physicality and contact nature of the game, is such that an omnipresent threat to identity pervades daily, weekly and seasonal activity throughout the rugby club: the risk of injury.

Chapter 6 will focus upon the role of the medical team within the professional rugby training setting, and in particular the role that (sports) science and technology plays in this corner of the training ground. It will be shown that while there are similarities in the scientific language used to describe professional practice protocols, the methods and understanding diverge from that seen elsewhere in the club. This is arguably owing to a philosophically and ethically different role requirement; however, there are culturally different norms which pertain to the derivation of their knowledge structures, and that which constitutes appropriate 'evidence'. Despite these differences, the potency of the training ground subculture is such that it will be argued that a cultural mutation has occurred in which the philosophical and ethical grounding of their occupation has been partially eroded. One result of this is that in their application of knowledge, science and technology, medical practitioners at Queenstown and Wyndham are subject to the same challenges as the coaches and the strength and conditioning staff; and as such, their applied medical science can also be enacted for multiple ends.

CHAPTER 6: Science and Technology in the Medical Room – eroding boundaries of professional practice and patient care

In Chapters 4 and 5 it was demonstrated that the destabilising of individual or group identity presents an opening for the emergence of sports science technologies to perform multiple roles; not least in the confirmation or reconstruction of said identities in this context. As has been documented in sporting and nonsporting subcultures, the acquisition of injury or a deterioration in health is often commensurate with the loss of identity or reconsideration of the self. The purpose of this chapter is to examine the ways in which this process arises in the medical room of professional rugby teams, and to examine the scope for technologies to enact a similar role in the quest for identity, and power, on the part of the athletes and practitioners who utilise them.

Locating the physio room within the context of medicine

Medical sociology is the subject of vast quantities of academic writing, and over recent years its relation to sporting endeavour has received increasing attention (Waddington, 1996; Malcolm & Sheard, 2002; Cole, 2004; Malcolm, 2006; Roderick, 2006a). In particular, the examination of sports injury and the experiences of playing through pain have offered valuable insights into what remains a relatively closed world (Howe, 2001; 2004; Malcolm & Sheard, 2002; Malcolm et al., 2004; Roderick, 2006a). The medical room within professional rugby training grounds offers a unique site for sociological analysis, as highlighted by Howe (2001), in the analysis of ethnographic research with a Welsh rugby team. Through the course of Howe's (2001) research, the influence of a highly pressurised climate in which club physiotherapists must work emerged and this correlates with the findings of similar research undertaken in other sporting fields (Roderick et al., 2000; Malcolm & Sheard, 2002). Indeed, such complexities were found to be prevalent in the medical departments studied during the course of this ethnography.

The only pressure in a normal clinical environment is from the patient or the athlete to get back to normal levels, but what you've got now is – yes you've still got that pressure on the athlete or the player - but you've also got the next thing from the coaching staff because ultimately they want the best 22 players picked available for selection [...]you've got to be aware of that within your role [...]I think at the moment it's very much like a dictation feedback in that coaches tell us who's available and we've then got to manage those players then to get them available for the Saturday which I don't think is the way it should work.

Scooter, Queenstown Interview, January 2010

Here, Scooter, the second physiotherapist at Queenstown, articulates a concern which has been implicitly indicated during previous research; that the health of the player is sometimes not determined by the physical manifestation of that player. In Foucault's (1984; 1989) analysis of medical power, it is suggested that the medical practitioners, and in the worst case quasi experts (such as psychiatrists or, arguably, physiotherapists in this context), bear an inordinate capacity to pass judgement upon an individual's state of being; the consequence of which being an invariable impingement upon their personal freedom. Although attempting to maintain a judgement free position, there is an implicit sinister interpretation of this phenomenon available for consumption. Within the sports club, it is seen that the quasi experts, or medical practitioner, also become alienated from that power to determine health; it becomes the domain of someone with no medical training and, more alarmingly, a vested interest, which is potentially removed from the athletes' well-being, or indeed their own interests. In the following interview excerpt, Scooter expands upon the nature of those interests and pressures; furthermore, he alludes to a broader structural web of influence, which serves to exert such pressures.

These players are financial assets y'know and again it goes back to that circle of life where the business as an organisation needs to have revenue coming in and the way they have

revenue coming in is by key players, or superstar players, playing on a week by week basis

to get the crowds through the gates. In order to ensure that we need to keep the players on

the field and in order to ensure that the head coach can pick those players y'know, they

need to be injury free. So the pressure is on us then to get those players back and maintain

them, so there's pressures coming on the head Coach from the organisation, because as a

business we may be having a dip because we've lost several key players for the season.

Scooter, Queenstown Interview, January 2010

It appears to be without question then, that there is a pervasive threat and uncertainty surrounding the treatment of players in the club's medical department. As such, this situation appears to have the requisite features to permit, and possibly encourage, an influx of science and technology with a view to confirming the identities of each implicated member of the subculture. The breadth of those who are implicated in this regard, should not be underestimated; the wealth of data collected would suggest that it is by no means restricted to those inside the treatment room.

Rose (1994) argues that an historical analysis of medicine reveals it to be a social science; that is to say it is profoundly subject to social influences. Indeed, he points out the firm alliance between medical linguistic styles and political events in society. To borrow from Foucauldian lines of argument, it is impossible to consider medicine without also discussing the body; for it is through the body that medicine is enacted by every social actor. Moreover, it is this process, which has aided the construction of a clinical medicine, which has properties of a superpower (Turner, 1987; Rose, 1994; Foucault, 1989; 2002). Yet, at the nexus of the medicine-body relationship, there is a discursive space in which technologies occupy a central position. In this regard, the term technology holds multiple meanings; in its most literal sense, it relates to the innovations utilised in the treatment and assessment of ill health, but crucially, it also pertains to that which Foucault might term 'technologies of truth'. Here, Foucault is

referring to the knowledge orders which conspire to determine that which 'works' from that which does not (Rose, 1994); that knowledge which is correct is derived from the analysis of that which is considered to be 'wrong'. The elucidation afforded in this latter definition of (Foucauldian) technologies affords insight into that which constitutes evidence, or justified practice, in the clinical setting; or to be more appropriate, it forms the basis of the espoused 'evidence-based medicine' upon which the current medical care model is allegedly contingent. Moreover, the relational emphasis which Foucault places upon truth and power is significant here; the construction of evidence, or knowledge, is commensurate with the construction of power (Foster, 2005; Malcolm, 2006). Thus, like the strength and conditioning practitioners discussed in Chapter 5, an alliance with the knowledge base derived beyond the immediate environment becomes a source of power and symbolic capital within the training ground. Furthermore, it can be argued that the breadth of 'data', from whence medical evidence is derived, coupled with the mirroring of political ideologies in broader society, lends greater potency to medical science and the new technologies it brings over sports science technologies.

Rehabilitation devices, treatment tools and therapeutic products: the infiltration of technologies into the medical rooms at Queenstown and Wyndham

The Oxford dictionary of sports science and medicine defines rehabilitation as *"restoration of an injured person to the level of physical fitness, he or she had before the injury"* (Kent, 2001; p426). Theoretically, this definition makes sense; it delineates between medical rehabilitation for health restitution and processes motivated by the restoration of 'performance'. However, in doing so it provides a site for ethical ambiguity; such goals deviate significantly from those underpinning the traditional medical model. However, operatively, the difficulties with this definition escalate; it can be argued that, particularly in light of the transient nature of performance, it is possible that an athlete may never return to previous levels of fitness again, yet still participate in a professional playing career. It has been widely

documented that players will continue to perform with pain and injury, often with an attenuation in their capacity to perform (Roderick et al., 2000; Roderick, 2006). Indeed, several authors have asserted that such behaviours are encouraged and expected in sporting subcultures (Malcolm and Sheard, 2002; Monaghan, 2001). A further area of difficulty exists in the omnipresent challenge of defining fitness and operationalising it such that objective markers of performance, fitness or non-fitness, might be constructed for use by practitioners in the field.

The data collected in the course of this study would suggest that perhaps a more appropriate definition of rehabilitation would pertain to the medical treatment of a player to a level at which he might be deemed available for selection. In light of this substantive difference in what is considered to be rehabilitation from an academic point of view, against what comes to constitute rehabilitation in the field, it is little wonder that a growing body of research points to widespread medical negligence arising in the domain of high-level sport (Young, 1993; Waddington, 2002; Waddington et al., 2001; Malcolm and Sheard, 2002). There is sufficient evidence in the data collected for this thesis to suggest that, in fact, little has changed in some aspects of medical treatment, and negligence in high-performance sport persists; although it might be argued that certain aspects have transformed substantially, particularly in the structural understanding of that which constitutes 'good practice'. It sadly falls beyond the scope of this thesis to undertake an in depth re-examination of the current field within the context of the literature produced on this topic over the last two decades; it would undoubtedly corroborate the notions of pain and injury and sport as being socially contingent and a partial cofactor in symbolic interactions throughout every level of the clubs studied. Nonetheless, the focus here remains upon the behaviour of players and medical practitioners, with regard to their interaction with technologies and science. It will be argued that oftentimes, science and technology, exploiting their attachment to higher-order knowledge, operate as social and political tools to justify the behaviours of those occupying the physiotherapy room, staff and athletes.

The growing market for rehabilitation devices or functional fitness tools is such that there are new product lines being added to the medical suppliers of sports teams on a monthly basis. Indeed, there is big money to be made by inventing the next big thing in functional training; these products often attract high price tags. In this sense, the physiotherapist's storing space quickly becomes a graveyard for equipment bought, used once or twice, and then put away to gather dust; in a manner not dissimilar to the fitness equipment bought in January by many lay people in society. This is not to say that all such technologies are useless, merely that traditional techniques are often more effective or convenient, or both. There are numerous pieces of rehabilitation kit which have proven themselves in the environment and, as is often the case, are simple in design and function (for example, Swiss balls, foam rollers, wobble pads). However, the head of the medical department at a professional sports team now has an additional pressure to contend with: market forces and their embodied messenger, the sales representative.

> *It's fads isn't it? It's [...] Y'know, this club's doing this and this environment's doing that and it works well for them so why don't we do it? There's no kind of research or reasoning behind bringing this equipment in, apart from it's a sales rep. approaches you, makes all these wonderful claims that this product can do this, this and this.*

> *Scooter, Queenstown Interview, January 2010*

Given the relatively established toolkit for athlete rehabilitation therapy available to the sports physician, in addition to their fervent philosophical adherence to 'evidence-based practice', it seems strange that they would give in to the sales rep so easily. As one example of many, during the time at Queenstown, Fozzy purchased a new rehabilitation device. This was in light of several conversations pertaining to diminished departmental funds (no soap, no hypoallergenic massage medium, no hot water, a broken hand dryer).

> *F: look what we've got Camilla*

> *C: what is that?*

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F: it's a [brand] mat

C: what does it do?

F: what do you think it does? [he takes it out of the packaging ceremonially and places it on the floor-it is a rectangular piece of plastic (approximately 1m x 1.5m), and it has a few different shaped foam pads which he places on top]

C: what? You just slide on it?

F: well you can put your feet, or your hand on the pad and it will slide….. so you could do sliding lunges for example…. it'd be great for shoulder rehab too

[Camilla looks baffled and stares at Scooter, the rehab physio]

C: well Scooter? What do you think?

S: how much did that cost?

F: 90 quid… pretty good, I reckon…

S: 90 fucking quid?! Have you lost your fucking mind?

F: [gets defensive], well, it is much less than that kit you wanted last week

S: you're comparing that with the [a system for cooling injured muscles quickly]?? Mate, you could get 'em skating round the gym in their socks for free.. it'd do the same fucking job! [Scooter walks out]

Magdalinski (2009) points out how seamlessly technologies have become a part of preparation for sports performance, and notably, the lack of anxiety that their arrival elicits. Indeed, it is as though their passage

into the subcultures has not only gone unquestioned, but unnoticed. Within the context of the above exchange, one must begin to question why this has happened. Perhaps the adoption of these technologies has less to do with the evidence and 'science' behind them, that which forms such a central part of the sales rep's pitch, and has more sociopolitical ends, which relate particularly to the identity and the role of the medical practitioner within the sports team. In his book *Technology as Magic*, Stivers (1999) indicates that technologies come to be constructed from a social need, rather than a functional shortcoming, derived from a desire to influence or manipulate outcomes within the realms of human experience. He goes on to suggest that magic arises in the hiatus between a wish and its fulfilment. Therefore, the new technologies which populate contemporary culture, and this includes technologies of thought and knowledge, share many of the attributes of magic. Moreover, Stivers (1999) suggests that there is an innate human desire for cause and effect, which drives an attachment to these technologies as bearing the power to manipulate outcome. Thus, in a professional rugby, or sporting, climate where, as Barney alluded to in an earlier excerpt, practitioners 'live and die by the performances of a group of blokes on the pitch', the promise of control over such outcomes through the deployment of such technologies is undoubtedly attractive to practitioners in these highly pressurised fields.

Within the context of medical technologies and forms that they take, Timmermans and Berg (2003) have highlighted the breadth of that which falls under this category. In addition to the machinery and instruments utilised, *technologies* also refers to the procedures and protocols that practitioners use, as well as the pharmaceuticals they prescribe, in addition to the administrative methods pertaining to the keeping of medical records. Indeed, Gabe et al. (2010; 145), direct us towards the US office of Technology's definition of medical technologies, laid out as: *" the drugs, devices, and medical and surgical procedures used in medical care as the organisational and supportive systems within which such care is provided"*. Within this definition or construct, it is seen that the technologies in use at Wyndham and Queenstown extend significantly beyond rehabilitation devices. Interestingly, in the field, the activities of treatment and rehabilitation are clearly separated by the practitioners who undertake them. Rehabilitation, as

opposed to treatment, is often considered to be an activity undertaken outside the medical room; usually in the gym or at a local leisure facility. This presents an apposite site for the analysis of the nature of sociopolitical relations between the medical and the strength and conditioning departments at the rugby clubs studied.

Rehabilitation: reintroducing players to high performance and training………away from the training group

As mentioned in Chapter 4, rehabilitation sessions at Queenstown occurred before training, at an offsite gym; in essence, the sessions would often be termed 'pre-habilitation', implying that such activities would prevent injury. The notion that risk in such a high impact sport could be attenuated is an interesting concept in itself, and the attraction of such a technological tool (in tangible or procedural form), for any stakeholders is clear. The arrangement within the elite sports teams is such that the sessions inherently fall under the remit of the medical department; thus affording significant symbolic capital and political leverage to the implicated practitioners. It is the presence of this capital which enables physiotherapists to access the territory of the conditioning staff; unchallenged at the manifest level. However, Fozzy and his team at Queenstown struggled with such access to Animal's gym during the training day; the capital accrued from their 'magical' capacity to reduce risk and protect company assets did not readily transfer from one geographical site to the next. The organisational situation dictated politics, which restricted social movement. As discussed in Chapter 4, along with the symbolism attached to a sports science technology, most often catalysed by an attachment to higher-order knowledge structures derived from beyond the environment, and the personnel delivering them, physical location bears a great impact upon the potency of the delivered practices. At Wyndham, interventions undertaken by Sylvester and his team in the name of (p)rehabilitation occurred in Barney's gym; although never during scheduled S&C sessions. Nonetheless this meant that access outside the specified times was much

easier for the physiotherapists to do extra work with injured players. At Queenstown, rehab sessions were either carried out on the side of the allotment, at an offsite leisure Centre or not at all; despite having an, albeit dilapidated, available gymnasium at the training ground. However, within the first month of training at Wyndham, there was a seemingly political reorganisation pertaining to 'prehab'; its governance was handed over to Barney. Intuitively, however, it is felt that it had been claimed by Barney, rather than willingly handed over by Sylvester.

> *I left the weights session early and was followed by Fred, the senior S&C coach, who asked*
>
> *if I was bored. I replied that I was going to go and get some work done before the next*
>
> *session started. I commented that I had found it interesting, particularly the PSP (position*
>
> *specific protection) and he explained how it had come about. To replace "prehab" which*
>
> *the players hated and physios ran fairly badly. As it stands they will do PSP twice a week in*
>
> *addition to individual sessions with physios for the injury/ weakness specific problems. He*
>
> *also explained that to get players to do rehab, there was a non-negotiable contract between*
>
> *physio and player stating that for any treatment received, players must do at least 2 rehab*
>
> *exercises.*

Wyndham Field Notes July 2009

The negotiation of control over these sessions, both at Queenstown and Wyndham demands a re-examination of the types of technologies, in the broadest sense, employed by the respected medical and conditioning departments. Miah (2010) discusses medical technologies within sport within the context of their classification as therapeutic, non-therapeutic and performance; though he concedes that the delineation is incredibly complex, if indeed possible at all. It is fair to suggest that at lower levels of performance (i.e. non-professional) that medical practitioners would have greater input into technologies of performance enhancement, such as training programme design and nutritional advice, as evidenced by the findings of previous research (Malcolm & Sheard, 2002; Waddington & Roderick, 2002). However, at

the level of performance studied in this thesis, where various separate departments and multiple 'experts' are presiding over different aspects of performance preparation, the stripping of responsibility for ' performance enhancement' has become increasingly legitimized.

At Wyndham, despite their affiliation to higher-order knowledge structures and models of practice which politically outweigh that of sports science, Barney acquired control of 'prehab' with relative (visible) ease. This is likely owing to an oversimplified view that performance enhancements fell under Barney's domain, whilst Sylvester had control of therapy and its associated technologies. Following this reorganisation, observation of the medical team at Wyndham would suggest that the preponderance of their activity was related to the goal of enabling the athlete to return to previous, or normal, levels. Coincidently, there was no biomechanical screening, which visibly took place across the entire squad, of fit and injured players, during testing phases at Wyndham; in contrast, such a programme occupied a central feature of the medical departments' activity at Queenstown. The absence of this clear delineation in departmental responsibility at Queenstown was undoubtedly the source of a much more difficult relationship between Fozzy and Animal, as opposed to Barney and Sylvester at Wyndham. This is not to say that the relationship between Barney and Sylvester is comfortable, or is devoid of animosity, merely that this did not play out in public, or semi-public, interactions of conflict, as was the case at Queenstown. There was a continual negotiation of political capital between Fozzy and Animal which affected all players as well as the staff in each of the departments. On several occasions, as a researcher with some 'scientific' qualification, Fozzy, by departmental affiliation, laid claim to any capital inherent in my presence. An example is given below relating to an exchange pertaining to the testing Animal had carried out, as discussed in Chapter 5.

Animal: well, you see, the standard phos dec isn't really a phosphate decrement test…. it's more of a glycogen depletion test. This one is more specific… see.

Fozzy: so it actually tests the phosphocreatine system does it?

A:Yes

F: And that's why we're doing it?

A: Yes

Scooter: excuse me, asking a stupid question, but how do we know that it's testing that system. I mean, how can you be sure it's not just doing the same as the old one.

A: well the point is that nobody runs 40 m a game… so there's no point testing over that distance. Where as 15 m is more specific.

F: so who's come up with this test then?

A: the [national squad headquarters]

F: it's a [governing body] test then is it?

A: yeah and they've been having some good results.

Sc: in terms of stressing the right energy system?

K: I'm not sure how you can know that you are testing the right energy system.

Sc: that's what I thought.

F: how long does the phosphocreatine system take to restore itself Animal?

[Animal looks blank….and turns to Beaker and Lew (assistant conditioner and academy conditioner) for help…nothing is forthcoming…I answer. Three conditioners stop and stare at me, Fozzy smiles and Scooter's eyes drop to his lap. I'm aware that I have begun negotiation of my position in the team and not only that, I feel I am the tool of symbolic power for Fozzy specifically.]

Throughout this entire excerpt, the negotiation of power between Animal and Fozzy in particular (played out through their respective departmental actors) is clear; from the outset, Animal is seeking to demonstrate symbolic capital, and power, through his attachment to expert knowledge. What follows, is a clear power struggle between departments over testing. The fact that Fozzy's department also featured heavily in testing the squad enables a discursive space in which each 'side' seeks to assert their dominance in understanding and, therefore, producing players' performances. At Wyndham, such exchanges would not have occurred; testing of players was Barney's domain, he was the appointed expert, end of story. As an individual with a sports science background, although utilising qualifications in sports therapy whilst at Queenstown, Animal sought my assistance in the analysis of his data following the exchange outlined above.

> *Animal entered the [S&C] office and asked if I was ready to go through the data with him now. I said that I was. He brought up the excel file on his laptop.*
>
> *A: see now what you've done here isn't really clear. It makes no sense why you've done it like that.*
>
> *K: What do you mean? [I am immediately concerned that my worst fears have been confirmed – that I have forgotten all of my MSc training]*
>
> *A: like here…it's not very clear is it? {he is highlighting a title cell}*
>
> *K: well that's the column showing the [National governing body's calculated] parameter of fatigue – you know... calculated the way that they wanted us to?*
>
> *A: well. Just call it fatigue will you….and here, what is this?*
>
> *K: That's fatigue relative to international players' standards.*

A: right. Well there's no need for all that in the box is there. I mean I can't see everything on one page at once.

This progressed for some time until he said he'd send the spreadsheet back to me, I could change it and then e-mail it back. We didn't talk about the substantive element of data at all; the meanings, value or implications of the players' scores. The conversation did not extend beyond presentation. Ultimately this was about ensuring I knew I had not got things right.

Queenstown Field Notes July 2009

At the same time that this analysis was being undertaken, so too was analysis of the medical department's biomechanical screening of each player.

I have spent hours and hours arranging data for Fozzy and Animal and fed the results back to them. Neither showed any real interest, nor did they even when I suggested it would be interesting to cross-reference the two departments sets of collected data. Fozzy indicated that my time would be better spent massaging players, and when I suggested he might find the medical data interesting, Animal added that he ' doubted it'. It seems beyond logical that the functional screening of a player undertaking a squat - to identify biomechanical imbalance - would correlate with his performance in the synonymous strength test: a maximally loaded squat. Moreover, the results could inform the professional practice of each practitioner, and maybe, just maybe, help to prevent injury in the future. This evidence should constitute the richest source available to Fozzy and scooter, especially if they continue to complain about how they are ' all about evidence-based practice, while S&C aren't'. I think their idea of evidence-based practice is having a few textbooks in the corner of the office.

Diary, July 2009

Negotiating control over athletes' return to the rugby pitch

The lack of communication and information sharing between the medical and conditioning departments exerts its greatest force, and creates the most visible cause for concern, in the management of players returning from injury. Responsibility for this process becomes precarious as practitioners either approach the parameters of their specialism or, more potently, encroach upon the knowledge domain of their counterparts in the other department. As already alluded to, the generation of a rehabilitative exercise programme would be understood as falling under the remit of the medical department; specifically, a physiotherapist. However, the staff located within the conditioning departments have significantly greater experience of writing training programmes for elite athletes; not only that, but substantively, their academic or theoretical knowledge in this area is invariably greater than physiotherapists, many of whom spend little more than a few hours of their undergraduate studies developing such specific forms of knowledge. Thus, a common site of conflict arises as a conditioner perceives a rehabilitation programme to be insufficient, whilst the physiotherapist simultaneously considers the conditioner to be devoid of a duty of care for athletes; willingly exposing them to unacceptable levels of risk. In an excerpt below, Spiky, one of the Wyndham 'warhorses', summarises the relationship between the two departments in this unique context, and offers an insight into the lived experience of the player.

it gets a little bit frustrating though, but more the difference between physios and conditioners. What I've noticed is the physios can write really good one-off sessions, but they can't plan for the impact of their sessions.... for the frequency, you know? I mean, if you ask Barney or Fred to do your session, they make sure that it fits in with everything else that you're doing... it'd be a progression. You know... it's not just a one-off session... it is part of a whole programme and is part of the bigger picture. And, don't get me wrong, physios are really good at one-off sessions and treatment and injury management, and all

that kind of stuff on a day-to-day basis.... but I think sometimes they're not brilliant at

taking a long-term approach. I don't think I could tell you what I will be doing next week

for example… if something is going to take three months to recover… it's like they just deal

with what's in front of them and see how we go. I would absolutely love it if Barney was in

control of the whole process… but that's not going to happen

<div align="right">

'Spiky', Wyndham field notes March 2010

</div>

The statement by Spiky is powerful, as it offers a glimpse of the real impact of this social balance on the player; he is subjected to an incongruence in his existential trajectory as an individual player seeking to 'recover', and has paradoxically become alienated, in spite of his greater exposure to knowledge, technology and a broader sportsnet (to adopt Nixon's (1992) term). This, in itself, supports an inherent implication of sociological analyses of sports injuries; that they are unequivocally manipulated by the operating social relationships (Malcolm & Sheard, 2002; Malcolm, 2006). However, unlike Nixon's (1992) predilection to ascribe a conspiratorial position to such circumstances, which acts deliberately to acquiesce in the face of pain, injury and risk, it is suggested, in light of the experiences described, that the negotiation of power amongst practitioners and players is the more central occupant of the actors' motivations. Of course, it follows that negligence, and the fostering of a culture which enables such negligence to arise and often go unnoticed (or indeed unquestioned), is commensurate with these political negotiations. In essence, though, it is argued that these practitioners do not seek to harm players, or indeed hinder the efficacy of their return to play. They, like the players as discussed in Chapter 4, seek confirmation of identity, above all. The negotiation of power, as pertains to player management in this context, is synonymous with the negotiation of identity, and a key mediator of this relationship in an increasingly technologised society is knowledge. As has already been suggested, the greater the attachment of knowledge to higher order knowledge structures (ideally situated, and substantially corroborated, beyond the immediate subculture), the greater the political capital available to the practitioner. The following exchange involves Barney retelling his experience of such negotiation with

some practitioners from the national squad set up, who were seeking to control, or have a hand in controlling, a key international player's return to fitness, who trained with the Wyndham squad.

So we're all sat round the table, right, and there's me, [player], Akela, [national head of performance], [national physio one], [national physio two], [national doctor], and they're going on about what [player] needs to be doing over the next period.. and they've got all the stuff from the specialist and that, and I can see [player] like, you know…. looking uncomfortable.. and he's asking a few questions, but the [national squad] guys are just shooting him down… and I'm supposed to be there, right, to be told what I'm doing… to sit there and stay quiet really, just so I'm in the loop. All this stuff should be going to Sylvester, but in the end I just thought, fuck it. I'm not gonna just sit here and listen to these blokes chat shit and shoot [player] down whenever he has the guts to stick up for his own body. So they start chatting on about 'oh he's got to do this exercise' or whatever, so I went ' why?' they were like ' why, what?!'. ' why that exercise?' so they're like ' well, it's for glute activation…' ' but there are plenty of other exercises for glute activation.. why that one?'… and they were like' err… the standard protocol for this kind of surgery' 'yeah, but why is it?'… so that went on for a bit and then they start going on about eccentrically loading his muscle, and so again I was like ' why?' and they said some shit about tendons, and so I said ' okay, that's fine, what rep range?' and they looked at each other and were like 'err.. well, three sets of 10 and building up to sets of 20'. And I said 'on an eccentric loading programme? Sets of 10 to start? Are you sure?' and they looked at each other, and I said 'I'm fine with that, but where is the evidence for that loading pattern? If you can show me good evidence of why I should eccentrically load like that, post-surgery, when I wouldn't do that with fully fit players in the gym… I'll happily do it'

Fred: holy shit, what did they do?

Barney: they just said, well that's standard protocol, and I said I thought the best athletes in the country might need something different to standard protocol. And then I asked what the plan was, how would they know when it was enough to mark and they said when he could complete all sets without loss of form, and I was like at 20 reps? Why stop there? Why not go to 30, 35, 40? [Fred laughs]… at that point Akela stepped in and cut me off. But it's bull shit Fred. They speak to us like the untrained monkeys who learnt everything we know by pissing about in the gym […] where is their training in programming? Where is the evidence? We're working off the same protocols for [player], as they'd use for an old granny in the NHS

Wyndham field notes November 2009

A key point of interest in this extract, though there are many, are the clear attachments which Barney makes to knowledge, and the demonstration of superior academic or theoretical knowledge. It is this attachment to knowledge, specifically science, which affords him political and symbolic capital here, rather than other aspects of presentation of identity: such as masculinity or corporeal presence, which had been indicated previously in similar settings (Sheard & Dunning, 1973; Donnelly & Young, 1983; Melnick & Loy, 1996; Klein, 2001). This is not to say that masculinity does not interact with this complex negotiation, it would be impossible to avoid it in an all-male context as described above, merely it becomes a facet of a broader discourse in which identity, and political status, confirmation is sought. Note, again, however, that despite Barney speaking up for him, and the irony that there are at least six other social actors there ostensibly to represent the player's best interests, the player appears to remain relatively silent; potentially in a state of partial alienation. Perhaps the clearest indication of this partial alienation of similarly situated players was the daily meeting in which the management of the injured players would be discussed at Wyndham, such that a daily 'activity list' could be constructed. The activity list, in brief, provided a squad overview and it theoretically included the information collected by Arnold and the interns, pertaining to player well-being for the day, and cross-referenced this with the

agreed resultant permissible activity level for the player for that day, based on advice from Sylvester and the medical team. For example, the list detailed medical issues, modified training loads, and all restraints on injured players (e.g 'off feet', ' no upper body' etc). Those meetings involved Barney, Fred and Sylvester as a minimum, but there was little restriction to anyone else from either department attending. Consequently, Arnold, Bam Bam, Marvin and Tweety (assistant physios) would all usually attend, although players were never permitted to do so. The reason for this restriction was attributed to patient confidentiality (Sylvester deemed it to breach the moral and professional code to discuss one player in front of another), although several ethnographic observations were made during such meetings, somehow rendering arguments pertaining to confidentiality somewhat inert.

I'm never sure whether or not I should leave during these meetings

Wyndham field notes September 2009

....

Today's medical meeting was conducted with the door wide open, and players were right outside it, they could have heard anything. If they had cared to listen.

Wyndham field notes March 2010

There is insufficient capacity in this thesis to give more examples of the negotiations between the two departments at Wyndham, with regard to managing injured players, though it is fair to say they are a dominant aspect of subcultural interactions between staff at Wyndham and offer an important point of departure for future studies to explore. Notably, despite having received attention in the literature previously (Waddington & Roderick, 2002; Malcolm, 2006), the notion of confidentiality is worthy of examination once again. This is suggested not so that accusations of breach or violation of regulation can be made, although such criticisms could be made unabated and with significant evidence, but more such that a reconsideration of this particular branch of medical ethics and policy can be undertaken. The

impracticality of the stringent rules, which operate in 'mainstream' medical practice dictate that infractions necessarily occur to sustain working practices in the elite sporting subcultures; yet the covert and iniquitous ways in which such communication tends to occur invites ambiguity. This is an area in which greater practical guidance, or policy, could enhance the lives of practitioners and athletes. In the complex arena of athlete management, heightened by the presence of pain and injury in the player, it is worth remembering that each of the parties has a different frame of reference, as was considered ever present in the doctor patient relationship (Freidson, 1962); not only for behaviour, but for knowledge. In the Goffmanian (1974) sense, analytically, one is dealing with frames upon, or within, frames; there is the frame of interaction between practitioners, the frame of interaction between player and practitioner (which are crucially different), the frame of social organisation, as understood by each actor, and the *anchoring* frames, from which each individual derives, and simultaneously constructs, their referent knowledge. Moreover, the social, academic and political histories of each of the observed individuals differs, and thus the momentary social complex differs accordingly. This inherently capricious schema, which fundamentally drives the daily existence and performance of the training ground collective, whilst obviating comforts which can be derived from stability, enables the perpetual (re)negotiation of power and (re)construction of identity.

The way in which the corresponding relationships played out, pertaining to the management of return to play of athletes, differed at Queenstown, owing to a reversed political dynamic, which saw Fozzy as bearing greater symbolic dominance over Animal. Although there were many concomitant factors, which undoubtedly influenced the altered construction of this observed dynamic, knowledge and particularly symbolic alliance with medical knowledge structures on the part of Fozzy was undoubtedly central. Unlike Barney, and every member of his team at Wyndham, neither Animal or Beaker (assistant strength and conditioning coach), possessed undergraduate, or formal, qualifications in subjects allied to their field of practice. Indeed, as already highlighted in previous chapters, it is likely that the absence of any

standardised accolades on the part of Animal fuelled his animosity towards the academic community, and caused him to perceive 'outside researchers' as a threat.

Animal: I tell you what. I only got about 2 hours sleep last night. You properly fucked my head. Oops, sorry about my language but you did. At 2 o'clock this morning I was cooking.

K: I'm sorry, I didn't want that. It wasn't personal.

A: I hope you realise I could have reacted very differently and I didn't. It could have gone completely the other way. I've been known to flip. You have no idea what you've done.

K: What do you mean?

A: You just don't know. You've no idea what you've started.

K: Between us?

A: No, the other

K: Fozzy?

A: No

K: Marvin? (He gives what I interpret as an affirmative stare and walks away)

Queenstown Field Notes, July 2009

The above field note extract follows on from an earlier event in which the sports science theory behind the methods that Animal was utilising had been brought to light in front of Marvin (coach). Within the context of the previous discussion (not included), Animal had capitulated when faced with the prospect of his (lack of) knowledge being exposed in public. In the extract outlined above it is clear that he is seeking to reaffirm his identity and political position within the group through more traditional forms of symbolic violence. Although the language is not necessarily gendered, the structure of interaction is comminatory,

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the playing out of this interaction reflected this further in the closeness with which Animal stood when delivering his performance; such that his frame was unmistakably domineering by comparison. In an earlier, somewhat magnanimous conversation with Marvin (the coach of Queenstown), he had alluded to Animal's propensity toward such masculine domination and had done so in referent contrast to Fozzy's modus operandi in this regard.

> *....I like [Animal] but find him to be defensive of his own practice. Often prior to anything remotely confrontational and therefore when I do things intentionally to help him I am often greeted with a tirade of unnecessary justification/ name dropping, [...] Marvin agreed and suggested that I was "spot on" with my analysis of his defensiveness adding that the captain recently complained about Animal stating that "he was born with two mouths and one ear". Marvin then talked about the relationship between Fozzy and Animal explaining that Animal is an "old school" bully boy whose way of governing is by fear whereas Fozzy is the opposite and seeks to encourage and empower people. He explained that Animal had spotted this as a potential weakness in Fozzy and consequently had bullied him relentlessly throughout last season; this had apparently consumed a lot of Marvin's time and resources as their manager.*

> *Queenstown Field Notes July 2009*

It has taken a degree of temporal space and role distancing, afforded by the departure from the field at Queenstown, to attempt to generate a more complete picture of the social logic in operation here between Fozzy and Animal. On the one hand, Marvin is suggesting that Animal is dominant and on the other, Fozzy appears to hold more capital; it is certainly the case that Fozzy ' won out' in decisions pertaining to player management over Animal most, if not all, of the time. Upon reflection, and broader consideration of other cultural and organisational facets impacting the observed interactions, it emerges that, although inherently contradictory in their appearance, it is possible for both of these scenarios to be 'true'.

Moreover, the social complex presenting in this context at Queenstown is indicative of a broader shift in the cultural identity of the professional rugby team and, most importantly, the new emerging rules by which one must play in order to accrue the new forms of capital. Again, reflecting back upon the time course of the ethnography and the universal forces acting upon all rugby clubs in the light of recent publicised events, the pursuits of exculpation on the part of practitioners, players and collectives (clubs and governing bodies) led to a deliberate rationalisation of praxis. The construction and the anchoring of protocols with incontrovertible knowledge and comprehensive transference in delivery, serves this purpose; through the incorporation and augmentation of these aspects of club life, following the events of the summer (bloodgate, Bathgate), Fozzy exploited an opportune moment, in strategically building his department. He employed (new staff, interns, and a PhD researcher), a greater number of staff to deliver a 'better' level of service through affording greater attention to each player. Additionally, he anchored himself more firmly, not only to his own higher-order knowledge structures (physiotherapy/medical institutions), but also to academic institutions by proxy and subsequently an additional layer of knowledge structures. The transformation which was occurring at Queenstown, where traditional forms of masculine dominance came to command less symbolic capital than the ownership of a greater staff size, and, more importantly a clear alliance to higher-order knowledge, led to a radical position being taken pertaining to the management of players. The sociopolitical instability present at Queenstown, which acted as both cause and effect of the complex political dynamic, permitted several interactions between the coaching hierarchy and lower-level practitioners in the medical and conditioning departments.

> *Marvin told Beaker and Scooter that he thought that we sometimes didn't actually work in*
>
> *the interests of the players even though we always claimed to be player centred. He put this*
>
> *out there and watched as the other two became defensive […] A couple of times he accused*
>
> *Beaker of digging himself a hole.*
>
> *M: Beaker, I'm going to do you a favour here and take that shovel away from you*

Beaker: I'm not digging, I'm trying to explain why we do things the way we do

M: But that's exactly the point, we jump to defend our actions straight away, because it is easier to be selfish in the departments. I'm saying I'd like us to be more ahead of ourselves to ask ourselves "am I really doing what's best for him there?" (he gestured towards a chair he placed in the middle of the room representing a player).

B: I know and I'm just saying……

M: See, I didn't expect you to be so defensive, Beaker, you've surprised me.

We continued to discuss aspects of player management and Beaker admitted that he would do things differently but that it wasn't within his guidelines.

Queenstown Field Notes, July 2009.

The resolution of the conflict pertaining to ' being player centred' and acting in the best interests of the athletes, particularly when returning from injury-an issue, as demonstrated at Wyndham, which eternally resonates throughout every sports team, was resolved completely at Queenstown with disastrous consequences, which are elaborated upon in due course. Animal removed himself entirely from the process of rehabilitation of athletes in the club. Whereas, in any other club, the difficult areas of negotiation emerge at the point of handover from the medical department to the strength and conditioning departments (When? On what grounds? Partial? Total? Whose responsibility is it if the player reinjures? etc.), Animal refused to let a player in the training gym until he was fully fit. This left Fozzy with complete control over the player's treatment, rehabilitation to health, and his return to match fitness, with little tangible academic or experiential qualification to do so.

I finished helping the captain and spotted a player I had been helping outside the studio. I went to talk to him and noticed he had changed his technique from that he had been shown last week. It looked very easy and he offered this claim easily.

P:The physio told me to do it like this

K:Fozzy?

P:Yeah

K: Oh, OK, where are you feeling that? [I asked, attempting to implicitly imply that Fozzy was trying to achieve a different effect in the muscle.]

P:I'm not really sure to be honest [he waggled the cable]

K: Well it's probably good to lower the weights since you've got quite a heavy weights week this week

P:I can't really do much in those though… (he sighs) I don't know...

Queenstown Field Notes, August 2009

In a relatively traditionalist sense, this dominance of medical power and knowledge echoes the monopolistic prophecy, proposed by Friedman (1970). Turner (1987) expounds this theoretical argument in suggesting that the potency of the medical profession was such that it could 'subordinate adjacent and related occupations, keeping them permanently in the status of quasi professions' (p132), which certainly appears to be manifesting at Queenstown. However, observing this dynamic from a broader perspective, physiotherapy itself is referred to specifically as a subject, or occupation, 'allied to medicine'. The application of this linguistic signifier to the profession of Fozzy and Sylvester inherently devalues their symbolic and political capital, and arguably situates them as members of a subordinated, adjacent, quasi profession to mainstream medicine. Thus, the security of their political position, and internal subcultural

capital and identity, is contingent upon an inability of others to expose their distance and political rejection as complete insiders of the medical profession. To clarify, it is in their social interests to maintain, and propagate the perception of, their entrenchment amongst the higher-order knowledge structures, synonymous with medicine and its practice in broader society.

The integration between identity confirmation, professionalisation of role integrity and the potency of knowledge in this dynamic marks an important cultural transformation in elite sport and rugby in particular; wherein, science and technologies come to constitute the fabric of the microsocial itself. It can be argued that this cultural and epistemological mutation follows that which is already seen in the process of professionalisation of other applied practices in society. Turner (1987) argues that a knowledge-based society has superseded the previous structures, which were contingent upon the ownership of property, and this argument shows sympathy with Foucault's work. Foucault (1969) highlights the difficulty in extricating this shift within the context of daily existence; for the determination of the dominance and interplay of each level of knowledge, and thus accordant professionalism, will infer a political dynamic which must be negotiated at a microsocial level as well as at a more structural, macrosocial, stratum. The complexity of these relationships is played out in the subcultures observed in this study and, as highlighted, often appear to be contradictory in their presentation. However, Turner (1987: 138) suggests that within a process of professionalisation and the perpetual reconstruction of a rationalised system, such incongruity is par for the course.

> *all professions will be characterised by a certain duality, that is by an opposition between technical and routine knowledge, and the ideology or mystique of interpretation. As a result, we can conceptualise professions as occupations subject to contradictory forces, which simultaneously push them towards proletarianism and professionalism.*

To clarify Turner's (1987) meaning here, in the latter part of the citation, movement towards proletarianism implies an adoption of specific protocol in the course of professional practice and commensurate narrowing of the field of expertise. In short, the practitioner seeking professionalism inherently exposes himself to the risk of 'deskilling' as a function of his willing enactment of the bureaucratic government of his professional body, which often, and certainly in the context of medical practice in sports teams, is located beyond the specialised environment of application. Rather like the players described in Chapter 4, the practitioner comes to be self governing; he engages the technologies prescribed by his 'science' and synonymously adopts commensurate technologies of the self. The following section briefly examines the nature of the employment process as a (quasi) medical practitioner in a newly professional sporting subculture, and through the course of this highlights the issue of deskilling directly.

A note on the employment of medical staff in professional rugby union

Malcolm (2006) reported that the mechanisms through which medical staff were appointed to work in Rugby Union were similar to those found in professional football by Waddington et al (2001); there was a tendency to appoint through a social, sometimes "old boys'", network, rather than advertise roles in the traditional sense. In this regard, the situation appears to have improved, based on the findings of their research. However, in the following passage, Scooter corroborates some findings cited by Malcolm (2006), wherein it was possible for the hiring of medical team members to be undertaken by administrative staff.

> *I think that sometimes he's almost afraid to make a diagnosis because of the pressures it*
>
> *may involve from coaching or that clinically he has deskilled – as we were saying earlier,*
>
> *because there's no CPD process or he's been given the job by personnel who don't really*
>
> *understand, y'know, how .. the clinical aspect of it. Yes he could be good managerially but*

you also need somebody on the board that's clinical as well to be able to assess and

question him.

In this excerpt, Scooter alludes to the preference of the management board for a strong manager rather than a skilled clinician. In this sense, the role of club physiotherapist is transformed significantly; likely in response to the increased pressures of the professionalisation of the game. Again, the pressures from coaches are implicated as social manipulators of the physiotherapist's clinical behaviours. However, another interesting point to come out of Malcolm's (2006) commentary is the transformation of power in the relationship between doctors and physiotherapists; the latter are often in receipt of greater power in the environment, owing to a recognition of their superior skills. However, it should also be noted that in a professional environment, the physiotherapist, unlike many doctors at each club, is employed full-time; thus affording him the capacity to accrue greater social capital. The major concern, reflecting on Scooter's statement above, is related to analysis of the level to which physiotherapists in the field come to clinically 'deskill', owing to their distance from their mainstream governing structures which coordinate professional development. Yet, it appears that the reversed politic between doctors and physiotherapists in rugby remains; despite all doctors studied during this ethnography retaining employment and contact with mainstream, governed, clinical practice and development. It happened more than once during the time at Queenstown that this complex power relationship led the doctor to rely too heavily upon the diagnosis made by the physiotherapist; something which arguably could not happen in the NHS. The result of this social arrangement was unequivocally medical negligence. In the example given below, the player was misdiagnosed and mistreated, leading to subsequent surgery which was likely avoidable.

He came off (which he did – he came off the pitch immediately), he was assessed by the

covering doctor and the physio, and was told he had this type of injury, and this was how

we would manage it conservatively. But then, on the day that he was assessed in the club

after the game, probably 48 hours, it's almost he wasn't reassessed, the doc had come in

with the lead physio, the lead physio tells the doc about the mechanism of the injury, and

the symptoms, and it's almost made on that decision, the doctor has assessed but he's

assessed by what he's led by the physio.

Camilla, Queenstown Interview, January 2010

It is difficult to agree in this context that the medical practitioners implicated in this exchange are 'evidence based' in their practice; at least not in the sense that they would define it. If one were to consider social knowledge as evidence then such an assertion is plausible, but such arguments would be clinically nefarious. However, what can be considered to constitute knowledge, or an adherence to evidence-based practice, would be the compliance with clinical protocols for good practice; that is to say, not foregoing parts of the assessment process in political deference to the employee/employer having 'said' that this process has been completed. To continue on from the case highlighted above, a veritable cascade of negligence ensued which it is suggested arose entirely as a result of symbolic motivators of behaviour and social context.

I was given the player and told that it was this type of injury, and realistically, looking back

as I have, I should have assessed myself. I did to a certain extent but at the time there were

issues for myself and the head physio, I was still new to the role, I hadn't really found my

feet and I – reflectively, looking back I should have listened to the little voice inside me that

said "this isn't right", because the player was still sore, he had loss of function, he had loss

of power, and swelling in the area opposite to where he had been diagnosed.

Scooter, Queenstown Interview, January 2010

This experience had a profound impact on Scooter and he was visibly upset at the ordeal at the time, particularly as he had only recently departed a full-time role in the NHS, where protocols were more formalised for clinical management of patients. He expressed concern during several interactions in the

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field and often came close to expressing regret at having left the security of his old place of employment. It was undoubtedly as a result of this experience with Fozzy, but Scooter sought to divulge several other areas of concern, which he felt was tantamount to medical negligence

> *We need physios in the job who are quite willing clinically to be able to make a diagnosis and have the ability to do it, otherwise we are just going to end up with more and more players being misdiagnosed and mismanaged. Sooner or later we will end up with a law case on our hands.*

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Scooter, Queenstown Interview, January 2010

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On the subject of legality, Scooter also revealed shortcomings in the standards of clinical records kept in professional rugby

> *There's no infrastructure for a notes system – y'know, everything's on paper or dictated to a phone and saved on a media file which I think is wrong. You've got to have something down because if something does happen, and touch wood it doesn't, but where the player's solicitor gets involved, and requests the notes, then we've almost got to backdate everything.*

<div align="right">

Scooter, Queenstown Interview, January 2010

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This was particularly alarming, as in recent years a player has sued a premiership rugby club for wrongful dismissal, and the club's defence rested upon the presentation of medical notes (Howell, 2009). Such cases are becoming more prevalent in light of the inclusion of a '26 week' clause in players contracts; in which players can be released if they are unavailable for selection for 26 weeks of the season. This in itself has likely had an impact on the way the players deal with injury themselves, and will likely have catalysed a cultural transformation in which playing with, or through, injury is now not only expected but is necessary to protect their employment status more formally. However, the above extract reveals a

perturbing subtext in Scooter's discussion of medical notes; not only that they are incomplete, or, at best, non contemporaneous, but that there is little question as to the legitimacy of 'backdating' such notes. To clarify, here it is being suggested that notes can be constructed retrospectively, from memory, about the medical management of players, in order to adhere to legalities of process.

Reflecting back upon the confessional tones of Scooter's outbursts in the weeks following the misdiagnosis of Flex (player), it is interesting that he has chosen to adopt the role of a whistleblower. It seems to be at odds with a typically closed world of professional sports, and particularly that which occurs within the domain of the medical room. One might surmise that he sees an opportunity to make a stand and catalyse change by exploiting this research project; perhaps he feels that by speaking out, change will be forthcoming. Yet the degree of negligence observed at Queenstown was not reciprocated at Wyndham, nor is there any reason to suspect it might be elsewhere (anecdotally, one comes to hear of the nature of other commensurate environments and other teams, 'through the grapevine', and reports were always more favourable than the situation at Queenstown). Perhaps he saw his opportunity for a form of resistance against Fozzy; though his cognisance of confidentiality would render any output ineffective in this regard. Rose (1999) offers another possible explanation for adopting confession as a semi-public narrative; it can affirm identity. Specifically, he suggests that confession is a mechanism of self regulation; it inhabits the space formed at the nexus of subjectification and other forms of disciplining. In this regard he concurs with Foucault, that in order to behave ethically, one is inherently subjectified through internal and external monitoring or governance. Thus, although Scooter is clearly struggling to locate his identity within the Queenstown social, as a human, clinician and employee, he is offering signs of a concerted effort towards cultural embodiment and identity confirmation.

The medical management of injuries at Queenstown, approached negligence on several occasions during the short time spent observing the squad. It is entirely possible that such negligence arose at Wyndham as well, but owing to its being located within the strength and conditioning department for the most part of this study, it may have been hidden from the observational data collected. That said, the proximity of the

strength and conditioning office to the medical room at Wyndham would have made it almost impossible not to pick up on such occurrences were they to arise just outside the door. It is a hideous indictment of the nature of the experiences recorded at Queenstown that there are too many cases of what might be termed player abuse to be able to cover them all in this short chapter. However, one further case study is worthy of coverage, in which a player was taken out of theatre, where he was waiting for shoulder surgery, in order to return to Queenstown to train for, and play in, an upcoming game. At times, the almost farcical nature of this story makes one want to laugh out loud. Unfortunately, it appears that the events described may have cost the player his career, not to mention his physical health; he announced his retirement shortly after the season ended, owing to his inability to recover.

The coincidence of events and climate, which enabled the cascade of incidents resulting in the career termination of the player described, demands that consideration is given to how such events have come to arise. Although, overtly, the Queenstown medical team had appeared to neglect their duty of care, it is argued that their behaviours were not necessarily maleficent in their derivation; even if the consequences have become such. Specifically, it is suggested that, in a manner not dissimilar to the players outlined earlier in this thesis who became involved in illegal behaviours, practitioners are motivated by a desire to be seen as professionals; as dictated by the operating cultural arenas. To clarify, they seek to construct and confirm their identity, not only as a professional with reference to their governing body, but specifically as a *physiotherapist of a professional rugby team*. Here, the intersection of multiple socially defined notions of professionalism produce a mutated conceptual framework for ethical practice. Moreover, as Turner (1987) explains, this active social pursuit of professional identity expedites the process of deskilling, wherein the practitioners' breadth of practical knowledge and application is attenuated. In this sense, the 'evidence based medicine' observed in practice within elite sport becomes limiting, and constitutes the construction protocols of practice to which the practitioner comes to adhere most ardently. Suffice it to say that the dynamic and highly pressurised environments rarely articulate cleanly with such methods of doing.

They do things.. what is relevant to themselves you know? What they know… what they think they know.. it's all they do instead of… I don't think they're thinking outside the square a lot and guys are doing the same things or getting treated the same way for a lot of different injuries…. they're not willing to listen to the player and the player's point of view. It's all their way or no way and they do seem pretty angry about any suggestions of anything different or… for example, I did my hamstring and not once did my hamstring get treated.

Player interview, Queenstown

Like the coaches and strength and conditioning staff, and indeed the players themselves, medical practitioners develop predilections for ways of doing, which is incumbent upon their socially motivated evaluation of different forms of knowledge. As such, it is seen that certain methods dominated each physiotherapist's repertoire of treatment practices as a function of the sub cultural organisation, as well as the influence of outside forces (such as governing bodies and those known methods of other sports teams). Furthermore, these preferential dominances are subject to change in a manner akin to fashion as the knowledge markets, and rehabilitation/treatment technology markets, develop and change temporally. At both clubs, as previously mentioned, the use of electric therapeutic devices had been abandoned, mirroring the change occurring in the academic and clinical training of practitioners in universities: likely in response to a rejection of presented research. However, many other methods could legitimately be rejected from practice on similar grounds, yet they remain visible in the environment. At the time of data collection, the use of acupuncture was one such treatment tool where use was not only unsubstantiated academically, but, as the following quote demonstrates, also lacks an experiential evidence base.

I got acupuncture on my hamstring.. and that needles… it was the worst pain I ever had in my life… worst pain ever and I was in agony and shall probably be the day afterwards. I

could hardly walk. I found it made it worse and their theory was that it was gonna be

worse before it got better.   Scoop (player) Queenstown interview, Jan 2010

The application of acupuncture here as a treatment methodology can be allied to the categories ascribed to the sports science technologies discussed in Chapter 5. It has a theoretical, operative, political and social role; however, here the nature of these functions alters crucially, and as a result of the socially contingent nature of the injury itself. Although there is a growing evidence base for the application of acupuncture in the management of sports injuries, it is arguably derived from less rigorous research than is usually commensurate with that necessary for justified and safe adoption of new medical technology (Smith et al., 2000). Moreover, the practitioners have constructed their own theoretical basis and legitimisation of use as demonstrated by the presentation of 'it will get worse before it gets better' as fact, or as substantiated acceptable 'knowledge'. Ironically, it is operatively that this particular method is to carry the least function. Indeed, several observations and player interactions would suggest that the above citation is corroborated; in certain situations, acupuncture, as applied here, made things worse.

I had been treating a player for some time and had two more waiting to see me. The medical

room was characteristically full for this point in the training week and my hands, wrists and

back were beginning to bear the usual aches from having to work with such large players.

There was the standard commotion coming from the other side of the room, near the

doorway. This was usual owing to the banter that players enjoyed with each other during

these times. However, I quickly realised that that players' usual noise had been drowned out

by Cotterpin [player] having an altercation with Fozzy.

F: Just get on with it, come on I've got loads of people to treat.

C: I really don't want needles...I'm serious

F: stop messing about, I haven't got time for this

C: I'm not messing about...I swear to god Fozzy it makes it worse. Last time I couldn't walk for two days. It's just not good for my body...I can't believe that it's doing me any good when it hurts that much.

F: Right well if you're going to question my clinical judgement then you can forget it..

C: I'm not saying that but I'm just saying it doesn't seem right and I don't want to set myself back...

F: Do you think I'd do something if it wasn't the right thing to do?! Whatever, either you want treatment or you don't..

C: Cant I just have a rub or something? Do I have to have needles...

F: Either I treat you or you don't get any treatment, and I'm going to do what I think is clinically right.

C: Needles?

[At this point Camilla, far and away the bravest person in the room – if not the whole organisation – spoke, albeit partially under her breath]

Ca: You don't have to have the treatment you know....you don't have to give consent..

[the room fell silent, or at least it seemed to, as Fozzy turned to stare at Camilla. With that, Cotterpin gave in – as we all knew he probably would ultimately – and climbed on the physio bed. I can't help thinking he did so at this point to protect Camilla though too]. Fozzy gave Cotterpin the needles and we all continued to work almost in silence as we witnessed Cotterpin writhing around on the bed in pain.

Queenstown field notes December 2009

The harrowing nature of these experiences can distract from the possibility that the employment of such technologies still performs a function, in the social and political sense. Here, similarities with the symbolic violence deployed through sports science technologies is palpable, though it is overshadowed by the very real violence which is occurring. Additionally, it is clear to see how inferences pertaining to masculine dominance, and confirmation of political position within the subculture, is secured through the ways in which both players and practitioners interact with this type of technology. Thus, it is argued that the technologies employed in the medical department in the treatment and management of players can be described in the same categories as those outlined for performance enhancement in previous chapters.

It is optimistically assumed that the extreme cases observed at Queenstown, for the most part, are not replicated in other areas of high performance sports medicine, and as such the classification of sports technologies in practice would be less clouded by more overt forms of violence (symbolic and physical) and negligence. Future research should seek to elaborate on the degree to which such events are recurring in daily practice within the medical room of sports teams; assuming such research were possible at all.

The purpose of this chapter was to examine the nature of science and technology as it is utilised within the medical departments of the professional rugby teams studied. Moreover, it was intended to examine the applicability of the previously outlined classification of sports science use to the medical domain: as theoretical, operative, political, and social. It was recognised that there is greater visible, and more potent, attachment to rationalised knowledge within the medical room, which is derived from the broader institution of medicine and medical practices. However, it was shown the ways in which medical practice plays out in the observed subcultures is often divergent from whence it was derived in mainstream clinical settings. This mutation, catalysed by the operating social forces and quest for symbolic identity, has created plentiful opportunities for practice which in other contexts might be considered to be negligent. However, it is suggested that it is the coincidence of several social factors, and political forces, which come to predict corrupted clinical practice; these same variables impact upon the ways in which science, and knowledge, are utilised in other areas of the club.

Chapter 7 brings together the findings of this ethnographic study, clarifying and formulating an understanding of the ways in which (sports) science is used, the factors which affect its use, and the impact that it has upon the environment and the actors involved. Finally, it will offer advice on future research and any potential need for Policy change.

CHAPTER 7: Towards a typology of Sports Science Utilisation in Elite Sporting Subcultures

The purpose of this chapter is to clarify and present the key emergent themes from the body of work presented thus far, and in doing so, put forth a frame of reference in which the praxis of sports science in professional sport can be understood. Throughout the course of this thesis, the works of several social theorists have assisted in the analysis of the collected ethnographic data. Most notably, the work of Foucault and Goffman have illuminated aspects of observed interactions and formed the basis for the discussion of the location of sports science and technology within the observed subcultures. Conceptually, the work of Bourdieu has also been utilised; specifically, the notions of *symbolic violence, masculine domination, capital* - in its multiple forms - and *habitus*. However, it was never the intention strictly to adhere to one theoretical framework only or to attempt to undertake an analysis of data in the style of a given theorist. The potency of the data available, and at a level rarely afforded to social researchers, was such that it seemed important to, in many respects, allow the observed cultures to speak for themselves; to deliver their own logic and theory. In this sense, the ontologies and foundational approaches, visible in the work of Heidegger, Merleau-Ponty, Sartre, Derrida and Wittgenstein undoubtedly bore an impact upon the cognitive, and metacognitive, processes involved in the interpretation of data. Reflexively speaking, the ethnographic work of previous anthropologists and sociologists were inspirational and will have undoubtedly affected the handling of the data. With regard to subject specific influences, the work of Hoberman (1992), Harraway (1991) and Butryn (2003) shaped the initial research direction. However, closer to the time of entering the field and data analysis, Magdalinski (2009) and Miah (2001) became useful, as did a return to the work of Turner (1987). However, it became increasingly apparent that the application of these scholars' findings was limited, within the context of this study; owing, most likely, to the nature of the collected data itself. Indeed, on several occasions it has seemed desperately appealing to somehow place these authors in the field to undertake this research instead; such is the desire to hear their interpretation of the presented cultures. The

same, of course, can be said for Wacquant (1992, 1995), Geertz (1993), Howe (1994, 2001) and Roderick (2006). Alas, such a wistful exercise will never be possible and as such, the summation, and attempt at constructing a 'theory', which is presented henceforth, is not intended to be attributable to any particular academic or theoretical school. It is merely an assayed construction of a model to represent the ways in which sports science gains political strength, the manner in which it is used functionally amongst the social realities observed and the implications of these manifestations of sports science, both in the field and for the future.

Factors affecting the political force of sports science technologies when utilised in the field

The findings of this study suggest that there are three key manipulators of sports science potency when it is utilised in the field. Firstly, the physical location in which the technology is utilised, secondly, the degree to which a given process is anchored to higher order knowledge structures, and thirdly, the personnel who are both directly and indirectly involved in its deployment. Each of these factors is worthy of further consideration in its own right; however, it should be noted that the integration of factors is the real determinant of the ultimate force, and efficacy, of a given technology.

2. The physical location in which the practice is carried out

This factor is important, functionally, on a number of levels. The nature of available facilities and resources in the environment plays an important social role in determining the acceptance and effectiveness of a given practice. At Queenstown, it is likely that, overall, sports science shared a somewhat imparted relationship with the environment; it was out of place in the relatively worn out surroundings, and the nature of the physical domain was such that sports science could not be prioritised over more basic needs to be addressed (such as running hot water). As such, the introduction of visibly 'high-tech' equipment, in the name of sports science would be rejected owing to its circumstantial incongruence. This was demonstrated in the treatment of the heart rate monitoring system, for example.

However, changes in location also affect the efficacy and social acceptance of sports science practice in the field. For example, the sports science technologies deployed by strength and conditioning staff do not readily transfer to the medical department, nor indeed does the knowledge and data that they yield. Such transference would arguably close down the discursive space in which the two departments perpetually (re)negotiate their identities and political capital within the subculture. Note that this observation is not intended to comment upon whether this cultural alteration would be apposite or not; merely that the subcultural dynamic would change. From the point of view of surveillance, as described in Chapters 3 and 4, physical location is also crucial; the ability to monitor athletes in the social sense, as well as through the incumbent methodology of the technological tool, expedites the process of self governance. Thus, where social control of an athlete is desirable in its outcomes for a rugby team, the physical layout in which there is the capacity to consistently observe player movement will encourage the development of technologies of the self (Foucault, 1988). The structural layout at Wyndham, and most notably, the situation of the coach's office, epitomised this; sharing many attributes of Bentham's panopticon. The obvious implication of such physical manipulation is that the behaviours of the observed players will likely take on a performative quality (Goffman, 1971; Hochschild, 1983). The sports science practitioner comes to have the capacity to ascribe less 'truth' to the data collected; he begins to observe the presentation of self (Goffman 1971, 1982) and not the actual *self* or *being* of the individual. In this sense, the sports science technology has invalidated its own existence; the role it was theoretically engaged to perform (understanding the status of the athletes more fully) has been hidden from its scope of examination.

2. The attachment to higher order knowledge structures

The second key facilitator in establishing the political dominance of the given technology lies in its attachment to 'science', in an almost esoteric sense. That is to say that if the technology (whether

tangible or in the form of a process) is attached to higher order knowledge, particularly that which is considered to be associated with hard sciences in the academic domain, then its potency and perceived efficacy is enhanced. The same holds true for attachment to medical knowledge; symbolic status is afforded to such technologies considered to be derived from the broader medical sciences. However, with regard to medical technologies, there is not only an implicit attachment to specific knowledge structures, but also to the social institution of medicine; an institution which is often regarded for methodological rigour in their technological development. This attachment to an established institution, or governing body, has led to the existence of a power differential in the field, such that medical knowledge and thus the associated technologies have been considered to be of higher order than those associated with other aspects of performance management. Notwithstanding, within the course of this thesis it has been argued that this differential is being renegotiated in light of the cultural transformations occurring in rugby. Specifically, it is suggested that the medical department is no longer significantly more powerful than other departments (conditioning/nutrition etc), perhaps owing to the more visible correlation between performance and other interventions. Where medical staff may have previously overseen all aspects of athletic preparation, increasingly, as a result of a greater number of specialist staff involved with the squads, the physiotherapist's role is restricted to the treatment of injury.

It has been shown that the attachment of actions in the field, under the name of (sports) science, to higher order knowledge, serves to assert the claim to symbolic capital and perpetuate the construction of identity of each subcultural member who interacts with them. Moreover, where these contingent knowledge structures can be traced to notable, higher order or established sources beyond the subculture, the potency of the technology is increased. Indeed, those technologies which have an affiliation with knowledge grounded in hard sciences, or forms of scholarship which are beyond the cognitive grasp of other members of the subculture, the symbolic gravitas is maximised. However, when situations arising in the social domain pose a threat to the practitioner employing the technology, in exposing their (lack of) understanding of the science they are indirectly utilising, conflict arises in light of the perceived

destabilisation of identity in the group. In this sense, this attachment to knowledge by individuals is precarious and necessarily strategic; they must ensure that no one in the immediate environment can expose them. Thus, outsiders, particularly those who may have shared access to such specialist knowledge, are viewed with suspicion and thence the close nature of this type of subculture is propagated.

3. The personnel employing the sports science technologies

The third factor involved in determining the social and political efficacy of sports science technologies in practice are the practitioners who employ them. This may seem obvious, and perhaps this is a fair criticism; moreover, this overlaps significantly with the previous stated argument. Nonetheless, it is worthy of consideration, as an incongruence between the type of technology used and the person directing its use would be more likely to receive resistance from other social actors. For example, the physiotherapist attempting to deploy technologies associated with training programmes designed for performance, rather than recovery, would likely be devoid of credibility and may be challenged or resisted by other members of the subculture. Indeed, such a conflict is described in Chapter 6, where a conditioning coach challenged medical staff on player management protocols; yet this was with reference to an injured player. This event in itself is perhaps another indication of the cultural shift occurring in professional sports teams, in which the polemic of political and symbolic capital amongst medical and other departments is beginning to transform. As important as the individual(s) involved in the hands-on management, or use, of the sports science technology are the relationships that they carry with them. As previously mentioned, the formal affiliation with credible experts or a recognised institution will increase their likelihood of successfully enacting the technology within the remit of their social and professional role at the club. However, of equal, if not greater, import here is their perceived relationship with the power elite within the culture. A relatively short distance between the practitioner and the head coach for example, and particularly if the head coach has sympathy for, or an interest in, a given technology, will

profoundly impact the way in which players and other staff come to interact with such technologies. A clear example of this was given in Chapter 5, with respect to the bleep test at Wyndham. The diminutive attachment to external higher order knowledge, or validation, was superseded in the social environment by the centrality of Akela's interest in the protocol. However, as was observed in several other situations at Queenstown and Wyndham, the perception of closeness to these management and political structures within the club can lead to erroneous data being delivered by players and staff; again as a function of wishing to construct an advantageous *presentation of self*. Points of conflict arise then when data collected fails to reflect the state of *being*; though this often goes unnoticed until something goes wrong (i.e. injury), or when there is a betrayal of trust or confidentiality. An example of the latter was given with respect to Arnold's handling of players' heart rate data in Chapter 5.

As has already been alluded to, these factors do not follow in order of import; they are all likely to be implicated in any given situation pertaining to sports science use in the field. However, it is certain that the balance between each factor will change in response to the operating social dynamic and each given circumstance.

How is sports science used in the field?

It is argued that sports science is used, functionally, in four ways within the subcultural milieu of the professional rugby team; *theoretically*, *operatively*, *politically* and *socially*. Again, rather like the factors which affect its potency, these multiple purposes can be in operation simultaneously. Indeed, it is proposed that sports science is rarely employed with a singular motivation or end in mind and this, ironically, applies especially to the first category.

1. Theoretical use

In this context, the theoretical use of sports science technologies relates to its original academically derived purpose. In this regard it is strongly related to the attachment to higher order knowledge and structures already discussed in this chapter. The theoretical purpose is derived from the scientific knowledge of the human body which, at the manifest level, constitutes the understanding of athletic performance. For example, the theoretical use of heart rate monitors pertains to the physiological response of the cardiovascular system to exercise stimuli. Thus, in application, a cognisance of this knowledge base should be fundamental in the interpretation of any data yielded from the device. Indeed, it could reasonably be argued that the deployment of such tools without the requisite understanding of what it is that their output signifies is somewhat irresponsible. However, the complex nature of the training ground environment, and the life of the squad therein, is such that oftentimes this theory, which was derived from laboratory study in the first instance, cannot be relied upon to describe the totality of the presented physiological phenomena. For example, heart rate is affected by a number of factors, (including temperature, emotion, hydration status, diet) many of which are omnipresent, yet dynamic, within the daily context of the rugby club. Thus, the usefulness of a heart rate monitor as a method to quantify exercise intensity is attenuated by the intervening variables in operation. Moreover, the transient nature of these variables ensures that they cannot be factored in, in a linear causal fashion, to the interpretation of data. These complexities pervade every method of sports science employed in the field and as such it is somewhat controversially suggested that sports science technologies are rarely used solely for their technical, or academic, purpose in professional rugby. Nonetheless, when questioned, theoretical arguments or allusions to them are likely to be the most cited in narratives produced by practitioners; particularly to outsiders. This is presumed to be related to the desire to present an identification with a higher order knowledge.

2. Operative use

Following theoretical justification for utilising sports science technologies with elite sports people, it is argued that operative reasons could be most frequently seen in practitioner's narratives. The term *operative* with respect to the use of sports science technologies in elite sport might equally well be named 'functional' use. This refers to the way that sports science is actively utilised in a fashion that adds value to the lives, or job effectiveness, of those who use it. While it is recognised that the theoretical inferences cannot be guaranteed to hold true in an applied setting, this does not mean that the technology is devoid of use; merely that its focus shifts from being a measurement tool of absolutes, to providing relative data for practitioners. To continue the example of heart rate monitoring, it may be impossible for Barney, at Wyndham, to draw definitive conclusions pertaining to the physiological underpinning of an observed data set for a player, but he can draw comparisons with previous performance outputs for the same player. Indeed, he can utilise the mean data for a collection of players as a basis for further relevant analysis, and moreover, can begin to construct a profile of the player from longitudinal analysis. Additionally, this operative deployment of sports science technologies carries less of a threat to undermining the practitioner capacity as a 'scientist' in the organic sense. The attachment to higher order knowledge is less prevalent in this context and, thus, here sports science can serve to bolster experiential or existential forms of knowledge as a practitioner. However, an open admission to utilising sports science and technology in their operative manner is irrevocably associated with an attenuation in the capacity to accrue symbolic capital; a 'scientific' *theoretical* justification is more impressive. As has been shown throughout the previous chapters, such capital and knowledge assertions can carry significant leverage in the social and political negotiation of identity and position within the subculture. Thus, (sports) science and technology also serve important political and social functions within the climate of elite performance.

3. Political use

Throughout the course of this thesis, numerous examples have been given which demonstrate the political motives of interactions surrounding the use of sports science in the field and the key role that technologies can play in undertaking aggressive power plays in the rugby team setting. An example of the latter was seen in the use of the bleep test with Rudy in Chapter 5, where the use of this sports science test was engaged as a mechanism for the player's contract cessation. Other examples pervaded the operations within the medical room, where the multiple pressures from internal parties were often cause to rely upon "science" as a impunitive agent in cases which, without such 'scientific' justification, would be tantamount to malfeasance or negligence.

However, it is not only in these flagrant events that sports science and technologies can be considered to be used politically. Indeed, it is suggested that they are rarely adopted and interpreted apolitically. This is in part owing to the aforementioned distancing from their theoretical or "proper" application as seen in the field, synonymous with a further reduction in espoused objectivity. Notwithstanding, as shall be expanded henceforth, the political arrangements of sports science in practice is an indictment upon its overwhelmingly social function. With regard to the personnel who utilise it, the effective referencing to 'science' during aspects of their practice serves to confirm their identity, accrue symbolic and political capital and engage in strategic interaction with favourable ends. To have the capacity to rely upon 'evidence' which is constructed such that it has an identity of austerity, rigour and objectivity places the social actor in a strong political position; it places part of this character (his presented self through actions) beyond the question of mere mortals. His professionalism is secured through attachment to higher order knowledge, external governing institutions and protocol, therefore his methods become beyond reproach. The opportunity for negotiation between practitioners in different departments or between practitioner and player are closed down in deference to 'science'. A consequence of this science is that such technologies come to be highly political in their use: rather that being an incumbent part of daily practice, they come to be favoured in times when there is uncertainty on the part of the practitioner.

In situations where the practitioner, the alleged in-house specialist, feels a threat to his knowledge, identity, role and professionalism, or indeed senses public humiliation, he can politically deploy methods and technologies to assuage the situation. As such, far from being a tool of exploration or expansion of human knowledge and experience, 'science and technology' in this context comes to enact the opposite effect; it closes down human interaction with the world and perpetuates a process of deskilling and attenuation of knowledge acquisition. To continue the example of heart rate monitors, although every interaction described has been inherently and obviously political, Arnold's reliance upon them and their scientific derivative was utilised repeatedly and Akela's identification of such devices as a method by which to control the behaviour of players outside the totalities of Wyndham, highlighted the politics involved in sports science technologies and their field based applications.

4. Social use

Reflexively, there is always a concern that some form of ecological fallacy would arise within this study in which an accusation of 'affirming the consequence' would be justified when stating that sports science technologies, and their use in the field, are socially motivated. However, as has been discussed, the unavoidable distancing between the theoretical science (physiology, biochemistry, physics) and the methodological approach taken to applied practice demands that such conclusions must form a central part of the analysis of these phenomena. Indeed, when one considers the preponderance of examples given in this thesis, which are replicated many times over in the vast quantities of data collected, it is clear that each example of sports science utilisation is inherently social, partially if not wholly, in its function in this field. The impact of sports science, sports medicine and their associated technologies are most potent in their social form. The capacity of such tools to facilitate self governance demands that such tangible technologies, knowledge and protocols must be considered and calculated facilitators of technologies of the self. Moreover, the very nature of most technologies employed is such that they incorporate methods

of overt and covert surveillance as a part of their very existence. When such outputs from said athlete surveillance or assessment are presented for public consumption within the subculture, external aspects of identity motivate social behaviours between players and practitioners/coaches and between the players themselves. In this sense it has been demonstrated that, rather than levelling the playing field within the gym-based activities for example (Chapters 4 and 5), the presence of these technologies perpetuate the construction of masculine identities and contingent social hierarchies. The use of publicly shared information from sport and medical technologies introduces competition between players and opens a discursive space in which identities and social capital (and thus social position) can be continuously renegotiated under the remit of the conditioning department. This is much clearer to see in the publication of heart rate or GPS profiles for named players in each session or in the use of technologies such as the PAD. In the medical department, although less overt, such public data is also available for consumption through the presentation of pain in the face of medical intervention, or the compliance with given rehabilitation exercises. In either domain, however, it has been suggested that the adherence to practices which rely upon these technologies (either in their tangible or administrative form) comes to undermine their intended or purported use. That is to say that the adoption of more science undermines the experiential and existential identity of the practitioner as a professional. Those forms of knowledge which they have come to rely upon in reality, through their cultural engagement in everyday life in professional sport, are eroded by an increased presence of new technologies and external higher order knowledge. However, it has also been shown that these practitioners are not naïve to the social potency of the methods they employ and examples have been given of the ways in which they come to exploit these in the field (using the bleep test to test attitude, for example) and as such it can be argued that the increased presence of (sports) science and technologies in the arena of elite sporting subcultures is catalysing cultural transformations which are altering the lives of players and mutating the traditional roles of staff engaged with the athletes. Chapter 6 alluded to the emergent concerns which are commensurate with such role transformation in the medical community employed to work in professional rugby.

Summarising the outcomes of an increased presence of (sports) science and technologies in the training of professional athletes

Thus far, this chapter has considered the operating conditions which precipitate the potency of the impact of science and technology in action, as well as the ways in which these sciences come to bear such effect in the context of subcultural life. It is now suggested in the interests of clarity that there are, broadly, three outcomes in such technological positioning in professional sport which will be addressed in turn. The first pertains to practitioner competence and identity, the second to player self governance and alienation as a function of technological intervention and the third relates to the ontological transformations which subsequently arise in relation to knowledge, and the doing, of science in practical settings.

1. Science, technology, competency and identity

The concerted movement towards science and the technologisation of practice, which Turner (1987) considers synonymous with a quest for professional identity, has the anomalous effect of disempowering the practitioner and rendering them, paradoxically, less 'scientific' in the truest sense. Moreover, this process enervates their identity as skilled human specialists in their applied field. The introduction of new science and technologies to the field of sports medicine and performance preparation challenges the identity and the current professional practices of the individuals working in the domain and as such presents an opening for the negotiation of power, group position and said identity. The degree to which an individual practitioner aligns himself with the science or knowledge, which is symbolically associated with these new developments, serves to partially define him within the subculture. There is capital to be gained, through distinction, in constructing an identity upon this implied expert knowledge. However, this influx of science, which should philosophically be synonymous with greater exploration and examination of the world, somewhat counter intuitively enables the perpetuation of an increasingly closed environment in which professional sports intends to operate. In aligning themselves thus, the practitioner

risks exposure by those with superior, or shared, knowledge which underpins the utilised technologies. Thus, while it is symbolically advantageous to affiliate themselves with these sciences, grounded in higher order knowledge structures from beyond the subculture, while situated within the totality of the club, it is politically precarious to invite or accept outsiders with shared expertise into the club; even if they are visibly tied to commensurate knowledge structures and ontologies. The risk of exposure, either as lacking in understanding of the underpinning knowledge or as being incompetent practically, is too great with regard to the stability of the subcultural identities involved. However, it is arguably owing to an inherent uncertainty and instability of the professional self, on the part of the practitioners, that such technologies have transitioned into high-performance sporting environments so freely. This vulnerability encourages the inculcation of protective protocol and methodological approaches to practice, which are synonymous with professionalisation, but which ironically lead to the deskilling of practitioners. The manner in which these factors synchronise so frequently in the operating social milieu of the professional rugby team, leads to a concerning high wealth of opportunity for negligence and harm to occur; as a reasonably direct result of an ego driven need to protect social standing and professional identity, and in doing so, neglecting a duty to ensure best practice at all times. This is set against a backdrop of cultures keen to announce their allegiance to evidence-based practice at all times.

2. Self-governance and alienation in players and staff

The nature of most sports science and sports medicine technologies are such that they incorporate some form of surveillance, as has been discussed. This process of surveillance, which supplements the broader continuous surveillance practices of the social environment, can be considered instrumental in the socialisation processes occurring in the subculture. However, they serve to implant a transformed habitus which is more heavily directed by the club management structures than has been seen in previous literature pertaining to Rugby club socialisation (Sheard & Dunning, 1973; Nauright & Chandler, 1996;

Schact, 1997; Muir & Seitz, 2004), where player hierarchies have been central tenets of this process. A corollary of this organisational involvement, in the political sense, is the inherent process of self-governance, which is learned and reinforced in players through their interaction with these technologies. In this regard, the previously discussed technologies of sports science in sports medicine overlap considerably with the technologies of the self. Thus, although self-governance increases in light of increased technologisation, it should not be taken that the social actors in contact with such entities have augmented control of the self and public behaviours. On the contrary, there is reason to suggest that these technologies come to further alienate the athlete, in particular. By extending the gaze of the club into the deeper physiology and psychology is of the individual, through advanced monitoring methods (heart rate, GPS, well-being, medical monitoring and assessment, fitness testing), the club not only gains greater control of the players' existence within the club, but also without the club in their broader lives. As demonstrated in previous chapters, the data collected through the technologies deployed in the name of performance enhancement enables the practitioners and coaches to make inferences about the athletes' behaviours beyond the club and, increasingly, the encroachment of the club rule into these personal domains is legitimised. However, this process is not unidirectional and the nature of (sports) science and the incumbent knowledge, as discussed in the earlier paragraphs, is such that self-governance comes to be enacted by staff as well as players, as a function of securing identity and political status within the environment.

3. The knowledge-skills paradox

Just as the introduction of increasingly scientific practice undermines and replaces current practice, so too the introduction of higher order knowledge undermines the existing knowledge structures specific to the subcultural environment. In Chapter 6 it was argued that the polemic between medical knowledge and that of other departments (sports science) was beginning to reverse and that newer 'sciences' and

technologies, which pertain more specifically to performance, as opposed to (ill)health, often-times carry more political capital in the contemporary climate of professional sport. Notwithstanding, an order of knowledge persists throughout both medical and other departments concerned with the preparation of elite athletes; wherein that knowledge ascribed to traditional, hard, sciences is considered to be of higher order than that derived from applied sciences. In turn, this latter form of applied science outranks the knowledge developed in organic intellectuals or practitioners in the field. Thus, there is a vested interest on the part of those involved in sports team management to construct an identity which is presented as having an attachment to esoteric forms of knowledge (affording distinction), such that political rank and leverage might be subsumed within their social role. The irony of the situation is that, while there is a motivation to seek social attachment to such knowledge, this is often unmatched in a desire to acquire the necessary attachment or understanding of this knowledge. Perhaps it is fairer to suggest that practitioners lack the resources to acquire the latter, rather than being devoid of said motivation; very few have access to a broad range of literature or academic experts. Thus, the dynamic requires a performative quality above and beyond that which already exists in the subcultural environment. Practitioners are forced to perform in ways which project a complete understanding of the knowledge upon which their transformed methods of practice are based. This strategic social role play is inherently precarious and, thus, self-regulation and interactions with other staff, as well as players, are necessarily politicised. This is before considering the difficult, and often avoided, relationships held between practitioners and their theoretical counterparts in the academic community.

The typologies of sports science use and impact in practice, as presented thus far, offers a new perspective with which to view the emerging field of applied science in professional sports arenas. To date, the preponderance of literature in the field has focused broadly upon two arguments; firstly the moral conjecture surrounding fairness in sport and the ways in which sports science and technology distort the argument, and secondly the notion of athletes becoming dehumanised by the addition of technologies to their pursuit of sporting excellence and body management regimes. The research findings presented in

this thesis somewhat circumvallates the first set of arguments to the approach taken; the neo-Marxist arguments which have been readily applied to the problem by authors such as Magdalinski (2009) and Miah (2001) are necessarily broad and abstracted from the social as it plays out 'on the ground'. Through the course of this study it has been shown that multiple identities are coming through it with emergent forms of professionalism which challenge hegemonic discussions of amateurism and professionalism. The concept of professionalism, as understood by the actors in the rugby environment is under negotiation, and the presence of sports science and technologies do not necessarily ease the construction of new definitions and identities. More crucially perhaps, is the recognition of the agency of both the athletes and staff involved in professional sports with respect to their resistance to, or movement toward, particular sports science and medical technologies. To clarify, actors are not passively subjected to various forms of technologies, as imposed by a broader organisational structure. Indeed, their presence has been negotiated at every level of participation in professional sports teams. With respect to the second set of arguments, in relation to the dehumanisation of athletes, there is some evidence that technologies have indeed infiltrated professional sport to the point that they are an invisible facet of each athlete's existence within the environment. However, at both the data presented of tests, there is something very human about the ways in which athletes interact with these forms of science in action. Far from losing touch with their human nature, the manipulation of these technologies, or at least their presentation of themselves in the face of them, is catalysed by the question of survival and acceptance as a legitimate human being and subcultural member. Moreover, resistance to such technologies was often associated with emotional displays and readily pertain to the demonstration of masculinity rather than a reporting system. It is suggested that movement towards, and engagement with, sports science and sports medicine are socially motivated and deliberate; most often with a view to constructing a public identity as being a professional athlete. More than this however, it is argued that staff and athlete behaviours in relation to applied sciences and technologies at the training ground are perpetuated by the desire for professional validation and acceptance. Perhaps the demonstrable improvement in the observed individual's capacity to

effectively operate to this end is further testament to their humanity and social capacity for learning and development.

The researcher position within this study offers a greater depth to the data collected than has previously been seen in other studies. Through the adoption of a functional, and respected, role within the field a greater degree of access was afforded to situations which would normally be closed to observers and indeed lower ranking staff members. In this sense, the work presented expands upon that of Howe (2001) wherein the role of 'general gofer' was adopted. The reality of professional sports teams is such that interns and assistants come and go frequently and as such, the degree of care is taken to exclude them from sensitive discussions at the training ground. As has been mentioned previously it is their status as outsiders, amongst both staff and player groups, which makes them attractive prospects of future research. Nonetheless, Howe's (2001) ethnography offered a new insight into life within a professional rugby team, although discussions are restricted to the medical Department alone. Similarly, Schact (1997) undertook an ethnographic study of player behaviours and the role of gender in such situations, although the adopted role was of a relative outsider. Moreover, this study was based on collegiate level sports. Thus the research presented within this thesis builds upon both Howe's (2001, 2004) and Schact's (1997) work in enabling access to the behaviours of players in areas beyond the medical room and at the highest level of professional sport.

This thesis also highlights aspects of the ethnographic research process which have previously received less attention. In particular, the centrality and difficulty of the reflexive exercise prior to entering the field was discussed at length; which has been lacking in the published work of previous ethnographic researchers. Moreover, this led to an overt appreciation of the ongoing process of reflection and the role of the forced reflexive loop when constructing data from the field. It is intended that these findings will be used to inform future scholars in the ways in which the reflexive exercise may be deployed as a valuable

tool throughout the duration of the research process. As a part of the data collection and management process during this study, a field note diary was kept with a specific purpose of recording reflexive journal entries. This was used alongside several other diaries, as previously recommended by Latour (2005). However, despite some attention being given to the collection of ethnographic field notes by Waquant (2006), previous academic texts have not given clear guidance relating to the 'doing' of field notes. Moreover, there is little encouragement given to the recording of the arising problems, self doubts and difficulties experienced on the part of the researcher when embedded within the field of study. As such, this study offers a recommendation to scholars to keep a personal, more free flowing, diary to record such issues alongside the more widely recognised diaries and records of verbatim exchanges and observed behaviours. The reason for this suggestion is twofold; firstly, it offers an opportunity for concurrent reflection, thus lending substantive and therapeutic value to the experiences, and secondly it raises awareness to the issues of authenticity within naturalistic enquiry by offering points for discussion with others (e.g. supervisors, sympathetic parties, therapists) and providing opportunities for data triangulation. Moreover, it is felt that there are commonalities among the issues and problems experienced among ethnographic researchers with respect to uncertainty of method and behaviours in the field. The publication of such experiences on the part of ethnographers would offer a great source of comfort to current and prospective researchers who are possibly experiencing commensurate feelings, and oftentimes in highly isolated and abstracted situations.

An area in which this study has the capacity to make a further substantive contribution is in the field of philosophy of science; specifically the philosophy of the applied sciences. Through the presentation of ethnographic data it has been shown that a difference exists between the philosophies underpinning the theoretical bases of practices observed in the field, and the mutated philosophies which are necessary in order to practice in the field, and more importantly survive, as a practitioner in such contexts. These emergent paradigms of practice have been shown to have serious implications in terms of ethical practice in relation to both athlete welfare and practitioner skill level. In short, this study encourages a

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reconsideration of the use, and understanding, of the 'science' suffix as applied to the practices surrounding elite sports performance.

<u>Concluding comments: areas for concern and openings for future research and policy change</u>

The findings of this study corroborate that which has long been suspected; that there is a significant distance between the 'scientific' practices occurring in the field and the eponymous science from which they claim their derivation. Although it can be argued that this is an inherent feature of the applied sciences in general, this is not sufficient justification for such circumstances to continue unaddressed. The positioning of sports scientists, and to a similar extent sports medics, in the field is precarious and seems likely to expose athletes and other social actors (e.g. interns, academics, coaches) to potentially volatile consequences of subcultural involvement. It has already been shown that, at the most extreme, medical negligence and contract cessation has occurred at the hands of these practitioners and operating social forces. It is thus suggested that, as a matter of course, the educational system charged with preparing practitioners for future employment should place greater emphasis upon the provision of knowledge and skills to cope with the omnipotent forces which pervade these cultures. Moreover, greater credence should be afforded to the forms of knowledge that describe, and constitute, the realities of professional sporting life. With respect to the latter, this requires a reconsideration of the accepted order of knowledge upon which the disciplines of sports science and medicine are grounded. Specifically, the cultural transformations which alienate practitioners and threaten the value of tacit, existential or organic intellect should be addressed such that these, more latent, forms not only survive but are encouraged to thrive alongside perceptibly harder, higher order, knowledge forms. The failure to intervene in this manner will not only guarantee the loss of such knowledge forms, but will expedite the separation of self(ves) on the part of practitioners, along with the destabilisation of identity. The discursive space, whose volatility is manipulated by these new forms of knowledge and associated technologies, provides

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an apposite site for further research. Specifically, a modified analysis of practitioners' use of science, knowledge and technology could prove fruitful in understanding the individual impact of these entities upon identity, concepts of professionalism and lived experience. In this regard, the degree to which (sports) science and technology is widely considered dehumanising might be elucidated further through narrative enquiry. It is suggested that sports science, and the commensurate deployment of external technologies, is indeed dehumanising (Harraway, 1991; Hoberman, 1992; Butryn, 2003; Miah, 2001). However, throughout the course of this thesis it has been shown that this process is not passive; actors in the subcultures actively and willingly move towards increased technological exposure, primarily as a function of the search for certitude, security and confirmation of professional identity. In this sense, sports science is entrenched within the subcultural socialisation as part of an ongoing process of construction and reconstruction of the social self.

Further research should focus on greatly expounding the ways in which sports science has been able to enter the field of professional rugby so easily, and consider whether this phenomenon is replicated in other sporting milieu. It has been suggested through the analysis of ethnographic data gathered for this study, that sports science has penetrated the studied subcultures unabated; as a result of the social and cultural instability created in the broader transformations of the studied climates. However, perhaps more interestingly as a site for future examination, it has been argued that this inconspicuous arrival is entertained at the nexus of individual identity and the articulation with the subculture; as a consequence of the dynamic process of identity construction within the highly pressurised climate of elite sport. Future research should examine this concept more closely, and with regard to the multiple social actors present, each of varying political influence, within these fields. Specifically, the degree to which it could be argued that sports science and technologies are 'needed' in this context should be examined; firstly as an immutable signifier of social and professional identity, but also at an ontologically deeper level in the negotiation of presented self and *dasein,* for example. In sum, this thesis has demonstrated that sports science (including medicine and the multiple technologies utilised) has transformed the elite sporting

environment, such that, to the outsider, and indeed many insiders, it is seen to have 'developed'. However, the active pursuit of cultural and subcultural identity confirmation through a process of professionalisation, technologisation and legitimation has, in fact, incited the opposite effect; the loss of identity and a functional deskilling of many social actors involved in high performance sports climates.

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[i] In order to capitalise upon the substitution laws, a Harlequins player was administered a fake blood capsule by the team physiotherapist, on the pitch, to give the illusion of having a blood injury (in his mouth). This enabled the team to restore their best kicker to the field to undertake the crucial (match deciding) kick as a 'blood replacement'. As this happened the opposition team management were visibly distressed, apparently recognising foul play, and demanded that their doctor be allowed to examine the players mouth for signs of an injury. The

Harlequins doctor then locked herself and the player into the medical room where it is alleged that she cut the inside of the players mouth to produce the requisite injury. At this point it is alleged that the opposition team Doctor was attempting to gain entry to the room.

[ii] Several players were suspended following allegations of recreational drug use and their failure to undertake a drugs test to clear their name. This followed the sacking and suspension of a player 18 months earlier, at the same club, who had failed a drugs test administered by the external doping control officials during a random drugs test. This first incident led to intimations of a drugs problem at Bath rugby club and this later occurrence, Bathgate, served to confirm such cultural accusations.