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Abstract

This article aims to apply a post-panoptic view of surveillance within the context of elite sport. Latour's (2005) 'oligopticon' and Deleuze and Guattari's (2003) 'rhizomatic' notion of surveillance networks are adopted to question the relevance and significance of Foucault's (1979) conceptualisation of surveillance within an elite sports academy setting. A contemporary representation of bio-politics (Rose 1999, 2001) is further utilised to discern the mode of governance and control effective within such institutions. In so doing, this article seeks to understand the evolving methods of surveillance technology and governance and how they are situated within the setting of a contemporary institution. Such considerations aim to provoke a line of questioning surrounding the normalisation of intrusive surveillance practices and their impact upon identity construction and an authentic sense of self.

Introduction

Throughout post-modern society surveillance and the introduction of modern technology have come to express the changing forms of disciplinary approaches. The introduction of radio telemetry, electronic tagging (Lyon 1993), Radio-Frequency Identification technology (Smith 2007), and biometrics (Mattelart 2010) have accelerated the use of electronic systems of surveillance allowing for a discreet monitoring of individuals in a variety of social contexts (Lyon 1993). Through the introduction of advanced technology, both en masse and individually, techniques and methods of observation have altered dramatically over time providing, 'the computer age version of universal transparency' (Zuboff 1989: 322). The alteration in surveillance methods provides a different perspective of the observed as Haggerty and Ericson note: 'The monitored body is increasingly a cyborg; a flesh-technology information amalgam' (2000: 611). The introduction of computer technology and database systems reproduces a virtual representation that is constructed from the incorporation of codes and data allowing for the advanced multiplication of visibility. The creation of data profiles and digital individuals are re-shaping the view of what constitutes the traditional standards for privacy, privacy protection and the contextualisation of the individual (Curry 1997).

Despite the increasing focus on technological methods of surveillance within society, much of what is discussed is rooted in Foucault's (1979) portrayal of 'panopticism'. Utilising Bentham's (1995) architectural composition of the Panopticon, Foucault's (1979) conceptualisation of surveillance demonstrates how 'docile bodies' are constructed through the imposition of disciplinary mechanisms. Here the application of the Panopticon suggests a control over those under observation to the extent that

individuals begin to discipline themselves to ensure that actions and tasks are carried out accurately, and behaviour is regulated according to a desired norm (Ransom 1997).

Foucault's (1979) contribution towards theorising surveillance and the application of the Panoptic-metaphor has provided a strong conceptual basis upon which to discuss issues associated with discipline and control in institutional and wider social settings. Within an elite sport setting a Foucauldian (1979) framework has previously been utilised to explore the cultivation and adoption of cultural values and the display of normative behaviour (Andrews 1993; Chapman 1997; Johns and Johns 2000; Shogun 1999). Moreover, an application of the Panoptic metaphor has been adopted to explicate key concerns associated with the control of sports-related violence, employing such theoretical positioning to discern the practices and processes of surveillance within a sports specific context (Young 2012). However, when discussing contemporary modes of surveillance and penal policy, the Foucauldian application has received critical attention from a number of authors (Andrejevic 2005; Bauman 2000; Lyon 2001; Norris and Armstrong 1998; Poster 1990). As Koskela notes, 'in postmodern societies power, control and order seem to have become more dispersed and flexible' (2003: 293). With the progression in surveillance technologies a diversion away from the relevance, or perhaps application, of Foucault's (1979) panopticism within modern society appears credible (Yar 2003; Koskela 2003). As Simon indicates, encroaching advances in surveillance technologies 'fundamentally alter the organisation, practice and effects of surveillance relationships' (2005: 1). This article seeks to apply a post-panoptic view of surveillance, incorporating Latour's (2005) oligopticon, to explore the modes of observation and control present within academy institutions and, much like Gad and Lauritsen (2009), understand surveillance as a situated activity identifying its function and impact upon the observed. Drawing upon recent conceptualisations of bio-power and bio-politics (Rose 1999, 2001; Rabinow and Rose 2006; Taylor 1984), issues of power and governance are further explored in relation to the subjugation of the body through the acquisition and assimilation of data. By adopting a post-panoptic view of the academy institutions the concept of surveillance is located in the contemporary moment, questioning the relevance of Foucault's (1979) Panoptic-metaphor when analysing the mode of observation and control in a modern institutional setting.

The Research Process

This article draws upon research that was carried out in two professional sports academies attached to a Barclay Premiership Association football club and an Aviva Premiership rugby football union club.¹ The research consisted of 30 semi-structured interviews (Fontana and Frey 1994) with players and staff, nine of whom belonged to the rugby academy and 21 to the football academy. To reveal the experiences, values, relationships and interactions attached to the sample, a line of situational questioning was incorporated into the interview schedules to discover the social reality that was most relevant to the subjects' setting (Mason 2002). Interviews were accompanied by observations (Flick 2009) of training sessions conducted at both academies with data collected over an 11 month period. A self-reflexive approach towards examining the researched, and the research setting, allowed for a further understanding of how the academy cultures were formed and maintained (Angrosino and Rosenberg 2011). This provided an avenue to examine the practices of surveillance and identity construction that emerged within the confines of the academy institutions, and elaborate on the post-panoptic practices of monitoring and control that were revealed upon interaction with the athletes and staff. This article reflects specifically upon interview data collected from the football academy manager [Henry] and coach [Graham], the rugby academy director [Phillip] and conditioning coach [Tim] and both rugby and football academy athletes.²

¹ The Barclay Premiership Association and Aviva Premiership refer to the top tier leagues in both English Association Football and English Rugby Football Union.

² All participants within this study were given pseudonyms to protect their identity.

Academy Institutions and the Elite Sport Environment

Whilst recent surveillance studies within sport have examined large scale mega events, securitisation and terrorism (Atkinson and Young 2012; Giulianotti and Klauser 2012; Toohey and Taylor 2012; Sugden 2012), and previous investigations have analysed the architectural and geographical composition of the stadium (Bale 1993), little research exists surrounding the extent to which surveillance mechanisms are employed within sporting institutions, how they are structured and their impact upon the individual. However, literature adopting a positivist approach towards elite athlete development has highlighted the intrusive surveillance mechanisms deployed to identify and analyse performance. Comparative studies of elite youth rugby (Plotz and Spamer 2006; Spamer 2000; Spamer and Winsley 2003) and elite youth football (Reilly et al. 2000; Wong et al. 2009) have identified the anthropometrical, physical and motor variables required to become successful athletes. Moreover, the use of molecular biology techniques have been employed to recognise specific genetic traits that have evident links with physiological, anatomical and biochemical indicators of elite athletic performance (Calò and Vona 2008). Despite emphasis placed upon a scientific rationale for elite athlete success, little consideration was given towards a critical review of such intrusive modes of observation and control. Moreover, the cultural or structural environment that surrounds elite youth athletes has received little critical attention in relation to the modes of surveillance that are imposed to reproduce normalising standards associated with excellence.

However, specific examinations of football academies have provided a useful insight into the cultural norms associated with such institutions and the wider values attached to elite sport. Stratton et al.'s (2004) review of the role of football academies provides a general discussion concerning their structural components, purpose and responsibilities. Football academies are responsible for delivering a curriculum that includes the tactical, technical, and physiological components of development, whilst also providing education concerning diet and nutrition, psychological awareness and academic or vocational support (Stratton et al. 2004). Whilst this particular curriculum may demonstrate a humanistic approach to developing elite youth footballers, claims that the holistic model is effective have not been upheld (Stratton et al. 2004). The fundamental role of elite football academies is to 'develop players for the first team or (at least) generate income through the sale of "marketable assets"' (Stratton et al. 2004: 201). A definition of such institutions highlights the reproduction of dominant capitalist social relations (Brohm 1978) and the exploitation of athletes as commodities that is often associated with, and endemic to, modern forms of professional and commercialised sport (Thorpe 2004; Van Rheenen 2012).

Parker (1995) indicates that youth football has progressed from its informal beginnings to a more regulated, systematic and standardised practice. The institutional life that surrounds youth footballers can be likened to that of Goffman's (1961) definition of a 'total institution'. Parker notes that youth trainees in football are, 'occupationally tied by the highly rationalised pattern of daily work and socially bound by curfew and time-tabling arrangements' (1996b: 127). Here the lives of youth trainees are shaped by 'encompassing tendencies', possess a 'total character' and demonstrate an enclosed and formally structured existence (Gearing 1999; Parker 1996b). The ambitions to succeed as a professional, the threat of losing recognition amongst peers and significant others and the potential loss of a contract all assume precedence over the young players' lives (Christensen and Sørensen 2009). Such an environment helps to cultivate a one-dimensional identity for those located within the academies, as the participants' lives appear to be centred upon sporting performances and lack any alternative roles or interests that may help to facilitate a differing sense of self (Brown and Potrac 2009). The lack of emphasis on occupational values external to the realm of elite sport is reflective of the interests of the clubs and aides in perpetuating the restricted view that most trainees adopt, focusing on forsaking aspects such as education to attain the status of professional footballer (Monk and Russell 2000). Research (McGillivray 2006; Parker 2000; Platts and Smith 2009) has indicated that an interest in education, or even demonstration of academic ability, for young academy athletes could potentially threaten their prospects of becoming professional footballers.

In this regard academy institutions demonstrate a very specific cultural milieu that is reflective of the routine and disciplined existence of those who invest their identity within elite sport. Despite this lack of agency, academies may be viewed as institutions that promote disciplinary mechanisms rather than enforcing disciplinary blockades (Scott 2010), as athletes voluntarily choose to attend. However, the acceptance of cultural norms and intrusive surveillance mechanisms imposed upon athletes may be explained by a willingness to conform to a desired 'role'. Athletes situated within academies, and those committed to the institution of professional sport, are constrained by specific characteristics that dominate their workplace identities (Roderick 2006a). Such characteristics are encompassed by the display of a 'professional attitude'; a quality that is characterised by a forceful will-to-win, an acceptance of workplace subservience and an ability to conform to institutional regulations and disciplinary codes (Parker 1996a). Here professionalism within a specific occupational domain focuses upon the formation of a specific attitude or code of conduct rather than the acquisition of specific skills (Fournier 1999). A failure to conform to, or indeed 'display', such norms in the context of academy institutions demonstrates a lack of commitment to a particular identity that may lead to rejection or exclusion from the cultural milieu.

This particular sense of self is encapsulated by surveillance techniques and performance measures identifying a clear distinction of what is, and what is not, acceptable. Canguilhem notes that 'all human technique, including that of life, is set within life, that is, within an activity of information and assimilation of material' (1978: 72). Within the context of a sports academy the athletes' existence is fixed by an 'anatomo-politics' (Rabinow and Rose 2006) of the body, as the acquisition and assimilation of knowledge is used for the purpose of productivity, efficiency and integration into the academy systems. Governed and administered through the analysis of data surrounding performances of the body, the athletes' lives are 'subjected to judgements of worth' (Rose 2001: 21) that invoke a bio-political analysis of governance and control, a concept that was reflected in the ability to utilise data as mode of surveillance.

Data as a Mode of Surveillance

Surveillance within the academies was comprised of a network approach that focused on shaping and directing the athletes' consciousness. Control functions took the form of documentation, data or information that was retrieved from a process of video surveillance, human observation and physiological testing. These data were then used to collate knowledge that was presented to those further up the academy hierarchies. Fitness tests, physiological tests and review sessions within the football academy aided the shaping and regulation of the athletes' behaviour so they may improve their performance. They were used to split the body into categories of technical, social and physical ability and thus act accordingly upon specific traits that were affecting performance. The utilisation of data for the control and regulation of the individual athlete was reflective of the political technologies of the body encapsulated by Foucault's (1990) notion of bio-politics. The categorisation of the athletes' qualities allowed for the regulation of the minutest detail in relation to performance, under the guise of a bio-political framework the athletes bodies were no longer considered free and could clearly be situated in the 'crossfire of supervision' (György 1996: 43). When discussing the development of the football academy athletes, the academy manager highlighted the importance of viewing an athlete's progress in relation to the separate categories of social, technical and physical.

As they get older we test them, from about the ages of fourteen they'll do some physical tests with the sport scientist to identify, uhhmm, you know, from a physical point of view is he gonna progress? Is there a problem from a physical point of view. So when we sit down and we're looking at a player, equally whether to sign or to release, everything's put on the table from every aspect. So, you know, it isn't just from...He could be struggling yeah, but why is he struggling? Is it the technical? Is it the physical is it the social? So again everything's put on the table and then a collective decision's made. Uhhmm, and if

everything from the social side, the physical side, if it becomes a tactical thing we may say well we may need to work with him harder on that. [Henry]

The athletes' performances were reduced to a numerical language based upon the data collected by coaches, physiotherapists and sport scientists. In the case of a sports academy the athlete's persona is shaped and directed by others; through the function of surveillance techniques the athletes' consciousness, and thus behaviour, is directed so as to assume a particular 'front' (Goffman 1959) that is pre-determined and expected. Surveillance in this instance gathers data for the specific purpose of influencing the data subjects (Ball 2005).

By its very nature surveillance exposes individuals through the acquisition of information disclosing patterns of activity for the purpose of control (Giddens 1984). Deleuze indicates that 'disciplinary societies have two poles: the signature that designates the *individual*, and the number or administrative numeration that indicates his or her position within a *mass*' (1992: 5). The two poles of the disciplinary society work simultaneously to locate the *individual* amongst the *masses*. By distinguishing differences through documentation, athletes were able to situate themselves with reference to the data collected and thus apply self-disciplinary mechanisms to adjust their behaviour in accordance with a successful performance. It is a technique that is able to instil a power relation that functions to ensure a self-regulatory discipline. When discussing the purpose of video analysis with Ethan, a rugby academy athlete, it became clear that video analysis, by its very nature, acted as a disciplinary mechanism. By highlighting individual errors athletes were able to adjust their behaviour accordingly so as to improve for future performance. By adopting this form of technology it was possible to capture the actions of the athletes not just in one single gaze but from a myriad of angles and views:

AM: What's the feedback for?

Ethan: I dunno... Personally I think it speeds up the learning process, if you're there and you're, if the video feedback wasn't an option, in your head it felt like this was the right thing to do. Whereas from cameras, technology these days you can get five, six different angles, and you can see, ohh yeah that's a good space there or yeah the pass was there. And then I think the next time you feel yourself in that environment you can make the right decision, so the video feedback is definitely vital.

Video analysis, as a tool for surveillance, was able to capture the actions of the athletes subjecting them to maximum 'exposure'. Fournier notes how new information technology software integrating into the workplace allows for control by 'placing an emphasis on the total behaviour, attitudes and self understanding of the individual employees' (1999: 292). Although video analysis was seen to be an integral part of the players' feedback process, it also acted as an effective mode of discipline ensuring that mistakes were rectified and the players performances conformed to a desired 'norm' (Foucault 1975) or standard.

At the football academy athletes undertook a video recorded review every three months. Each academy member completed a sheet and scored his own personal performance on a scale of one to ten; one being poor and ten being exceptional. The review sessions were recorded on DVD film to ensure that coaches, managers and other academy staff could refer back to previous reviews. As the academy coach suggested, this was quite a subjective process, the procedure was to ensure that athletes were aware, realistically, of where their performance lay within this particular scale and once again promote a notion of self-discipline for the purpose of increased productivity.

For me, it's me assessing where they see themselves more than anything else. I say to 'em, 'right if I say to you ok you say you're a four but I think you're really only a three'. Now

the bloke next to him might be a four, who really is a four, I might leave you at a four 'cos you see yourself at four but then I might say to you, 'well ok you see yourself at four, why'? You know, and I'll say 'well I can't see that but I'll leave you there, but next time we speak I want you to definitely be there, maybe five or six'. [Graham]

With the introduction of information technology, video recorded data and computers, a more efficient and faster method of storing, viewing and recalling information on an individual or event has been introduced (Bogard 1996). Data can be processed to create a 'digital persona' (Clarke 1994) constituting a 'Superpanopticon', i.e., 'a system of surveillance without walls, windows, towers or guards' (Poster 1990: 93). It is the creation of a 'digital persona' and the collation of data that enabled the coaches and managers to survey their athletes in a range of aspects. Thus classifications resulting from the coding process are designed to influence and manage populations and individuals directly and indirectly impacting upon the choices and chances of data subjects (Lyon 2003a). Such techniques of control and governance encapsulate Foucault's notion of bio-power as Dreyfus and Rabinow indicate, 'bio-power centred on the body not so much as the means for human reproduction, but as an object to be manipulated' (1983: 134). The manipulation and shaping of the athletes through the acquisition and analysis of data demonstrated the methods of objectification and the impact of the academy structures on the lives of those housed within them, providing an indication as to how power relations were established and functioned at a local level (Dreyfus and Rabinow 1983).

If the academies, or more specifically the coaching staff and sport scientists, were to be considered the monitoring organisation, then they must assume that the data they retrieved from testing and reviews provided an accurate model of the individual and their behaviour both inside and outside the academy. An increase in weight suggested that athletes were not following the nutritional plan; a drop in fitness assumed they were either not working hard enough, adopting the right 'attitude' (Parker 1996a; Roderick 2003), or they were partaking in 'unhealthy' activities such as drinking alcohol and eating 'junk food'. The inclusion of data analysis leads to the use of modern technology for the purpose of highlighting and constructing the desired qualities that are required of an individual. This allowed for a method of 'social sorting' (Murakami Wood and Ball 2006) enabling a differentiation and categorization of the academy athletes, as indicated by the football academy coach when discussing a particular athlete:

We've got one player at the moment, that we've watched, and he's put on an unbelievable amount of weight over the summer and he's now finding it hard to shift. So we're saying, 'well you put on weight when you weren't training, so that suggests to us that your diet was poor, you've come back and you're training so you've stopped putting any weight on, it's just fluctuating around there, bearing in mind we've told you to cut down stuff to bring your weight back down and it's not'... We know the training they do at the academy is hard enough that he shouldn't be carrying weight. So obviously it's a dietary problem with him. [Graham]

Despite the rather limited and minimal use of electronic data within the academies, social control was achieved by conditioning to conformity and the effect of exposure (Fox 2001). By placing emphasis on the regulation and control of the individual body through such processes a power regime, and mode of governance, was imposed upon the athletes that focused upon maximising the productive forces of the individual, and thus collective, intervening in both the 'manner of living' and 'how to live' (Rose 1999: 23). Similar to Foucault (1979), conformity to a desired 'norm' was achieved through the threat or actual exposure of 'abnormal' behaviour through data collected. Upon discussing the concept of monitoring, academy coaches and conditioning staff referred to the physical attributes that could be documented:

We take their body weights, fats, various tests that he [the sport scientist] does with 'em periodically. They get weighed once a month; we can then see what their fat content is,

their weight, their height all these attributes come up. We do speed tests, agility tests, they do weights, they do upper body weights, they do leg weights, which he [the sport scientist] keeps a record of so you can see the players progressing as in, uhhhm, the weight they're lifting, the strength they're doing so you can see that progress over the years. **[Graham]**

The documentation of physical attributes was also viewed as important within the rugby academy. It was essential for the academy staff to capture and document a rugby player's physical performance in order to monitor their development. This supervisory system of 'anatomy politics' regulated the athletes' lives with precision to ensure that all aspects of performance were encapsulated by a normative control (György 1996). Tim, the rugby academy conditioning coach, made the following point:

I'll monitor their weight and heart rate through the eight weeks, heart rate's a good monitor of over training, just the resting heart rate. Their weight is more a kind of fact of how much actual weight they're putting on muscle wise. Then we also record what weights they're lifting each week. So again we're wanting to progress them on strength wise even though they're doing their hypertrophy,³ but also to make sure that they're not over training. **[Tim]**

The importance of generating data for surveillance was reiterated by the rugby academy director, highlighting the specific tests utilised to identify the physical condition of an academy athlete in comparison to a 'baseline' or desired 'norm'. The classification and normalisation of standard performances and the physicality of individual athletes created a power relation that provided the academy institutions the opportunity to 'intervene', 'augment' and 'train the vital characteristics' (Rabinow and Rose 2006) that constituted the athletes' bodies:

We do a bit more than we used to in terms [of] the physical testing or monitoring of players. So at certain times of the year the players will do FAST tests, which are Fitness Anthropometric Scoring Tests, which is again an RFU⁴ initiative, which all the England squads do, and it's their way of identifying who is physically in good condition, so there's baseline tests that they do. **[Phillip]**

Quantifiable attributes such as body weight, hydration levels, heart rate, speed, fitness and physical strength were documented by standardised tests. By recording these attributes the introduction of individualisation became more evident. Managerial staff and the athletes themselves were able to identify strengths and weakness within their performance, thus fixing the athletes in their own individuality. It was possible to then describe, analyse and thus correct the performance of the athlete. This extensive mode of surveillance provided a constant indicator as to what constitutes an acceptable body in relation to performance (Chase 2008), and highlighted aspects that required improvement. Similar to the Foucauldian (1979) concepts of the 'examination' and a 'normalising judgment', this method of surveillance constituted a sense of personal responsibility (Johns and Johns 2000) that induced docility, promoting self-disciplinary behaviour to improve productivity.

The emphasis placed upon the regulation of performance, and the corporeal aspects of the academy athletes, cultivated a desired sense of self that was promoted amongst the institutions hierarchies to enhance the productivity of performance. As Rose indicates, 'selfhood has become intrinsically somatic' (2001: 18), a theoretical consideration that was reflected in the athletes' sense of self as their identity was

³ Zatsiorsky states that 'the size of a muscle increases when it is subjected to a strength training regime. This increase is called muscle hypertrophy' (1995: 61).

⁴ Rugby Football Union.

bound by notions of physicality and performance measures. The integration of the 'physical' and the 'social' provided some indication as to why little resistance was encountered when examining the intrusive modes of surveillance within the academies. The athletes housed within such institutions invest their identity within the dominant norms of elite sporting culture, an identity that can be reflected in the objective measurements of performance, which inevitably validate them as committed individuals. Moreover, a rejection or resistance to such methods of regulation and control demonstrate a dismissal of the dominant practices witnessed in elite sports performance and a rejection of the desired 'character' or role (Parker 1996a; Roderick 2003) that must be adhered to.

With the introduction of Foucault's (1990) notion of bio-power, and a bio-political framework, an apt portrayal of the mode of governance functioning within the academy institutions and the power regime present could be discerned. Despite this, the mechanisms and modes of surveillance utilised to monitor and establish control over the academy athletes demonstrated a clear challenge to the relevance and significance of the Panoptic-metaphor and the Foucauldian conceptualisation of surveillance (Foucault 1979). Through an exploration of the surveillance practices present within the academy institutions, a post-panoptic view of observation and control highlights the limiting nature and significance of Foucault's panopticism.

The Oligopticon and Rhizomatic Surveillance

It is quite clear that social institutions are no longer immune from the encroaching use and application of technology. The academies are no different as computerised systems and basic databases allowed for the collation and analysis of data related to performances. The introduction of new modes and mechanisms of surveillance have altered the approach to viewing and monitoring that which is observed. Lyon (2003b: 19) notes that 'social relationships have become more fluid, more liquid and surveillance data, correspondingly, are more networked, and must be seen in terms of flows'. Here one may abandon the Foucauldian premise of surveillance as the displacement of the central gaze of the Panopticon alludes towards a more dispersed form of surveillance supported by multiple sites that monitor through a system of networks.

Within the context of the academies, separate sites of surveillance existed ranging from the managers, coaches, physiotherapists, conditioning coaches, teachers and tutors. Each site functioned to observe the athlete and provide in depth knowledge that may relate to the facilitation of their overall performance. As Latour (2005: 182) suggests it is a mode of surveillance that can be described as 'flattening the landscape'. This non-centralised form of surveillance emphasises the importance of the various networks that exist within the academy structures. The reliance on a human network of surveillance and feedback was illustrated by the football academy coach. Parents and teachers were utilised as a useful source of information that could provide the academy staff with knowledge that was used to resolve personal issues relating to the player or their performance, as the football academy coach revealed:

Every day I deal with 'em on a one to one basis. Now sometime during every day we'll 'ave a conversation with 'em; whether it's 'a hello how are you, how's things, what's happening', I will have a conversation with them every day. If they're in digs we'll have house parents that are basically like surrogate parents to 'em. They give us feedback; we encourage the parents, 'if there's a problem, to give us feedback'....Uhhh, we have an educational welfare officer who governs them and watches over them and their school work. We have college teachers who keep an eye on 'em, I go and speak to them to see what their behaviours' like, are they behaving themselves in college and if not then either Colin [Education and Welfare Officer] deals with it or I'll deal with it. [Graham]

Within the confines of the academy settings the ‘all encompassing eye’ was perceived by players to be upheld by the central academy coaching staff and manager; in reality it was a dispersed network of surveillance sites as illustrated by the football academy coach:

Graham: If something’s happened you ‘ave to understand, physios, sport scientists, coaches are all the eyes and ears of the manager. The physio came to me today and told me something that I hadn’t noticed, but what I do though, I’ll speak to that particular player, and he’ll think how the hell does he know that? Now I won’t tell him who’s told me.

AM: So they’re not aware then?

Graham: Ohhhh no, all I’ll do is I’ll go to that player and I’ll say, ‘uhhhhmm, don’t think I didn’t see you turn in late the other day, I knew you walked in behind me’. Did I bollocks know he was behind me, one of the physios told me after, he was late he crept in but I was talkin’ to somebody else with my back turned to him so I didn’t see him. So now what that tells to this lot [the players] is ‘I better be careful ‘ere’. Now he doesn’t know the physio has told me, so he’s thinking ‘how does he know that?’ They need to know their parameters, so we’re all monitoring them all the time.

This anatomical mode of surveillance, as depicted by the football academy coach, utilised a network of surveillance sites that incorporated coaches, managers, physiotherapist and conditioning coaches to monitor the athletes on a day-to-day basis. Whilst an undetected mode of surveillance was utilised to reproduce a mode of self-discipline amongst the academy athletes, the central locality of a Panoptic mode of surveillance was absent. These sites of surveillance, or oligoptica, connect through a network of information that is able to provide a broader perspective of the ‘whole’ as Latour (2005: 181) notes; ‘from oligoptica, sturdy but extremely narrow views of the (connected) whole are made possible—as long as connections hold’.

Deleuze and Guattari (2003: 6) demonstrate that, ‘the multiple *must be made*, not by always adding a higher dimension, but rather in the simplest of ways’. To provide a more encompassing form of surveillance, this particular technique was adopted by the academies. In order to ‘multiply’ the sites of surveillance, a broader network was employed to great effect. To laterally expand one’s vision is to achieve a greater expanse of monitoring in its simplest form. Deleuze and Guattari (2003: 7) note that multiplicity is best achieved through a rhizomatic structure, a depiction of which suggests that ‘any point of a rhizome can be connected to anything other, and must be’. Indeed this interconnectedness is essential for surveillance to function effectively within the academies. Similar to Latour’s (2005) oligopticon, any point of contact established with the football academy athletes, either within or away from the academy, allows for a point of surveillance and the production of information or feedback. The football academy manager highlighted that this inevitably allowed for the surveillance of the athletes’ behaviour not only within the confines of the academy but also situated elsewhere:

AM: How do you identify whether a player is struggling within the academy?

Henry: We have systems, we have systems that are in place and obviously we look at them on a week to week basis, we look at how they’re doing in training, how they’re doing in games. But also with the younger age groups he could be struggling because it’s a physical aspect, could be going through a growth spurt, uhhm, it could be a social aspect, there could be problems at home. So again, you know, it’s, it’s, everybody plays a part, the coaches play a part, the education and welfare officer plays a part. If there’s information that comes back from the school that there’s a problem or there’s a problem at

home, a split family he's having problems with that, coming to cope with that, that can all have an effect on how well a kid's doing and how well a kid's not doing.

Expansion of surveillance was clearly required for the academy staff in order to gain sufficient information or to monitor their athletes. As Deleuze and Guattari (2003: 21) note, 'the rhizome operates by variation, expansion, conquest, capture, offshoots'. This rhizomatic form of surveillance could be considered more useful within the rugby academy due to its structural organisation. The rugby academy itself contained no central location, the academy players had minimal contact and the resources, such as training facilities and staff, were limited. The need to establish various points of contact was integral to acquiring a sufficient amount of knowledge concerning the athletes. This was noted by the rugby academy director when discussing forms of feedback within the academy's systems of networks:

AM: Where does this feedback come from?

Philip: From their teachers, their club coaches, their County coaches, parents, themselves. Uhhhm, so there's loads of people out there and it's just a case of building a network over time. Uhhhm, so there's lots of people we know personally, who sort of, who buy into what we try to do and I think there's always gonna be one or two people who are against it and sort of put a negative aspect on things but we think the majority of people are on side with what we're doing and those people buy into our process and they tend to give us quite good feedback, so we sort of rely and trust on what they're saying.

Although academies utilised technological methods of observation, and data were collected and analysed, a large majority of their disciplinary surveillance is based upon human observation. When discussing forms of feedback the rugby academy director commented that, 'a lot of it is about building the relationships, so getting good relationships with the people and the networks around them so everyone can buy into the whole process' [Philip]. Within the football academy this was referred to as 'informal' monitoring by coaches and managers and was a source to which they relied on heavily as an indicator of performance and a procedure for discipline. The reliance on a human network of surveillance further reinforces the importance of human surveillance within such an institution. Haggerty and Ericson (2000: 611) indicate that 'in situations where it is not yet practical to technologically link surveillance systems, human contact can serve to align and coalesce discrete systems'. At times, players within both the football and rugby academies were all too aware that they were being observed from multiple sites of observation. When asking the footballers who monitored their progress, the majority of those interviewed responded by indicating that everyone they came into contact was assessing their potential:

AM: Who monitors your progress?

Harry: Uhh, everyone, uhh...Graham [coach] especially, uhhmm...all the coaching staff, Geoff our sport scientist, physios, the whole club really even the gaffer [first team manager] and things like that, he wants to know how you're going.

Further examples from football academy athletes demonstrated the multiple sites of observation that function through this form of rhizomatic surveillance:

AM: Who monitors your progress?

Roger: Geoff the sport scientist, Graham [coach], Huw [goalkeeping coach], uhhh...the psychologists, even our tutors are teachers for school work, everyone.

Interviews with the rugby academy players highlighted the connections that were sustained with local rugby clubs and universities. The academy players explained how these networks allowed the academy coach to monitor a player's performance when they were playing away from the confines of the academy itself:

AM: Are you often watched by your coaches?

Noah: Uhhmm, yeah I think.

Ryan: Uhh, and even if they don't, like, when I play at my local club they film the games, so you just give them the DVD and then they can sit and look over them with you. So they tell you what, what things you need to improve on and what you did well and stuff like that.

Noah: The Uni coach⁵ is linked with the academy so they quite often ask the coach, like, how are the academy players playin' and stuff like that and just pretty much gettin' feedback from other coaches.

In certain situations the implication of technological systems of surveillance may not be required. Academies are 'closed' environments and contain a very specific population. Therefore, it is relatively easy and useful to use human contact as a primary source of surveillance. This includes those who are situated away from the academies themselves; for example, schools, universities or colleagues. In the case of the rugby academy this form of surveillance was relied upon more heavily than that of technological mechanisms, as databases used to track players' performances were restricted to specific information, weight gain/loss and fitness, and represented basic data for analysis. This particular mode of surveillance allowed the rugby academy director access to an athlete's whereabouts or actions on a more regular basis. The rugby academy director explained how links with outside institutions informed the academy staff of a player's behaviour:

It is pretty much twenty four hour surveillance, we know what goes on...Uhh, obviously we're talking to people, so say someone who misses school to come and see the physio, or misses some university stuff to come and see the physio and then lies to somebody about it, and we're in constant communication with these people so people find out. Uhhhm, now that's not to say we go up to them and say, 'what're you doing', we just say, 'look we know what goes on', and it's up to them to sort of do anything about it. Now again because of the whole attitude drive that we're pushing, it's not really an issue because the majority of the time the guys are really well behaved. Some people may go off the rails a bit, but no I don't think it's a major concern of ours. **[Phillip]**

Latour's (2005) oligopticon provides an example of such surveillance, illustrating a system of monitoring that relies on multiple sites of observation. The oligopticon is seen to command or control situations so long as it is able to establish and maintain a connection to that which is physically traced or monitored (Latour 2005). Here the function of the oligopticon is not to adopt an all encompassing power, but to both localise and connect through the *connectique* (Latour 2005). Accompanying this networked approach of multiple 'surveillance nodes' within the academy cultures was the introduction of social networking as a mode of observation and control.

⁵ The Uni coach refers to the university coach at which the academy athlete attends.

Socio-Technological Control

Haggerty and Ericson (2000: 613) indicate that surveillance 'is not so much immediately concerned with the direct physical relocation of the human body, but with the transforming of the body into pure information, such that it can be rendered more mobile and comparable'. Due to the introduction of web based resources, social networking sites have been able to render the power of surveillance more mobile. Buchanan notes that,

If you use a social networking site, a cellphone or the internet regularly, you are leaving behind a clear digital trail that describes your behaviour, travel patterns, likes and dislikes, divulges who your friends are and reveals your moods and opinions.
(2010: 31)

The social networking tool 'Facebook' was used by the rugby academy director to monitor the athletes' behaviour outside of the academy. Facebook is a social networking website that allows individuals access to personal information, video and photographic footage and insights into the day to day occurrences of individuals. By accessing this particular information, managers and coaches are able to monitor the athletes when they are outside the confines of the academy or away from the watchful eye of the sideline. This allows those higher up within the hierarchy a different vantage point to gain new information or knowledge and provide a further method of surveillance to monitor the athlete's behaviour, as the rugby academy director demonstrated:

Some guys will turn up on time and some guys will sleep in and make up excuses, things like, uhhhh it sounds silly, but things like Facebook; all the players are on Facebook and they might tell us, 'ohhh I was in bed I've been ill', but one of their mates has put pictures of them on a night out. We're not sort of spying on them, we'd never go out there and try lookin' for information but you find out because people talk, people say things and you'll overhear conversations. **[Phillip]**

Socio-technological perspectives of control mechanisms, used for the purpose of disciplinary measures, have begun to re-shape the methods used to implement the see/being seen dyad established by the Panopticon. In relation to modes of surveillance, Deleuze (1992: 7) indicates that 'it may be that older methods, borrowed from the former societies of sovereignty, will return to the fore, but with the necessary modifications'. Koskela (2009) discusses the 'high jacking' and 're-privatisation' of surveillance whereby surveillance technologies have shifted hands from the private sector to the private individual, the use of digital devices such as mobile phone cameras and private webcams in capturing public events allows the individual to reclaim the status of observer from the authorities (Koskela 2009).

Despite the mobile method of advanced surveillance technology, Zuboff states that 'such systems can become information panopticons that, freed from the constraints of space and time, do not depend on the physical arrangement of the buildings' (1989: 322). The capacity of new surveillance technologies and the 'electronic revolution' has allowed such technologies to 'transcend both spatial and temporal barriers' (McCahill 1998: 41). Moreover, with the introduction of Facebook and social networking sites we may view the relative ease with which information can be retrieved (Zimmer 1997). By utilising Facebook for the purpose of surveillance, academy coaches were able to extend their reaches of control far beyond the aspect of simple physical inspection and observation (Ajana 2005). Within the context of the academies, 'Facebook', as a mode of surveillance, maintains a similar function to that employed by the Panopticon, but has been modified in the mechanism of its execution. Although such online sites are not intentionally established for the use of implementing surveillance mechanisms, they provide a data-trail that exposes a network of information providing access to individual's movement and behavioural patterns as Lampe, Ellison and Steinfield indicate, 'Facebook may foster relationship building by allowing users to track other

members of their community. This “surveillance” function allows an individual to track actions, beliefs and interests of the larger group to which they belong’ (2006: 167).

The use of social networking sites to monitor player behaviour is an example of how virtual mobility has led to the increasing use and ease of technology within the area of surveillance. Lyon (2003b: 25) notes that, ‘mobility both physical and virtual, is a mark of the information and communication age’. The examination of technology, a ‘networked’ society (Ball 2002; Castells 2004; Fox 2001; Lyon 2001) and its infiltration into the world of surveillance, illustrate the notion of more dispersed methods of observation. However, it is not the intention of this article to suggest that the concept of panopticism should be considered completely redundant, nor should it be a concept that is ignored when analysing surveillance within contemporary institutions such as sports academies. Despite this, it was made clear from the data that the relevance of panopticism within such sporting institutions was a concept that maintained less significance, relying more upon a distributed network of multiple surveillance sites to observe and report.

Conclusion

Foucault (1979: 173) states that ‘the perfect disciplinary apparatus would make it possible for a single gaze to see everything constantly’. Although, within the context of a sports academy, it was not possible to view everything constantly this particular gaze was facilitated by a dispersed and interconnected mode of observation that aimed to shape and form the athletes’ behaviour, identifying weaknesses and map their performance.

Within the academies post-panoptic concepts of surveillance provided a more relevant exploration of their social structures. The architectural dominance of surveillance, as presented by Bentham’s (1995) Panopticon, contained less significance within the institutional space of the academies. The networks of surveillance and disciplinary techniques that accompanied them provided an insight into how the athletes’ behaviour was regulated and controlled. Gad and Lauritsen’s application of the oligopticon indicates that ‘surveillance is the result of situated, cooperative work that involves humans and nonhumans. Effective surveillance is not established by an individual actor, but is accompanied by a network’ (2009: 53). This particular concept illustrates the mode of surveillance present within both academies as the interconnected networks of monitoring were able to capture and report information from several different loci.

Within the academies the human networks of surveillance extended beyond the central locality of the academy sites, demonstrating a dispersed or rhizomatic (Deleuze and Guattari 2003) surveillance structure. Here the notion of the Panopticon becomes multiplied and employed not just in one site but many, as Wood (2003: 236) indicates, ‘the Panopticon is also *displaced*, becoming less central and more one *dispositif* amongst many’. By expanding their gaze laterally and employing an extensive human network of surveillance, the academies were able to retrieve substantial but narrow views of the connected. Consequently such monitoring allowed for greater comparisons to be made, thus perpetuating a culture of excellence to which athletes must adhere. In agreement with Haggerty (2006) and Gad and Lauritsen (2009), surveillance remains an ambiguous concept that is difficult to define and should be viewed with increasing attention placed upon ‘surveillance as a situated activity’ (Gad and Lauritsen 2009: 49).

However, to suggest that Foucault’s (1979) panopticism is entirely insignificant would be incorrect. According to Sewell (1998) new surveillance technologies that increase compliance are still likely to resemble the operating principles of the Panopticon to some extent, as they attempt to convey the concept of panopticism as the essence of control. Whilst elements of Foucault’s (1979) panopticism were evident within the academies, the significance may differ from context to context with the increasing variance of surveillance methods employed. Ball suggests that, ‘in order to understand how surveillance works, it is

necessary to understand how the elements of surveillance, in different contexts of application, are bound together and become stable' (2002: 586). When analysing surveillance systems within modern institutions it is imperative that the context be taken into consideration.

Within the academies, institutional control and intrusive modes of surveillance were perceived as a progressive tool to enhance performance and the chances of a positive competitive outcome for the athlete. As Rigauer indicates, the way an athlete behaves is 'predetermined by the norms of achievement' (1981: 22), norms which can only be displayed through an adherence and acceptance of performance measures and rigorous observations. The lack of resistance to such practices is explained, in part, by the academy institutions' desire to capitalise on the players' work performances as commodities (Roderick 2006b). Central to this process is the cultivation of a particular character that athletes housed within such institutions must adopt to ensure continuing success. At the risk of sacrificing greater autonomy and an inability to express one's individuality, it may be suggested that an ever increasing network of documentation and surveillance will aide in the internalisation of such norms leading to enhanced performance and progression.

Directions in surveillance practices within elite sport are moving towards more intrusive modes of observation with the introduction of genetic testing for identifying performance attributes (Miah and Rich 2006). One may suggest that a 'biosociality' (Rabinow 1996) is encroaching into the culture of elite sport, as predetermined genetic markers of performance may be perceived as guiding the practices and identity of elite athletes that coalesce around such truths. Future enquiry may seek to critically examine the impact of intrusive modes of surveillance within a sporting context, and question to what extent such methods are influencing the construction and realisation of an authentic sense of self.

The acceptance and normalisation of surveillance practices is not a new phenomenon, and is widely associated with the current climate of unease propagated in the post-9/11 era (Haggerty and Gazzo 2005). A further examination of surveillance practices in multiple settings, such as work organisations and sport specific environments, may provide an understanding as to how such processes are normalised and how they intervene in the lives of those subjected to them. Through further empirical analyses, one may also attempt to gain an understanding of how such practices may be resisted, and to identify what mode or form such resistance will take both in, and outside, of sport specific settings. A greater focus upon empirical work examining surveillance practices in a variety of social settings will also lead to a further understanding of monitoring and control, and facilitate inquiry into the relevance and significance of Foucault's (1979) panoptic-metaphor in the contemporary moment.

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References

- Ajana, Btihaj. 2005. Surveillance and Biopolitics. *Electronic Journal of Sociology* 7: 1-15.
- Andrejevic, Mark. 2005. The Work of Watching One Another: Lateral Surveillance, Risk, and Governance. *Surveillance & Society* 2(4): 479-497.
- Andrews, David. L. 1993. Desperately Seeking Michel: Foucault's Genealogy, the Body and Critical Sport Sociology. *Sociology of Sport Journal* 10(2): 148-167.
- Angrosino, Michael and Judith Rosenberg. 2011. Observations on Observation Continuities and Challenges. In: *The Sage Handbook of Qualitative Research Fourth Edition*, eds Norman. K Denzin and Yvonna. S Lincoln, 467-478. London: Sage.
- Atkinson, Michael and Kevin Young. 2012. Shadowed by the Corpse of War: Sport Spectacles and the Spirit of Terrorism. *International Review for the Sociology of Sport*: 1-21. Accessed January 18, 2012. doi: 10.1177/1012690211433452.
- Bale, John. 1993. The Spatial Development of the Modern Stadium. *International Review for the Sociology of Sport* 28(2): 122-133.
- Ball, Kirstie. 2005. Organisation, Surveillance and the Body: Towards a Politics of Resistance. *Organisation* 12(1): 89-104.
- . 2002. Elements of Surveillance: A New Framework and Future Directions. *Information, Communication and Society* 5(4): 573-590.

- Bauman, Zygmunt. 2000. Social Issues of Law and Order. *British Journal of Criminology* 40(2): 205-221.
- Bentham, Jeremy. 1995. Panopticon. In: *The Panopticon Writings*, ed. Miran Božovič, 29-95. London: Verso.
- Bogard, William. 1996. *The Simulation of Surveillance: Hypercontrol in Telematic Societies*. Cambridge: Cambridge University Press.
- Brohm, Jean-Marie. 1978. *Sport a Prison of Measured Time*. London: Ink Links Ltd.
- Brown, Gavin and Paul Potrac. 2009. 'You've not Made the Grade, Son': De-Selection and Identity Disruption in Elite Level Youth Football. *Soccer & Society* 10(2): 143-159.
- Buchanan, Mark. 2010. The Greatest Experiment of All Time... *NewScientist* 24 July, 30-34.
- Calò, Carla M. and Giuseppe Vona. 2008. Gene Polymorphisms and Elite Athletic Performance. *Journal of Anthropological Sciences* 86: 113-131.
- Canguilhem, Georges. 1978. *On the Normal and the Pathological*. Dordrecht, Holland: D. Reidel Publishing Company.
- Castells, Manuel. 2004. Informationalism, Networks, and the Network Society: A Theoretical Blueprint. In: *The Network Society a Cross-Cultural Perspective*, ed. Manuel Castells, 3-45. Cheltenham, UK: Edward Elgar Publishing.
- Chapman, Gwen. E. 1997. Making Weight: Lightweight Rowing, Technologies of Power, and Technologies of the Self. *Sociology of Sport Journal* 14: 205-223.
- Chase, Laura. 2008. Running Big: Clydesdale Runners and Technologies of the Body. *Sociology of Sport Journal* 25(1): 130-147.
- Christensen, Mette Krogh and Jan Kahr Sørensen. 2009. Sport or School: Dreams and Dilemmas For Talented Young Danish Football Players. *European Physical Education Review* 15(1): 115-113.
- Clarke, Roger. 1994. The Digital Personal and its Application to Data Surveillance. *The Information Society* 10(2): 77-92.
- Curry, Michael. 1997. The Digital Individual and the Private Realm. *Annals of the Association of American Geographers* 87(4): 681-699.
- Deleuze, Gilles. 1992. Postscript on the Societies of Control. *October* 59: 3-7.
- . and Felix Guattari. 2003. *A Thousand Plateaus Capitalism and Schizophrenia*. London: Continuum.
- Dreyfus, Hubert L. and Paul Rabinow. 1983. *Michel Foucault Beyond Structuralism and Hermeneutics*. Chicago: The University of Chicago Press.
- Flick, Uwe. 2009. *An Introduction to Qualitative Research Edition 4*. London: Sage.
- Fontana, Andrea and James Frey. 1994. Interviewing: The Art of Science. In: *Handbook of Qualitative Research*, eds Norman. K Denzin and Yvonna. S Lincoln, 361-376. London: Sage.
- Foucault, Michel. 1990. *The History of Sexuality: An Introduction Volume 1*. New York: Vintage Books.
- . 1979. *Discipline and Punish the Birth of the Prison*. UK: Peregrine.
- . 1975. *Abnormal: Lectures at the College de France 1974-1975*. London: Verso.
- Fournier, Valérie. 1999. The Appeal to 'Professionalism' as a Disciplinary Mechanism. *The Sociological Review* 47(2): 280-307.
- Fox, Richard. 2001. Someone to Watch Over Us: Back to the Panopticon? *Criminal Justice* 1(3): 251-276.
- Gad, Christopher and Peter Lauritsen. 2009. Situated Surveillance: An Ethnographic Study of Fisheries Inspection in Denmark. *Surveillance & Society* 7(1): 49-57.
- Gearing, Brian. 1999. Narratives of Identity Among Former Professional Footballers in the United Kingdom. *Journal of Ageing Studies* 13(1): 43-58.
- Giddens, Anthony. 1984. *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley: University of California Press.
- Giulianotti, Richard and Francisco Klauser. 2012. Sport Mega-Events and 'Terrorism': A Critical Analysis. *International Review for the Sociology of Sport*: 1-17. Accessed January 18, 2012. doi: 10.1177/1012690211433454.
- Goffman, Erving. 1961. *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. London: Penguin.
- . 1959. *The Presentation of the Self in Everyday Life*. London: Pelican.
- György, Péter. 1996. The Order of Bodies. In: *Biopolitics. The Politics of the Body, Race and Nature*, eds Agnes Heller and Sonja Puntsher Riekmann, 41-54. Aldershot: Avebury.
- Haggerty, Kevin D. 2006. Tear Down the Walls: On Demolishing the Panopticon. In: *Theorizing Surveillance. The Panopticon and Beyond*, ed. David Lyon, 23-45. Portland: William Publishing.
- . and Amber Gazso. 2005. Seeing Beyond the Ruins: Surveillance as a Response to Terrorist Threats. *The Canadian Journal of Sociology* 30(2): 169-187.
- . and Richard V. Ericson. 2000. The Surveillant Assemblage. *British Journal of Sociology* 51(4): 05-622.
- Johns, David P. and Jennifer S. Johns. 2000. Surveillance, Subjectivism and Technologies of Power: An Analysis of the Discursive Practice of High-Performance Sport. *International Review for the Sociology of Sport* 35(2): 219-234.
- Koskela, Hille. 2009. Hijacking Surveillance? The New Moral Landscapes of Amateur Photographing. In: *Technologies of(In)security. The Surveillance of Everyday life*, eds Katja Franko Aas, Helene Gundhus and Heidi Mork Lomell, 147-167. Oxon: Routledge-Cavendish.
- . 2003. 'Cam era' — the Contemporary Urban. *Surveillance & Society* 1(3): 292-313.
- Lampe, Cliffe, Nicole Ellison and Charles Steinfield. 2006. A Face(book) in the Crowd: Social Searching vs. Social Browsing. *Proceedings of CSCW-2006*, 167-170. New York: ACM Press.
- Latour, Bruno. 2005. *Reassembling the Social an Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Lyon, David. 2003a. *Surveillance After September 11*. Cambridge: Polity Press.
- . 2003b. Surveillance as Social Sorting Computer Codes and Mobile Bodies. In: *Surveillance as Social Sorting Privacy, Risk and Digital Discrimination*, ed. David Lyon, 13-30. London: Routledge.

- . 2001. *Surveillance Society Monitoring Everyday Life*. Buckingham: Open University Press.
- . 1993. An Electronic Panopticon? A Sociological Critique of Surveillance. *The Sociological Review* 41(4): 653-678.
- Mason, Jennifer. 2002. *Qualitative Researching Second Edition*. London: Sage.
- Mattelart, Armand. 2010. *The Globalization of Surveillance*. Cambridge: Polity Press.
- McCahill, Michael. 1998. Beyond Foucault: Towards a Contemporary Theory of Surveillance. In: *Surveillance, Closed Circuit Television and Social Control*, eds Clive Norris, Jade Moran and Gary Armstrong, 41-65. Aldershot: Ashgate.
- McGillivray, David. 2006. Facilitating Change in the Educational Experiences of Professional Footballers: The Case of Scottish Football. *Managing Leisure* 11(1): 22-38.
- Miah, Andy and Emma Rich. 2006. Genetic tests for ability?: Talent Identification and the Value of an Open Future. *Sport, Education and Society* 11(3): 259-273.
- Monk, Des and Dave Russell. 2000. Training Apprentices: Tradition Versus Modernity in the Football Industry. *Soccer & Society* 1(2): 62-79.
- Murakami Wood, David and Kirstie Ball, eds. 2006. A Report on the Surveillance Society. *Public Discussion Document the Information Commission, September*: 1-21.
- Norris, Clive and Gary Armstrong. 1998. Introduction: Power and Vision. In: *Surveillance, Closed Circuit Television and Social Control*, eds Clive Norris, Jade Moran and Gary Armstrong, 3-20. Aldershot: Ashgate.
- Parker, Andrew. 2000. Training for 'Glory', Schooling for 'Failure'? English Professional Football, Traineeship and Educational Provision. *Journal of Education and Work* 13(1): 61-76.
- . 1996a. *Chasing the 'Big-Time' Football Apprenticeship in the 1990s*. PhD diss., University of Warwick.
- . 1996b *Professional Football Club Culture: Goffman, Asylums and Occupational Socialization*. Scottish Centre Research Papers in Sport, Leisure and Society. Edinburgh: Moray House Institute of Education: 123-130.
- . 1995. Great Expectations: Grimness or Glamour? The Football Apprentice in the 1990s. *The Sports Historian* 15(1): 107-126.
- Platts, Chris and Andy Smith. 2009. The Education, Rights and Welfare of Young People in Professional Football in England: Some Implications of the White Paper in Sport. *International Journal of Sport Policy* 1(3): 323-339.
- Plotz, Anthony and Maric Spamer. 2006. A Comparison of Talented South African and English Youth Rugby Players with Reference to Game-Specific, Anthropometric, Physical and Motor Variables. *South African Journal for Research in Sport, Physical Education and Recreation* 28(1): 101-107.
- Poster, Mark. 1990. *The Mode of Information Poststructuralism and Social Context*. Cambridge: Polity Press.
- Rabinow, Paul. 1996. *Essays on the Anthropology of Reason*. Princeton: Princeton University Press.
- . and Nikolas Rose. 2006. Biopower Today. *BioSocieties* 1(2): 195-217.
- Ransom, John S. 1997. *Foucault's Discipline: The Politics of Subjectivity*. Duke: Duke University Press.
- Reilly, Thomas, Mark A. Williams, Alan Nevill, and Andy Franks. 2000. A Multidisciplinary Approach to Talent Identification in Soccer. *Journal of Sport Sciences* 18(9): 695-702.
- Rigauer, Bero. 1981. *Sport and Work*. New York: Columbia University Press.
- Roderick, Martin. 2006a. A Very Precarious Profession: Uncertainty in the Working Lives of Professional Footballers. *Work, Employment and Society* 20(2): 245-265.
- . 2006b. *The Work of Professional Football a Labour of Love?* London: Routledge.
- . 2003. *Work, Self and the Transformation of Identity: A Sociological Study of the Careers of Professional Footballers*. Thesis (PhD). University of Leicester, Leicestershire UK.
- Rose, Nikolas. 2001. The Politics of Life Itself. *Theory, Culture & Society* 18(6): 1-30.
- . 1999. *Powers of Freedom Reframing Political Thought*. Cambridge: Cambridge University Press.
- Scott, Susie. 2010. How to Look Good (Nearly) Naked: The Performative Regulation of the Swimmer's Body. *Body and Society* 16(2): 134-167.
- Sewell, Graham. 1998. The Discipline of Teams: The Control of Team-Based Industrial Work Through Electronic and Peer Surveillance. *Administrative Science Quarterly* 43(2): 397-428.
- Shogun, Debra. 1999. *The Making of High-Performance Athletes: Discipline, Diversity, and Ethics*. Toronto: University of Toronto Press Incorporated.
- Simon, Bart. 2005. The Return of Panopticism: Supervision, Subjection and the New Surveillance. *Surveillance & Society* 3(1): 1-20.
- Smith, Jennifer E. 2007. You Can Run but You Can't Hide: Protecting Privacy From Radio Frequency Identification Technology. *North Carolina Journal of Law and Technology* 8(2): 249-272.
- Spamer, Emanuel. 2000. A Comparison of Rugby Skills, Physical and Motor Abilities and Anthropometric Data of National, Provincial and School Talented Rugby layers. *Kinesiology* 32: 125-132.
- . and Richard Winsley. 2003. A Comparative Study of British and South African 18-year-old Rugby Players with Reference to Game-Specific Skills, Physical Abilities and Anthropometric Data. *Journal of Human Movement Studies* 4: 187-196.
- Stratton, Gareth, Thomas Reilly, Mark A. Williams, and Dave Richardson. 2004. *Youth Soccer: From Science to Performance*. London: Routledge.
- Sugden, John. 2012. Watched by the Games: Surveillance and Security at the Olympics. *International Review for the Sociology of Sport*. 1-16. Accessed January 10, 2012. doi: 10.1177/1012690211433482
- Taylor, Charles. 1984. Foucault on Freedom and Truth. *Political Theory* 12(2): 152-183.

- Thorpe, Simon. 2004. Pick the Best, Forget the Rest? Training Field Dilemmas and Children's Football at the Turn of the Century. In: *British Football and Social Exclusion*, ed. Stephen Wagg, 184-200. London: Routledge.
- Toohey, Kristine., and Tracy, Taylor. 2012. Surveillance and Securitization: A Forgotten Sydney Olympic Legacy. *International Review for the Sociology of Sport*: 1-14. Accessed January 18, 2012. doi: 10.1177/1012690211433456.
- Van Rheezen, Derek. 2012. Exploitation in College Sports: Race, Revenue and Educational Reward. *International Review for the Sociology of Sport*. 1-22. Accessed October 30, 2012. doi: 10.1177/1012690212450218.
- Wood, David. 2003. Foucault and Panopticism Revisited. *Surveillance & Society* 1(3): 234-239.
- Wong, Pui-Lam, Karim Chamari, Alexandre Dellal and Ulrik Wisløff. 2009. Relationship between Anthropometric and Physiological Characteristics in Youth Soccer Players. *Journal of Strength and Conditioning Research* 23(4): 1204-1210.
- Yar, Majid. 2003. Panoptic Power and the Pathologisation of Vision: Critical Reflections on the Foucauldian Thesis. *Surveillance & Society* 1(3): 254-271.
- Young, Kevin. 2012. *Sport, Violence and Society*. London: Routledge.
- Zatsiorsky, Vladimir M. 1995. *Science and Practice of Strength Training*. Champaign, IL: Human Kinetics.
- Zimmer, Michael. 1997. Privacy and Surveillance in Web 2.0: A Study in Contextual Integrity, and the Emergence of 'Netaveillance'. Presented at *Society for Social Studies of Science Annual Meeting*.
- Zuboff, Shoshana. 1989. *In The Age of the Smart Machine the Future of Work and Power*. Oxford: Heinemann Professional Publishing.