

## BASES STUDENT CONFERENCE

***"IT'S ALRIGHT IF YOU MARRY THEM AFTERWARDS, ISN'T IT?" -***

### ***SOME THOUGHTS ON SPORT SCIENCE AND THE COACH-ATHLETE RELATIONSHIP***

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#### **Abstract**

*This paper addresses the question of what constitutes conventional sport science. Ongoing research into one aspect of the coach-athlete relationship, sexual abuse of athletes by their coaches, is used to problematise the scientific paradigm and to test some of the conventional wisdom about the sport science research agenda.*

#### **INTRODUCTION**

The title question is a comment about sexual relations between a coach and his athlete, made by one of the UK's most prominent coaches and a significant figure in sports leadership. It illustrates very nicely the complacency which characterises many sport organisations about the moral welfare of those we claim to protect - athletes.

In this address, I want to use an example of the coach-athlete relationship, sexual abuse of athletes by their coaches, to explore some questions about the sport science research agenda and how it is determined, what methods are employed and what questions might get missed if we fall into the trap of believing that traditional science is the only route to knowledge and understanding in sport. What I have to say is said much more eloquently by Jo Maguire in his landmark paper in *Quest* in 1991 on the need to study people, "in the round" (Goudsblom in Maguire, 1991, pp.190). The questions I shall raise are not new: they may be unfamiliar to some of you but they have certainly been widely discussed in the academic sports literature so I make no claims for originality here.

My intentions today, then, are

- 1 to explore what we might mean by 'normal' sport science
- 2 to explore how easily research into sexual abuse of athletes by coaches fits into the normal paradigm of sport science, and
- 3 to consider what we might miss in sport science by pursuing conventional scientific approaches

#### **WHAT IS NORMAL SPORT SCIENCE?**

Sport science is peculiarly narrowly defined in this country in terms of the sciences of performance enhancement, specifically physiology, biomechanics and psychology: these were, and still are, the primary constituents of BASES. The addition of an Open section to address issues which fell outside these main disciplines, such as notational analysis, was not achieved without a struggle. In some other countries, such as Germany, sport science embraces the social sciences - physical education, sport sociology, sport history and even leisure studies - as well.

What is the purpose of sport science? Les Burwitz et.al. (1992, p.9) have defined this as "to investigate the mechanisms or models which explain behaviour in sport." Leaving aside for the moment the possibility that disciplines other than psychology, biomechanics and exercise physiology might have something to offer our explanations of 'behaviour in sport', let us consider the methodology adopted by normal sport science. The premier investigative paradigm of all time, Scientific Method, is the traditional defining feature of science and of the three basic disciplines which comprise sport science in the UK. Scientific Method follows the hypothetic-deductive sequence: hypothesis formulation + description/measurement + analysis + conclusion (+ sometimes, but not always, application),

There have been whole books arguing about whether disciplines such as sociology can be called a science and whether the methodology and rules of evidence which apply in experimental science can ever be fulfilled by a social science. One consequence of this debate has been the development of a clear hierarchy of sciences from natural (or pure) at the top, to social (presumably impure?) and humanities at the bottom. This status hierarchy is mirrored in the subject hierarchy of schools and universities where funding for, and the status of, the natural sciences still outstrips that for the arts and humanities. Questions of how the real world came to be divided up into chunks of knowledge called subjects, and how those chunks became hierarchically arranged and differentially valued, are still of concern to us over twenty years after Michael Young first published his Open University book 'Knowledge and Control' (Young, 1971).

If you want proof of the status hierarchy of knowledge, then next time somebody at a party asks you what you do, instead of answering sport science, PE or leisure, answer 'I'm an engineer'. This will do wonders for your peer respect. In fact it is true, you *are* an engineer but a social engineer rather than a structural or civil one!

Both the natural and social sciences are concerned to establish what patterns of data exist and what their interrelationships might be but each approaches this task in different ways. It is tempting to try and tease out the differences between natural and social sciences into sets of oppositional features such as: search for truth v. search for experience; detachment/objectivity and value-freedom v.

acknowledged and managed subjectivity; preference for deductive reasoning v. preference for inductive reasoning and so on. However, I am not sure that this false division is very helpful for the purposes of my exercise, for both natural and social scientists must 'finely tune the balance and blend of involvement and detachment' (Maguire, 1991 p.192) and I would want to argue that both involvement and detachment are necessary, but not in themselves sufficient, components of our continual search for understanding.

However, the features of contemporary sport science, and the ways in which sport science is organised in this country, do not help with my integrationist project. Despite the call of Les Burwitz *et al.* for more multi- and interdisciplinary research in sport science, performance enhancement/efficiency objectives still dominate over human development ones; there is still a separation of disciplines rather than a true integration, Cartesian (dualist) sport scientists still use the mind to analyse and explain the body (see Ross in Kleinman, 1986) and, as I hope to demonstrate, there are still powerful presumptions of rationality and political neutrality in the language of sport scientists.

A feminist critique of sport science might take the 'normal' sport science paradigm to task even more severely than social scientists do, for its gender blindness (see for example, Wolfson, 1994 ; Talbot, 1989; Kirby & McKenna, 1989). Their argument runs: if gender is invisible it can't be measured; if it can't be measured then it can't be important; and if it isn't important then it remains invisible. Gender has too often been regarded as simply noise in the system or a variable to be added, stirred and controlled.

sport science treats the human organism as though it were a machine, or as though it ought to be a machine (Hoberman in Maguire 1991, p.196)

Maguire (1991 p.192) also argues that we have witnessed 'the scientisation of human knowledge' through an increasing emphasis on detachment, giving greater and greater control over human behaviour. If he is right, and if control is the ultimate objective of Scientific Method, then this must be a mark of scientific success but it should also be recognised as a political process for, just as every physical action has an equal and opposite reaction, every scientific action has political implication. One vivid example of the political impact of scientific control is how women's athletic capability was medicalised and proscribed in the late 19th and early 20th centuries. Male doctors argued vehemently, and with great success, that the constitutional frailty of the female was clear "evidence" that they ought not to be allowed to engage in strenuous exercise or sports (Lenksyj, 1986). Like it or not, then 'normal' sport science, just as any other science, operates in an historically and culturally determined context, with social and political consequences,

To set up a polarisation of natural against social, or even feminist, science is to miss the point. After all, synthesis has always been a more productive form of theoretical development than division. Take for example, sociology, which is currently struggling to understand the relative importance of structure

(the social system) and agency (the individual) in social processes and institutions. Outdated theories have attempted to assign crude explanations to one view or the other: for example, Marxism led to the view that structure was all important, whereas symbolic interactionism stressed the place of agency. In the same way, some of the more simplistic feminist analyses of women's place in sport have led to the ghettoisation of the issue. Feminist analysis of sport has taken a huge stride forward with the recent cultural analysis of Jennifer Hargreaves (1994) in which she demonstrates, through painstakingly-accumulated cases, that the history of women in sport is a history of both gains *and* losses, struggles *and* successes, constant tensions between structure *and* agency. Similarly, in offering a social science critique of sport science it would be foolish to assume that there is nothing to gain from traditional experimental method and that only inductive social science can find 'useful' answers to scientific questions. We still need to know more about the physical capabilities and frailties of the human form which can only be uncovered by natural science. But exactly which research questions we ask will be determined in part by the prevailing sport science paradigm and our interpretation of findings from these studies will certainly be shaped by our own discipline-based and ideological prejudices. In other words, how we look determines what we see.

Where did the sport science paradigm come from? The sport science paradigm within which most of you are studying and researching derives from the sport science community itself, and its own definitions of what counts as worthy in terms of knowledge or enquiry. The recent review of strategic directions for sports science in the UK carried out by Tom Reilly for the Sports Council (1993) offers us a perfect example of a paradigm. From this review I am going to take the particular case of multi/interdisciplinary themes in sport science (Burwitz *et al.* 1992) as this is the closest to my interests and expertise and the most likely to include work on the coach-athlete relationship.

How was the multi/interdisciplinary research agenda for UK sport science set? The exercise to determine "the most important sport-related problems or themes" (Burwitz *et al.*, p.18) began with a survey of the established community of sport scientists (n = 26) and National Directors of Coaching (n= 131). This survey comprised a letter of introduction and an open-ended questionnaire seeking to find out the "most common problems in sport that could be profitably addressed by sports science". 34% of the total population surveyed replied, 26 sport scientists (77% of this sub-population) and 37 directors of coaching (28% of this sub-population). Despite the fact that this survey was intended to generate a multi/interdisciplinary research agenda, the survey instructions did not include any reference to interdisciplinary work as "this was considered to be a difficult concept to explain to the entire population"! 407 problems were identified by the 54 respondents, 70% of which were considered to require a multi/interdisciplinary research approach (see Table 1) and 30% which were considered to require either a mono-disciplinary approach or "related to resource or policy issues which are *outside the control of* sports science." (italics added) (see Table 2). Note that sport science, by implication, "controls" the other issues!

"The ten most important problems in British sport that could be addressed through multi/disciplinary research were, in order of priority:

1. injuries (56);
2. fitness and techniques development programmes (34);
3. overtraining (21);
4. nutrition (18);
5. peaking (16);
6. stress (16);
7. competition schedules (16);
8. adherence to development and training programmes (12);
9. talent identification (10);
10. notation (9) or physiological field tests (9)."

Here, then, is our conventional or normal, multi/interdisciplinary sport science agenda.

### **HOW EASILY DOES RESEARCH INTO THE COACH-ATHLETE RELATIONSHIP FIT THE NORMAL SPORT SCIENCE PARADIGM?**

Now that we have established what normal sport science is and what normal sport science methods are I want to see how far my own current research project fits within these parameters. I cannot give you much detail about the research within the scope of this short paper but I will summarise my research approach, methods and analysis in order for us to try, at least partially, to answer the question above.

In 1985 I began to ask questions about the standards of professional ethics which applied or might apply to sports coaches in the UK. I began by borrowing from physiotherapy to see whether their then-very-new code of professional practice might help us to frame something similar for sports coaches. My work has since moved on to a close examination of one area of coach misconduct, that of sexual harassment and abuse. I have conducted a relatively small number of unstructured interviews with survivors of sexual abuse and have catalogued many more cases through literature, the media and personal contacts.

I will take you through the features of this research so that we can try to match my approach with that advocated under the normal sport science paradigm, Scientific Method:

**Hypothesis formulation - what is the literature base for this?** - when I started my work there was virtually no literature on the topic, no studies and no empirical findings upon which I could base my own studies. I have therefore had to borrow extensively from the literature of social work in order to get started...

**Definition - what is sexual abuse?** - It is almost impossible to find a universal definition of sexual abuse: innumerable variables can be manipulated to arrive at different definitions for example, whether or not touch is included; whether the case is same- or cross-sex; what the relative age difference is between the parties; whether one or more persons is involved; whether consent can be considered a factor...

**Sampling - what/who is representative or what? How many cases do you need to be confident?** - I have fewer than 50 cases on record so far, and only a dozen or so in-depth interviews, so notions of representativeness simply do not apply ...

**Subjects - how do you find your participants /'subjects'?** - it is necessary to resort to the snowball technique to try and find subjects for this type of work. You cannot recruit in conventional ways and risk censure if you raise the subject in certain sport organisations...

**Data collection - what is data?** - material on the subject of sexual abuse in sport is hard to come by so, for the purposes of my studies, data has been collected from 'phone calls, letters, interviews, casual conversations and any other possible source. I have even used my interview participants to help me by giving feedback and comments on my findings and analyses...

**Standardisation:** - Interviews have had to be set up with extreme caution, protecting the individual's identity and giving her or him complete control of the situation by meeting them at a time and venue chosen by them, allowing them to retreat from the situation at any time, not using a tape recorder but asking permission to make notes, allowing them to withdraw information during or after interview etc. Each case has therefore been studied in a different context...

**Measurement - how do you measure it?** - in addition to the difficulties of definition, surveys of such a sensitive subject are well nigh impossible to do, even if they were considered to be ethically appropriate, which is doubtful...Also, there are no incidence or prevalence studies for sexual abuse in sport and even those in social work have come up with huge variations in statistics...

**Analysis - what statistics or other techniques can be applied?** - no statistical analyses can be applied to the data although detailed qualitative analyses have been carried out on the transcribed material from interviews with survivors...

**Validity - who do you believe and what are you actually measuring?** - since subjects are largely self-selecting their evidence must be believed as 'the truth': recent scares about false-accusation against teachers and therapists, false memory syndrome and so on have cast doubt upon the validity of personal testimonies...

**Reliability - how can you be sure you'd get the same 'results' elsewhere?** - with such small numbers of interviews it is impossible to be sure of reliability. All I can do is to compare my findings with those in cognate areas and with those of colleagues who are now working on this topic in other countries, such as Germany, the USA and Canada and to seek to saturate our data until we reach a reasonable level of confidence in the emerging patterns of behaviour and risk factors associated with sexual abuse in sport...

**Objectivity - is this really possible or even desirable with such a topic?** - not only has it been impossible to be objective about this work but, I would claim, it has been necessary to be subjective for that has given me empathy with my interview participants. Moreover, the rapport achieved before, during and after each interview has been an essential part of the research process: both of us has been changed as a result of the meeting and this has, so far, been a mutually positive experience...However, I have drawn a line between listening or supporting and taking action on behalf of my interview participants. I have given information about how and where to report coaches, or about where to seek counselling, but have deliberately chosen not to take get personally involved in such actions as this would not only go beyond the boundaries of my own expertise but might also prejudice my role as researcher with coaches, sports organisations and parents in the future...

**Political neutrality - where is the moral boundary?** - I began this work from a feminist conviction that there needed to be a more professional approach to coaching in the UK and that athletes and good coaches should be protected and abusing coaches shut out of sport. This political objective remains a major motivation for my work...

**Respect in the scientific community - where do you get funding?** - I have been unsuccessful in winning any research funds for this work and have also met with obfuscation and a very cold shoulder from some of the agencies who, in my opinion, have most to gain from listening to the findings of my work...

**Dissemination - who wants to know?** - this type of research wins few friends and threatens not only the normal paradigm of sports science but also the organisational hierarchy of sport in the UK. As they say in the USA, if you're not part of the solution, you're part of the problem...

Overall, then

- my work has no literature base;
- the topic cannot easily be defined;
- it is not politically neutral;
- my sample is not representative and my subjects are self-chosen;
- almost anything relevant which I can find counts as data;

- my interviews are not standardised;
- I have no incidence or prevalence data;
- I have used only qualitative techniques;
- neither validity nor reliability can be assured;
- the work is subjective and politically motivated, and
- it is neither respected, nor welcomed by its stakeholder community.

So is it research?

### **WHAT MIGHT WE BE MISSING BY USING ONLY ONE PARADIGM?**

If you always do what you've always done then you'll always get what you've always got  
(Anon)

Those who look for the chemical content of an oil painting in order to understand its aesthetic quality miss the point: by looking closer and closer we see less and less and understand nothing. We might use this analogy in reviewing the approach of science and sport science. When I was an external examiner for a degree in chiropody I used to despair of the students who did projects on what they called 'patient compliance', testing the number of words in a prescription which were forgotten over time by the clients in their professional practice. Almost no attention was paid by the students to the personal and social situation of the patients, to the intensity of the emotional and psychological strain for an elderly or infirm patient facing surgical techniques for the first time, or to the probable low priority of chiropody treatments in the long agenda of social and welfare needs of the patients from disadvantaged ethnic or socio-economic groups. Similarly, in sport science we need to broaden our perspective, not just to encompass the psycho-social context of sport performance or the ethics of research but also to consider whether we are actually looking in the wrong place for some of the answers we seek. The young female gymnast who presents with anorexia in the sports medicine clinic may well be *not* be demonstrating the *causes* of her loss of strength or poor gymnastic performance but the *symptoms* of something much more sinister. The athlete who fails to adhere to a training regime may not be suffering low intrinsic motivation but reacting to the pressures of a bullying coach. If we look for answers where there might be only questions then sport science will not progress as it should. Maguire also argues that if sport scientists began studying people "in the round" then the sport science agenda might well alter and priorities shift; areas currently seen as crucial would be refocussed and some which are neglected now might receive greater prominence (1991, pp.196-197)

To be fair to our leading sport scientists, some of them have already recognised that mono-disciplinary work is of limited value. But even calls for teamwork across the three major sport science disciplines are not necessarily going to help unless there is also an awareness of and respect for other disciplines beyond physiology, biomechanics and psychology. In our list of 'the most important sport related problems or themes' there is an assumption that those who are defined as 'in the know' are the only



ones to say what is important. Perhaps we should have the humility to recognise that other possibilities exist.

History suggests that the road to a firm research consensus is extraordinarily arduous.  
(Kuhn, 1962 p.15)

Exposure of the great hoaxes of scientific history, such as Piltdown Man in archaeology, Cyril Burt's tests of the so-called Intelligence Quotient or perhaps even personality theory itself, help to take the pomposity out of science and to demonstrate the need for some humility. In sport science the pre-eminence of sciences which utilise experimental method has led us to a situation where the subject of our interest is so atomised as to be dehumanised.

There are always some men (sic) who cling to one another of the older views,  
and they are simply read out of the profession, which thereafter ignores their work.  
(Kuhn, 1962 p.19)

As any new paradigm becomes established it replaces the old and takes on the trappings of a mature scientific discipline - a journal, a learned society, annual conferences and meetings, peer academic review and so on. It becomes a bit like a London club, exclusive and jealously protective of its boundaries. For those who are, or aspire to be its members, (perhaps yourselves in the next few years), the paradigm offers a ready made research agenda. Those topics deemed important by the established members of the club must surely be the ones which merit further investigation for they are the ones that carry the weight of a research reputation, they are the ones which mesh with the reward structure of the academic community, receive money from research funding agencies and lead to jobs in universities and colleges. As Thomas Kuhn says,

Normal-scientific research is directed to the articulation of those phenomena and theories that the paradigm already supplies. (Kuhn, 1962 p.24)

Normal science does not call forth new phenomena or new theories and often spurns those who attempt to present them. Only when, and if, the paradigm fails to function effectively as an explanatory mechanism are the boundaries around it weakened and new paradigmatic possibilities entertained. By identifying certain areas for sport science and ignoring or rejecting others, sport scientists themselves may be guilty of contributing to the trajectory of elite sport towards a vast experiment in human engineering.

## **CONCLUSION**

The stronger the discipline boundaries within the sport sciences the more possibility there is of certain legitimate areas of investigation falling between the cracks. So how can BASES prevent itself becoming a self-perpetuating (male) oligarchy like the IOC has become, choosing its own research themes, maintaining disciplinary boundaries and re-creating itself in its own image? As chair of another learned society myself I venture to suggest that one step forward might be to consider a single learned body for those disciplines interested in sport in all its guises, bringing together social scientists, philosophers and natural scientists. This would not guarantee inter- or even multi-disciplinarity but,

like the merger of secondary and grammar schools into comprehensives, it would at least facilitate a common culture and the possibility of dialogue. In such a common culture there might be a chance that issues concerned with the coach-athlete relationship, such as sexual abuse by coaches, would not only be debated but also placed on the research agenda of 'normal' sport science.

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