



Committee Secretary
Senate Standing Committees on Rural and
Regional Affairs and Transport
PO Box 6100
Parliament House
Canberra ACT 2600
Australia

30 May 2013

Dear Members of the Committee

The Practice of Sports Science in Australia

I am writing to make a submission to the current inquiry by the Rural and Regional Affairs and Transport References Committee into the practice of Sports Science in Australia. In doing so I note that my colleague from the University of NSW, Dr Jason Mazanov, has made a submission that canvasses a number of relevant issues. In my submission I wish to focus on the issue raised by Dr Mazanov surrounding the connection between sports science and the health and welfare of athletes.

By way of background since returning to Australia in 2008 I have taught law at Deakin University. Whilst living in Spain I worked amongst other things as a journalist covering professional cycling. From 2009 – 2010 I undertook research with Australian professional cyclists in relation to their attitudes to the existing anti-doping regime. That research report has been published in book form.¹ This report was launched at a conference organised by myself at Deakin University in 2010 which coincided with the World Cycling Championships. Because of the attendance of the former US cyclists Floyd Landis, Cycling Australia and Events Victoria, headed by Mr Steve Bracks, actively opposed the conference. Videos from the conference are available on You Tube².

¹ "I Wish I was Twenty One Now". Chapters Four, Six and Eight touch on matters relevant to this inquiry. A copy may be downloaded from <http://www.newcyclingpathway.com/wp-content/uploads/2010/09/21-NOW-FINAL-.pdf>

² <http://www.youtube.com/playlist?list=PL994001BF6C946034> <http://www.youtube.com/playlist?list=PLFE5A044C861EE6DC>
<http://www.youtube.com/playlist?list=PL460C2B69A98DA056> <http://www.youtube.com/playlist?list=PL17DBFD112E3BCAA4>
<http://www.youtube.com/playlist?list=PLFBF911BDD5DCEF73>

In respect of the terms of reference of this inquiry the following are directly relevant to my submission:

(c) the duty of care of sports scientists to athletes, and the ethical obligations of sports scientists in relation to protecting and promoting the spirit of sport;

(d) avenues for reform or enhanced regulation of the profession; and

(e) any other related matter.

My submission to the inquiry can be summarised in the following terms:

4. Sporting organisations, teams, doctors and sports scientists must treat the health of their participants as being as important if not more important than performance. To not do so merely treats the athlete as a disposable commodity.
5. There is a connection between athlete health and anti-doping. In the main the connection is only made rhetorically by anti-doping organisations, governments and sport. The connection must be made substantive. To this end I have proposed that tools such as the Blood or Biological Passport be used not only as anti-doping tools but that they also be integrated into the monitoring and protection of athlete health. I set out further detail on this below.

Anti-doping and health protection are *prima facie* closely connected on two levels. Firstly, doping substances and methods may in themselves be harmful to athletes' health. Secondly, and possibly not as widely understood or recognised, is the manner in which over-competing, and both over-training and/or poor training techniques, potentially lead to fatigue which then places the fatigued athlete in a position whereby they may resort to doping in order to shortcut the recovery process.

Vast sums are already being invested into the Biological Passport system by the professional cycling teams (and now for example it seems by the NRL and AFL). In cycling the teams are also responsible for the expenses related to the medical monitoring program. *Prima facie*, a sensible use of resources would appear to be that rather than funding two parallel testing and examination systems, one merged program could be established which collects complementary data, which is both directed at anti-doping (through blood and urine tests) and at medical monitoring (through the same blood tests as well as other forms of mandatory medical

examinations). In doing so it may be that medical monitoring programs (such as that set out in Part 13 of the UCI Rules) might in fact operate in a more efficient and effective manner if they were merged with programs such as the Blood or Biological Passport.

Furthermore, by building a stronger link between substantive health monitoring and anti-doping athlete concordance anti-doping may itself be improved and better fostered. As emphasised in our Project Report (I Wish I was Twenty One Now) there is a need for a stronger link to be developed, between the athlete career sustainability, their health and labour conditions and an effective and substantive rationale for anti-doping policy. The merging of the medical monitoring program and the Biological Passport may assist that process.

Measures such as this would also constitute substantive attempts to prioritise athlete health in the world of sport science (whether the practitioners are doctors or some other form of practitioner). Until health is made a substantive rather than rhetorical issue in sport not only will athlete health suffer, but so will any sustainable anti-doping programs.

I thank the Committee for the opportunity to make this submission and I am available to discuss it further and assist in any other manner.

Yours sincerely

Martin Hardie

Lecturer in Law

I Wish I Was Twenty One Now

Beyond Doping in the Australian Peloton

Hardie, Shilbury, Ware, Bozzi

I wish I was Twenty One Now

Beyond Doping
in the
Australian Peloton

Martin Hardie,
David Shilbury,
Ianto Ware,
Claudio Bozzi

I Wish I was Twenty One Now - Beyond Doping in the Australian Peloton

**A Report by Martin Hardie, David
Shilbury, Ianto Ware, Claudio Bozzi.**

This report draws from interviews with current and recently retired professional cyclists and a review of existing anti-doping measures to consider the possibilities for a cleaner, sustainable sport. One of our interview participants captured the complexity of those issues, telling us, *"My body is not a temple, but I have to live in it"*. It was a remark that embodies the tensions at play within and between the various themes we encountered in researching this project. The idea of an athlete, and more so a professional cyclist, as being a privileged free spirit in many ways is at odds with the regimes of location and physical surveillance embodied in such anti-doping measures as the Whereabouts system and the Biological Passport. At the same time, the cyclist is both a mythical hero, famously likened by the philosopher Roland Barthes as well as early sporting journalists like Henri Desgrange, to Greek Gods - and an overworked and exploited worker - the 'giant' and the 'convict' of the road at one and the same time. The cyclist is a sportsperson, a player of a game, at the same time as being an entrepreneur in a global business that produces lifestyles as commodities. They are competitors as well as co-operators, and they find themselves subject to a hybrid global legal regime at the same time as they are subject to the peloton's own internal codes, norms and ethics.

Somehow within all of this, professional cyclists must engage in work both on their physical selves, and with their colleagues to fashion a space in which to conduct their lives - a place in which they can learn to live within their bodies and contribute to building a sustainable collective body for all involved in their sport. Thus, mutual respect and sustainability loom large in the logic of the cyclists as an inherent, if contradictory, system to ensure the welfare of their sport, their profession and their industry. On the one hand, their lives are devoted to the higher concepts and values of athleticism, fair play and competition and, on the other, they are in the business of selling a sporting spectacle and their jobs are as embroiled in the less glamorous practicalities common to any industry.

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I Wish I was Twenty One Today - Beyond Doping in the Australian Peloton

A Report by Martin Hardie, David Shilbury, Ianto Ware, Claudio Bozzi

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New Cycling Pathways: <http://www.newcyclingpathway.com>

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Acknowledgements

At times during the research and the writing of this report, much like the peloton, the research team found themselves undertaking different, demanding and diverse roles. At any one time, one of the team was off the front of the bunch attacking, another was chasing, one was in the bunch riding tempo and another was back at the car picking up supplies. And, again, like the peloton, we could not have undertaken this project without the help and assistance of a number of people.

Firstly, of course, we would like to thank the interview participants and all those within the peloton who generously gave us their time and energy. As we have undertaken to keep people's identities confidential we cannot name them, but without them this report would never have been possible. We must also thank the teams we spent time with at races and at training camps.

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Chapter One

My body is not a temple, but I have to live in it

This report is based upon a research project supported by the Australian Government through the Anti-Doping Research Program (ADRP) of the Department of Health and Ageing. Its focus is on the perspectives and experiences of Australian professional cyclists and their cohort as they relate to new directions for their sport. As a grounded research project, the aims were more than purely academic. This study engaged with, and ultimately represented, the views of those directly affected by anti-doping policy. From there, the aim was to identify pragmatic starting points to developing effective, sustainable policies that enhance the positive impact of sport, both as a social force and as a career for those who operate within the field of professional cycling.

This research was developed through a series of extensive interviews with participants, through which various themes, concepts and ideas were discussed. The interviews were open-ended, with questions and guiding topics adapted and developed throughout the project to reflect new observations and interactions. This approach provided a broad supply of data, later transcribed and analyzed by the research team as outlined in Chapter Two. As much as possible, the analysis is linked in this report directly to the primary sources from which it has grown. As a research report, obviously, the data has been subjected to the interpretations of the research team, but the voices of the research participants remain clear in their own right.

In the initial application to the Department of Health and Ageing, a number of aims and objectives were stated. Hence, a number of the chapters in this report examine the institutional rationales for anti-doping policy that affect Australian professional cyclists ("the peloton"). Chapter Three directly discusses this issue, whilst the chapters on the Whereabouts system and the Biological Passport, also traverse aspects of this in more detail. Throughout the report, story lines are developed which support the various positions within the sport, and, in particular, those of the cyclists comprising the Australian peloton. The chapter on the social peloton seeks to serve as an introduction to the manner in which the peloton is a self-organising community capable itself of playing a role in anti-doping policy. Later chapters of the report seek to raise possibilities by which the gap between the reality of the cyclists' practice and culture, and the rhetoric of the dominant anti-doping paradigm, may be reduced. Throughout, this study has sought to identify factors that might lead the current anti-doping regime to be less effective than desired, and this report broadly identifies ways in which policy could be improved. In doing so, the report introduces the potential for policy brokerage between the various stakeholders within the policy and normative framework. What is clear is that this work has only just begun; there are many issues raised which have not been included in this report or which require further work in order to develop fully. But in the end, we hope our research will serve as a starting point upon which it is possible to build, and upon which the peloton and the institutional actors may find useful and productive in the context of refining policy choices for the future.

The title of our introductory chapter, "*My body is not a temple, but I have to live in it*", draws directly from one of the research participant's comments and best encapsulates the core of our research findings. It is a remark that embodies the tension at play within and between the various themes encountered throughout the interviews. Those themes bind together the belief in sport as representational of certain ideals of fair play and athleticism, yet bound up in an increasingly globalised economic structure, operating across, and at times outside of, national legal and regulatory frameworks. The idea of an athlete, and more so, a professional cyclist, as a privileged free spirit is, in many ways, at odds with the regimes of location and physical surveillance embodied in such anti-doping measures as the Whereabouts system and the Biological Passport. At the same time, the cyclist is both a mythical hero, famously likened by the philosopher Roland Barthes, as well as early

sporting journalists like Tour de France founder Henri Desgrange, to Greek Gods. Yet, those same cyclists have also been characterised as overworked and exploited workers – the ‘giants’ and the ‘convicts’ of the road at one and the same time. The professional cyclist is a sportsperson, a player of a game, but also an entrepreneur in a global business that produces lifestyles as commodities. They are competitors as well as co-operators, and they find themselves subject to a hybrid global legal regime at the same time as they are subject to the peloton’s own internal codes, norms and ethics.

Somehow within all of this, professional cyclists must engage in work on themselves and with their colleagues to fashion a space in which to conduct their lives – a place in which they can learn to live within their bodies and contribute to building a sustainable collective body for all involved in their sport. Thus, mutual respect and sustainability loom large in the logic of the cyclists as an inherent, if contradictory, system to ensure the welfare of their sport, their profession and their industry. On the one hand, their lives are devoted to the higher concepts and values of athleticism, fair play and competition. On the other, they are in the business of selling a sporting spectacle and their jobs are embroiled in the less glamorous practicalities common to any industry.

The study began by looking at professional cycling as a workforce subjected to rapid globalisation, and recently struck by a number of significant and negative drug scandals. What emerged was the potential for real, meaningful and sustainable change, drawn from something that resided within the practices of the peloton. In fact, the title of this report, “*I Wish I was Twenty One Now*” is a direct reference to the possibility of building upon the positive change that has taken place within cycling. The cyclists themselves thought things had changed, and were continuing to do so:

A: Well, I think one of the things that’s changed the most with the peloton at the moment is the fact that, back in the old days, everyone would talk about doping, and everyone would talk about what they’re on and how much they’re having, and this guy’s was on this, and this guy’s taken that and all this sort of thing and just completely open forum about doping basically. And it’s got to the stage now, where if someone gets caught using something, there’s guys in the bunch, and everyone just - they’re on the outer, they’re the ones getting the piss taken out of them, they’re the ones that are not get.. that are getting fucked over in the cross-winds, and they’re the ones that are getting slowly outed from the sport because socially they’re not, they’re not one of us anymore. They’re the ones ruining the sport.

Q: So, who “we” are has changed?

A: Yes, so as a group we’re all changing and trying to push out the cheaters, you know what I mean? That’s one of the biggest things that’s changed, and one of the ... the things that’s moving sport into a cleaner area.

Although we recognize the substantial nature of recent changes within the industry, we believe that to make it last further change is required. That change relates to things like career planning, education, ethics and collegial involvement in anti-doping. One of the objectives of this study was to facilitate policy brokerage within the context of an Advocacy Coalition Framework (ACF), as developed by Houlihan (2005). The ACF focuses upon identifying the dominant policy paradigms, that set the parameters for any policy change, and the discursive story lines or rationales of those involved in or affected by policy development. Finally, the ACF model proposes the concept of policy brokerage in order to engage those involved in, and affected by, policy changes in order to achieve the neatest possible marriage between the rhetoric of the policy and the reality of the practice it seeks to address. We might not yet have managed to create a place for such brokerage to occur, but we believe that the issues that we have raised in this report provide a starting point for such a conversation about policy.

Through the goodwill of those interviewed, this study has been able to obtain a rich and comprehensive source of primary research data. However, given the timeline for this report, it has not been possible to do justice to all of that data collected, or to pursue all the issues raised in the detail we would have liked. Hence, we see this report as very much a first step in an ongoing program of research and collaboration with the peloton and with the institutional actors who have a stake in the sport. The plan is to continue to work with the data, to produce further works for distribution and publication, including discussion papers. There is also scope to pursue some of the issues identified in this report as discrete topics for further research.

Below, we set out the study's aims and objectives in further detail:

Study Aim:

To examine the attitudes of Australian professional cyclists ("the Australian peloton") and those whom they interact with (team managers and staff, sporting and medical advisors, sporting administrators, sponsors and government – "their cohort"), in relation to the current doping paradigm, its operations, effectiveness and problems.

Objectives:

1. To examine the dominant paradigm, its rationales and focus for anti-doping policy affecting Australian professional cyclists ("the Australian peloton");
2. To identify and define the international, national, public, civil, criminal and sporting norms and policies ("the normative framework") impacting on the Australian peloton;
3. To identify the rationales and specific focus of each instrument contained in the normative framework, and to analyse their influence on policy formulation and their contribution to the practical effectiveness of anti-doping policy;
4. To identify policy options that may enhance the effectiveness, or perception of effectiveness, of anti-doping policy;
5. To consider the relationship between those who are the object of the policing and those responsible for policing, and the attitudes and practices of those who are sought to be policed by that activity;
6. To understand the place of the core actors (the professional cyclists) within the policy context, and to facilitate brokerage between those actors and the administrative, sporting, policy, government and commercial actors with whom they interact; and
7. To facilitate a means by which the peloton may be able to engage in dialogue with those who have the ultimate responsibility for setting the policy framework without fear of retribution.



Chapter Two

Method, Rationale and Principles

Background to the Study

The purpose of this study is to contribute to the development of positive, practical, preventative and sustainable anti-doping policy by identifying attitudes towards anti-doping policy and potential mechanisms for the positive engagement of those who deal with it in professional cycling. Cycling has attracted increasing attention in both the scholarly scientific and cultural literature. The scientific literature, in particular, focuses on the claims, reasons for, and testing of doping that is reported as being rampant in the sport and beyond regulatory control.

Very few studies have sought the views of cyclists and asked the participants themselves for their attitudes towards a range of doping-related issues, in particular, the causes of doping, the reasons for doping, and the possibilities for and ways of eradicating doping from the professional peloton. The evidence suggests that the reason for this has been a lack of interest amongst researchers themselves rather than any resistance or unwillingness on the part of the subject group. It is not clear whether this lack of interest is explained by a failure to perceive the relevance of the cyclists' experiences and views, or by a belief that the subjective views of cyclists would distort or obfuscate, rather than delineate and clarify, the motives, incentives and methods by which doping occurs. As a result, the cyclists themselves have been unrepresented or under-represented in existing research studies and findings.

Cycling has a long and ambiguous attitude to doping, complicated by the nuances of endurance sport and an internalised sense of self-protection within the industry, summarised colloquially by the expression, 'don't spit in the soup'. Examples of whistle-blowing within professional cycling, whether from cyclists, ex-cyclists, team staff or journalists, have generally met with mixed reactions from the sport. To that end, the construction of anti-doping policy initiatives has, in recent years, taken a fairly accusatory and aggressive perspective dominated by a rationale of deterrence. It is difficult to argue against the impact of that approach. As most interview participants recognised, it has reduced the incidence and extremity of doping practice. Having said that, we might immediately qualify it by recognising that most of the major anti-doping successes have not been the result of sports anti-doping law, but the result of the intervention of the criminal justice system of the state. Neither solution is sustainable in the long-term, and nor should they be considered the only tools that could be used in anti-doping policy.

Thus, what this study sought to achieve was not a replacement to existing anti-doping measures but potential directions for positive and additional alternatives. It sought not to 'out' anyone, extract admissions of guilt, construct a confessional, survey doping practices or produce ground-breaking exposés on the *omerta*. Indeed, the ethical framework of university research prevented such an approach. Rather, this study sought to add the rationale of 'Why We Don't Dope' to the existing mentality of 'Why You Dope, and How We'll Catch You'.

Population and Sample

It was impractical to attempt to interview every professional cyclist, or even every professional cyclist of any one particular group. It was, therefore, decided that a sample survey from selected professional races involving numerous, if not the majority, of the world's Pro Tour teams and a number of Pro-Continental teams. If the race and the cycling team are units, a sample of cyclists from within them will secure the inclusion of riders known to have different experiences, views, and levels of professional standing in terms of

seniority, remuneration and so forth. Their differential access to resources (media, money, power, opportunities) will overcome the potential bias of concentrating solely on accessible riders, or prominent riders, and the inherent bias of previous studies that have not canvassed the views of cyclists to any extent.

We conducted research and interviews at races (and with teams) selected on the basis of those which provided the best opportunity to access professional cyclists from a mix of Pro Tour and Pro-Continental teams. These are not exhaustive of the variety of potential cyclists available from the peloton, but do represent a broad selection able to provide a firm foundation for the representativeness of the sample, and bolster the validity of the findings. It may be the case that cyclists competing at different levels view the issue of doping, and the relationship between doping and other aspects of a cyclist's life and work, differently. However, only the professional cyclists' experience will reflect the internal connection between performance enhancement and professionalism. Of course, amateurs aspiring to become professional and ex-professionals will have valid views which could reliably and justifiably be added to the view of professional cycling. However, the sense of an internal connection, logic and rationality will be absent. They are, essentially, different personnel whose views will be affected by that positional difference.

This study is built upon twenty-two in depth interviews, ranging in duration from one to two hours, primarily with cyclists but also with ex-cyclists and others closely involved in the professional cycling industry. The study sought to construct an overview of their attitudes, values, experiences and impressions, which could then be compared against a more conventional analysis of policy, legal and regulatory frameworks. The aim was to descend into a part of the hidden abode of pro cycling's global factory and bind together those two things, hoping to shed some light on the structure of the industry and how it is 'lived' by those within it. Thus, the issue of doping ceases to be an abstract concept detectable only through a positive test, but is a contextualized problem, linked to the daily lives of those working within the field of professional cycling. The hope was to give some voice to these lives through the writing of a kind of anonymous collective narrative.

Profiling and Recruitment

The first task of the project was the identification of a potential pool of participants capable of providing both a broad yet pragmatically manageable overview of the industry. This involved two objectives. First, we hoped to identify a general pool of participants; that is, a number of professional cyclists (current or ex), coaches, *directors sportif* and others who could be described as representative of the Australian peloton and its cohort. This was done largely through surveying existing teams, and building upon less formal conversations conducted through initial periods of observation and field research. Once a sense of the potential participants was garnered, we began considering the means through which we could classify this group and narrow it into some logical order capable of informing the recruitment process.

The first object was relatively simple; cycling functions primarily around cohesive team structures, thus it is possible to engage with those team structures and identify Australians within them fairly easily. The second object was harder as it involved outlining a theoretical framework with which to categorize and define potential interview participants. The nature of grounded research is, as much as possible, to build the framework from the data, rather than the other way around. Thus, formulating the initial means of interpretation was given considerable attention and was directly informed by existing academic studies and our own experience observing cycling over many years.

Frameworks utilised through prior primary research were considered, including surveys and research on the attitudes of professional cyclists, and they were coupled with academic analysis of doping in cycling, which offered methods of categorizing riders and periods. This pairing of primary research, based directly on the attitudes of those within the industry, with more analytical work provided two main precedents to help classify riders in useful but differing ways.

As a means of dividing the pro peloton into discernible historical epochs, we began with Benjamin Brewer's work on the commercialization of professional cycling. Brewer has categorised professional road racing post-1950 into three phases (Brewer 2002):

- The Classical Period: 1959-1984
- Transition and Reform: 1984-1990
- The Contemporary Period: 1990-2001

Brewer's work provides a means of linking the cycling industry and those within it to a broader framework of national and global audiences, media and commercial interests. The participants of our interviews all fell within our revised Contemporary Period of 1990-2010. Thus, we were able to obtain data on a new era of cycling characterized by the globalisation of the sport, the rise of an English-speaking market and increased audiences formed through online access to pro cycling media. It is also a time marked by the intervention of the state and international organisations in developing anti-doping policies, and intruding on what was once the private domain of sporting authorities.

Brewer's Contemporary Period might even be sub-categorized further in order to refine the analysis of our potential pool of interview participants. We might speak of the period 1990–1998 as being the Pre-Festina era. The 1998 Tour marks a watershed, with the Festina Affair providing a catalyst for the efforts that saw the establishment of the World Anti-Doping Agency (WADA). The period of 1999–2005 might be categorised as the Armstrong Era, characterized by the rapid globalisation of the sport. The year 2006 provides another watershed with the revelations of the Spanish enquiry known as *Operacion Puerto*. As the interviews will suggest, the post-2006 period has been one in which an anti-doping ethic has become more dominant within cycling.

Further to this, the Danish anti-doping academic, Ask Vest Christiansen, who conducted semi-structured interviews with Danish cyclists in 1998, also influenced this approach. He divided those interviewed into the following three categories (Christiansen 2005):

- The International Elite
- The National Elite
- The Young Talents

The use of such an approach is that it allows us to form a conceptual framework capable of tracking athletes along their pathways through the sport, from young amateurs through to the national level and, finally, into the pro ranks. This absorption from being an athlete to a professional defines the individual experience through which sport becomes a career.

Other work, such as the surveys conducted in Norway by Dag Vidar Hanstad and Sigmund Loland (Hanstad and Loland 2009), have not specifically categorised or profiled athletes other than by reference to the Whereabouts system (see below Chapter Five) and the "National Registered Testing Pool". A Registered Testing Pool (RTP) is a group of top level athletes established separately by each International Sports Federation (e.g., the International Cycling Union (UCI) and a National Anti-Doping Organisation (e.g., the Australian Sports Anti-Doping Authority (ASADA)) who are subject to both in-competition and out-of-competition testing. The UCI RTP is publicly available on their web sites and the 2010 RTP lists thirty-three Australian Professional Cyclists. Because of privacy law in Australia the ASADA RTP is not publicly available. However, ASADA did provide us with information regarding the size of its RTP (see below).

After consideration of each of these methods of categorization for profiling purposes, we settled upon the following method of classification or 'profiling' which sought to take into consideration the periods specified by Brewer, and the categories set out by Christiansen, to 'profile' Australian professional cyclists into the following four groups:

1. **Elite Under 23 Riders:** Riders either in the early phases of a professional career or on the career trajectory oriented towards becoming a professional cyclist.
2. **National Elite:** Elite riders of any age riding for national, state or Australian continental teams.
3. **Current International Elite:** Riders primarily based in, or competing in, international races, including the Pro Tour and Grand Tours.
4. **Retired International Elite** (former professional cyclists equivalent to Category 3, including *Director Sportifs*, Managers and Coaches). These categories blurred together because of the high cross-over between ex-pros who have remained active within other roles following retirement.

This method of profiling gave us a potential participant pool of approximately sixty current, or retired (and still active in cycling), professional cyclists. This compares with the UCI RTP which lists 31 Australian male and 2 Australian female professional cyclists out of a total of approximately 900 riders. The ASADA RTP totals 37 cyclists, giving us a total combined pool of around 70 cyclists. In the end, we were able to conduct interviews with approximately one-third of this potential pool of participants. Recruitment occurred using the snowballing technique and through discussions built from field observation. The majority of those interviewed (approximately 60%) were either current or recently retired international elite, who ride or have ridden for a Pro Tour team or equivalent, and have competed in one or other of the three Grand Tours.

Data Collection and Analysis

As mentioned, data collected for this study was derived from twenty-two semi-structured interviews conducted in Australia over the period October 2009 to January 2010, coinciding with the Australian summer cycling season. Members of the research team conducted interviews alongside embedded field research and observation, attending the major events of the Australian season including the 2009 Herald Sun Tour, the 2010 Jayco Bay Cycling Classic, the 2010 Australian National Road Race Championships and the 2010 Tour Down Under.

The use of the personal semi-structured interview brings with it a number of advantages for data collection:

1. It potentially overcomes the poor response rates of questionnaires;
2. It is well suited to the exploration of attitudes, values, beliefs, and motives;
3. It provides the opportunity to evaluate the validity of the respondents' answers by observing non-verbal indicators, which is particularly useful when discussing sensitive issues such as doping;
4. It can facilitate comparability by ensuring that all questions are answered by each respondent;
5. It ensures the respondent is unable to receive assistance from others while formulating a response.

The fact that structured interviews ensure higher response rates is a particularly appealing aspect of the application of this method, given the sensitivity of the topics raised by this study. Similarly, interviews avoid the resistance some participants might have to providing written responses of any description, or of feeling forced to find a grading within a rigidly structured spectrum of responses that approximates, but inadequately represents, their views or understanding.

Furthermore, face-to-face contact with an interviewer can facilitate both participation and responsiveness in participants who otherwise would not, or would be reluctant to, respond. Face-to-face contact can enhance the participant's confidence in both the interviewer and the project, and encourages participation by giving participants an opportunity to ask their own questions and seek explanations and clarification.

At the Herald Sun Tour our presence was facilitated by the race organisers, and the research team were permitted to be embedded with the cyclists, the teams and the race organisation for the period of the race. This allowed us to conduct first-hand field observations and to begin the sensitive process of arranging and conducting interviews. The research team were also invited by one team to attend the training camp prior to the National Championships which, again, allowed us to conduct both field observations and extensive interviews. The length of each interview ranged between forty-five minutes and two hours. The interviewees included current and former professional cyclists, coaches, team directors and scientists.

Once access to the riders had been granted, contact with them was made either directly through personal introduction or indirectly through facilitated introduction. Participants were provided with information about the project including an agreement form and ethics disclosure form. They were informed about the nature of the project, the project's purpose, and that the basis of the project was fully informed consent. Amongst the information provided to the participants was the source of funding for the project, because it was determined important by the interviewers that they disclose the context and the political environment surrounding the study.

The researchers deemed it important to provide the participants with a clear audit trail and so attempted to make the whole process transparent and open. Interview subjects were assured of the confidentiality procedures to which the information was subject; but also that under certain very restricted circumstances some information may be subject to identification and retrieval. Finally, they were given a withdrawal form to take with them, and the interviewers explained that they could withdraw consent at any time without needing to furnish reasons.

The Semi-Structured Interview Method

Semi-structured interviews were selected as the means of data collection because:

1. They are well suited to the exploration of the perceptions and opinions of respondents regarding complex and sometimes sensitive issues, and enable probing for clarification of answers and more information; and
2. The varied professional, educational and personal histories of the sample group precluded the use of a standardised interview schedule.

Because the wording and sequence of all questions in a standardised interview are exactly the same for each participant, it is assumed that the detected differences are due to the participants and not the questionnaire. This approach suggests that the objective of the process is to standardise the stimulus in order to measure the variables of responses. However, this assumes that participants share a common vocabulary and that words have the same meaning for every respondent. By contrast, the opportunity to change the words but not the meaning of a question provided by the semi-structured interview process acknowledges lexical and linguistic difference, and respects the participant and their intention to produce meaningful statements.

In interviews of this kind, validity and reliability depend not on the repeated use of the same words in each question, but upon conveying equivalence of meaning. This equivalence of meaning helps to standardise the semi-structured interview and facilitate comparability.

The issue of the 'question' in sociological research has been widely debated. The researchers were aware that prior knowledge or preconceptions might interfere with the process and affect the available material. The researchers had prior knowledge of the literature of doping and anti-doping, and of the world of professional cycling, both indirectly and through personal involvement. Preconceptions may be unavoidable, but reflexive awareness of their influence ameliorates extreme effects, or exposes them to analysis.

In order to counteract the potential for forcing preconceived ideas onto the interviewee and interview process, the researchers asked questions in the form of open invitations for the subject to speak, such as those which took the form, "Tell me about ...". However, some questions are admittedly direct (so preconceiving the emergence of data), leading, and contain assumptions.

It has been argued that questions should be guided by the three principles of (a) specification, (b) division, and (c) tacit assumption. Specification refers to the focus of each question, division to the appropriate sequence of wording and questions, and tacit assumptions to determining the true meanings of responses. Tacit assumption is engaged when ambiguous words and phrases are commonly used by respondents in interviews. The meanings behind the use of phrases and words are likely to vary, and even the use of basic words has the potential for confusion. Because any word can be used in a variety of ways, interviewers must be constantly aware of this. The interview process that gives rise to the problem also furnishes the solution, in that interviewers have the freedom to probe unclear words and ambiguous phrases. The semi-structured interview elicits responses and seeks revelations, and provides the flexibility to validate the meaning of responses.

Probing

Apart from questioning, interviewers may probe through semi-structured interviews, and probing is an essential tool in ensuring the reliability of data. Probing:

1. Allows for the clarification of interesting and relevant issues raised by respondents either in response to questions or spontaneously;
2. Provides opportunities to explore sensitive issues;
3. Can elicit valuable and complete information;
4. Enables the interviewer to explore and clarify inconsistencies within respondents' accounts;
5. Can help respondents recall information for questions involving memory.

Probing during the interviews maximised the opportunity for interaction between participant and interviewer. This helps to establish a rapport between them, and reduces the risk of the participant providing what it was presumed were desirable answers. Because interviews convey implicit demands on participants, there is often a temptation to present a self that meets those demands. Respondents defer to the preferred social response whether it is true or not. Orne (1962) called this the 'demand characteristic effect' of the personal interview situation.

Demand characteristic effects can become more complex and pronounced in relation to the difference between interviewer and participant. Accordingly, the self-presentation of the interviewer may help to overcome the potential for bias, and help put the participant at ease; and the full use of interactive opportunities can break down the interviewer/respondent barrier, reduce tensions and maintain rapport enough to keep the subject talking.

The approach of the interviewer and their manner towards respondents can help to secure validity and reliability of data. As much as possible, the research investigators in this study assumed the appearance of the cyclists and their entourage. They also mixed readily with the cyclists at the venues they frequented, ate at the same tables, shared the same or took nearby accommodation on the longer stage races, conversed with them in a number of social settings, along with other members of the team structure, the press, and organizers. Apart from the project, one researcher was also able to spend a week of racing with the Fuji-Servetto Pro Tour team in Spain, which provided additional observations that were incorporated in the design of this study.

Interview Design

The interview design had to be sufficiently exploratory to allow for the eliciting of responses to abstract concepts, and sufficiently standardised to facilitate comparability between respondents during analysis. Indeed, despite the preparation of a lengthy interview guide for the semi-structured interviews, the interviewers did not necessarily follow the structure of the guide. However, the guide allowed the interviewer to ensure that relevant matters were discussed with each participant. In the end, the interviews each tended to take on a life of their own and involved wide-ranging discussions on the many subjects dealt with in this report.

In this respect, the method employed was that of 'grounded theory'. That is to say, rather than commencing with a theory which the interviewers set out to test through research, the project began with an area of enquiry and allowed a relevant theory to emerge from the results of the interview process. The interview, therefore, is the site for the construction of knowledge.

The interview process featured aspects of the classical interview and the interactive processes. In the first place, interview participants were treated as the sources of knowledge and information about the subjects being explored. To some extent this was information to be quantified in developing a profile of the professional peloton. On the other hand the interviews were also conducted as interactive processes between interviewers and participants, which created a complex picture of the subject being explored through an exchange of views. The interviewers, however, were sensitive to the extent to which they were involved in the constitution of knowledge through the interview process and conscious of allowing theories to emerge rather than forcing them.

One interview was conducted with each participant and, in most cases, the participants were not provided with the questions prior to the interview. The interviews were open in the sense of being untimed, allowing subjects the freedom to claim and contest the subject territory raised by particular questions, move back and forth between topics, and take charge of the process of exploration unrestrained by specific questions.

A literature review informed the early stage of construction by delineating areas of interest and relevance to be covered by the interview. These broad areas were subsequently broken down into manageable groupings, and finally worked into question formation.

The first draft was exposed to internal testing among the researchers, raising general criticisms and concerns for discussion and correction. The final pilot draft and the assessment of the appropriateness and completeness of the contents of the interview was again internally assessed, but also externally assessed, and included extensive discussion about the inclusion and exclusion of questions and the arrangement of the interview schedule.

Questions were assessed for their ambiguity, for being too long, for being leading, and for failing to logically correspond to the respondent's experiences. Informed changes and adjustments were made prior to data collection. Our questionnaire has since been utilised by researchers at the University of Granada, in Spain, in the design of a planned study to be undertaken in that country.

Audio Tapes and Transcripts

The interviews were recorded with the permission of the participants and later transcribed, with the subsequent transcripts producing a large volume of in-depth data that was analysed using grounded data techniques. The use of digital recorders ensured an identical replication of the contents of each interview, thereby facilitating analysis.

Audio taping provided a detailed insight into the performance of both participant and interviewer. Access to the nuances of interactions between participant and interviewer helped to validate the accuracy and completeness of the collected information.

Taping also reduced the potential for interviewer error in the recording of data, or cheating.

Interviewers

The success of the semi-structured interview depends on the skills of the interviewer to make judgments in the field. Each interview needs to be adjusted in order to obtain accurate and complete data, while maintaining sufficient standardisation to secure the validity and reliability of data. Whilst semi-structured interviews might be, to some extent, a joint account, the researchers were aware of the problem of unintentionally influencing the data either by consciously or unconsciously intimating a certain view or knowledge of the subject matter. It is also possible for the interviewer to sympathise with, be antagonistic towards, or otherwise react to participant responses, and defend their own processes, practices and methods to the participant, or otherwise.

To some extent, two of the four researchers on this project are 'industry insiders' in that they both have, or have had, experience in the cycling industry. This presents certain problems. Normally, researchers familiar with a particular social world find it more difficult to question the self-evident features of that world. Insiders also lack the distance required to maintain a balanced, objective perspective on the social world of which they are a part. Furthermore, to the extent that insiders are group members, they may find it more difficult to ask difficult questions about the mores of the group, and may be reluctant to talk about sensitive issues with other members of that group.

The researchers believe that these effects were ameliorated by the fact that neither was involved in professional cycling at the time of the interviews. Further, the differences in their insider status allowed for a more dynamic approach to the interview. Also, the interview subjects were all much more insiders than the researchers, and did not view them as colleagues or members of the same social group. Therefore, the interviewees did not curtail explanations on the basis of tacit assumptions about shared knowledge (that is, there were few, if any, 'You know/ought to know what it's like ...', or 'You know what I mean ...' responses). Moreover, the review of the interview questions prior to conducting the interviews allowed for such limitations to be identified and overcome.

In this study, two of the three interviewers were involved with the project from the beginning. Both were involved in the literature review, the design and the development of the questions. They were joined by a third interviewer early in the project and together the interviewers discussed results, approaches, and responses, assessing each interview for inappropriate leading, probing and other forms of persuasion. This process also assisted with identifying and attempting to overcome problems, and providing support, where necessary. Interview skill development was, therefore, ongoing throughout the interview schedule. Depending upon the circumstances, each interview was conducted either by one or two of the interviewers together.

The research team collectively read all interviews, separately identified, and then discussed and agreed upon a series of key codes and themes. Significant passages and notes on the transcripts were then collated within a database using the Wikimedia software on a secure internal university server. The driving rationale of this grounded

research approach was to identify the dominant narratives produced by the cyclists and their cohort as they relate to current anti-doping policy, and their place within the wider experience of working within professional cycling.

Along with a process of identifying key themes within the interviews, the collective narratives of participants were analysed with reference to relevant literature and current anti-doping policy. The purpose was to link the narratives of lived experience uncovered by the interviews to the structures of the industry itself and the existing interpretations provided both by academic and more industry-specific texts.

The Respondents

The validity and reliability of the information gathered at interview may be affected by the individual respondent. Good respondents, argues Dobbert (1982):

“[A]pppear comfortable and unstrained in interactions with the researcher, they are generally open and truthful although they may have certain areas about which they will not speak or where they will cover up, they provide solid answers with good detail, they stay in the topic or related important issues, they are thoughtful and willing to reflect on what they say.”

Not every respondent has these characteristics and it may be impossible for the interview to overcome the problems posed by, for example, repeated evasions or refusals to answer questions.

The willingness of participants to be good informants has clear implications for the validity of the data. Interview subjects may choose to participate in an interview for a number of reasons. However, their motivation to give accurate, complete answers may be low when the research project is not important to them. It is unlikely that our study would run into the problem of motivational deficit given that all participants were cyclists, all were professionals with an interest in the issue, all voluntarily engaged in the interview, and they all had an interest in the resolution of the doping issue within their sport.

Having set out the method utilised in this study, the next chapter focuses upon a portrait or profile of an Australian professional cyclist, which we have constructed from the interviews. This will set the scene for the more detailed analysis of the anti-doping issues that follow.



Chapter Three

A Portrait of a Cyclist as a Young Man

This chapter discusses some of the characteristics that define the professional peloton as an industry and as a workforce. The purpose of this chapter is to consider the people who populate it, namely the individual athletes, and whether there is a 'profile' or 'standard' Australian cyclist that can be used as a starting point for an examination of the wider industry. The purpose of this study was not to offer a definitive statistical overview of backgrounds, ages, salaries and average tenure within the pro peloton - although some figures do leap out. What we sought to achieve in developing this portrait was the common experiences, themes and pathways into, and out of, the professional cycling industry. Whilst attitudes and opinions varied from individual to individual, particular elements arose time and time again. There is, of course, always a point of contention when trying to group people into a homogenous subcultural community, particularly one as heavily globalised and commercialised as professional sport. In looking for a profile of an Australian cyclist, this study has tried to identify commonalities that indicate forces shaping a collective experience, whilst aiming to avoid the assumption of a uniformity of personality.

This approach has been adopted because there is a relatively common set of assumptions played out at the informal level positioning professional sport is driven by people operating upon a sort of subconscious, almost primeval desire for competition. That becomes particularly noticeable when subjects like doping arise. One participant, for example, explained that the industry was driven by an inherent drive to 'be the best', whilst another commented:

A couple of thousand years ago, you'd be out hunting, you'd be out killing each other, you're having wars. You go getting - life was this competitive struggle and trying to win.

It's an interesting rhetoric that removes agency from the athlete by imbuing them with an instinctive competitive drive incapable of being moderated by anything other than heavy policing. The cyclist, it is argued, is so competitive that they will do anything to succeed, and if doping is a viable option then it is an option that will be exploited, regardless of any moral or prospective health concerns. There is always an issue in accepting arguments that authenticate themselves by grounding in reputed, albeit entirely unproven, rationales of instinct and pre-cognitive motivation. As another participant pointed out, the highly individualized 'win at all costs' drive wasn't the only motivation seen as instinctual, with one cyclist (or a number of them) citing a contradictory desire to "contribute to the community":

I think most people feel like they would like to contribute to the community. That's human nature to want to do that, so I want to do that and have a positive effect on the people around me and, hopefully, if I am in the public spotlight then that's a wider circle than what would usually be, so that's also a highly important thing for your self-esteem.

In constructing a profile, the aim isn't to find which of these attitudes is the most prevalent, but to see how themes like 'instinct' appear as part of an understanding of what it 'means' to be a professional cyclist, and how they play out amongst those trying to navigate the complex structures of the industry. Given the relatively small size and defined nature of the professional peloton, there is, from an outsiders' perspective, a sort of common discourse that makes up a generic profile of those who populate it. That portrait has changed at least slightly since the 1980s and 1990s but many commonalities remain. All professional cyclists operate within a particular economic and structural environment, and the profile

offered herein provides an access point towards understanding better how individuals interpret that playing field and the array of responses they see as suitable within it. Thus, the profile provides a starting point to seeing how the actors within the peloton perceive the options available to them.

Within the interviews, the profile of a cyclist plays out in three major ways:

(1) Career Paths or Lack Thereof:

When considering career paths, this study is concerned about the long-term, not simply the process of becoming a professional athlete but what happens before and after, when one leaves the bubble of professional sport and must re-engage with the real world. This appeared as a constant shadow or undertone in many of the interviews, evidenced by consistent themes around the loss of opportunities to gain more long-term, sustainable career options, skills or professional networks, and an uncertainty about what participants will do with their lives once they leave the vocation of professional sport. Whilst some cyclists had completed either trade apprenticeships or undergraduate degrees prior to entering the sport, the gap in professional development posed by devoting countless hours to training and moving to another country for anything up to a decade, presents a significant barrier in returning to any skilled profession. Notably, none of the older cyclists who had non-cycling related qualifications prior to turning pro had returned to the professions in which they were originally trained following their retirement from the sport.

(2) A High Buy In and Learning the Ropes:

The most obvious reason preventing professional cyclists from developing alternative and longer-term career options was the steep learning curve and significant volume of personal investment required to become a professional cyclist. Participants talked about the necessity to learn a large array of new skills very quickly when entering the profession. Whilst there was some disparity between older and younger cyclists, notably brought about by the increased number of Australian and English-speaking riders in Europe, and the presence of the Australian Institute of Sport (AIS) training facility in Italy, interview participants consistently identified not only the drain of heavy, athletic training but also an understanding of the culture of their profession, learning new languages, contract and financial negotiation, dealing with their teams and support staff, remaining up to date with the regulatory frameworks impacting upon them and, for younger cyclists, doing that whilst living away from family or social support networks. Many of these themes will be explored in greater depth later in the report. Within this chapter, we identify and make initial comments on the paths through which most pro cyclists have 'learned the ropes'.

(3) Identity Work:

Taken as a form of employment, it would be hard to tell why the average professional has devoted themselves so intently to a career which they themselves recognise as tenuous and likely to have a negative impact in the long-term. That said, the participants largely considered those risks offset by the role of sport as identity work. Although the term might seem like an innocuous label, for our purposes 'identity work' encapsulates the many ways in which constituting and sustaining one's work and life depends upon working on one's identity or self. In this way, the self is not a passive vessel but an active, self-reflective entity. Thus, identity work is undertaken upon oneself, to create oneself, but also in interaction with others, and it constitutes an ongoing and dynamic social process (Hockey 2005). In short, interview participants saw being a professional cyclist as something that altered the way they saw themselves and their performance of that role heavily shaped their sense of self.

None of the participants stated that they saw cycling as merely another job. Many of them openly stated that it was a 'privilege' to work within the industry, discussed the benefits of the lifestyle, or offered quite detailed considerations of the fulfilment garnered from being a professional athlete. At least some of the interview participants directly noted that the loss of this identity and its corresponding impact on their self-esteem was a significant issue when faced with leaving the industry.

These points are interlinked. Regardless of whether the participants aimed to stay in the profession or not, our profiling indicates that all Australian professional cyclists risk a stable career path to enter a profession with an extremely steep learning curve and limited rewards. They do so because the sport means something at a personal level. None of the participants indicated that they had entered the sport purely for financial reasons. The image of a pro cyclist that emerges from this study suggests that, whilst individuals may have different attitudes, less or more luck, better or worse contracts, they operate within a discursive environment which outlines their options and defines their experience.

Career Paths and Lack Thereof

One of the common themes within the interviews was the tension between entering into a profession that was, in many ways, all consuming and yet offered a relatively short-lived career. All participants seemed to accept, or draw some attention to this, as something that defined their experience of the industry. Notably, there was a certain rhetoric that served to conceal this, in which professional cycling was seen as the 'be all and end all', eclipsing any thought of longer term security or contingency plans should something go wrong. That rhetoric contained within it a suggestion that, with enough commitment to cycling, one might never need to work again. In contrast to this, many of the interview participants not only recognised this as an unrealistic expectation but actively critiqued it and were, even in the earlier phases of their careers, concerned about life post-cycling.

Describing his peers, one participant for instance, lamented the degree to which being 'completely focused on the bike' was ultimately dangerous and that there was a need to think beyond that timeframe:

A: Yeah. I still have team-mates who just stopped school as soon as they could and just completely focused on the bike and I always found that pretty stupid really. What if you just tried it for five or six years and you've got nothing after that? You know, I could've been twenty-three or twenty-four with absolutely nothing, no education, you know, no career in cycling. But I think there's a lot of people that understand that now and that really do want to have something else, something extra.

Q: Do you think that helps them deal with the hard choices they might need to make?

A: Yeah, I think so. I think it's good to have something else there as well. For me, personally, it was anyway. So, you know, sometimes you have an injury or something, especially if you're young, if you're nineteen and you got an injury, you know, and you can't ride for a month or so and you're just sitting at home doing nothing, I think you'd go crazy. At least then, for me, it was one month I could work ahead in my university so I could focus more on cycling after that.

The same theme emerged in another interview, positing the elements of chance and luck as factors which meant that, no matter how hard the individual worked or devoted themselves to their trade, at some point, they were highly likely to find themselves needing to transition back into a more conventional workforce where most of their credentials were unrecognised:

A: ... who could give a shit whether you've been a professional cyclist if you want to come and get a job back here [in Australia], and I wouldn't really expect them to. I mean, in terms of longevity, that's ten or twelve years, like you say, of a profession.

Q: I've talked to some guys, I reckon, the other thing I think we get - all this stuff about there's a lot of chance in all of this as well. There's this sort

of idea that, well, if you work hard and you do this and you do that, put the miles in or whatever, you're going to be successful, no matter what, but there's always an element of chance. You could fall off, you could do all sorts of stuff.

A: Yeah, absolutely. Or, like I said, you have a rough six months with injuries and that. Even if it's an injury that doesn't end your career, like, it does because it hasn't given you the opportunity to find another contract. That's the thing that would be my primary concern about cycling; we're not looking after ourselves and there's the fickleness of it. I don't feel that secure with the way everything is and then, but if you're being over-raced or things like that, you're not even doing your job properly to them and they think, 'Oh he's just hopeless' and then suddenly you're moved out the door. That's where you've got to be very careful with managing and the teams you ride for and ...

Q: Do you think there are lots of guys who try to set - this is another thing about the girls and the cars - do you think lots of guys are trying to set themselves up for life?

A: Financially?

Q: Yeah.

A: Yeah, sure. Yes and no, it varies I think. There's a mix of everyone. For the most part, I think it's the girls and the cars, though, you know. People are just like that, that's just society you know.

Q: It's a rock star sport?

A: Like, I mean, you can go buy your fancy watch and car you know. And I see a lot of people doing that.

The same participant noted that they didn't want to stay in the industry after their career as a cyclist was complete. In this case, their career was still in its early phases, yet they seemed to suggest that those who stayed in the sport did so for a lack of options and an inability to transition back out of cycling, a path they most definitely wanted to avoid. Noting the number of people who work in the sport long term, they remarked:

Very few and that's what I've come across and it's the same with your directors. This is seen to be pretty recurring that the sort of people that become directors, they're the ones who can't leave the sport. Like for me, you've worked in a band, you're a lawyer and you're doing this and you've worked in political areas and things like that. I mean that's as appealing to me, I don't see myself in cycling once I've done with the professional career.

This response was interesting, partly because it expressed a recognition that there was more to the world than riding a bike but, at the same time, there wasn't a clear idea of what they would do once their career ended, nor did they have other qualifications to fall back upon. It was noted that a career as a professional cyclist wasn't seen as the start of a long-term career in cycling. A participant who was in the latter part of his riding career reflected on what he'd hoped his future career would be:

Not to work, full stop. And probably I don't see myself working in cycling very much. Although my wife will probably push me into it, she keeps bringing it up that I should still have something to do with the sport, but I just think I'll try something totally different. But I think they're probably the

people that end up in sport - probably are the people who should end up back in sport - the ones that say they don't want to have anything to do with it anymore. I love cycling and it's my sport and everything like that, but I just don't see a lifestyle of being a director as something for me, I want to move back to Australia.

However, as one of the older participants, now in retirement, commented, the issue wasn't so much leaving the profession as finding something else to go to. In their case, a rather successful professional career had failed to fulfil the idealised image of 'never having to work again':

Q: Are you living off what you made when you rode?

A: I've got investments but it is not enough to live off. I've got rental properties. It is not really enough to live off though.

Q: One of the things that some people say ...

A: I could have retired and never had to work again, but I made a few mistakes.

Q: Investments?

A: Yeah, just investments gone wrong, but if you were smarter you could easily ...

Q: Smart and lucky. The luck too, so just knock it. You do ones that are good, you do ones that are bad. Everybody underestimates luck.

A: I should have been able to retire and buy nice BMWs but, for my rental properties I get \$1,000 a week. But that is nowhere near enough with two kids, so I am always looking for extra money.

On the same theme, another participant noted:

I don't have many life skills really. All the money I earn is to do with cycling.

Herein lies the contradiction. Whilst the majority of the participants noted their long-term career options and financial security were negatively impacted upon by the transitory nature of the industry, few were really able to offer a solution. Those working as professional cyclists noted the heavy influence of luck and didn't see themselves remaining in the industry, but were unable to enunciate an exit plan. The older cyclists and ex-cyclists talked about the limited options. As discussed in a subsequent chapter on career, work and education, none of those interviewed left or were likely to leave cycling with a reasonable level of superannuation, savings and investments capable of sustaining them in the long-term, or with skills or experience capable of easy transference to a different industry. There was a notable absence of viable 'second' career options that were both economically sustainable and fulfilled the substantial sense of personal reward associated with cycling. Thus, when the profile of an Australian cyclist is examined, whatever their particularities, they are likely to:

- (a) recognise that they will one day need to leave the sport;
- (b) most likely struggle to find something to do when that happens; and
- (c) find limited scope to reconcile these two contradictory themes.

A High Buy-in: The Difficulty of Learning the Ropes

It is tempting to say that the issues individual cyclists face as they leave the career can be passed off as poor forward thinking on their part, as if they should have also studied for a degree or trade, should have made wiser investments or stored something away for a rainy day. Alternatively, it might be said that this is the way professional sport is. As the older, now retired cyclist cited above lamented on missed opportunities and poor investments:

If you were smarter, you could easily ...

He trails off at this point, positing his lack of financial security and subsequent employment issues as an issue of individual failure. The fact that similar themes come up so consistently in all the interviews would indicate that, in constructing a profile, ongoing financial and personal sustainability isn't just a matter of the individual's forward thinking, but has something to do with the wider structure of the cycling industry.

Comparable to other professions and more conventional career pathways, entering into cycling not only ends earlier but also begins earlier as well - so early, in fact, that it regularly clashed with finishing high school and almost uniformly took precedence over university or other studies and apprenticeships. Thus, there was an immediate and consistent theme in which the profession eclipsed the possibility to gain more lasting qualifications or experience and, at points, a recognition that the skills relevant to cycling were largely non-transferable. This has much more to do with the nature of the industry than the individual, making it more noteworthy that the above interview participant blamed lack of financial security on not having been 'smarter'.

The same participant said, in hindsight, he might have 'done it differently' had he known about the limited financial security that awaited him following his professional cycling career. Notably, he comments that this knowledge would have impacted upon his decision to dope or not dope:

A: If I won the Tour I got three-and-a-half million dollars from (Pro Team name). Everyone is different.

Q2: Mate, you should have come and seen me. If I could pull back time, I would have. That is only because I had this conversation with Martin on the way down here and when I raced I was not interested in taking any of this <inaudible>, no problem at all. Then I got older and I think maybe I should have done, maybe I should have gone home. If you look back ...

A: Yeah, I would have done it differently.

Q2: If you had gone in and said right, I'm 25, this is what I'm doing. I want [human] growth [hormone], I want EPO, I want the works.

A1: I would have done it.

A more standard career path, be it an apprenticeship or a law degree, is to devote between one and four years to training whilst in the very late teens or early twenties, and then to take up positions which simultaneously bring in an income and continue to grow one's professional capacity. By contrast, whilst the skills required by professional cyclists were perceived as being relevant only for a limited timeframe, there was no suggestion that this is an unskilled profession. On the contrary, the experience of 'becoming' a pro, generally seemed to start in the mid to late teens and then make a sudden shift upwards by moving to Europe or the US, at which point, the training remained just as intense but was coupled with the sudden need to juggle independence and self-sufficiency, usually whilst learning a new language and dealing with the nuances of an unstable industry. Those things posed difficulties comparable to, or in excess of, standard career paths, but without the longevity.

If the experience of the average Australian pro is compared with their international counterparts, the median age for a *neo pro* or *stagiaire* (effectively an apprentice who tries out with a Pro team for the latter part of a season) in the 2010 season (Johnson 2010) was somewhere between 19 and 22. For a European neo pro, that progression usually occurs within their home nation, or at least within a relatively close proximity to family and other support networks. For an Australian neo pro, it involves moving to the other side of the world, learning a new language and, fairly commonly, having little or no job stability. That, coupled with the necessary loss of accessible further education, makes for a very high buy-in at a very early level of the profession. For most, their career was either over, or on the downturn, by the age of thirty and they faced effective retrenchment requiring total retraining and adaptation back into the 'real' world. For some, they never managed this transition to the 'real world'.

Overwhelmingly, with the exception of new Australian-based teams such as Fly V, the primary path utilised to enter the profession was through the AIS and corresponding state institutes of sport, so it is here that any meaningful consideration of the buy-in and long term welfare of individual athletes should commence. In between older and younger riders there was a disparity in perception of how effectively those organisations had supported their transition from amateur to professional level athletes. Without becoming embroiled in analysis of sports organisations, the general perception appeared to be that the AIS in particular had greatly improved its support systems for younger cyclists, and many of the concerns cited by cyclists who entered the industry in the 1980s and 1990s were no longer present. Older cyclists spoke of a 'get tough or die' mentality within the AIS, which focused primarily on exposing athletes to extensive tests of endurance, with less focus on support of a non-sporting nature and limited attempts to provide either middle or long-term pathways. A participant with a long career both on and off the bike recalls:

Q: When did you get in to the Institute of Sport?

A: 1992 was my first scholarship.

Q: Was this the AIS?

A: Yeah.

Q: Was there a [state] one before that?

A: I'd just started at the [state] Academy of Sport at [suburb of city]. I was in that beforehand, when it first started in 1990.

Q: You came in under Charlie [Walsh]?

A: Yep.

Q: How was that?

A: It didn't last very long. I wasn't here very long, I couldn't handle it. I was seventeen years old and I was doing ridiculous 250 km rides. As a seventeen, eighteen-year-old I wasn't physically as developed. It took a bit longer for me to really develop and I just got pulverised down here and I couldn't handle it. I wasn't very mature as well as living down here on my own at the same time. I was down here from September to February. Then I went back and I did a year of racing in Australia. I still rode a little bit of track and I was riding down to Europe. I couldn't have money to go to Europe as a first-year senior so I moved to Queensland. They had a lot of racing up there at the time. They had the Golden West tour and a lot of one-day races. The next year I saved up money that year and I wanted to go to Europe in ninety-four. We had a national series and I was leading the

national series in ninety-four when we left. So I went over to Belgium on my own and the national team had been picked and, like I said, "If there's any problems, we'll give you some rides here and there." Then Brett Dennis went off the cliff in Tour du Pont, broke his hip and he was out. I was already in Europe and I'd been there for six or seven weeks on my own. They gave me the call up and they took me to the first tour I was at, and I was at the second last stage of the tour.

Q: Were you seventeen or eighteen?

A: I was twenty or nineteen, a second year senior.

Notable from this interview is that the career path outlined by the AIS was built around a uniform, high pressure, physical training program in the late teens and, by the early twenties, the rider in question was living alone with limited support in Europe. The focus on physical training but with limited support in adapting to or moving to another country, and the issues associated in making such a move in the late teens or early twenties, are common themes amongst older riders. Chance also played its role in opening opportunities. Another participant recalls:

Well, Charlie was always ... my problem with Charlie, and from when I started, was when they used to go away to Mexico, they'd take six riders away to Mexico and absolutely flog their guts out attitude. And the thing is, if you looked at these guys' physiology, I've seen some of the papers of it, some guys did really well and some of the guys just went down hill. And you'd go, do not take this, take this kind of attitude and do what you want with it, do not take this kind of attitude. They would have started at a reasonable level and they would have ended up at a very, very similar level, but that route that Charlie took worked well for some people and some survived ... some didn't. And you know, either mentally, physically and/or their physiology didn't let them, or their brain didn't let them, and that just destroyed them.

One participant not only reflects on the personal impact of that program, but notes its long-term impact on their health and receiving a positive test for doping:

Q: So, when did you enter the AIS track programme?

A: Ninety-three.

Q: Alright, so it's quite early on in sort of...

A: Yeah, relatively, that was back in the day, that's the same year we had Matt White, Robbie McEwen, Stuey O'Grady, Brett Aitken, Shane Kelly. A lot of names that, I mean, Robbie's still racing. Actually, the funny thing was, you know, there was such a huge fallout from that whole class, that the pressure was just huge, and guys that didn't make it for whatever reason there, have gone on and survived, probably surpassed what those that did actually survive that programme. It was kind of ironic in some ways.

Q: Tell me a bit more about that because, who was in charge of the track programme at the time, Charlie?

A: Charlie, yeah. So, there was quite a lot of, I mean, it was very, very ritualistic and very almost East German-like, in terms of its approach.

Q: Well, this is something I've always said about the AIS, even if you put the doping side of it aside, just the way that the AIS is structured and functions is so East German to me.

A: Well, that's the thing, Charlie apparently, I don't know this for a fact, but I've heard this talking to different people, apparently Charlie purchased for a pretty deep sum of money, training logs and programmes from the East Germans.

Q: Oh, really?

A: Yeah, or from a source over there, brought it back, thought he'd apply it to his programme, but there was one important factor that he didn't include and that was all the drugs. It's all very well...

... It's all very well to have us do forty thousand kilometres a year like the Germans, but the difference is they were on, like, everything. They were on all the juice and we were on bread and water, and they were wondering why people were just falling apart. So, honestly, I never saw anything out of the ordinary going on there at all. There was nothing that, like I said, it was just downright brutal...

Q: Like one of the things that I'm interested in is not so much what people, you know, what [rider preparation] programmes may have existed or exist is, just like the pressures of the place but, really, and I think with the AIS there's obviously a lot of dead, there's a lot of carnage.

A: Yeah, absolutely, from my point of view I think it was a bad, for me anyway personally, it was a bad situation given my, my personality is somewhat, I'm the sort of guy who doesn't have a problem with authority whatsoever but I'm very, I guess I have a tendency to become obsessive-compulsive in some ways, and that led me, and I didn't know that at the time, I was sixteen, seventeen, eighteen years old, you're not aware of that kind of stuff, but over a pretty short period of time there with Charlie's emphasis on body weight, skin folds and all that kind of stuff, drove me to a state of anorexia, and that kind of pretty much just, well it's the sort of thing that you never really get over. You can get past it, but it's always there, you never ever leave it behind, and I don't know, I'm not blaming anybody and I'm not pointing fingers, but certainly that was, from my point of view, that was a big piece of carnage that's affected me, and I think even now, given my situation that I'm in right now, the fact that I was trying to lose weight probably played a factor in me doing what I did and why. Perhaps that's why I was, that's why the substance was in my system when I tested positive. So, it all, you're a lawyer you understand, it's very hard to prove one led to another, to another but...

The psychological impact of this earlier approach to training comes out amongst other retired riders, who also posit the limited focus on non-sports related support as capable of having significant and long-term negative impacts:

Q: And then, when did you move over to AIS?

A: 1991, straight after the Worlds I went with Charlie Walsh.

Q: And how were the Charlie Walsh days?

A: Fuckin' horrible.

Q: *Why?*

A: *Biggest asshole ever. But to a seventeen year old kid, he was a fuckin' asshole.*

Q: *Yeah. Well, just as...*

A: *He just burnt riders.*

Q: *I've never really talked to anyone about Charlie, but I have my ideas of what it must have been like. I'm trying to put it so I can see the thing at the same time now. One thing [name] said to me, was they took my son when he was thirteen. And then he was travelling the world with all these men and we just had no control over him ever again. And he learned everything from this bunch of guys he was with.*

A: *Bunch of criminals.*

Q: *Why do you say that?*

A: *[Other Persons Name] and guys like that? Fuck. Man, they are just, they're crazy fuckin' guys. Crazy. [Other Persons Name], man, they fuckin' corrupted him, big time. They were taking him to prostitutes when he was fuckin' sixteen years old, fifteen years old...*

Yet another participant makes a comparison between sports and military hazing in recollecting their memories of a younger cyclist who did not survive the transition to the 'real world':

Because, when he was a junior... when he was a junior he got, the guys above got all these mind games and got everything else like that, because you're the new one and everything else like that. So, when he was the more experienced athlete and been around for a long period of time and he's hazing is the word, they use the military things, they're the younger kids, you've got to pay your dues, you've got to, you know?

If our search for a 'profile' is narrowed down to a 'profile of cyclists who turned professional during the 1990's', a consistent theme emerges. Their experience of 'learning the ropes' involves a highly pressurized, physical training regime coupled with a notable absence of support, both for longer term personal and financial welfare. At times, there is evidence to suggest that the mental health and ongoing wellbeing of the athletes was far from a priority.

Younger cyclists, by contrast, had a much more positive attitude to both state institutes and the AIS, remarking that they had a clear relationship focused not just on training but on providing a path from an amateur to professional level:

Q: *So, you're in the AIS?*

A: *I am.*

Q: *Or you were?*

A: *I was, yeah.*

Q: *And were you in the [State] Institute at all?*

A: *I was, yeah.*

Q: How did those experiences go? How do you find them?

A: I think they're a really good stepping stone between all the levels that you need to make to make it to the pro tour, or the pro professional level. The [State Institute] gives you a good stepping stone from becoming a junior rider to a good amateur rider, and the AIS then helps you become an amateur rider to a professional rider. I think they're roles, what they're doing; now with the new sponsors, I think it's going to be even better, I think it needed to be more of a (pro) team feel than a national team feel, and I think now it's going... it was like that when I was there with the [European continental team], then it went back to the national team, but now again I think with the Jayco Skins team, it's going to be a lot better, I think it's an easier way to turn pro, a lot easier - stepping stones for the young guys.

Another younger rider reinforces the belief that state and federal levels of training work to progress the career of the athlete:

Q: Institutes of Sport, you were at the AIS, were you at the [State] IS?

A: Yeah, both. And the relationship with both is really good.

Q: What's the difference between the two? Other than one's bigger and one's smaller, I suppose.

A: I think with the state institutes they do a lot of contact, or more contact-orientated activities, like testing and training when guys need it. On the other hand, the AIS [are] obviously working on a more general basis, they do most of the international stuff.

The most striking and obvious difference between younger and older riders is that those who entered cycling in the new century received greater support outside of simply athletic training. At the crucial point in which they shifted from riding at a state or national level, there was a strong indication that those moving to Europe received help finding accommodation and being absorbed into a social network of other Australians. The AIS was seen by younger riders as, generally, very helpful and supportive:

Q: Were you with the AIS in Italy?

A: Yes.

Q: And what was that like, living in the house?

A: That was pretty cool. We had a really good bunch of guys. At that stage, the director was [name]. [Name] was there.

Q: Does [he] ever laugh?

A: Yeah.

Q: Because some people have said they felt really like they were being watched all the time. That it was institutionalised.

A: I think in the past it was a lot like that because it just had to be. The whole trying to get young people to be their best in a foreign country's not easy, it wouldn't matter what task you've got to do. But, I don't know, when I was there it was a pretty relaxed atmosphere and people were

happy, or at least I was happy. As far as I could see I didn't feel like we were being pushed too hard or watched over too closely.

Another participant noted that they started to notice problems after leaving the AIS, whilst their time within it was largely positive and highly supportive:

Q: So, the motivation problem started with the AIS?

A: It probably started at the end, end of AIS yeah.

Q: Tell us about it, because [name] said to me your AIS experience wasn't very good?

A: No, I don't think, it wasn't...

Q: So, tell us the good and the bad things about it maybe.

A: Okay, well, AIS is obviously world-renowned. It's got great support, physio, all sport science, they were always doing research on us, so we could develop ourselves both through education if we needed it. They always had support there if we needed anyone to speak to. Support was great. Probably the worst thing about the dynamics of it would have been just you don't get much independence. It was very strict which...

He continues on the same topic:

Q: But they were pretty accessible?

A: Yeah, very accessible. That was one thing. I don't know, I suppose another thing was about with everyone living together in the same apartments, coaches, staff.

Q: Does it feel like school, or boarding school?

A: It does, yeah it does. I suppose that's exactly how you describe it. I don't think all the staff and all that should really have been living together, it should be separated somehow, because you're with these people 24/7 and you do need a break, I think. So, yeah, mentally sometimes you just need a break, but that's just myself. But other people thrived in that control, I'm more independent and I like to do things.

The same themes came up in a later interview with a rider of a similar age:

Q: Is it too institutionalised at times do you think?

A: I think it can be run a little bit more like a team, with a little bit more responsibility on the riders.

Q: I've talked to a couple of young guys who've been through it and this was one of the points they said, "Once I become pro, or once I started racing amateur in France or wherever, I had all this personal responsibility that I never had in the AIS", yeah?

A: Yeah, I think it could be made a little bit more independent, not have staff around them all the time kind of thing, and I suppose it's a budget thing, they can't just go and pay riders enough money they can go and get their own places and stuff, but yeah, I think it's a good stepping... I think it will probably change over the next years now they've got these new

sponsors and things, but when I come through it I did find that it was; the years I was there, I think it was pretty good, because we had the more money with (the) South Australia(n team), we did bigger races and we travelled a bit more, so it wasn't so bad, but I think there were days when it was just the national team and everyone lived in the one house; don't think it works so much anymore.

Within the interviews with younger riders, the difficulties identified are far less pressing and many of the striking difficulties noted by older riders – overtraining and burn out, absence of support in transitioning overseas and suggestions of hazing – seem to have been largely eradicated. The issue now, however, is how a rider in their late teens and early twenties can successfully go from living within close proximity to family and personal networks in Australia, to being capable of living independently in Europe. Related to this, in terms of their future lives, how can they undertake other training or studies that might allow them to have a life outside of, and after sport?

To some extent, this experience is reflected in the comparable training programs offered by European teams. One participant discussed time spent with the junior development team of a European Pro Tour team:

Q: How much independence do you get when you're in the [Team name] Junior program? How much were they controlling, you know, when you went out, what you did, all of that sort of business?

A: A fair bit. We had an official trainer there and, you know, you had to tell them what you did, and also just planning ahead for what you were going to do and they were really strict on food, like what to eat and what not to eat. It was all quite strict for the first two years for the juniors because their idea was, 'If we teach them all now then they know it as soon as possible and then when they get older', you know, with professionals, basically, just if you want to eat a kilo of chocolate before a race then just go ahead, you know. With the juniors it was just not allowed, you know, they said 'You can't do it'.

A: But if you wanted to go out on a Friday night, did anybody in the team sort of say you couldn't do that or have girlfriends?

Q: They said nothing about girlfriends, we were allowed girlfriends, that's for sure.

A: You wouldn't have a team.

It is notable that this participant primarily focuses on sporting issues – diet and training – as part of their experience working with a training program for younger riders. Overall, there is a significant difference between younger and older cyclists. Whilst both rely on state and federal sporting bodies to help them learn 'the tools of the trade', in recent years the support they've received has shifted primarily from physical training to both a better approach to training and actual support in settling in to a new country. Even the cyclists who hadn't directly benefited from ongoing AIS support experienced some sort of positive influence from the increased presence of a supportive, English-speaking, Australian government-sponsored network acting as a surrogate family during their first move to Europe.

The only stated weakness of the newer program, namely, its comparison to a boarding school, is an interesting point and one which reflects a larger theme impacting upon all Australian cyclists, regardless of age. The profile of an Australian cyclist portrays someone who needs not only to learn the skills and develop the physical capability to race at the highest level, but the need to learn how to do so, and do so sustainably, in a totally

different country. Indeed, as races and teams occur across European nations, they need to learn how to race and live in multiple nations, operate with multiple languages and in multiple legal and regulatory frameworks. The only remaining criticism of the AIS system - that the provision of a high level of support doesn't necessarily produce riders capable of living independently - reflects the complexity of that experience. If this is considered in relation to the earlier point - that of the relatively tenuous and short-term career options - it is clear that the Australian cyclist faces a double hurdle. They need to learn a lot, and to do so quickly, and under considerable pressure, yet much of what they learn will be of little use once they retire.

Identity Work

The paradox of cycling as a profession is that, if we consider both the lack of long-term career paths and the high volume of commitment required to even begin a professional career, it seems highly undesirable. Keeping in mind that the participants interviewed here have all, theoretically, 'made it' to the pro level and, in some cases, had quite long careers at the top end of the sport. Their stories contain a greater volume of adversity and a lower volume of reward than would be expected in many other professions. The obvious reason is that cycling is not just another profession; this is the kind of work where those involved not only pay their bills but build their sense of identity or self. In turn, these identities seem to be packaged by corporations and nations, and the cyclists themselves become consumer items commensurate with the view that late capitalism's dominant form of production is the production of worlds and lifestyles (Lazzarato 2004). Regardless of their attitude to the industry, or how they felt it had treated them and their peers, the participants within this study overwhelmingly saw their time within the professional peloton as something more than a mere job. For example:

Q: ... do you think cyclists, professional cyclists and/or elite athletes in general are privileged to be able to do what they do?

A: Absolutely, yeah.

Q: For what reasons?

A: I think they're privileged if they enjoy what they do, anyone who does, enjoys what they do for a living, is privileged I think. I think most people don't get a chance to get up and do something they love every day. They have to go to work.

The concluding remark here is significant. For all the energy required and all the pressure placed on the individual, the participant still didn't see cycling for a living as 'work'. It certainly isn't play, which raises the question of how the sport is perceived as a form of employment, how that manifests itself, how those involved value their work and how much they feel they can legitimately give to pursuing it. This wasn't an isolated remark. Another participant commented on the subject as follows:

Q: Do you think there's a myth? ...There's two things you hear in relation to the doping stuff. One is that professional athletes are privileged people and...

A: I think they are privileged people.

Q: Why do you reckon they're privileged?

A: I think they're privileged people because they're treated like kings and they go out and ride their bike for three or four hours and go home and sit home, have a massage, watch TV for a week, then go to a race and race a week and sign autographs and stay in hotels, get their food paid, get

everything paid, get their wages paid, do a bit of travelling, you know, people are selling photos of them, they're in the front pages of the newspaper. That's a great lifestyle but obviously there's a certain amount of sacrifice you have to be ...To keep a contract is massive. To get a good contract is even more massive.

From this comment, the degree of difficulty associated with entering and staying in the profession is clear. The sacrifice is substantial but then so, it is suggested, is the volume of privilege associated with getting and keeping a decent contract.

Another participant, pressed on the same theme, struggled to enunciate exactly what it was that appealed, before eventually connecting it to a sense of self-worth that is simply lacking in more run-of-the-mill professions. It was that sense of self-worth that overcame the things he hated about riding for a living. Interestingly, appreciation of the industry came after leaving it for an extended period of time for health reasons, and before returning to the top level of the sport after resuming employment in the 'normal' world for a time:

Q: Yeah, well sort of, what draws you to cycling now, other than a job?

A: I don't know. I love it now more than ever. I've gone through periods of hating it, but now I've sort of come out the other side and I love it now.

Q: Why, well then put it this way, why do you hate it sometimes?

A: I used to hate because I thought it was hard and there was no real rewards for it, and I didn't - I thought that I should be doing other things. Where now all that's erased, I don't think it's hard anymore, I think it's easier than normal life. Because I've experienced normal life, worked very hard for eighteen months, working two different jobs as a normal person, forgot about the bike and I realised that that's, that's a lot tougher than what riding is.

Q: So, this was after you were sick?

A Just before, during and after, I was working full time. So, yeah, I got more perspective I think, and that made me realise how lucky I was to have cycling, and I think I love about it the fact that everything I do is for me, and it's reflected on me, I'm not working for somebody else, I'm not putting hours into something, and effort into something that's getting - can't really see where it's going. But, in cycling, you put the effort in and you immediately get results, and then you get, constantly get reaffirmed results along the way, you go to a race, you go, well, it's like, I'm on the right track and it's constantly - those rush, that rush of endorphins and happiness that you're doing the right thing all the time, and you can work so hard in a normal job for weeks and no one gives a shit. In cycling you come out and have one good result, or you do something good and everyone's blowing smoke up your arse, and you're put up on a pedestal and I think you learn that, that's very special as you get older, and you don't want to let that go.

Partly this response indicates a level of ego stereotypically attributed to the elite sports person. Partly, it also speaks of a much wider attitude to labour, and the way salaried employment doesn't inherently imply employment that provides any sense of self-worth. The central theme from the above passages is that those who ride for a living do actually enjoy racing bicycles and, moreover, that they get a sense of personal fulfilment and affirmation out of competing and working in a competitive sporting environment.

In an interview with another, younger rider, these themes of personal fulfilment and affirmation reappeared but, importantly, were positioned as being greater than the ego boost of winning and being “*put up on a pedestal*”. The affirmation came not purely from winning but from reaching the state of physical and mental preparation required to be an elite level athlete. That affirmation was seen in contrast to the belief held by some regulatory bodies that athletes only care about winning, and will try to win at any cost:

Yeah, I think there is a whole heap of hoo-ha and this is what I get from ASADA as well, that's the opinion I have of them anyway, like 'Oh you're guilty, it's sport, you're doping' and all this. It's like, well, fuck off, I just go to do my job, you know. It's like, I enjoy doing my job, that's why I do it, I enjoy the day-to-day things of it, I enjoy riding the bike in the fresh air and I enjoy periodising and a big sensation is putting your body, like, when you've just gone out and just got it dialled and you just get it tweaked, that fine tuning. That's what I get a lot of satisfaction out of. That's like mastering your trade you know.

This sense that work was justified because it validated something greater – a sense of self-worth, a sense of ‘*fine tuning*’ at a physical level, or ‘*mastering one's trade*’, goes against the colloquial logic of winning as the only reward. Another participant brought up discussion about why he chose not to dope despite racing against competition who, it later turned out, were less morally scrupulous:

A: It's just my own self. I wouldn't feel the pride, I wouldn't feel the glory, it wouldn't be a passionate win, it's more of my self-respect I suppose.

Q: Self esteem?

A: Self-esteem, self-respect. Obviously, for your health as well, you look at some of the guys back in the day that can just keel over, and that kind of stuff, so it's a bit of a combination, you know. For me, not doping is my knowledge for my own wellbeing, and it's not something you want to see in your family...

It is perhaps understandable, given its scientific focus, that a reliance on a strong sense of personal worth and ethics doesn't form the central point of anti-doping policy but, as far as our profile of an Australian cyclist goes, it is a consistent theme. The interview subjects didn't devote a great deal of energy to speaking specifically about winning or sporting competition *per se*. Their *modus operandi*, and the driving force pushing them to get through the substantial buy-ins and justify the loss of other, more lasting opportunities, came down heavily to the idea of what sport ‘means’, and this rationale was evident, as is evident in most of the topics explored within this study.

A Profile

As mentioned above, this study wasn't designed to produce a comprehensive set of statistical data on Australian professional cycling, but rather to gather in-depth, qualitative material. There are a few common statistics that emerged within the interviews; all participants had entered the profession between the ages of 18 and 25, most between 19 and 23. Few were still riding by their mid-thirties, although some went on to related careers within the industry, most notably as a *director sportif* or in team management. Few, regardless of their role, had ever had a contract guaranteed for longer than three years, few had been paid more than \$100,000 for any single year, most had been paid substantially less or had earned what would be considered entry or mid-level wages in any normal profession; some had ridden for little more than equipment. In the course of the interviews we were told of one rider who, although able to represent Australia, had to pay a significant five-figure sum and have his parents mortgage their house in order to ride for a professional team in Europe in 2009. Whilst there were a small number of interview participants who believed they could walk away from the profession and saw it more as a

short-term career justified by the lifestyle and sense of adventure, there was a certain degree of belief that initial sacrifices were made as an investment in one's future. This clashed with a recognition that it was only in very rare cases that this investment paid off. Even reasonably successful cyclists noted that they left the sport with limited financial security. Indeed, the major commonality noticeable in the interviews, regardless of the age of the cyclist, the success or lack thereof within their career, a focus on Olympic over Pro racing or any other factor, was the investment required to simply enter into the lowest rungs of the profession. The gap between being a club cyclist or young amateur in Australia, and riding for even relatively small, semi-professional European teams, came across as substantial. Moreover, there was a consistent belief that the loss of longer term opportunities and stability was counterbalanced by the belief that working as a professional athlete wasn't so much 'work' as a 'privilege'.

It is the accumulated impact of these things that provides shape and form to our portrait of an Australian cyclist, including the sense of tension between the self-fulfilment and drive to pursue cycling as a vocation, coupled with the tenuous nature of the profession and the volume of sacrifice required to pursue it. The complexity of that tension is captured in a final passage from the interviews, taken from a participant who retired after a long career before going on to work in team management. He discusses, initially, the lack of job security before considering the industry's place within his sense of self-worth:

A: And I worry, I still do worry about, listen if I don't, if [name] says to me at the end of next year he goes, "Mate, I'm not real happy with you mate. I'm going to just move forward [name] and [name] next year," like I'm just after that, I don't think I'll ever be a plumber because I just fuckin' hated it. Do you understand?

Q: Yeah, and how do you reinvent yourself?

A: What do you do? All you've done the last fifteen years is go in hotels. Win bike races or ride on the front for [Name] and you make €70,000 to €120,000 which pays your mortgage, pays your car payments, pays everything else and you're not investing. I think our Federation has a lot to be accountable. Because we're working, we're working. Our Government should be fuckin' saying, "Listen, where's your Super?" It's law in Australia. [Team Name] has to pay me Super. This is the first fuckin' twelve months I've had Super in my life. I'm thirty-six.

Q: Me too, last year.

A: Thirty-fuckin'-six years old and this is the first Super payment I've had in my life.

Q: No, I agree. And one of the things that I think is, where it comes up in the doping stuff, but it's a sign of the whole sport. In doping people say, "There's just sporting penalties." And I say, "Well they're not really just sporting penalties because they flow on and affect people all their lives. They lose their jobs..."

A: They can't be a coach, they can't be a commissaire, they can't be a fuckin' DS [directeur sportif], they can't be...

He continues:

It's your work. It's your fuckin' job. It's everything you know, everything you have, everything you've lived, dreamed for, your whole thing. Like it's short-term. I actually think, I'll go even back on my statement saying like 10%. I think it should be more. I think it should be almost a quarter of your salary

should be going into a super fund which they look after. And it has to be paid. So, instead of these guys buying Lamborghinis, it's sitting in a fund which they can't touch until they retire and sign a form, like I did in January, saying, "I will not race for twelve months. I am officially retired as a thirty-six-year-old man." Then you can access your fund. Do you understand? Because these guys are getting to the end of their career and they're getting fucking depressed and they're coming out...

It's notable that he ends his point with a discussion of the potential for depression upon retirement. Career and post-career depression is a concern worthy of a study in its own right – the tragedy of Jobie Dajka in Australia is evidence of the problem. The peloton has seen in the last decade a number of riders who have died after doping incidents and long periods of depression:

Q: What about talking about depression, do you know any riders that suffer from depression? Have you seen people or do you know of people?

A: Yeah, Jose Maria Jimenez was a good friend of mind and Pantani as well, Vandenbroucke was a good friend. We turned pro in the same year. I think obviously Vandenbroucke suffered depression and so did Jimenez.

From here both the complexity and the necessity to define the profile of a professional cyclist is evident; a quintessential agent who lets us see how complex and disparate factors intermingle to produce the people who make up the peloton. Beyond raw statistics (a medium age of entry and exit from the profession), biological characteristics (a certain VO2 max. or haematocrit level) or a particular salary (which might vary from the millions to barely in the double-digit thousands), there are themes that relate to the process whereby the individual invests in, learns the rules of, makes sense of and tries to work within something which is both a sport and a high pressure, highly commercial industry; both a job, an identity and a lifestyle. This attitude shapes the way Australian cyclists approach the industry and the choices they make within it.

Summary

What we tried to achieve in this chapter was neither a whimsical literary portrait of an Australian cyclist nor a purely statistical one, but an identification of the common structures and experiences that shape individuals as they enter, or try to enter, cycling as a profession. That was based on common themes that came up amongst our participants as they discussed their careers, their backgrounds and their motivations. Overwhelmingly, we encountered stories of barriers and tenuous pathways, bound up partly in devoted and consistent effort and partly on luck – not crashing, not getting sick, and so on. Second to that, we saw a degree of sacrifice – primarily in the form of opportunity for more stable careers through the loss of education, and loss of the skill sets usually attained during the early twenties through higher education and early work experience in skilled industries.

For the most part, our interviews suggested a portrait of individuals who begin working towards a professional career in their mid to late teens, usually move to Europe in their early twenties, and are usually transitioning back out of the industry by their late twenties or early thirties. The time and energy commitment to training, and the disruption of moving to another country, is on par with a full-time job, and negatively impacts upon the capacity both to undergo further education and to put that education into practice and keep it current by working in fields other than cycling. The end result of that is a process of transition often marked by a lack of other career options and a loss of the motivation and the sense of identity that is built around sporting activity. To put that in practical terms, a professional cyclist who had devoted ten years to reaching the pinnacle of their sport, racing across Europe, could easily find themselves aged in the late twenties or thirties returning to an unskilled job stocking shelves in a supermarket or, at best, working in a bike shop.

There have been some substantial positive developments in the common experiences impacting upon those entering into professional cycling. Many of those were brought about by better training methods and a cohesive system of support from government sporting institutions at both the state and federal level. Australian sporting facilities in Europe, which provide everything from safe, stable accommodation to language training, are clearly having a positive impact, although riders still faced unavoidable difficulties in transitioning from teenaged amateur sportspeople living with their parents to independent neo-pros living in another country, learning numerous new languages, managing contracts, training and absorbing the various nuances of the peloton. Secondary to that, the increased presence of Australian professionals living and working in Europe, including a number now working in team management, offer a substantial system of peer support that appears to have a positive influence which will only grow as the sport attracts more Australians at the highest level.

Increasingly, the common issues faced by Australian cyclists seem to become pressing as they leave the profession. Most of the older or retired cyclists found themselves leaving a job that had constituted both their only means of earning a living and the defining force of their sense of identity, and struggling to transition back into the 'real world' where many of their achievements and skills counted for little. We will address potential alternatives and offer recommendations for many of the problems encountered by Australian professionals in subsequent chapters.



Chapter Four

The Purposes and Rationale of Anti-Doping

Why Anti-Doping?

In this chapter, the rationales for anti-doping law and policy are explored. It serves as an introduction for later discussions relating to the Whereabouts system and the Biological Passport. It also further helps contextualise, along with the previously developed profile, the lives of those interviewed. The institutional and governmental rationales for anti-doping policy are set out in various documents, such as the most recent revisions of the World Anti-Doping Agency Code (WADA Code) and The Olympic Charter. These rationales are reflected in the International Cycling Union (UCI) rules and, at a national level, in the ASADA Act, which is annexed to the WADA Code, and adopted by the Australian Cycling Federation (Cycling Australia). However, our focus here is drawn from Dimeo's assertion that the manner in which anti-doping policy has been pursued has resulted in the targets of anti-doping initiatives not understanding nor respecting policy rationales that challenge the will to win (Dimeo, 2009, p. 30). In conducting the interviews, the institutional rationales for anti-doping policy were explored with the interviewees, based on their own personal and collective rationales - how do they rationalise the 'choice' not to dope.

In taking this approach, we examined the overlap and differences between the institutional rationale for anti-doping and the rationales of the riders themselves. Although this study did not, for reasons imposed by university human research ethics, set out to interrogate the respondents about doping behaviour that they may have engaged in, some cyclists did, nevertheless, discuss these matters as they contextualised the problems of rationalizing anti-doping within a competitive, sporting environment. A section later in this chapter has been included considering the question of 'Why people dope?'

Before considering this, it is important to note the discussion of Houlihan in his book, *Dying to Win*, published by the Council of Europe, a work regarded as the pre-eminent text on the policy considerations that led to the establishment of the current global anti-doping regime (Houlihan, 1999). In trying to define the problem of doping - or the rationale for anti-doping policy, Houlihan (1999, p. 107) recounts the common objections to doping in sports, which he describes as "*a limited number of recurring justifications*". He summarises these recurring justifications as:

- Doping is unfair;
- Doping is cheating;
- Doping is dangerous to the health of the athlete;
- Doping may deter sponsors; and
- Doping sets a poor example for youth.

He continues, arguing that if "*these justifications fail to impress then the circular argument is relied upon that doping is a breach of the governing body's rules*". Houlihan's position is that all "*these arguments have a certain plausibility but none is, by itself, capable of providing a sufficiently strong underpinning for the enormous investment of resources currently devoted to the anti-doping strategy*" (p. 107).

The Costs of Anti-Doping

There can be no doubt that there has been an enormous investment of resources devoted to anti-doping. The extent of this investment is not easily identifiable but some attempts have been made. For example, Lippi et al. (2007) noted that the United States spends as much on anti-doping as it does on research into curing blood diseases. The authors noted some staggering statistics. According to Lippi et al, WADA's total budget for the 2006 year

was nearly US\$24 million dollars, that is an increase from their initial funding package in 1999 of US\$18.3 million. The figures since Lippi et al.'s work show that the ASADA budget for the 2008/2009 financial year was AU\$14.33 million and that the US Anti-Doping Agency had in 2009 a budget of US\$15.289 million.

“These are only part of the huge economic resources currently devoted to the fight against doping worldwide, which are predicted to reach or exceed US\$10 billion. According to the most recent statistics of the US National Heart and Lung and Blood Institute (NHLBI), the projected total economic cost of illness due to blood clotting diseases and red blood cell and bleeding disorders in 2006 was US\$12.6 billion. Therefore, in practice, health care systems and national governments worldwide are expected to devote to the fight against doping amongst athletes the same resources that the US government dedicates to prevention and treatment of an array of diseases that impact upon the population at large.” (Lippi et al., 2007)

In this light, the rationale for any anti-doping measures, weighed against the volume of resources it consumes, becomes contentious. The question arises of why governments should spend such extravagant amounts of their health funding on what is, at one level, a game – and, what’s more, a game managed for the profit of private organisations and individuals? As one of our participants commented, the volume of resources focused on anti-doping at the expense of public health funding does pose moral issues, which they located directly back to the choices of policy makers:

Q: If I told you the US spent more money on research for anti-doping than they did into research into blood diseases, what would you think?

A: Ridiculous. That’s just...

Q: This is from a journal article from the British Medical Journal of Sports Science or whatever.

A: [Pause while respondent reads article] That’s disgusting.

Q: It’s a bit weird isn’t it?

A: That’s disgusting. But that’s not cycling’s fault or any other sports fault. That’s the politicians’ fault.

In our correspondence with Houlihan, he put a lower figure for the global cost of tackling doping in sport, with an estimate closer to US\$300 million – certainly a large sum, but arguably not that great when placed into the context of the income from events such as the Olympic Games or the FIFA World Cup. However, reference to the possible income generation of major sporting events is not the best way to rationalize the cost of anti-doping. Furthermore, the nature and the structure of professional cycling are such that the economic benefits of major events do not actually flow through to the sport or those at its coalface. Thus, this study is not in a position to pass judgment on the merits of claims of income, amounts, or beneficiaries of major events. Nevertheless, even those who question the figures of Lippi et al. would accept that their point is valid. At some point, there will be increased questioning as to whether the benefits of an anti-doping policy outweigh the costs.

It is necessary to piece together some information regarding the cost of anti-doping in cycling. With the introduction of the Biological Passport system, the UCI have stated that its total anti-doping budget for 2008 rose to nearly 6.5 million Euros. The UCI 2009 Annual Financial Report states the total anti-doping expenditure to be in excess of 6.7 million Euros. Of this, the Biological Passport absorbs almost 5 million Euros. In 2009, the total anti-doping budget was funded by the various ‘stakeholders’, with professional cycling

teams contributing 66% of the total budget. The remainder comes from race organisers (13%), the UCI contributes 10%, and the riders themselves contribute 3%. Testing and results management and analysis make up the bulk of the expenditure. In 2009 the UCI conducted 15,699 tests. Of these, 10,603 were specifically for the Biological Passport – an average of 12.6 tests per rider (UCI, 2009a).

Dimeo (2007) has argued that testing is the dominant paradigm in anti-doping policy because of the campaign by a small clique of medical experts in the 1960s who defined the problem of doping simply as a scientific matter requiring scientific solutions. Testing was proposed as a way to show athletes that doping was ineffective as a means to enhance performance. This was obviously a mistaken assumption on the part of the scientists. Dimeo argued that the scientific model of anti-doping based upon testing is a construct of a specific time and place, and that this response was based on health concerns (Dimeo, 2007). The cost of the current anti-doping model based upon testing must also be considered in the context of its effectiveness. This poses the question of how one measures the success of an anti-doping program; do indicators like the number of positive tests, or the number of rule violations and bans, serve as an adequate sign? If so, what if there are no positive tests? Does this prove doping is not a problem?

In cycling, as in other sports, successful anti-doping measures are often evaluated by reference to the number of tests carried out and the number of positives returned. It is not clear that this is a reliable approach. Regardless, claims of being the most tested athletes in the world are not uncommon in cycling, serving as a defence of the sport's comparable degree of cleanliness:

But we're the ones in the media, we're the ones that are getting tested a hundred times more than any other sport and, with the percentage of tests to the percent of positive controls, we're probably less [likely to be doping] than a lot of other sports.

Famously, Lance Armstrong has repetitively claimed he was the most tested athlete on the planet and, moreover, "I have never tested positive" (BBC, 2004; Austin American Statesman, 2010). Examining the recorded ADRV decisions against cyclists in the years 2008 and 2009, a total of 44 positive anti-doping tests were identified as occurring in 2008. Of these 44 tests, a total of five were forms of blood doping – CERA or EPO. Of these 44 cyclists, only four could be regarded as well-known or top level professionals (UCI, 2009a; UCI, 2008a). Even accepting that all 44 positives were of cyclists 'that matter', the figure represents .33% of the 13,224 tests conducted by the UCI in 2008.

It can be argued, up to a point, that cycling has been at the forefront of anti-doping testing in recent years. It might also be accepted that the techniques and number of tests used by cycling are of a higher standard than other sports. The following quote from a participant involved in the science of anti-doping and the Biological Passport explained the difference in testing between sports in the following terms:

Q: Do you think from what you see, and I suppose this is from your dealings with WADA and the UCI, that cycling has a worse problem than other sports, or the same problem as other sports, or cycling's actually doing a better job than other sports?

A: Imagine if you have an imperfect tool to detect athletes who are doping and you apply that to three populations. One where everyone's doping, one where there's a lot of people doping and one where there's no one doping. Now, your imperfect tool applied to the population where there is no doping might pick one, and that's a false positive because there was no one doping. It shouldn't come up with very many. You apply it on the spectrum where everyone's doping and every time it picks someone out it'll be a true positive because they're all doping. And any it doesn't pick out are false negatives, because they're doping, but it didn't pick it up. Take that same tool and apply it to three different sports up the middle here in

another direction and you're going to find doping in every single sport. You won't know exactly how many were doping but you'll get a fair idea of how many come up through the sieve. Now, when they put that tool on cycling, a lot came up, there was a lot doping. But they've never put it on to athletics or to biathlon or to cross ... I can't really say cross-country skiing because they've done a little bit. And so, what happens is you put the sieve on cycling and all these things pop up. Now it's a good sieve, it's the best that any sport's got, but God, you've got a real problem. And so the truth of the matter as I see it, cycling does have a problem with doping. And the cyclists are being picked on because the media have cued in on this, and the federation know they have to protect their economic investment, whatever you call it. And so that's why cyclists are getting picked on, because they've got a pretty good tool, it's harassing them and they're being caught because their federation has chosen to, because their federation has to protect their economic interests, because the media have cued on this 'Cycling's a dope...'

The participant continues:

A: And so, the other sports are escaping that scrutiny and the other athletes are escaping that scrutiny, because their federations have chosen not to apply that sieve, because they don't have to protect their economic interests because it's much better simply to have no one doping because then you've got no media attention, you've got no scandals, life's good.

Q: It's much better to have no one going positive.

A: Yeah. And so, to answer your question, 'Is cycling any worse than any other sport?', I think they've got a longer culture of using substances to help their performance, I think that's fair. That's kind of a longitudinal sense. Today, in 2009, I don't think it's any worse in cycling than in athletics or swimming or other sports.

Another participant commented on the perception that cycling had a bigger doping problem than other sports:

Q: So how does it make you feel as a cyclist when you hear all this stuff about cycling?

A: You've got to have a pretty thick skin. I rode through that era where there was publicity and now it's not been so bad. But it's not a level playing field. The other sports can get away with it. We've got the league code in Australia. I know it's recreational most of it ... Drugs are in all the football codes.

Q: Really?

A: Big time. You don't need to be a rocket scientist to know the AFL guys are running twice the distance and twice as quick as they would ten years ago. They're all on growth hormones. There's no test for it. Why do you think men are running 9.6 seconds of 100M?

Q: Why does cycling get its share [of blame]?

A: We've had a bad history of doping and I suppose we're a sport that are easily attacked because we're on the road. Do you know what I mean? We're a lot more vulnerable.

Q: Bands of gypsies I call you.

A: Drugs have been around a lot and it's changed over the years and our federations handled it terrible. Our federations are not as strong as the federations

like FIFA or they basically tell journalists to shut up. They employ journalists to write about their sport anyway.

Q: Why do you say they handled it terribly?

A: From where it is now it's gone great but there should've been a time where they should've called people in, in order to handle things differently. Instead of trying to catch people, told them, and said from this time we're starting this. Stop what you're doing and from this day on we're going to fucking bust you. Not always new tests. It's been such a long process of weeding out. Instead of saying we know what you've been doing. In six months' time we're starting this test and if you step over the line you're fucked. Not bringing this EPO test that gradually, gradually got better and people gradually, gradually found ways of getting around it, or bringing in the growth hormone test that no-one in the world's actually gone positive for testosterone levels testing have got better and better. It's just ridiculous.

Q: Do you think that they haven't done a good enough job in bringing people along with them, always treating people like you're the problem. You're the object, you know, policing people rather than actually bringing them in and sitting them down.

A: There's never been any communication.

Q: Do you think that would've made the process less successful?

A: Maybe it would've made it a bit shorter. Instead of spending a ten-year gradual weeding out of people and I think it would've been a gradual physical weeding-out of people.

Another participant, rather refreshingly, was aware of the element of moral disengagement (Boardley and Kavussanu, 2008; Long et al., 2006) at play when discussing other sports. He felt that, whatever the situation in other sports, it was irrelevant to how cycling should deal with the problem:

Q: The other day I was listening to the cricket and I heard Jim Maxwell ... as he drove up Beach Road in Melbourne from Frankston on his way to the MCG, and he drove past a bunch, and wound down his window and said 'you're all on drugs' to the cyclists. And we're talking about before how things have changed. How does it make you feel as a cyclist, when you're hearing this stuff, and there's this constant stuff in the media about how bad cyclists are, and nothing about everyone else?

A: That's a bit wrong, too, to say everybody else. Isn't it a bit wrong, it doesn't matter what everybody else does...

Q: I'm prodding you. I think that's a really good point.

A: To jump up and down, isn't that like; it doesn't matter. If every other sport was as dirty as dirty as dirty can be, and they were all American wrestling and NFL, and people decide to report on positive in cycling, then if there's one positive they're still; don't say 'oh what about telling us about that'.

It is also reasonable to accept, as was explained to us, that the cost of anti-doping places a great strain on laboratories:

Q: It's been put to me, and, well, you said to me before, that these labs have to pay for the prosecutions themselves. So do you see this as influencing their decisions whether or not to proceed?

A: Yeah, it does, it does, and I can't comment in Australia because they have so few cases, but I'm familiar with overseas laboratories, and it's a significant burden in both manpower and finances when they open a case like a Landis hearing or a Hamilton hearing, because the laboratory who generated the results have to be prepared, and this is a ... they're mandated to do, they're obliged to go to the panel and explain the background of the results and why these results are valid. Now, you're talking about hundreds of thousands of dollars of time in order to satisfy the lawyers, because the athlete's lawyer has every right to say we want all of the evidence. And so I was just talking to (name) over in Tokyo, he had to produce thousands and thousands of pages of supporting documentation and it was all crap, it was a fishing expedition by Howard Jacobs. And it went to the extent where Howard Jacobs actually forged one of the laboratory documents and gave that to the panel and said, look, this was a false positive result. And it wasn't, he had forged the laboratory document to make it look ... instead it was a control that should have been positive ... He rubbed out control, gave it to the panel, and said, look, they never told you about that false positive. So, then the laboratory had to go through another thousand pages of documentation.

Q: What case is this?

A: Hamilton. To prove that the document was manipulated. So it's incredibly expensive for them to get into this hearing scenario, and so yes, it influences their thinking. If you had an independent laboratory simply looking at the result, knowing that when they call it positive there's no financial consequence, you're going to have more positives. I mean, it just stands to reason, any lab director is going to have that in the back of their mind, this is a grey one and, jeeze, it's going to cost me a lot of time to defend it, I'm going to call this negative.

With this in mind, the complexities posed by the use of widespread, expensive testing become evident, corresponding to professional athletes with, in some instances, greater financial resources than the national boards attempting to sanction them, and the potential for unreliable evidence. Houlihan (2009) has highlighted the problems of an anti-doping policy based upon testing, in his consideration of the Bay Area Laboratories Cooperative (BALCO) case, arguing that there are many aspects in that example that are central to recent developments of anti-doping policy. He noted four points in this regard:

1. That BALCO demonstrated that it is relatively easy to design substances that cannot be detected;
2. That BALCO demonstrated the relative ineffectiveness of an anti-doping system based upon testing;
3. That BALCO demonstrated it is possible to impose punishment which is not based upon doping test results;
4. That BALCO demonstrated the willingness of the criminal justice system to mobilise powerful resources in an anti-doping effort.

In relation to the point made by Houlihan regarding the lessons of BALCO, and the relative ineffectiveness of an anti-doping system based upon testing, the USADA's testing statistics state that from 2000-2008 Marion Jones was the subject of 24 tests by that organisation. None of the tests undertaken by Ms Jones ever revealed a positive sample.

With that in mind, we recall the comment above:

And any it doesn't pick out are false negatives, because they're doping but it didn't pick it up.

Based on the interview above it can be concluded that urine tests ordinarily reveal a 1% to 2% positive rate. A recent study highlights the question of the effectiveness of testing. Bornø et al. (2010), using a substantially more frequent testing regime than the Biological Passport, were able to achieve a 58% sensitivity (reliability). That is 42% of those injected with EPO (this was not a case of micro-dosing) and tested, were not detected by the protocols used in the Biological Passport, despite gathering more tests over a shorter period of time. The evidence gathered in interviews with participants reveals annual testing figures in the range of 13 to 48 tests per year per athlete. The number of these tests is far below what Bornø et al. (2010) suggest is necessary to achieve a reliable testing regime for the Biological Passport.

It is noticeable that Bornø's tests did not screen for practices such as blood transfusions or the micro-dosing of EPO. The inference to be drawn is that current testing under the Biological Passport regime would achieve a sensitivity rate of less than 50%. Along with Houlihan's observations, interviews in this study and public comments (such as that of Floyd Landis in relation to micro-dosing – Cyclingnews, 2010a) and the lack of a reliable detection method, would seem somewhat to undermine claims to be able to measure the success of anti-doping by reference to the lack or proliferation of positive tests. As Bornø (2010) noted:

"It must also be emphasised that the implementation of the Blood Passport does not guarantee a doping-free sport as our study represents the "ideal world" with frequent testing. In the "real world", anti-doping agencies will conduct far fewer doping tests and athletes might inject lower EPO doses, which is crucial because of the limited detection intervals... The difference in our study and the one presently implemented by UCI and FIS, raises the question on how many samples for each individual are necessary to be collected during the season to have a meaningful testing programme? It should also be remembered that performance gains are observed even with relatively small changes in [Hb]." (pp. 537-538)

Are sensitivity rates of this nature sufficient to justify such expenditure? Evidence that the Biological Passport is unable to reliably detect nearly half of the subjects injected with EPO by Bornø et al. (2010) requires re-consideration of the question of the Passport's reliability and means to improve it. It also raises the question as to whether alternative tools might be deployed in addition to the current system.

In relation to the point made by Houlihan regarding the willingness of the criminal justice system to intervene in the area of anti-doping, we might go so far as to state that the vast majority of successful and substantial anti-doping interventions have been the result of the interventions by the police rather than anti-doping or sporting authorities. Festina, *Operacion Puerto*, BALCO and the current Armstrong investigation are all evidence of this. Unlike the missed opportunity for reform of Festina, the ongoing and unresolved cases of *Puerto* and the Armstrong investigation and the mere fact of recent police interventions, have appeared to have an affect on the propensity to dope within the peloton. The rationale underlying such criminal justice interventions is not the same as that underlying anti-doping policy in sport, and appears to relate more to public health concerns which were the former primary focus of anti-doping policy.

It is evident that the enormous resources being devoted to anti-doping do raise important policy considerations, but they cannot be considered without a detailed assessment of sport as work and as an industry. Nor can they be viewed in isolation from other efforts based upon some other rationale, such as public health (e.g., *Operacion Puerto*, see *Hardie*, 2010). Importantly, the *Operacion Puerto* case involves allegations against team doctors and *director sportifs* and not against cyclists. One experienced participant was in no doubt that this would be more effective than traditional measures aimed against cyclists only:

A: That Saiz needs to be locked up for a long time.

Q: Yeah, but this is, my question is, do you think that we spend a lot of time hassling the riders but, you're saying [names] and all these types of people. You agree that there's some worth in prosecuting [director sportifs and administrators]?

A: Abso-fucking-lutely. That will stop systematic doping, on its head. If Saiz goes away for twenty years there will not be a director in the world would even fuckin' go near it. If he's getting bent over the barbecue, getting fucked every night in jail, I'll tell you right now, there wouldn't be a manager in their right mind that would even think about it.

It is not the purpose of this study to question the resources devoted nor the effectiveness of criminal prosecutions, but to identify the policy rationales provided by experts and contained in the relevant policy instruments, and to compare them with the rationales given by cyclists and their cohort. However, the cost of anti-doping is an issue when it is recognised that it, and the congested policy environment of institutional practice, generally requires identifying where institutional rationales and riders' rationales might be consistent, as well as their points of difference. By considering these two rationales, it may be possible to better identify a sustainable basis for policy at all levels by better locating the parameters of anti-doping rationale. Houlihan (1997) is correct when he recognises that:

"Until a satisfactory answer can be given to the question, "Why oppose doping?", it is not possible to define with sufficient clarity the problem that sporting and governmental authorities are trying to tackle, nor is it possible to defend anti-doping policy with confidence." (p. 107)

Houlihan's point is that the policy instruments will be determined by the formulation of the basis on which doping is opposed - different policy rationales will give rise to different policy instruments (Houlihan, 1999, p. 107). The way this study can incorporate and find links between multiple rationales, thus provides a superb starting point for developing policy itself.

Shifting Perspectives on Turning Rationale into Sustainable Anti-Doping Policy

Dimeo (2009) has charted the shift in the institutional rationale for anti-doping policy from a focus on health and public health that began in the 1950s, to the more recent emphasis on fair play (p. 31). During this same period, Houlihan (2009) has noted the shift whereby anti-doping policy has moved from being located within domestic (governmental) arenas and a number of weak international (sport and governmental) arenas, towards a position where the centre of gravity is firmly located in WADA, supported by the IOC, major international federations and UNESCO. Policy-making, he notes, has accordingly become a two-level process shared between the international regime and the major domestic anti-doping systems. The creation of WADA has created a series of expectations of action at a domestic level – ASADA is an example of this. In fact, the policy process includes another important factor. Until recently, sports and sports law were effectively a system unto themselves, largely outside of the legal system. This system has now begun to interact with the national and international legal systems and created a mixed hybrid system of

law, which tends not to exhibit all the hallmarks of national legal systems. Notwithstanding the increasing influence of national and international law on sport and anti-doping law, the fact is that this mixed system continues to exhibit sports law's private and closed characteristics.

It is in this changing and problematic environment that Houlihan has sought to establish the potential rationales for anti-doping. He has identified a circular argument of 'doping is bad because it is against the rules'. Somewhat problematically, he goes on to consider the argument for an anti-doping policy based on contract – "*as part of the agreement entered into by individuals before they are able to participate ...*" (Houlihan, 1999, p. 125). But this needs to be considered in the light of his earlier statement that "*the least satisfactory basis on which to justify banning drug use is that it is simply against the rules of particular sports*" (Houlihan, 1999, p. 123). The complexity of this approach is evident when the constantly changing nature of the rules is considered, with particular emphasis on the banned substances list.

That said, the contractual basis of the rules of sport has a long tradition – for example, court decisions such as *Clarke v Dunraven*, *Cameron v Hogan*, *Raguz v Sullivan*, and *Pechstein v International Skating Union*. We also note the NSW case of *McKinnon v Grogan* and the English decision of *Enderby Town Football Club Ltd. v The Football Association Ltd.*, where it was said that:

"The rules of a body like this are often said to be a contract. So they are in legal theory. But it is a fiction - a fiction created by the lawyers so as to give the courts jurisdiction. This is no new thing. There are many precedents for it, from the time of John Doe onwards. Putting the fiction aside, the truth is that the rules are nothing more nor less than a legislative code - a set of regulations laid down by the governing body to be observed by all who are, or become, members of the association. Such regulations, although said to be a contract, are subject to the control of the courts. If they are in unreasonable restraint of trade, they are invalid ... If they seek to oust the jurisdiction of the court, they are invalid ... If they unreasonably shut out a man from his right to work, they are invalid ... If they lay down a procedure which is contrary to the principles of natural justice, they are invalid ... All these are cases where the judges have decided, avowedly or not, according to what is best for the public good. I know that over 300 years ago Hobart CJ said that 'public policy is an unruly horse'. It has often been repeated since. So unruly is the horse, it is said, that no judge should ever try to mount it, lest it run away with him. I disagree. With a good man in the saddle, the unruly horse can be kept in control. It can jump over obstacles. It can leap the fences put up by fictions and come down on the side of justice ... It can hold a rule to be invalid, although it is contained in a contract."

Given the complexity of constructing a contractual framework capable of pre-empting the need for changes within sporting federations, it is not surprising that even an avowed and influential anti-doping advocate such as Houlihan finds it difficult to identify a consistent policy rationale. Houlihan (1999) is quick to recognise this:

"It would appear that attempts to argue in favour of anti-doping policy from 'first principles' derived from the interests of individuals are difficult to sustain." (p. 124).

Houlihan's doubts concerning the rules of sport and contract bring him to an interesting position. He ultimately concludes that the:

"quest for a set of universal or unassailable principles on which to base an anti-doping policy in sport is not capable of being fulfilled" (Houlihan, 1999, p. 128).

Fortunately, he does begin to suggest a framework for a more sustainable rationale upon which to build anti-doping policy:

“... a more profitable avenue for reaching a convincing basis for current policy is to abandon the search for an a priori rationale for policy and concentrate on middle order justifications which are derived from social experience” (Houlihan, 1999, p. 124).

This position is based upon the idea that sport is a socially-constructed activity (Houlihan, 1999, p. 125). In considering this, Houlihan does not propose that we delve into a particular sport in order to understand its construction. The social construction he proposes is to defend policy on the basis of the weight of “*democratic community condemnation and pervasive disapproval*”. Hence:

“... policy is never secure but always in need of defence, support and refinement. The challenge to sports authorities is to develop a persuasive definition of doping and a programme of policy implementation that takes account of the need to sustain popular disapproval of doping” (Houlihan, 1999, p. 128).

There is no doubt that a large part of anti-doping policy has been played out over the last ten years by way of crisis, myth and propaganda designed to create and sustain popular opinion. Similarly, in cycling – for whatever reason - this has been a factor in driving anti-doping practices and shaping opinions. But here it is important to record our difference – a policy that will require constant propaganda in order for it to be accepted as valid by society, and by those which it aims to regulate, is not viable and sustainable in the long term.

The initial point of departure then, after a survey of the institutional rationale, will be to enquire as to how anti-doping policy is constructed in the minds of the riders and their social group. Having said this, it is clear that any social construction of the sport exists within an environment where sports law and anti-doping policy are no longer matters solely within the domain of an autonomous sport and its administrators. Nor, given the great interest in these matters, can they be shielded any longer from public scrutiny no matter how ‘in camera’ the legal processes might be. Thus, the social construction of sport may be a more fruitful manner of approaching the issue, rather than relying on continued moral crisis and propaganda (Hardie, 2010; Møller, 2004) as was proposed by Houlihan and has been the main tenor of anti-doping policy for the last ten years. With this in mind, the differing rationales are compared, first as seen within the institutions governing cycling and, secondly, as they have emerged from the riders’ themselves.

Institutional Rationales for Anti-Doping Policy

This section will not go into great detail as to the various institutional rationales. Below the main thrust of the various documents will be summarised. Since the inception of WADA, the shift observed by Dimeo (2009) from public health to fair play, was further consolidated.

Following are the relevant international and national anti-doping instruments:

- Strasbourg Anti-Doping Convention 1989
- Lausanne Declaration on Doping in Sport 1999
- Warsaw Additional Protocol to the Anti-Doping Convention 2002
- Copenhagen Declaration on Anti-Doping in Sport 2003
- UNESCO International Convention against Doping in Sport 2005

- Australian Sports Anti-Doping Agency (ASADA) Act 2006
- International Olympic Committee (IOC) Charter 2007
- World Anti-Doping Agency (WADA) Code 2009
- International Cycling Union (UCI) Regulations 2009
- Cycling Australia Anti-Doping Policy 2009

Despite each of the aforementioned instruments incorporating quite similar purposes and rationales, there are some minor differences. For example, the Copenhagen, Strasbourg and Warsaw instruments each focus on health and developing public understanding so as to encourage public health generally. The WADA Code, the Lausanne Declaration and Cycling Australia Policy all incorporate the health rationale and, rather than education, emphasise the ethics of sport and the notion of fair play.

Interestingly, the IOC Charter and ASADA privilege the notion of sporting integrity. Whether sporting integrity is synonymous with fair play or refers to the need to maintain the integrity of sport as something else is not clear (Mazanov and O'Connor, 2010).

Table One also summarises the focus of each document. Annex One sets out the rationales for each document in more detail.

Cyclists' Perspectives on the Purposes and Rationale of Anti-Doping Policy

When we questioned riders about their personal opinions on the rationale for anti-doping, a number of common themes arose. We specifically questioned participants about what they saw as driving the increased focus on anti-doping policy in cycling. The rationales identified differ somewhat in their focus from the institutional rationales set out above. However, whilst they may not be regarded as always consistent with the existing dominant policy rationales, they do allow us to gain an appreciation of how the logic of anti-doping is socially constructed within professional cycling. From here, it may prove possible for rider, institutional and general policy rationales to be woven together in a meaningful and productive manner.

The dominant rationales identified within the interviews include:

1. A belief that the dominant rationale was a need by teams and organisational institutions to protect advertising dollars and audiences. This was seen simultaneously as a relevant concern as well as a source of cynicism, with a number of riders suggesting that it failed to incorporate their needs and, potentially, served as a rationale for producing smokescreens around doping at the expense of the health and welfare of the individual athlete.
2. A strong sense that athlete health was a driving motivation for individual athletes to 'stay clean', through fear for both their long- and short-term health, as well as the impact it would have both personally and on their families. This was notable for its extension beyond their career and beyond the confines of the sport.
3. A less-defined but regularly mentioned sense of 'fair play'. At one level, this was seen as impacting upon the athlete and their experience of the sport at an individual level. Further to that, many participants directly recognised that it was the spectacle of fair sport that attracted audiences and, from there, sponsors.
4. Following from that point, participants also noted that, within certain limits, they accepted the rationale of 'It's the rules' because those rules defined, or at least purported

to define, a normative, competitive framework both of benefit to them and to the attraction of audiences and sponsors.

5. As an accumulated impact of points 2, 3 and 4, athletes valued their sense of self-respect and saw their work as directly impacting upon their identity and the care of it. Being perceived well by their peers, family, the general public and feeling that their achievements were obtained in an ethically just way were of considerable importance to a great many athletes.

TABLE ONE: INSTITUTIONAL ANTI-DOPING RATIONALES

Houlihan	Fair play	Social construction of sport		Athlete health	Protect sponsorship	Role model for youth	Breach of rules
Strasbourg	Ethical and educational principles of Olympic Charter	Promotion of International Understanding	Public Health and morals				
Lausanne	Sport and medical ethics		Youth health	Athlete health			Breach of Olympic rules
Copenhagen	Fair play	Promotion of International Understanding	Health, moral and physical education	Athlete Health			
UNESCO	Fair play, cheating, future of sport, ethical principles	Promotion of development and peace and International Understanding	Education, Health, moral, ethical, cultural and physical education	Athlete health	Future of sport	Role model for youth	
ASADA	Sporting integrity	Australia's true spirit of sport: a sporting culture dependent on talent, determination, courage honesty (Nationalism)					
IOC CHARTER	Olympic Principles Universal Ethical Principles Fair Play					Role model for youth	
WADA CODE	Spirit of sport Ethics, fair play, honesty, health Olympic spirit: human spirit, body and mind	Fundamental right to doping free sport		Health, fairness and equality for athletes			
UCI	Sportsmanship and fair play Based on WADA Code						
CA	Spirit of sport	Fundamental right to doping free sport					

Cynicism

In analysing data from the interviews it was possible to detect a sense that, although there is support for anti-doping policy generally, there is some degree of cynicism regarding what drives the institutional and sporting responses. The following quote illustrates this regarding the institutional rationales and suggests that what is foremost in the mind of the cyclists is protecting their lives and their livelihood. It's worth considering this pessimism before moving on to more positive considerations, as it presents a consistent theme in how anti-doping practices have been absorbed by those directly affected by them:

Q: So why do we tell riders it's bad to dope?

A: Why do we tell rider's it's bad to dope?

Q: ... because in a lot of the academic stuff ... there was a book done for the Council of Europe [Houlihan, Dying to Win] which pre-dated WADA and discussed all the rationales. One is fair play, one is ...

A: Which is crap.

Q: ... public health which is ...

A: Which is crap.

Q: ... giving role models to other people, one is the health of the riders, so occupational health and safety.

A: They don't care.

Q: ... the other one is protecting the investment of the sponsors.

A: That's the end result but when it comes down to a personal result, it's protecting themselves. That's the thing, they [the riders] want to protect their career, their future, their name, their livelihood, their families and that's where it gets scary for them.

Is it that the protection of the integrity of sport is an aspect of the protection of the integrity of the self, both individual and collective? Another quote further indicates an element of cynicism, or a feeling of being left out of, or even ignored by the policy process:

Q: What do you think is driving the UCI anti doping policy? There seems to be, normally we get three reasons for having an anti-doping policy, public health, the health of the riders and a level playing field. Do you think these are the things that drive the UCI?

A: I don't think it's a health thing at all. ... I don't think so. I don't think they have that much interest in us to be honest. I don't feel like we're that personable to them you know.... I don't feel the UCI, well yeah, but to the riders you know I don't feel like they have really our interest at heart to be honest. ... I think it's just a bureaucracy to be honest, like so many bureaucracies you come across. I guess, self-existence really. They're preserving their job. Cycling must have a world body and that's them, so they want a job and that's that. Does that make sense or does that line up at all?

Q: ... Commodities are replaceable?

A: Not even personal, but I just don't even feel like they're looking after the riders that much.

There's a complexity here, located between the belief that the riders approach their profession at a personal level, contrasted against a sense that those organisations governing the sport focus on its capacity for profit. The reasons not to dope amongst many participants showed a desire for personal wellbeing, long-term health, the welfare of their immediate community and a sense of self-respect, and it was the suggestion that their governing bodies privileged profit over those themes which seemed to drive a certain element of cynicism.

The Rules Say So

The mere fact of the existence of the rules and their consequences appears to be an important reason why anti-doping rules were, in the main, complied with by the peloton and teams. Although issues of fairness and equity were noted as important in the context of 'cultural change' occurring within professional cycling, participants did not seem to be, in the main, heavily influenced by the moral rather than the merely normative basis of the rules.

I guess at the end of the day there's definitely guys that will, you know, the line is basically 'the rules say'. If the rules say you can use this and you can use that, but you can't use that and you can use this, you either cross the line or you don't from a professional point of view. Unfortunately, the ones that really feel they need to - the only way they can make it is to cross the line, they're the ones that end up doping ...

In this light, being professional, or at least having a 'professional point of view', simply means not crossing the line. As noted earlier, Houlihan (1999) argued that "*the least satisfactory basis on which to justify banning drug use is that it is simply against the rules of particular sports*" (p. 123). But, in many ways, this was a dominant response from participants. The problem is that there does not seem to be any more depth to this other than an outside pressure to comply. Questions such as, Why are the rules this way? or what are their moral or ethical content? do not seem to be considered. What needs to be considered is whether justifying policy simply upon the basis of arbitrary sporting rules is really a way of building 'cultural change' or an ethical basis for a sport.

The question of following the rules raises another question regarding the rationality of the rules. Thus, in discussing the rules, participants were asked where they thought the line between doping and not doping was drawn and, from there, whether it was rationally drawn. It appeared that there was little understanding of how the prohibited list which, in practice, constitutes the line between doping and not doping, was drawn up.

The 2003 WADA Code requires that a substance is considered for inclusion on the banned list if it meets any two of the following three criteria:

- 1) The substance has the potential to enhance sport performance;
- 2) Its use represents an actual or potential health risk to the athlete; and
- 3) Its use violates the 'spirit of sport'. (Waddington, 2009)

Three issues are raised here: enhancement, health and the spirit of sport.

Nevertheless, in relation to the question of the rationality of where the line is drawn, that is, 'What is doping?' one participant, representative of others, professed a lack of understanding as to how the line was drawn. In answering questions, the participant fell back upon a common theme in cycling which concerns the 'cultural' differences between different nations:

Q: How do they draw that line in your view?

A: I don't know. I think, like I say, in some ways it's in the culture. I think Australia has a really good culture about doping you know. Even though we still have our fair share, no doubt.

Whilst this notion of divisions along national lines is referred to again in a subsequent section of this report, for the time being, it is worth noting the recognition of cultural themes in constructing and framing the discourse around doping. Using a comparable

Manichean logic, another participant relied upon the distinction between biologically natural/unnatural, and healthy/unhealthy as a basis for drawing the line:

That's where the rationalism comes in, I think. If it has enough of an effect to change your body but then it's going to harm your body so it's not allowed. But you can take all the vitamins you want and it won't make you go to somewhere better. But if you're at a level of say 100% and in a tour racing, you go down to 80, that's, with vitamins helping you, and you go back to 100%. But they don't take it over 100%. Do you know what I mean? Whereas when they take your blood levels and all that crap, that's when you go down.

In a similar vein, yet another participant drew the natural/unnatural divide and related it to the idea of the benefit (the protection of the integrity?) of sport. The same participant also raised the difficult dilemma of when something was justified as medical assistance, as compared to when it constituted doping:

Q: So, there is this tension coming out here ...so if it is a chemical and it doesn't hurt you...

A: I think anything chemical is something that has to be looked at closely, but I'm just talking chemical in the sense that you've got an allergy or you've got asthma, you should be able to take the chemicals to continue to function normally. So, you should be allowed to take anything that you're able to function as normal. I think it is simple. Once you get to the EPOs the CERAs, that sort of stuff, that should be eradicated for the benefit of the sport.

Attempts to ground the rationale for human actions within the authenticity of the 'natural' (and thus unchanging), are always worth paying attention to. In this instance, Houlihan (1997) has already discussed the natural/unnatural rationale and noted that:

Attempts to identify a set of morally objectionable qualities inherent in the current range of banned substances and practices is probably the weakest source of a viable policy rationale. ... there are no definitive criteria that distinguish between the acceptable and the unacceptable. There have been a number of attempts to distinguish "good" from "bad" substances ... all without success Discussions that focus on the athlete and the effect of drugs on his/her natural state provide a stronger basis for the anti-doping policy but one which still has too many inconsistencies to provide a secure basis for policy. (p. 123)

Interestingly, one participant did seem to bind together nature, cultural tradition and an idea of the morals of sport:

Q: From your perspective it's about, I suppose, the reason you think they've got anti-doping policies is to protect the health of the riders.

A: That's not the reason. It's there but that's a by-product of its action.

Q: Why do you think it's there?

A: To keep the morals of sport.

Q: Which is what?

A: Which is meant to be man versus man. Going back to the Olympics, it was sort of man versus man running down the road or whatever.

Q: But the other motto of the Olympics is 'Higher, Faster, Stronger'.

A: True, in a natural sense despite the fact it's always been man versus man, as long as they can be. That's why their anti-doping policy is there - to try and maintain that being human versus human and not whoever can get their hands on the best stuff versus who else if anyone else can get it.

There were, however, other participants who suggested a more blurred line, something of a zone of indistinction, between medical support and doping which points to the difficulty of drawing the line.

Cycling is just about the hardest sport there is, you need a high level of medical support to stay healthy as well and that is why the door is so wide open to pushing the margins into the doping side of life, because it's actually cycling, I finished my career healthy but certainly you needed medical support to stay healthy.

Herein lies the difficulty of a rationale based on what is 'natural' as a guideline for what is correct. Whilst it was certainly a common theme, and whilst it connects heavily to the desire amongst riders to protect their health in the long-term, the act of racing bicycles for a living places what could easily be seen as an 'unnatural' pressure on individual athletes. From here, arguments about what 'natural' actually is begin to emerge quite quickly. Perhaps of greater interest are the themes consistently emerging from those arguments, related not only to health but also to the authenticity of sporting performance, personal sense of athletic achievement or self-respect, and moral and ethical issues, all of which connect back to the idea of 'fair play'.

Fair Play, Health and Self Respect

As already discussed, fair play is a particularly common institutional rationale for anti-doping policy. It's notable that it is raised by cyclists as well, taking form as an issue related to the spirit or morals of sport, as is illustrated by the following answer:

Q: Why do you think we have anti-doping policy?

A: It's to make it a fair playing field I suppose, everyone's thing. And, to a certain extent, the health of human beings in general. But yeah, to make, it's to make it a level, fair playing field for the cyclist and also for the audience I suppose, a captivating, clean sport.

Q: And to protect the rider's health you think?

A: Yeah.

Here, fair play encapsulates all sorts of ideas. It may convey connotations of amateurism or doing the right thing, which are not necessarily linked to the competitive need for a level playing field. As a concept, the level playing field is said to be for the benefit of both cyclist and audience, existing as a sort of floating common sense rhetorical tool with which to frame debates of cheating and 'unsporting' behaviour. There is a power to this, as seen in examples of self-enforcement of the rules of golf (Bird and Wagner, 1997). One participant considered exactly what it was that 'fair sport' meant for the athlete:

You have to have anti-doping otherwise Joe Blake who wants to ride Buninyong on Sunday won't ride it because he knows that Mick Rogers has got everything under the sun. He's like, "Well, what would I do that for? I'll go 100 metres and get dropped. Whereas, if he trains really hard and he knows that all these guys are going to get tested they're back in a level playing field. You just have to have it.

Thus, there was some proximity between attitudes towards fair play and health. The image of fair play implies that it is possible for any rider with a certain degree of talent to compete, given enough commitment and effort. Fair play, therefore, posits the athlete as having direct control and agency over their own competitive achievements. Doping, by

contrast, alters the stakes entirely, and carries with it the spectre of long-term health consequences, spoken of almost as a moral retribution for the breach of fair play.

If the restrictions were lifted, one participant implied, not only would individual athletes suffer health problems but the federations would be considered liable for allowing a situation in which athletes needed to risk their wellbeing to compete.

Certainly, doping was seen as a very definite health risk. The stark reality of the need for the protection of rider's health was taken up in no uncertain terms by a number of participants:

Q: It seems to be partly what you're saying is an occupational health and safety policy, yeah?

A: Mmm. Riders have died.

Another participant was also aware of this:

Q: So, why should we have an anti-doping policy?

A: For the health of the athlete, otherwise they'll be dead.

In the end, anti-doping as an occupational health and safety issue was one of the rationales most preferred by cyclists:

Q: ... So it becomes an occupational health and safety issue really?

A: Yeah absolutely. For me, there's just something not right about putting ..., for me it's almost spine-tingling to think about it, but it's just not good for your health. I've read a little bit and I don't understand the complexities of it, but I know that obviously steroid abuse is well-documented on the effects it can have on your health and your life and your family life and everything, and the aggressiveness and all that that comes alongside with it. Then you're looking at EPO or blood doping, for example, where it's just making your blood into a little bit of a thick shake. It's been also well-documented about the deaths, guys sleeping in hotel rooms like this at races and wake up the next morning and they're gone. So, I mean, not questioning every death that's happened to a cyclist in his sleep, but they are ludicrously less frequent now as compared to the early 90s.

At this point, a more definite inter-relationship between notions of fair play and health is evident, in which the protection of one's health becomes in itself an ethical issue that one shouldn't have to sacrifice for sporting success:

Q: So, it is the health of the riders, not the health of the general population?

A: Health of the riders and fair play.

In other cases, health concerns also seem to be synonymous in some minds with personal ethics or morals:

Q: Is it a sense of doing what's right or is it a sense of I'm afraid to get caught?

A: I don't know, I think it's down to the individual.

Q: Well, with you?

A: It's just about doing what's right and my beliefs and not taking drugs. It might get you a win or whatever but your health, it's morally wrong, your health is, it's not going to be good for your health in the long-run.

From here, the corresponding themes of health and fair play emerge as inherent to an athlete's sense of 'self' and the desire to construct an identity perceived as morally justified and respectable:

Q: So, which one's your reason? Or, if it's not one of them, how do you rationalise it all? How do you make the decision not to?

A: It's just my own self. I wouldn't feel the pride, I wouldn't feel the glory, it wouldn't be a passionate win, it's more of my self-respect I suppose.

Q: Self esteem?

A: Self-esteem, self-respect. Obviously, for your health as well, you look at some of the guys back in the day that can just keel over, and that kind of stuff, so it's a bit of a combination you know. For me, not doping is my knowledge for my own wellbeing, and it's not something you want to see in your family... you wouldn't want your family to go through that kind of stuff because obviously if you were a previous sportsman you can get a bit of crap through ... and that kind of stuff so ... it's more in myself that it's just the way I've been brought up; to know it's not what you do, and that's why I don't do it.

Many of these comments ground anti-doping rationale very heavily at the level of the individual, positing individual agency in choosing to protect one's health and play fairly in return for a sense of self-respect and achievement. One participant described his choice not to dope as driven by a sense of "karma":

If you're going to do the wrong thing in dope then you probably can expect karma or however you want to look at it, it's going to hound you, you know. And they're going to get you and if you're going to be legitimate and then you've got nothing to hide then you're going to be fine. I think most things in life are like that, or they probably should be, I think, if they're not. It doesn't always happen - probably some politics and people having positions that maybe they shouldn't have and stuff like that or personal grudges and things like that. So that's where it, as with all politics, it could get abused I suppose. Even my position, I feel like I genuinely believe I can win races at some point anyway in my career without needing to do any of that and, so there's plenty of people, and if I can feel that I don't feel it's that much of a problem, doping I guess. Or I feel that those people, their karma's going to come and get them...

The need for some level of protection for the health of the riders, both on a physical level as well as in relation to their sense of self, was a common theme but those themes also relate to the ability of the sport to market itself successfully and survive as an industry. That connection came through in the interviews, at times appearing to mingle the rhetoric of sporting integrity as a rationale for both fair play and the sport's capacity to draw in a new generation. One participant clearly posed the dilemma of how cycling could recruit and retain its workforce if it had a reputation for entrenched doping practices:

That's one aspect, the anti-doping system is in the best interest of the sport for the reasons I said about. How can I go and promote sport - as one of the people responsible for its health - how can I go and do my work in Australia if I am implying that to be successful in one sport you have to risk your health by taking illegal substances?

For someone like me that now is in the administration side of sport I can't possibly contemplate the situation the parents think their kids are gonna dope: Oh no, we are not gonna let you do that because you can end up taking drugs to succeed. It is totally unacceptable. And that justifies for me that everything we can do, needs to be done, and I think that is the attitude of a lot of people in administration.

It is at this point that the rationales produced by those working in cycling are clarified and shown as extending beyond the individual level to something more connected to their industry, and the strong sense of community within it.

Sponsors and the Integrity of Sport

In contrast to the logic of fair play, health and self-respect, one participant grounded the major rationale for anti-doping policy back at a very pragmatic, commercial level; that the industry, and the livelihood of everyone within it, would cease to exist if the sport was widely perceived as riddled with drug abuse:

Why would anyone, why would Crédit Lyonnais be a sponsor of the Tour if every fuckin' Tom, Dick and Harry went pos [positive]. all the time?

As already noted, one of the issues of defining an anti-doping rationale is that sport is clearly no longer an autonomous and largely private activity. It is now subject to a greater degree of public policy – governmental, inter-governmental and non-governmental. Between the interests of the sponsors and the sport's administrators, there is, however, a common interest in creating and promoting a sporting spectacle, as this is, after all, the 'product' being sold.

The major difference between contemporary sport and that of earlier eras is the previously unfamiliar demands of government and public policy for a drug-free competitive environment. In many ways, anti-doping has replaced the old debates over amateurism (Bryson, 1990). This was seen by some participants as producing a policy rationale that complicated and over-rode rationales focused on industry protection:

A: ... more anti-doping policy only creates more scandals. So, how can they say that they're trying to think about the sponsors if they're worried about scandals and, at the end of the day, the anti-doping policy has no effect on the amount of publicity sponsors get apart from when there's a scandal ...

Q: Out of the logic out there, with sport. The sponsors don't want bad press. The best way to prevent the bad press is to make sure, is to have tougher controls. But you seem to think they're caught in a bind then?

A: I understand what they're saying and I think if they're doing it. I understand they're trying to do the right thing by the sponsors but if the sponsors say I don't want to sponsor a drugged athlete then I'd understand. But if you're saying that they're only doing it to secure their investment then it's not necessarily...

Q: It's not productive policy?

A: No. But that's not saying I don't agree with the policy. I just don't agree with the fact that, and I agree that sponsors put pressure on the teams to be clean, but I don't think that they should be the only reason, that they're not the reason it's there. But at the end of the day, without sponsors, there's no sport, so you have to do what they say. You have to take in mind what they say.

Q: It's a complicated situation.

By contrast, other participants were more critical of the UCI and other organisations, seeing their motivation as heavily driven by a desire to protect sponsors' investments by retaining a semblance of credibility:

Q: What do you think is driving them when it comes to any doping policy? What's your sense on it?

A: I think a lot of it is basically about image, protecting image, making sure that they don't basically shoot themselves in the foot and destroy their own credibility by ignoring the issue or declining to acknowledge that the problem exists. I think the flipside of that is though, and you know as well as I do, that this problem is a big problem that has been ongoing for centuries and that I don't think it's going to go away overnight, if ever, and I think the battle we're trying to fight now is futile, and I think we probably need to change policy towards it in terms of ways in which we battle it. Like, I think we can't win, we certainly can't win the war the way we're fighting it right now.

The belief that anti-doping is 'a war that can't be won' is almost a rationale unto itself. It does, however, reflect a certain suspicion that anti-doping measures were more about the protection of the advertising dollar for the barons of industry, while anti-doping rationales of more direct benefit to the individual athlete were left by the wayside.

The same theme came up regularly, albeit sometimes without the overt implication that anti-doping measures were all show. Another cyclist positioned the momentum for anti-doping measures less with the UCI and more directly with the teams, for whom attracting sponsorship was becoming harder due to the prior reputation of the industry:

Q: So, at the moment what do you think is driving anti-doping policy, health, fair play?

A: I think the teams themselves are driving the policy because they realise the economic problems if they continue to have positives at the tour.

Q: So, it is protecting sponsors' investments?

A: Yep, protecting sponsors' investments. So the teams are really, really crunching down and they are checking riders' bags and checking riders' suitcases. But when the riders go off to race their suitcases will be checked.

A final quote indicates the degree to which the rationale of protecting advertising dollars isn't necessarily separate from other factors, and links back to a sense of connecting cycling to an 'authentic' sporting spectacle, as separate from things like the World Wrestling Federation or body building:

Q: What do you think drives the policy? Is it the health of the athlete? Is it public health? Is it role models? Is it fair play? Is it market forces?

A: I think everything you just mentioned would play a role in it. But I think what they're trying to do started something and they have to see it through. If they just turned around and went, this is too hard go back to doing whatever you want, then cycling would lose all credibility and it would turn into wrestling or body-building wouldn't it?

Q: That's true. I'm not sort of advocating you don't have any controls or anything. It's just I think in one way what you're saying is it's become this monster. But if you look at cycling, would you agree with a proposition that what's really driven anti-doping in the last few years in cycling is trying to protect sponsors' investments?

A: Yeah, and maintain the credibility of cycling as a sport.

Q: It's all of these other things about fair play or public health or health of the riders sort of comes along as second.

A: Yeah.

Q: In the end it's an economic choice that somebody's made?

A: It seems that way.

This final quote raises a significant point. Riders interviewed, as shown when considering the portrait of a cyclist, didn't approach cycling as just another job; this work creates their sense of identity and the rationales seen above related to fair play, closely entwined with a sense of maintaining their own health, produced within the participants a feeling of self-respect at sporting achievement. This notion of respectable sporting achievement is, as the above quote suggests, recognised as what the sport, as an industry, sells; the spectacle of a believable competition.

These critiques of cycling's dominant institutions, most notably the UCI, reflect the complex relationship between rationales of individual health and self-esteem, which were generally uniform, and a less clear cut, more contentious attitude to the collective welfare of the industry. Some of the objections appear to suggest a belief that rationales of industry protection do not extend to the welfare of its workforce. Whether this perception is correct or not is a matter of some contention but it is of considerable importance as we try to establish connections between the array of anti-doping rationales.

The consistent, key theme here, and the point at which we begin to move forward, is the recognition obvious in the interviews that sport doesn't exist in a bubble. Its worth, both to the individual athlete, to the audience and, from there, to the industry itself and policy makers seeking to ensure it has the most positive social impact, is in what it means within a much larger cultural framework. Here we strike up against the notion of sport as 'socially constructed' – a term perhaps overused, perhaps slightly ambiguous, perhaps somewhat jargonistic and flowery, but inherently useful in reminding us that the cycling 'industry' only exists because it serves a much larger cultural purpose.

Ehrenberg (1991) sees sport as the theatre of the living spectacle, as a democracy which stimulates emotions and acts as an emotional catalyst. The sporting spectacle increases the possibility to experience emotions and authorises one to lose oneself therein. As Roland Barthes famously suggested, it produces the 'myths' that drive culture and produce values. In Ehrenberg's perspective, sporting champions act as symbols, playing out the highs and the lows of the ordinary individual and, in doing so, produce the very meanings that attract people to sport. From a hegemonic perspective, that is important because the values people see as embodied within their sporting heroes provide a template for wider society. From a practical perspective, it also breaks the existing mentality that sports people are inherently corrupt, only care about winning and only think within the confines of their profession. Our interviews indicate, very strongly, that athletes see their experience of the sport as socially embedded – constructed within a framework of values that extends beyond the reaches of the UCI or WADA. As we will see, the social construction of the peloton seems to have its own conceptions of democracy, community and fair play, which differ in some aspects from that of the institutional conceptions.

There's a double-edged element to this. On the one hand, an anti-doping policy that actively works with athletes can capture and reflect the values that guide their activities within their profession. Given that the major issue identified within our interviews was a somewhat distrustful attitude towards the UCI and other organisations, there is an obvious decline of the 'social contract' which could be rectified by an active attempt to engage and respond to the perceptions of those 'on the coal face'. Second to that, professional

athletes are very aware both of their impact upon an audience, and of the importance of that audience upon the viability of their industry. After all, many of them have been part of that audience, and their desire to become professional cyclists was driven by their earlier perceptions of what the sport 'meant'. They know fair sport is required for them to make a living, they've bound their sense of self-worth to it, and their major critique of the UCI was that it offered a spectacle rather than the real thing. As far as our sample goes, athletes want to be part of selling something that produces both an ethical and commercially viable performance of fair play. Their rationales position that as central, both because it is essential to their income but, more pressingly, because pro cycling is identity work and their sense of self-worth is bound to an ethical sport.

Schneider and Ingram (1993) have argued that the social construction of a population, which is the target of a policy response, is an important, albeit overlooked, political phenomenon that should take its place in the development of that policy. Social constructions such as the manner in which professional athletes rationalise their choices not to dope, should be taken into account when considering the policy agenda and the selection of policy tools, not because it's 'nice' to include their perspectives but because, on a purely practical basis, those working at the front line of an industry understand, on a very personal level, why their industry appeals to an audience and what they need to do to retain that audience. They know not just how to conceal a doping problem, but how to make it possible for them to do their job the way they overwhelmingly want to do it; the way that makes them role models, and, doing so, means they can feel the sense of long term self-respect they obviously desire.

Again, we have the issue that qualitative data indicating a set of values isn't as accepted as quantitative data providing blunt statistical evidence. But, we can show that the social construction of sport is important to athletes, and that doping isn't seen as a legitimate means to winning, nor is winning seen as the be all or end all. Ironically, we see this in the unsolicited remarks on why people choose to dope, which indicate that the choices are largely influenced by economics, the desire for job security and exist as a sort of hastily-justified anomaly, rather than a different set of values.

Why People Dope?

In this chapter, it has been noted that, whilst there are dominant and common rationales against anti-doping, there are differences in the way they play out that produce tensions through government and public policy, the organisations piloting the professional cycling industry and those who work in it. Generally speaking, the voices of government and industry bodies are traditionally dominant over those of individual or groups of cyclists. This is unusual, given it's the 'factory floor' or 'coal face' that produces its own norms that actually impact upon those who are subject to anti-doping policy. With that in mind, as some participants noted, the rhetoric of anti-doping rationale is a force unto itself and it is perhaps unsurprising that the rationales leading to doping are less than visible, and tend to be characterised as an issue of moral failure at the individual level. With a few notable exceptions, few people speak out as to why doping has been a relatively common practice. Whilst the ethical framework ascribed to this research limited the ability to pursue any line of interviewing that could uncover illegal practice, there was inevitably discussion as to why people dope.

Throughout the semi-structured interviews, respondents gave a strong feeling that, underlying the choice of whether to dope or not, there were pressures related to the structure of professional cycling. Of course, it's easy to blame the structure rather than take individual responsibility, and even some of the older participants who had witnessed systematic doping within entire teams still tended to express some sense of agency, noting that they could have 'made a choice' to leave the sport. Regardless, doping was most commonly portrayed as motivated by economics, exacerbated by the nuances of the industry itself. Although success was an issue, it was not common for participants to rationalise doping as being related to competitive success.

TABLE 2: CYCLISTS ANTI-DOPING RATIONALES

Fair Play	Crap			Fair play	Do what is right, Morally wrong, Self esteem self respect	Level playing field	maintain morals of sport man v man, Olympics spirit	Fair play
Public Health	Crap			Generally				
Role models				Sports stars are Role models				Absolutely
Health and Safety	They don't care		I don't think they care about us, it is just bureaucracy		Bad for health in long run	Federations wouldn't be exercising duty of care if no A-D		Athlete health: Otherwise they are all dead
Sponsor's Investment	End result					Protect sponsors		Protect the image of sport and sponsors
Protecting Themselves	Protect career, future, family, livelihood	Maintain credibility of cycling			Protect personal family well being			
Rules			The rules say ...					

Also of interest was the degree to which doping was seen as influenced by a much broader array of forces, connected both to the sport but also to its place within a wider socio-economic setting. The following quote clearly privileges the economic aspects of the decision to dope, whilst locating it within a larger frame:

Basically, it [the choice to dope or not] is an economic decision. ... That is one of the problems, if you're talking from the social history perspective ... I rode with cyclists who grew up in farm houses in Spain with dirt floors, and the cows were at this end and them at the other end. So, it's no wonder that the only way that, historically, for a cyclist, if you've grown up on a farm, you've been able to make your fame and fortune is through professional cycling, professional football or boxing. Historically, they're the only three ways, so it's no wonder that all those poor Spaniards with little education, they were prepared to do whatever it takes, as far as like me from a background of an educated family and all that ...

This is a remark reminiscent of the participant cited at the start of this chapter in suggesting doping connects to themes of national culture. However, the response here is far more nuanced in that it recognises that claims to culture ultimately rest upon material conditions such as the economy. There was a consistent theme suggesting the rationale for doping was specifically linked to economically viable careers, even far away from farm houses in Spain:

Q: What do you think is actually the cause of people to dope? Why do people take that choice?

A: I'd like to give you one straight answer but I can't. Amateurs do it to turn professional. Professionals do it to keep a job. But then you've also got the high-end guys like guys who are winning Tours and are on multi-million dollar contracts

are still doing it. You can't say it's for the money. You have to look a bit deeper and say it's probably not peer pressure but pressure to perform and pressure they put on themselves and pressure to win.

Q: Is it just ego as well?

A: Ego, yeah. Definitely. I think it's a whole range of different reasons why people dope. You can't just say it's one thing. Maybe a lack of security within the sport.

Q: Do you think that the economic structure of the sport affects it?

A: Yeah. I don't think there is that stability for people. I definitely found that. Even though I had a two-year contract I came back after six months and they said you don't have a two-year contract. I mean at that point it would've been easier for me to go and say I'm going to do whatever it takes to win five races in a row and then I'll be fine. But it depends on the person and I wasn't willing to do that.

Q: But other guys are?

A: Other people are. It's easier to say it's the team's fault for doing that. The other one's putting the pressure on the poor rider that has no choice but to dope. There's always a choice. Nobody says pro bike riding's the only thing that you can do and that's all that you're made to do. There's always a choice.

The issue of a personal choice or decision to dope is probably best contextualised by the following quote. Although the participant acknowledges that there is a choice to be made it appears that, at times in cycling, that choice has not been what could be described as 'fully free'. The circumstances that a rider finds themselves in – the structure of the industry itself – places a fairly significant fetter on the exercise of personal or free choice:

I don't think about, like say [name], who I was on my team with, that I know did fuckin' everything under the sun. Do you know what I mean? But I know he's a good guy and I know he always had respect for everyone and I know he always wanted things to be correct but it was the culture. It was the culture. So if he was, in [year] yellow jersey in the Tour de France and there was 140 guys on the start line, I guarantee you 140 guys are on the gear. Maybe ten weren't. Do you understand? So like why would you go to a shootout without a gun? And that's how they think.

... And why go to the Tour if you know everyone's at fifty five (haematocrit) when you're at fuckin' forty two (haematocrit). It's like don't go. It's just like, OK let's go to the OK Corral and I'm just going to pull out my water pistol. You're going to die.

If the choice is either to dope or to leave the sport, or to get shot down at the OK Corral, there's some doubt as to how much this is actually a choice, particularly given (as was seen through 'the profile of a cyclist' section of this report) many Australian pro cyclists have passed up the opportunity for other careers or educational pathways and built their sense of self heavily around their place as a sportsman. Notably, the above quote comes from a cyclist discussing the Festina and Armstrong eras, reflecting other comments within the interviews suggesting that doping was believed by participants to have reduced substantially within the sport.

That said, it reflects a theme common amongst older participants, suggesting individuals are heavily bound by the values and practices of the industry and will place other, anti-doping rationales second to meeting the requirements of their workplace. The quote below suggests such a mentality has been evident beyond our interview participants:

"No one starts out wanting to dope," one rider told the Irish sportswriter David Walsh, "but you become a victim of the sport." This process was described by the Swiss rider Alex Zülle after his arrest and interrogation by French police in July 1998: "I've been in this business for a long time. I know what goes on. And not just me, everyone knows. The riders, the team leaders, the organizers, the officials, the journalists. As a rider you feel tied into this system. It's like being on the highway. The law says there's a speed limit of 65, but everyone is driving 70 or faster. Why should I be the one who obeys the speed limit? So I had two alternatives: either fit in and go along with the others or go back to being a house painter. And who in my situation would have done that?" (Hoberman 2003, p.111)

Additionally, it was suggested that the rationales that ultimately led to doping didn't necessarily operate in isolation from the kind of rationales attached to anti-doping. One, also retired, participant noted that the choice of doping became, for some, a choice of how far they could go without endangering their own health:

... it's a continuum, its not what you do or don't, you just pick your point, how far you are prepared to go, I lived through that whole era of massive EPO use and everything else and there were people who were riding at 60% [haematocrit] there's no way that I am going to risk my life like that ... but it's not the question if you did or you didn't, you just decided how far you went, it is up to you.

Another participant described the dilemma in the following way:

A: ... [The team I was on then] I just know that they were probably the first team that did blood bags back when, a long, long, long time ago. Before my time already. No at the start of my time. Well I know they were giving EPO systematically in 1995. Systematic. The doctor would walk in, syringe in your arm, walk out. Have a good sleep.

Q: And did you ever worry about your health?

A: Fuck yeah. Fuck yeah. Shit yeah.

Q: But did you feel like you had any power over your body?

A: I've always had the power to say no or yes, absolutely and under any circumstances.

Q: So, it's just a matter of this is the way it is and I want to ride my bike and this is what I've got to do?

A: No. It's a conscious decision. It's a conscious decision that everyone has to go through. Like Philippe Gaumont, like you know the guy in France who came out and said, "You guys in my team are doing it. I'm a clean rider." And he got crucified for it and sacked. He was one that said, "Nuh."

Q: But there are problems with that approach [speaking out] ... like Lance and Simeoni. Simeoni gave evidence in the Ferrari case and then was persecuted on the bike for years. And still is really. You see that was...

A: Exactly. Because that's the culture of cycling. Everyone knows that that's how it is, so get on it or...

Q: Or get out of it?

A: Get on the bus or get off. That's pretty much, I think that's changed now though. Like I said I would love to be a neo-pro right now.

These participants, all older and retired, are discussing the era of cycling characterised by the Festina and Armstrong eras – the mid and late 1990s and the earlier years of this century. They consistently note that doping was engrained in the structure of the sport, not just amongst individual athletes but as a standard and systematic part of team practice:

Q: What was the role of the doctors in those teams that were in, in Europe?

A: To supply drugs to the riders and keep them, keep you as healthy as possible.

Q: And to make sure you didn't go positive I suppose as well?

A: Yeah, but they knew that the drugs they were giving you were not tested.

Q: And this was ...?

A: First year pro.

Q: And when do you think it started to change?

A: I think it started to change about three years ago. I think they were still doing it three years ago. Systematic. Every team. ... I think some still may be a little bit but now they are being tested so much ... But I wish I was twenty-one now. If I was twenty-one now, I guarantee you I would have been twice as successful as I have been in my last fifteen years.

Q: So, do you feel ripped off for those years?

A: Not that I was an angel because I did chicken feed compared to what they were doing, like bulldozer fuel.

Q: So in those days when you were riding [team name], I said I wasn't going to ask questions like this ... stuff like what?

A: That was ...

Q: ... I don't need to know really. But I always thought it was more than that but I've never judged [name] because that's the system you were in.

A: I won [wind noise] the first two years pro. I was coming to the finish of some Classics first year pro on zero. And I knew everyone else in the pros was on growth hormone, EPO, cortisone and testosterone. Every day. Like don't get out of bed unless I had those. Like guys were training every day on it, racing every day on it ... And I can still come and finish ...

Of particular note in this interview is the mixed presence of other, anti-doping rationales alongside an, albeit limited, admission of doping. The participant expressed the aforementioned sense of concern for their health, and noted they felt to some extent 'ripped off' by being obligated to compete in a field so heavily characterised by doping. Their attempts to find a compromise – with the use of “chicken feed” – ultimately, doesn't seem to have reduced their sense of dismay that they were never able to reach their full potential.

The impression seen above that doping varied from “chicken feed” through to more powerful substances, “bulldozer fuel”, appeared in other interviews, reflecting that approaches to and rationales for doping are perhaps more complex, and more varied, than the popularized image of the sporting cheat. From experience, doping has been observed at different levels of the sport and an impression of that situation was put to participants:

Q: Now, I think what you were saying to me before, and it sort of again it gels with me because it's what I've observed, is that there's a level of what you might call amateur, elite riders who are trying to break through into larger teams, so you've got a point there where guys are dabbling, and this is to try and get a contract and get through to the next level, and there's the guys as you say, on squillions at the top. Is that how you see it?

A: Yeah, that's the way I look at it, and the other thing is too I think, we're talking about two completely different sets of weapons that we're talking about here, that's the guys at the top versus the guys just trying to stay in the sport, and it's not because they don't, the guys at the bottom, I guess it's probably because the guys at the bottom don't feel inadequate, or feel like they can't make it without any assistance, just the fact that, ordinarily, if everybody was clean they'd be fine, but they can't afford to take a chance.

Q: You're saying different weapons, what sorts of weapons are the smaller guys using?

A: Oh, I think you're looking at things like the commonly, well, basically all the stuff that you basically hear, your EPO's, your GH's [growth hormones], ... that kind of stuff, but then I think, I guess basically the stuff that you and I all hear about all the time, but then I think the guys at the top of the, at the top echelon of the whole deal, I think they're probably using things that we don't even know exist. That might sound conspiracy theory like or whatever, but I think nonetheless, I think it's pretty accurate ... Well, I've read some reports and did some studies about these new substances, like there's exercise in a pill stuff, I'm sure there's some of that stuff floating around, and there's any number of, every time I flick a medical website, because I'm interested to find out what's on the horizon because what, it just blows my mind to think what we can do with the human body these days. I've got a keen interest in that stuff and, yeah, there are things that are just completely unheard of, you wouldn't have even imagined. This whole gene therapy thing, you wouldn't have even thought that would be even possible ...

Another participant suggested that doping, rather than being a standardized practice, was linked very directly to particular, economically motivated goals:

Yeah, well, I've heard of riders, I think [name] came out and said that he took EPO and one of his team mates, who was an Australian at the time, said he was one of the cleaner riders on the team, but he only tackled once a year. He put on the gear once a year to get that one awesome result to get himself that €200,000 contract, €200,000 contract the next year. So, you know, there's, I suppose, there's guys out there that do it all year, but there is, not that it's right, but...

The conclusion of this passage, in which the participant trails off with, 'Not that it's right, but...' returns us to the social construction of sport and the degree to which the rationales that enable doping, just as much as those that oppose it, become naturalised as individuals negotiate the structure of the sport. Another participant, also retired, talking about the decision-making process of the average cyclist, repeats the same point, grounding it against his own experience:

He is going to be, do better, get all the acclamation of success, if he can win a race when he takes something he is going to get a bigger commercial money benefit, if he is riding better he is going to ... I remember in the old days when doping was fairly straightforward, I'd ride some little races in Belgium when you knew there would be no controls and I'd get donkey steaming passed me, and the classics I rode all the time all the big classics, that finished 20 minutes behind me, so, quite clearly, they would pick their occasions and takes stuff to try and get the results,

but you knew that when there were controls, they would not take anything because they would be scared and then they would be at the back.

Considering the most recent police intervention in cycling and the manner in which the 2010 Tour de France was raced, being 'scared' seems to have had a real effect. One could almost look past the actual decision to dope and consider the forces rationalizing it: the need for another contract, the belief that it is impossible to compete without it, the sense that it is acceptable within certain parameters – 'chicken feed' doping or doping to win one major race and secure a better contract for the next year. There is a danger here in removing the agency of the individual and inadvertently excusing doping by assuming there was 'no choice'. However, few participants made that argument, certainly not in relation to their own careers. Correspondingly, few implied doping was, as per the widespread media rhetoric, purely an issue of individual greed. Rather, the motivations were complicated, linked to a set of rationales that, at times, both supported anti-doping practice and policy whilst explaining rather than excusing doping within certain situations.

The Rationales For and Against: Sense Making and the Social Construction of Sport

What we see in the comments of our participants is a process of sense making through which they negotiate the socially constructed environment of their profession. Primarily that process supports anti-doping rationales, albeit not always in synch with the dominant organisations governing the sport. Given the consistency of responses, it is abundantly clear that athletes saw their work as foundational to their identity, valued the ethical conditions of competition as much as they valued victory, saw fair play as having an economic worth, and cared about their health and the way they were perceived by those around them. Issues of fair play and self-respect were not empty, rhetorical claims. They appeared, in varying forms, across the vast brunt of our interviews as part of the logical framework informing athletes both on and off the bike.

The social construction of sport doesn't imply a uniform set of behaviours amongst those that live within that sphere. What it does imply is a matrix and a rough set of motivations which the individual will take as guidelines. As one participant noted, there is substantial difference in how those things play out from person to person:

Yeah, unfortunately there's that philosophy which is some guys are just in there: they're either in there for the long-term to get as much money as they can over the course of their whole career, ten, fifteen years whatever that might be. Some guys are just there for the short-term. Get in, dope, get as much money as they can, get out and leave it at that. And then, I don't know, there's others that are just trying to do the best they can cleanly and they never quite make it or they... then there's others that are doing it cleanly that get the results. So you can, there's probably about four or five different groups of types of people in there.

As those 'different groups of people' collectively make decisions, responding to, evaluating, discussing and acting upon the options available to them, the rationales for and against doping go from being abstract themes to actual practices.

What's encouraging within our interviews is the degree to which, overwhelmingly, the participants support anti-doping rationales as inherent to their personal wellbeing, the value of the sport and the economic success of the industry that surrounds it. The points at which doping becomes acceptable appear not so much as the emergence of an entirely different value system – or a radically different social construction of the sport – but as legitimised responses within certain situations; the end of a contract, the need for career progression or, at the very worst, a sense of inevitability. There isn't, per se, a moral rationale for doping in the same way as there is for anti-doping. It is seen sporadically as a necessary anomaly.

The difference between rider perspectives is that the rationales for anti-doping or doping practice play out at a much more personal level, connected to health, respect, fair play and the welfare of the industry. It is here that there is real benefit from looking more directly at the inclusion of rider rationales in sustainable anti-doping policy. The individual rider is the point at which doping goes from media spectacle, medical theory, folk devil or economic asset to real life and real choices. The way they perceive their industry, and the way they believe their interest in health, self-respect and fair play are represented, have the capacity to have real impact.

The major concern evident amongst our interviews as it relates to anti-doping rationale was the perception that the industry itself was more concerned with appearing to attack doping whilst, ultimately, avoiding responsibility, thus placing the onus on individual athletes and seeking to cover up controversies that might cost sponsorship dollars. When anti-doping policy was seen as working, the response was very positive. One of the older cyclists cited above commented on the current nature of cycling:

I wish I was twenty one now.

That said, there were no participants who thought doping could be entirely eradicated. As one commented, looking towards the Whereabouts system:

Well, I guess because it's human nature, whenever you have reward there's always the temptation to get more reward, and I think the more money you throw into something, the more cheating you're going to have. Just look at Wall Street, just look at anything like that. There's always going to be guys trying to get one up, and it's like an arms race, there's no, no-one trusts anybody and so it's all fine and well for a group of guys to get together and say, "Okay, let's all race clean", that's fine but then they all go out and get stumped by somebody else, then everybody else starts thinking, "Well, shit what are they doing?" which is wrong to think that, but again it's human nature to be suspicious, and then you get guys on the fringe of that clean group going, "Well, shit I'm getting stumped by this guy and I wasn't getting beaten before, maybe I need to go back to doing what I was doing before". So, I don't know if, I think because the way it's going right now, it's almost sort of infringing on our way of life. The whole whereabouts thing, it's just getting beyond a joke.

This is perhaps not the most optimistic quote to end this section, but it does imply the complexity of the issue and ground it within a socially-constructed environment with the same complexities as places like Wall Street. Anti-doping rationale plays out at a practical level. There does appear to be a capacity for policy to reflect and support structures in which the sense of 'no one trusts anybody' and 'maybe I need to go back to doing what I was doing before' are anomalies, rather than common sense assumptions. Whilst such policies cannot (as the above interview suggests) entirely eradicate human greed or ambition, they do have the potential to complement the existing deterrent-based models by better enabling anti-doping rationales at the level of the individual cyclist. As the results indicate, the major hurdle at this point isn't a negative or rebellious attitude to existing anti-doping policy – much of which has been spoken about quite favourably – as the belief that its implementation by sporting bodies exists as a show of accountability and authenticity, rather than a real desire to offer pathways for clean sport.

With this in mind, the major conclusion to take from the above interview excerpts is that neither sport, nor its audiences nor, moreover, its participants, exist within a bubble. Both the idea of deterrents, and the rules they seek to enforce, hinge on the idea that the rationales of those within a sporting discourse don't extend beyond that field. Clearly, this isn't the case. When our participants talked about why they didn't dope, those themes extended beyond both the bike and the careers. Even amongst those retired for a decade or more, their sense of identity as an athlete still left its mark and it is perhaps at this point

that we can give the strongest marker of how the rationales for anti-doping might best engage the people upon whom they most directly impact.

Conclusion

Whilst anti-doping policy derives justification and value from its place and role within a complex social milieu connecting ethics, health, economics and politics, the objects of anti-doping policy – namely individual athletes – operate within the framework of sport as a socially-constructed and valorised activity, positioned as a moral endeavour, a coded social spectacle, a performance of health and self-hood, a regulated industry, a trade and a discipline. Rather than being fixed and unchanging, the rationales for anti-doping policy reflect the interplay of those social forces.

Anti-doping policy, and the discussion that frames it, is informed by these themes in both systematic and reactionary ways. The consideration and discussion of anti-doping measures will, therefore, inevitably reveal and reprise a multiplicity of perspectives. That suggests the potential for inconsistencies in establishing, implementing and enforcing anti-doping measures. At a practical level, those inconsistencies are most notable in the disparities between rider rationales, institutional rationales and the means through which they become pragmatic policy, rather than theories of morality.

The choice not to dope is often expressed in terms that replicate governmental decree or medical rationalization – such as fair play, personal health, and rule abidance. However, cyclists often draw upon more deeply embedded, immanent values such as their sense of identity within the sport, respect and a sense of collegiality, concerns about economic security (both for the industry and the individual) and moral integrity. Those concerns are frequently at odds with demonised images of egoistically-driven athletes for whom competitive success is the ‘be all and end all’. The deterrent approach to anti-doping policy tends to assume a ‘win at all costs’ attitude amongst athletes that, whilst certainly evident at the extreme end of the scale, doesn’t reflect the complexity of anti-doping rationale encountered amongst virtually all of our interview participants.

This isn’t to simplify or provide overly optimistic portrayals of athletes as either inherently ‘good’ or ‘evil’. However, it does suggest anti-doping policy could become more sustainable if it better engaged with the complex, and pragmatic, rationales evident amongst athletes at the ‘coal face’ of professional sport.

Recommendations

- That anti-doping policies extend the psychological and moral framework within which choices about doping are made to include the cyclist’s identity as a rationale.
- That anti-doping policy development include cyclists from the outset as part of, for example, a working group, and further as part of a committee in policy drafting.
- That policy drafting look beyond the conventional rationales for doping to a more complete understanding of the way choice is presented and decisions are made about doping practices by cyclists.



Chapter Five

Whereabouts?

Whereabouts Policy

The Whereabouts scheme was introduced into the anti-doping system of professional sport as a mechanism ostensibly to improve administration of out-of-competition doping tests. In cycling the system is linked in its operation and purpose to the Biological Passport and is regarded as a complementary tool without which the Biological Passport system would not be complete. Whereabouts is said to target out-of-competition testing by requiring individual athletes to state their physical location within set timeframes and, thus, make themselves available for the collection of both blood and urine samples. These tests, in turn, provide information for the Biological Passport, which itself contributes to the refinement and better targeting of such testing. It is because of this that the UCI regards the information gathered through the Whereabouts system as being imperative in that it is said to enable anti-doping tests to be conducted anywhere in the world, at any time (UCI, 2008b).

From 2008, the requirement to complete Whereabouts information was extended to include a large section of the professional peloton. As such, all members of UCI Pro Tour teams, as well as those riding for Professional Continental teams that obtain wild card status, must provide the UCI with a schedule of their Whereabouts. Thus, riders are required to complete their Whereabouts information in advance in quarterly blocks. A failure to provide accurate Whereabouts information or a failure to be available for testing on three occasions within an 18 month period may result in an anti-doping rule violation under Rule 15.4 of the UCI anti-doping rules.

What is required of the individual rider in providing accurate Whereabouts information? This can be explained by considering the starting point of the scheme in Article 14.3 of the WADA Code. The relevant elements, as created by Article 14.3, are that:

- Athletes identified by the UCI or ASADA must provide accurate, current location information;
- The information is accessible to relevant anti-doping organisations for the planning, co-ordinating and conducting of testing; and
- The information must be destroyed after it has been used for the relevant purposes.

The import of this article is that, for example, by 30 December each year, an athlete must provide information of their Whereabouts for testing purposes for the coming three month period. Out-of-competition testing can be defined as any testing done outside of an event. Whereabouts is said to ensure that athletes can be tested at any time and at any place. The information provided by the athlete is strictly confidential and must only be used for the 'relevant purposes' and, once the three month period has elapsed, the information must be destroyed. As the relevant purpose is the planning, co-ordinating and conducting of out-of-competition testing, the strict application of the rule would mean, for example, that after 30 March the information provided for the three months preceding must be destroyed as it is no longer relevant. Given the privacy concerns, these rules must be strictly interpreted – in a similar way that punitive or criminal provisions are always strictly interpreted so as not to impinge upon fundamental rights. Møller's (2010) work on Rasmussen shows that this rule has not always been followed.

Article 20 of the WADA Code requires International Federations to adopt and implement the Code. The provisions of the UCI rules relating to Whereabouts Information are found in the Anti-Doping Rules of the UCI - Part 14 of the UCI Regulations. In particular, the provisions relating to the Whereabouts scheme may be found in Chapter V of Part 14

(Rules 81-119). In summary, the UCI requires riders to provide, at a minimum, the following information for each day of the year and before the commencement of each quarterly period:

- A one hour time slot each day where the cyclist guarantees to be available for an anti-doping test;
- Their residential address for each day - that is, the place where they will be sleeping;
- Their training schedule;
- Their competition schedule;
- Their travel schedule;
- The information must be updated whenever the cyclist becomes aware of a change to their schedule.

The Whereabouts information required by the UCI is entered by the cyclist into the Anti-Doping Administration and Management System (ADAMS). Because of Australian privacy laws, cyclists who are not in the UCI but are in the ASADA RTP, must enter their information into a different and separate ASADA system. ASADA has similar requirements to the UCI in regard to the information that must be provided: ASADA Whereabouts Policy (Version 2.1, 1 July 2009). Similarly, Cycling Australia's Anti-Doping Policy (Article 4) also requires cyclists to provide accurate and up-to-date Whereabouts information when identified for inclusion in a Registered Testing Pool.

Article 2 of the WADA Code 2009 details the provisions that deal with Anti-Doping Rule Violations (ADRV). Pursuant to Article 2.4, a failure to provide proper Whereabouts information has the capability of constituting an ADRV. Under the provisions, any combination of three missed tests and/or filing failures within an eighteen-month period, as determined by anti-doping organisations with jurisdiction over the athlete, shall constitute an ADRV. The explanatory notes to the WADA Code (which do not form part of the Code itself) state that a failure to provide proper Whereabouts information may also constitute a breach of Articles 2.3 and 2.5 which deal with refusals and failures to submit to a test and tampering with an anti-doping control, respectively. Violations of, for example, Article 2.4 carry with them, pursuant to Article 10.3.3, a minimum of a one-year and a maximum of a two-year period of ineligibility (ban). In the case of most ADRVs, strict liability applies such that the athlete's intention is not relevant to the offence:

In criminal law you've got the mental aspect, the criminal mind, and the actual act itself, whereas in this, it's just the act.

However, unlike those provisions Whereabouts violations are based on the athlete's degree of fault (Article 10.3.3).

Consistent with Article 2.4 of the WADA Code, UCI rule 21.4 has the effect of making a Whereabouts failure an ADRV:

"Any combination of three missed tests and/or filing failures committed within an 18-month period, as declared by the UCI or any other Anti-Doping Organisation with jurisdiction over the rider, shall constitute an anti-doping rule violation."

UCI Rules 93 and 96-98 deal with failures to comply with the requirements to file Whereabouts information or missed out-of-competition tests. Rule 99 deems that it is a Whereabouts failure constituting an anti-doping violation if the rider commits three Whereabouts failures within an 18-month period.

The rationale behind the Whereabouts scheme requires athletes to tell their sport's governing body where they will be each and every day of the year, so that random drug tests can be planned and conducted with ease. Unannounced out-of-competition testing is regarded as an important preventative tool in anti-doping. WADA argues that because Whereabouts are conducted without notice to athletes, they are one of the most powerful means of deterrence and detection of doping and are, therefore, an important step in strengthening athlete and public confidence in drug-free sport. Article 5.1.1 deems that any athlete included in a Registered Testing Pool shall be subject to Whereabouts requirements.

Compliance and Rider Attitudes to Whereabouts

Predictably, part of the reaction to Whereabouts internationally has been a critique of its impact on personal privacy and debates regarding whether it can be defended as a morally valid system of surveillance. Interestingly, those arguments appeared with limited frequency amongst Australian respondents, who by and large saw a high degree of validity in the Whereabouts system. It was widely considered as an imperfect, but still largely useful and moderately successful deterrent and detection system for otherwise virtually undetectable doping methods. That corresponds to the rationales of protecting rider health and fair play, both as it pertains to personal success and the economic worth attached to an 'authentic' sport, and the sense of self-respect associated with being perceived as a clean athlete. In general, ethical issues took second place to a pragmatic acceptance that Whereabouts helped create the kind of environment many participants wanted to work within:

It addresses a key method that people have used to avoid control, so I would have thought it is an eminently reasonable expectation if you have an anti-doping program because that is the way people have got around controls: not being there.

Although the inconvenience of the system was an issue, this did not, as might be expected, counteract support for it amongst participants. One participant commented on the manner in which some riders avoided testing by making themselves difficult to locate:

It's a pain in the arse. It's a pain in the arse because people don't like being told, "OK, where are you going to be on this date for the next three months." But they have to do it otherwise they know they're up against guys who are going home doing EPO for four weeks, turning up and absolutely slaughtering them, like Sevilla did this year in the States racing and went back to Colombia. And then fuckin' come back to America. Go back to Colombia. That's what he did. Whereas all the American teams, they all know that the best twenty-five guys in America are all on the Whereabouts system. And all the best Aussies are too.

But you've got to have it. Like I said, I'll fuckin' tell you right now I know guys who laugh about this control system, that are laughing about it. Absolutely fuckin, what a joke before it came in. I don't want to do any races for five weeks. Go straight to the Pyrenees, wear black kits, get on the gear for three weeks, have a fuckin' hire car behind that has no names on it, dark sunglasses, all on the EPO growth hormone, testosterone, three weeks. All right, I know that I have to stop fourteen days out. So that was just standard.

Despite the sense that athletes are being singled out in society for surveillance, riders generally accepted the rationale for the system and did their best to comply. On the surface, the difficulties and objections related less to complex moral, ethical or sporting issues and more to the mundane difficulty of providing detailed records of where one intended to be at any given moment:

Q: Whereabouts system. How did you find that?

A: Quite tedious. I found it tedious because I just thought if I was doing something that I shouldn't have been doing then...

Q: ...wouldn't have been put where you were going to be?

A: Exactly right.

Q: I'm at Mum's.

This sense of the 'tedious' nature of the system was a common complaint. It sounds trivial but, as the quotes below indicate, it does raise other issues regarding the viability of the system and the potential for inevitable human error, given even token compliance requirements take time and the system isn't flexible enough to recognise inevitable irregularities in daily life:

Q: So how much time, I don't know what sort of period to give you, that you work out, a week, a month, a year, a day, do you spend doing your Whereabouts?

A: I'd have to spend maybe a month, I don't know, it might average out to be, it would be less than an hour a month probably. If you looked at it annually, I guess it would work out to be that.

Q: But then in a period where you're travelling, like on holidays, does it just become a pain in the arse?

A: Yeah.

Another participant commented on the time they spent filling in and changing their Whereabouts. Like the above participant, the emphasis below isn't so much on the ethical issues of ongoing surveillance but that the process of pre-emptively recording one's location posed a number of minor difficulties:

Q: So to do that initial three, I just want to take it back to, to do the initial three months it might take you an hour, or half an hour, or?

A: Oh, probably not even that, probably fifteen minutes, depending on how long it is, how easy it is to log in. Sometimes I have a lot of trouble actually getting into the system, doesn't like my password for some reason sometime, so I don't know. I don't know why, I mean, if I'm working on my own computer it usually remembers it from last time and it prompts me, but sometimes it just doesn't like it and keeps saying, "incorrect, incorrect". I'm like dammit, and then I start second guessing myself and I start wondering did I get it right or not? So yeah, probably fifteen minutes.

Q: And then to amend it every fortnight?

A: Probably, again it depends how complicated it is, if you were entering a lot of addresses and everything it could take you thirty minutes to do three or four trips, and when I say trips it could be a matter of just where you're going to be on any given day. So it's not exactly easy, easy.

However, time is not the only thing that adds to the complexities of organising one's life around the ADAMS system. The issues arose when those minor, 'tedious' complexities combined with the highly mobile and irregular working schedules of a professional cyclist. Even when they weren't travelling for races, the impact of things like shifts in training schedules due to bad weather could result in faults in compliance:

Q: So, tell us about Mr. Adams coming in to your life.

A: I find usually it's not too bad. I mean, I can see why it is done. As I said before, I can see why it is done if some riders were found positive over it and this time I get the feeling of why are we all doing this? But, in principle, I see why and then I don't have a problem with filling it all in. The only problem sometimes you know you just always have to think about it, always have to do it and even now. Before it was not too bad but now, with the one hour slot, I hate doing one hour slot because in the one hour slot you have to be where you say where you are.

Q: Where are you going to be tomorrow?

A: I'll be in Adelaide, tomorrow morning I'll still be in Melbourne. But you can only put it in from six to seven. You can't put it in from five to six. In Australia I do training a lot at six and, in fact, if I go for training at six I can't put it in from five to six, and I can't put it in from six to seven because I may be out training. Then I have to put it in later in the day, but if I come back home and decide to go out for lunch I won't be there from twelve to one either. So I have to just go home sit at home for one hour just doing nothing, just waiting for the one hour to go, and then I can leave again.

Q: I haven't even thought about that aspect other than the sort of pain of the task, the computing task. But when you come home you've got to sort of sit around. So there's an hour every day which is dead time?

A: Yeah, and usually in Europe it's not such a big problem. I just put it from six or seven. I never get up before seven.

Q: People train at a reasonable hour in Europe!

A: Yeah, exactly. But here it's just too hot and sometimes you have to go out at seven. It also depends, maybe I'll look at the weather forecast tomorrow and it's not too bad. It might be 25 degrees and I think I might as well go out training at eight so I can easily put it from six to seven. But on the days that I want to go out at six there's just a problem.

Q: So, it's their convenience that's been catered for and it's not the athlete's real regime?

A: I think so.

Q: Because, as you say, you've got to make decisions on the spot about whether the weather permits and whether the heat is right. I mean you've got your body to think about.

A: Yeah, exactly.

Q: So, they're not understanding of the athlete's requirements?

A: Exactly yeah. I've had one other problem as well because at first I felt you had to do a daily residence thing and I put it in daily residence where I wake up. That's my daily residence for the day. Apparently the daily residence has to be where you go to bed so it's at night-time. So I changed it all I changed it from morning to night-time and I still left my one-hour slot from six to seven. I think they'll be smart enough to look at where I was staying the night before so if it's from six to seven and I do my travel after that and they know that. So we went to (name) for a training camp to get under way for the tour and I was planning on going for a ride and then going home to (town). So I had my daily residence at (town) and I had the one-hour slot from six to seven. At six-thirty they rang me and said you're not at home. I said

I am where I was supposed to be. No, you said your daily residence is (town) I said, for tonight. They said but you said your daily residence from six to seven your one-hour slot your daily residence at (town) you're not at the place you're supposed to be. My team really helped me with that and we sent everything off to the UCI and he said this is a problem. I said, I know it's a problem but can you guarantee me that I won't get a missed test for this? No, I can't guarantee anything.

Q: So what happened?

A: I never heard anything from them and never heard I had a missed test either so I suppose it turned out to be OK. I said I can understand your point, and I can understand the controllers', the people that came to your house, point.

In a similar vein another participant discussed the complexities of organising his Whereabouts when home in Australia during the summer. The issue outlined below sounds, at one level, relatively minor but it indicates the degree to which Whereabouts situates the athlete as a full-time, 365 days a year, 24 hours a day sports person, without recognising divisions in working hours and seasonal patterns. The logic of this, on the one hand, is clear; athletes don't respond to nine-to-five days nor do they have clearly enunciated holidays. The potential for doping is, thus, constant. Unfortunately, human behaviour is less easily quantified:

Q: Tell us about the Whereabouts issues that you've had.

A: For example, I go on holidays every year, there's one chance I get to go on holidays with my family, we went to Tasmania straight after the Sun Tour for two weeks. I don't know where the hell I'm going to be. We get in our cars, they four wheel drive, you put them on the boat. We pull up somewhere, maybe we've been on dirt tracks for three hours and it's a homestead in the middle of nowhere or maybe we're in the city at the Sheraton or something, but we don't know until we get there, and to ring up every night and do that.

Q: So you had to do that on your holidays?

A: Well, basically, if I had time I could, I mean sometimes my dad and I went backpacking, there's no other way there, a dirt track or a helicopter probably, a dirt hiking trail, so there's no address for you. They can't test you and what I have to do first is just basically I talk with them and I send out an email saying I'll update it when I can but, basically, I'm on holidays here. It's the only chance I get to do it, but to ring them up and for them to put it into the computer, it's 10 or 15 minutes, it's a different person each time it says who hasn't done it for ages, and it takes far longer than it should, and even to get some other things done now you ask them and they just talk about you as though, oh, we have no idea about this, and they refer you to someone else, and then someone might or might not ring me back and then you're ringing back about that, and they'll refer you back to someone at ASADA and they seem pretty hopeless.

As if factors arising from the necessities of daily life, finding the time, fitting in with family, holidays and the demands of their sport were not enough, it was revealed that a number of participants are required to complete two sets of Whereabouts information – that is both the UCI ADAMS system and the ASADA system. Participants identified differences between the systems and expressed concern regarding the requirement to complete two sets of information. Participants did not know how to resolve this issue.

Q: The other sort of practical measure we can do after talking to the guys on the Sun Tour is to come up with a little easy guide on how to manage your Whereabouts so that people aren't doing it twice.

A: I think the ASADA one is really good. For what it used to be, that ASADA one you can do it in two minutes. All they're paying is registering your address and all that and it only takes a bit of time. Apart from that you just go tick, tick, tick, time, save, bang. It's so simple. If anyone complains that it's a hassle doing that one, that is as user-friendly as you can get.

Q: Mr. Adams?

A: ADAMS is more complicated.

Q: Do you find that one's a bit ...?

A: I've never done it. But I kind of know how it works and I've seen it.

For the most part, riders seemed generally aware of the differences between the ADAMS and ASADA systems:

A: No, the Australian one's actually not too bad, it's pretty easy.

Q: That's what people say, yeah.

A: It's pretty easy to use, it's got a little bit more complicated now, just not long ago, but still compared to the other ones I've done, it's really not too bad, it's pretty intense making sure you change it every time you go do something different. I think they could be a little bit more specific on the rules of; we get told one time they're allowed to call you, the next time they're not allowed to call you, this time they're not allowed to call you, but this time, they are at this time of day, and we probably could do with a bit more; just the general rules of what's going on with it, it could be a lot easier to ...

However, not all participants were clear on which system they were meant to be doing:

Well, I do the ASADA one ... So I think, someone told me if I do the ASADA Whereabouts I don't need to do the ADAMS.

The WADA Guidelines for Implementing an Effective Athlete Whereabouts Program (version 2.0), state that an athlete must not be asked to provide Whereabouts information to more than one Anti-Doping Organisation. Thus, where a situation arises deeming the athlete bound to provide Whereabouts information to more than one Anti-Doping Organisation, there is a process for avoiding the duplication of Whereabouts. WADA has the power to make a determination as to which body (e.g., the UCI or ASADA) is responsible for a particular athlete's Whereabouts. In coming to such determination, WADA will take into consideration whether the organisation uses the ADAMS system and organisations that do use it will be favoured. It would be appropriate for ASADA, Cycling Australia, the UCI and WADA to review the Whereabouts procedures with a view to WADA making such a determination to avoid the duplication that currently occurs.

Harmonisation and co-ordination between different Whereabouts systems is also complicated by Australian Privacy legislation, further complicating the lives of cyclists:

A: It's probably it. It doesn't seem to be uniform at the moment. The rule is there, there just seems to be a lot of ways to get around it. I'm still filling two lots of Whereabouts, because they can't get their shit together. I'm filling in every single day ADAMS.

Q: You're the third guy I've found doing this.

A: And they've told me I don't need to. But the Belgians won't accept that I won't fill in ADAMS. The ASADA won't accept that I only fill in ADAMS, and I need to get my stuff off ADAMS for my blood passports and my TUEs and all that kind of stuff. But the Belgians won't accept, they can't look into ASADA. And I live in Belgium.

Q: A few guys have mentioned this to me.

A: Okay, officially I only have to fill in ASADA but I have to have ADAMS to open. But my team wouldn't let me [just do the ASADA one]; I mean [name] does; [team] originally said no well that's not acceptable because we brought in all this new policy when [name] went, and there's no way that ASADA is going to let my directors look at my whereabouts. But with ADAMS the directors have the ability to check.

Q: Really?

A: Yeah. We gave it to them.

Q: There's a provision in the WADA Code and it's buried in the UCI rules, which I dug out, and basically WADA and the UCI and ASADA have to sort this out, and there's a mechanism for them to sort it out.

A: Yeah, well I would have imagined that WADA was above ASADA.

Q: Yeah, but it's a matter of somebody telling them to sort it out, and what I was going to do was, because you're the third guy who has told me this, is draft a letter, and you guys can send off to...

A: I mean I've spoken with what's her name personally.

Q: Which one, Anne, or..?

A: Yeah. And I mean they have been, they know it's a problem, and they say well Belgium, Italy and Australia are the three toughest countries with their local, with their national anti-doping people. It happens to be a government, the problem with the government policy, which won't let ASADA sign the WADA code, which lets foreigners looking through the personal information privacy act with Australian citizens. So that's a problem.

Q: It seems that the only solution of doing one, in the end, is to do ADAMS.

A: But Australia will not, from a governmental policy level, let an Australian; they will not sign up to the [relevant provisions of the] WADA [Code]. For us to do ADAMS, ASADA has to be able to look into it, and it's against their - to sign [that part of] the WADA code.

Q: Is this what Anne told you?

A: This is what I've been told from ASADA.

There was some frustration with juggling two systems, both requiring regular and detailed filing of personal information, simultaneously within one, increasingly globalised playing field. As one participant notes:

It's ridiculous that there's not a global system. It's ridiculous that all sports haven't got the same thing but it's a story within itself. We're all going for the same Olympic medals if the UCI can't enforce it the same Whereabouts for every sport.

Whilst there was widespread support amongst riders for the rationales behind the Whereabouts system, limited objections to the ethical issues posed by what could be seen as an invasive method of ongoing surveillance and many complaints seemed initially focused on the 'tedious' nature of the system. There were a number of issues raised. One is the duplication of Whereabouts and co-ordination between agencies; the other relates to Australian cyclists being in two Registered Testing Pools at once. Both raise the possibility and problems of establishing a global harmonised system.

Certainly, the computerized systems now used by the UCI and ASADA are more user-friendly than previous years, when the post and fax machines were necessary to file Whereabouts updates. One older rider recalls the early phases of the system:

Q: Was it a pain in the arse?

A: At times, when we were on holidays or something like that, it was a pain in the arse.

Q: That's what everyone says.

A: We couldn't do it online at the start. We had to fax it in and every time you had to make a change you had to re-fax it in. They were the days when we were travelling around Europe. There was no mobile phone. That was a pain in the arse. We didn't have houses with bloody fax machines. That was a pain in the arse trying to find somewhere to fax it to. We were one of the first countries that brought that in.

From a colloquial perspective, 'It's a pain in the arse' is an apt response. That said, what it relates to is, as mentioned, the difficulty in managing complex data entry whilst working with a highly mobile, fluid workplace. It's important to note that failures to comply can ultimately result in ADRVs, regardless of whether that failure to comply is accidental. To that end, one participant was blunt in his appraisal of the system:

I think it's bullshit. Not because I don't buy into the system, but why should I have to report where I'm going to be twice a day for someone to come knocking on my door, and then if they can't find me because I have to go out to buy groceries at that point in time, or I have to do some kind of business, why should I be worried about being penalised for just living my life? I have a big issue with that. I'm all for the testing, but I think there's ample opportunity to test me at the races. I've got no problem with an unannounced test, but don't give me grief because I can't pinpoint my whereabouts 90 days from now at 5:00 pm, you just can't do that. And I've asked them, I've said "Okay, well, I want to know where you are just in case I need to come find you for something. Can you tell me where you're going to be 90 days from now at 2:00 o'clock? Because I might need to drop by your office, and I need to know you're going to be there." And I think it's been set up for people that train at a facility, and they don't understand that we're all over the place, and our training schedule is dependent on weather conditions, on travel, you get called up to do a race at the last minute, or a race gets cancelled and that changes everything. I got grief from them before for not being able to tell me where I'm going to be twice a day while I did the Sun Tour ... and this is years ago, when you don't even know until that morning where you might be that evening. That's when we used to move every day, God only knows where you're going to end up, and they couldn't understand why I couldn't tell them. I said, "I'm not trying to dodge the system there, it's just not possible, I don't know."

... I'm all for unannounced testing, I've got no problem with that, but to try to force a guy to really realistically say where he's going to be 90 days from this point in time, where you're going to be, and how come you – Well, I have a cell phone, you can try that, but I might be in a different country, or I might be a place where I don't

have cell phone reception, so maybe you can catch me later on in the week, but you can't just really expect to call me at any point in time and be able to get through to me. There's a chance, but I'm not going to guarantee that you will, and it's not because I'm trying to dodge you, that's just life.

... (it is) another grandiose idea about how they can further monitor athletes that don't really have any rights to start off with. And I've been reprimanded once ... because they showed up for an unannounced test, and I wasn't there, and then I got a nasty phone call from them, which I returned, and in fact I had indicated where I was going to be. I was at a race that was clearly on my form, and they didn't even know it. And they said "Well, this can be perceived as you trying to dodge a test," and I called them up and I said, "I fucking wrote down where I'm going to be, that's where I am. You're coming to my house and knocking on my door, and then you're going to say I'm trying to dodge your testing?" Like, why should I even waste my time filling these forms out if you're not even going to look at them.

What is clear from these interviews is that, even at their most negative, there isn't a clear objection on ethical or moral grounds to the Whereabouts system itself. Even at worst, the system is generally portrayed as a necessary evil, rationalised by the interest in notions of rider health, fair play and the economic necessity of presenting a 'clean' sport. The complaints arise initially at a technical level. This is understandable, if taken from a purely information science perspective, given that managing data on the daily movements of any given individual is a mammoth task. The discussion of whether the system is morally justifiable becomes more pressing when it is considered that three failures to comply result in an ADRV; an occurrence which can cost a rider their job and, with it, their reputation. In summary, the concerns here, in their briefest form, boil down to the high stakes placed on what seems, by all accounts, to be a problematic system of managing surveillance information on a population characterised by its failure to comply with easily monitored daily, monthly and seasonal routines. The chance of compliance issues is, as the above passages suggest, highly likely and the consequences are potentially career crippling for the cyclists.

Ethics and Surveillance

Whilst the Australian response has been largely accepting, internationally the response to the implementation of the Whereabouts scheme has produced substantial discussion about its invasion of privacy laws. The Belgian Sports Union, *Sporta*, has challenged the scheme in the European Court of Human Rights, claiming that the Whereabouts scheme is in contravention of Article 8 of the European Convention on Human Rights in that it is an invasion of privacy. Furthermore, FIFPro, the international federation of professional footballers, also considered a challenge to the Whereabouts scheme based upon employment law. Their challenge turned on the right of every employee to be entitled to 20 days of annual holiday. FIFPro questioned the requirement that athletes must be available for a drug test 365 days per year, as this would contravene their holiday entitlements (Blackshaw, 2009).

There are different views on the question of privacy:

I think it's hilarious when you see the soccer guys. But I didn't have a problem because I had nothing to hide. You know where I am and they're not going to do anything besides come and test me. The FIFA guys have said it's an invasion of privacy but I'm not stupid. I know why they're avoiding it as well. They're avoiding it not because it's an invasion of privacy. It's because they want to get away with shit.

However, in the first instance, it should be noted that, to our knowledge, the only other members of society subject to similar location surveillance and reporting appear to us to

be persons serving jail sentences, such as home detention and convicted but released paedophiles. One participant commented on the situation as follows:

Q: Do you think other people in society should be subjected to surveillance like athletes are?

A: No.

Q: No? So nobody should be subjected to that sort of surveillance?

A: No. But I think we are, though.

Q: We don't have to report. You know we might be with cameras and all that, but I don't need to report in. I don't even have to tell my boss where I am any more. But who are the other people who are subject to such a reporting scheme?

A: Criminals.

Q: Not even criminals. Just paedophiles who have been released.

A: Probationary people.

Q: Yeah. They've obviously got this one going.

A: It's like saying everyone's guilty before they've even done the thing.

Another participant commented:

Q: Who else in society do you think is subject to such a ...?

A: No one.

Q: Paedophiles?

A: Yeah, exactly, that's probably it, sex offenders ... but I don't think theirs is as strictly watched as ours.

Q: No. It says something about your role in society, I think, yeah?

A: I guess so.

This situation raises the question as to how a regime is to be justified *vis à vis* an athlete's human rights or civil liberties. Hanstad and Loland (2009) have considered the issue by reference to Foucault's concepts of surveillance regime as their starting point. They concluded:

"We started by asking whether WADA's compulsory reporting system can be defended on moral grounds. Our answer is conditionally affirmative. The arguments against the WADA-system do not seem powerful enough to reject it. Everyday surveillance of individuals is far more extensive, it is concealed and also more problematic. The WADA requires active participation from the person being watched. Hence, the system does not seem to involve undue violation either on the principles of justice or on athletes' autonomy and right to self-determination."

Although there is general support for Hanstad and Loland's assertion that Whereabouts is conditionally defensible upon moral grounds, we would disagree with their conclusion that the active participation of an athlete in their own surveillance implies that said surveillance is morally acceptable (see also Kreft, 2009). However, whatever the position

on privacy, what is of concern is the manner in which compliance with the rules is rationalized and maintained - not only by the athletes but also by the organisations administering the rules themselves. The issue of institutional compliance is squarely raised in the case of Michael Rasmussen's exclusion from the 2007 Tour de France, which some participants discussed:

... riders are under a lot of pressure to the point where, if it is not done absolutely to the letter of the law, you can be branded a cheat or branded a whatever ... It is difficult because there are two sides to this ... they are trying as hard as anyone else to keep it straight, and (2) it is a lot of pressure on guys, they are not overly academic to keep up with the paperwork and I can totally understand that. We've got guys here who just look at it and go, and one of them has got a university degree, and thinks, how am I going to do all this? They just can't keep up with it.

Again, the technical issues of compliance sound trivial, but seemingly trivial and tedious issues of information and data management can have substantial consequences. In Rasmussen's case, a failure to conform to compliance demands ultimately snowballed into being sent home from the Tour de France whilst in the yellow jersey (the ultimate red card), loss of his job, reputation, an ongoing two-year ban from his national anti-doping body, and a blow to his career from which he will most likely never recover. Regardless of his guilt or innocence, this indicates just how much rides on successfully conforming to a system which doesn't appear to recognise the fluidity or substantial geographic disparities inherent in the workforce of professional cycling.

In trying to remain compliant, one participant laughed at the nuances of trying to predict where he was going to be every day for the next three months:

I've said basically on my forms, a lot of times I've written, "I will do my best." I'm going to sleep in my bed at night, I know that, that's pretty given. Unless I get lost I'll probably be back in my bed at night. So you can find me there. I'm probably going to have breakfast at some time in the morning, so you can probably catch me then, but if you want to try to find me in the middle of the day, you better have a GPS collar on me, and a bunch of dogs, because I don't even know where I'm going to be tomorrow. <laughs> That's about the only way that you're going to really find me. And a helicopter. Have a helicopter, you might be able to locate me. And it's not because I'm trying to avoid you, I just really have no idea what I'm doing.

Thus, the issues raised weren't as focused on human rights and privacy as on the difficulties in compliance, which have the potential to snowball substantially into something that goes from an information management problem to a ADRV. Hence, instances where cyclists never hear back from the UCI after offering an explanation for a missed test, have the possibility of becoming serious problems.

'What Time?' – Commonly Identified Issues with Whereabouts Procedure

The issues of compliance are complicated to a further degree when the questioning shifted from attitudes to experiences of actually being tested. There was a substantial, ongoing and consistent criticism of Whereabouts testing in that participants found testers didn't arrive at the nominated times. Regardless of how diligent their own compliance, therefore, there was a suggestion that factors outside their control could ultimately impact upon them. As one participant, currently filling out both ADAMS and ASADA systems, reflected:

A: I don't have a problem with filling it in.

Q: Other than doing two.

A: Yeah, I've got used to it now, although I have sat there and sworn black and blue. I'm pretty happy to be tested at any time. I'll put in an hour a day, and to be honest, fluff it a bit by just saying, okay, between 9 o'clock and 6 o'clock at night I'm out training every day, even if I'm doing an hour, and it just lets me say I can be here, or go down the shops. It happened to me two nights ago, we were around the corner eating dinner and I had a coffee and I went 'Oh, it's a quarter past ten, and I had put between 10.00 and 11.00. Or I was sitting in one of my team mate's rooms, now do I need to be in my own room or can I be two doors down between 10.00 and 11.00? Where do I have to be, I've got Hilton Adelaide, if I'm in the bar, how far before I get a missed test? It's all pretty grey.

Another participant recounted a scenario that led to a missed test being declared:

A: Well, this is what happened; Apparently I am, because when I was in Australia I did my whereabouts all up to date, then went on a vacation, I gave all my whereabouts of where I was going to be on the vacation, every hour every day, blah, blah, blah, came back to [town name], spent another five days there before bugging off back here to the US. Well, on my last night in Australia, we decided, well, I didn't decide but my parents said, "Listen, you signed the contract today with the team", my last day it just happened to be that way, they said, "We're going to go to dinner tonight to celebrate". I said, "Great". So 6.30 we leave the house and the hour of availability was 7-8, well they sent it at 7 o'clock didn't they? The last night in Australia and I'm thinking, "You bastards. You've had how long to test me and you want to wait until my last night in Australia, knowing full well I'm getting on an international flight next morning, you should know that the night before an international flight's just always chaotic", and that's the sort of thing that does them no favours in my mind. So evidently I am being tested, and actually this...

Q: Hang on, did they actually test you or did they turn up after you went to dinner?

A: No, they turned up after I went to dinner. I had a mis-test declared.

Q: Okay, so you got a written warning?

A: I got a written warning, and I wrote back explaining what had happened, where I was. The irony of it was I was only three kilometres away and if I'd had a phone call I would have come home straight away.

Q: That's something that intrigues me, they don't ring you up. Obviously, they've got your mobile phone number and they never seem to ring people up and say, "You're not here, where are you?"

A: Exactly. Well, here's the thing, Martin, the house where my parents live, they've got, it's a pretty big block of land and there's a big backyard, Dad's got a big vegetable garden in the back and all that, and it's about $\frac{3}{4}$ of an acre, and I could have been way up the back amongst the bloody pumpkin patch doing whatever, I wouldn't have heard the doorbell ring, and they wouldn't have thought to go around the back gate. So I could have been at home and I could have said I was at home, but of course I didn't ... it's a farce, this whole whereabouts thing to me is, I understand why they're doing it and I understand that an important weapon in anti-doping these days for a lot of these substances is no-notice testing. But at a certain point you've got to say, you don't have any privacy anymore and you've got to think all the time, "Okay, am I going to be here, do I have to go online and tell them where I'm going to be for this and that?". I complain to my wife about it and she goes, "Well, you decided to be an athlete..."

Simply choosing the right time poses its problems, given training and workload which responds to weather patterns rather than a 9 to 5 schedule:

Q: So, what were you saying there? We were talking about the, I said something like, "You've got to be there an hour every day".

A: Oh right, so you've got, I'm merely talking about just nominating where you're going to be for that one hour of the day. I haven't even done the regular routine, daily routine thing, I think that's absolute garbage. I can't do it, I don't have a regular routine. Honestly, it's so random every day I couldn't tell you, I don't train by, I don't go out at 9.30 every morning and return home at 1.30, seriously with a little girl and wife that works part-time, it's whenever I get an opportunity.

Q: And then you've got things like the weather as well, don't you?

A: Well, that's true too, that's the other thing. This time of year too, the weather can be iffy at best and if you get a break in the weather you go, you know?

The same theme, pertaining to the industry's irregular working hours and schedules and the inability of testing to accommodate them, reappears consistently. One participant discussed the difficulty in choosing times for Whereabouts testing months in advance:

A: Yeah well, I've learned I think, I used to do the evening hours but I think now the morning's probably the most secure thing for me, because at least I know I am going to be here between eight and nine o'clock every morning. I very rarely go anywhere except on Sundays when I go to church. Usually we go to an eleven o'clock service and if I go to, every now and then it's an eight thirty service, so I better make sure I change that. I don't think they would excuse me for going to church instead of peeing in a cup.

Q: No, no anti-drug thing's more important than church. Alright now, so you think it's a bit over the top though, it's disproportionate to what they're trying to achieve?

A: I think the whole routine thing is a bit much. An hour a day I think is, I believe it's unreasonable even that, but we'll do what we have to do, but I think anything more than that and it's just, you might as well just put a bloody GPS bracelet on us and call us a paedophile, you know?

A number of participants reported that testers arrived outside of the nominated time and that, although this is permitted by the rules, the nature of the sport ensured that they weren't, unlike most professions, in one stable location. That became particularly noteworthy when the out-of-competition tests associated with Whereabouts began to blur with the racing schedule:

Q: The other thing that I found is that people are saying, 'Okay, I'm going to be here from whatever, nine until ten, for testing and the testers will turn up at two in the afternoon.

A: It is more when they are away racing. They don't even know where they are going. ... 'Where are we going to stay tomorrow? I don't know.'

Q: I remember [name] in the Sun Tour saying, 'Where am I staying tomorrow and give me a computer' and he has got to fill out two.

A: I think ... maybe just give the race organisers the task, not have to say, 'Look I'm going in Sun Tour. That is the race organiser. Contact him if you want to find me'.

Multiple participants questioned why they were nominating an hour for testing, an hour in which the testers rarely seemed to appear. Of course, the question is related to the need for unannounced testing, but it also posed a wealth of practical issues. Those issues weren't a critique of the system itself but of its application and the potential for corresponding punishments associated with non-compliance, even when it was unintentional and potentially unavoidable:

Q: Well, when you feel, like, your whereabouts, if you put down an hour everyday, do they always turn up within that hour?

A: No.

Q: So this seems to be common.

A: Yeah, it's pretty ...

Q: Common, a common complaint.

A: Because in the rules, essentially, they can come outside that time. That's just a time you've allocated that you have to be there. So there's an openness to that, people are always really pissed-off because they're like, 'Why didn't you come when I told you to?' It's like, yeah, but half the reason why we've come at a different time is because maybe we had other tests to do, they were on... So things like that you can't really be too specific about it, and people have a right as well to get angry at that because if it's, like, you can't do things that you probably want to do like see your girlfriend or go shopping, and if you go out one night and you end up staying at your friend's place, then they're going to ask you where you are and if you're not in a position to be back there, you get punished for it. And that's not so much just being a cyclist, that's just living your life normally.

Again, the issue isn't an ethical complaint or a refusal. Participants agreed with and, even if somewhat begrudgingly, supported the need for Whereabouts, but expressed what seemed like legitimate concerns that they risked potentially severe punishment for "living your life normally". To that end, the major suggestion to emerge from the participants was that testing procedures, and the attitudes of testers, needed to respond to the flexibility of a cyclist's life and recognise the complexity of compliance. The issue here is more than a desire for increased convenience; it is the fear of unwarranted allegations of missed tests:

Q: Do they ever turn up at ... you say you've got to be there at six in the morning, and they turn up at another time?

A: Oh, for sure. I had them turn up, not ASADA, but I've had drug testers turn up at quarter past six in the morning at my house in Monaco, and I'd say to them, "I'm pretty sure you have to be here from seven to eight and, "Oh no, we can test whenever we like", "Oh, okay". ... so ... why do I fill this out? I may as well tell you, everyday where I'm going to be, and the hours I'm free. I don't have to fill in an hour when you can come or when you can't come because they do come whenever they like ... I have to fill in a day or where I'm going to be and all that kind of thing. As long they can give me a call on my mobile phone if I'm not at the apartment and that kind of thing.

Other participants highlighted significant administrative inconsistencies and irregularities in the actions of testers. Again, there was a sense that the system was designed to monitor a workforce with regular, year-round working hours and a fixed place of employment:

Q: Do you find that they ever turn up at other times?

A: Often, more often than ever turning up at the right time.

Q: At the wrong time?

A: I don't even know why I'm doing it. I will have left Australia, an address that nobody knows except ADAMS and ASADA, because somebody, nothing to do with cycling, travelled to America, done a test in America, been there for five days, and somebody will rock up at an Australian address looking for me to test me.

Q: And you've put in an ADAMS?

A: I've obviously put in that I'm somewhere else, and been tested in another country.

Q: It seems to be a problem that people are saying all the time that ...

A: Or somebody in Belgium asking another rider where I live and what I'm up to, because they don't have my address, and they send me letters all the time.

Q: What sort of letters, saying 'where are you?'

A: A letter from them saying can we look into your ADAMS, or this happened or that happened. It's on my cycling licence, they know where I live, I'm registered as an athlete in Belgium.

It's understandable that such a complex information management system should produce faults, particularly when applied to a workforce that doesn't conform to traditional, office-bound work practice and tends to travel extensively for racing. Furthermore, the problems of multiple databases and the lack of global accessibility to them, complicate the matter further. That said, given that the attitude of participants to Whereabouts was uniformly supportive, and it conformed to the dominant rationales they saw as legitimizing anti-doping, there was a notable lack of flexibility, bordering on the unrealistic and naïve, evident at the institutional level in the application of the system. The most negative outcome of this, aside from the likelihood of receiving ADRVs without real cause, was that it conformed to the belief amongst participants that the organisations governing the sport were driven by a rationale connected to the performance of anti-doping measurements, without making a workable or reliable method:

Q: But the other thing is that they are turning up at times other than the guys are putting down and they are getting missed tests. So they will put down I'm here from nine until ten to be tested, and then ASADA turn up at three in the afternoon and say you missed the test.

A: And they turn up at six o'clock in the morning, follow them home and bang on the door or ringing up your mother at ten o'clock at night. I've got my boss, the last boss, to go to the government, go to the Institute of Sport and say, 'Ease up on this. We're all on board here.' A lot of these kids are kids. They don't need someone ringing up, nor identifying themselves, but we knew who they were, wanting to speak to so-and-so at ten o'clock at night. It is just not acceptable.

Q: [name] called it harassment.

A: It is harassment.

Why Compliance Issues Matter: The Rasmussen case

The complexities of the Whereabouts system, and the administrative difficulties that appear occur within compliance testing procedure, came to a head with the Rasmussen case. The case indicates that the issues noted above are perhaps more widespread, have the potential for very significant consequences, both for individual athletes and the sport

as a whole, and are capable of exacerbating the belief amongst interview participants that the sport's governing bodies act according to rationales focused more on appearing to condemn doping at the expense of actual, realistic enforcement of anti-doping measures. As one interview participant was quick to discuss, the impact of an inconsistent ADRV had the capacity to do more than impose a regulatory penalty. It was a serious occurrence, with long-term ramifications that deserved clear and concise application and judgment:

Q: Are you ever amazed that Rasmussen is still alive? I actually think sometimes, I really seriously am amazed that he hasn't committed suicide.

A: Yeah, that was I think an oversight on Rabobank's point of view, I don't know. I was there and I'm part of that team and I don't know enough about that. But I think it was an oversight on them when they kicked him out of the tour, to leave him alone that night. They put him in a hotel room 100km up the road or something, with that, driven there by a PR lady or something. Really, somebody should have been on suicide watch.

Q: Well, I'm still amazed about it.

A: Taking the Holy Grail away from somebody.

Møller (2010a) has investigated the case of Michael Rasmussen's exit from the 2007 Tour de France in detail in his book. The following summary of the case is based upon the documentary evidence in that book and provides an illustration of problems that arise when the information associated with the Whereabouts system is not properly managed.

Contrary to the rules we have stated above, in the period leading up to the 2007 Tour de France the details of Michael Rasmussen's Whereabouts details had been leaked to journalists by the Danish Cycling Union (DCU). The resultant media frenzy culminated in Rasmussen, as the overall leader of the Tour de France in 2007, being abandoned and pulled from the race by his team, Rabobank, allegedly because he had lied to team management about his training locations. He subsequently successfully sued his team for this action. Nevertheless, a few days from the finish in Paris, he was forced to leave the Tour in disgrace and to give up his leader's yellow jersey to Alberto Contador. He was later given a two-year ban for his alleged Whereabouts violations.

Rasmussen's case turns upon the manner in which he received warnings from the UCI over problems with his Whereabouts filing. The correct procedure to be followed is that an athlete should receive a written warning which draws their attention to a potential Whereabouts violation. The athlete is then given a period of 10 days from receiving the written warning to provide an explanation, which is evaluated and the written warning is either cancelled or recorded as a formal warning. Three recorded warnings in a rolling period of 18 months will amount to an anti-doping rule violation and consequent disciplinary proceedings, as discussed earlier in this chapter.

Rasmussen's first warning, on 24 March 2006, was immediately formalised as a recorded warning. He had failed to complete his Whereabouts forms for the months April, May and June by the due date of 15 March. The information from the previous quarter was current to 31 March. He was provided with neither a reminder nor a preliminary warning. Rasmussen responded immediately, outlining his Whereabouts for those months, but he never received a response from the UCI. However, his recorded warning remained on file despite the UCI later admitting that it was a mistake and that Rasmussen should only ever have received a written warning.

Rasmussen received another written warning, which was issued on 11 June 2007. This was in relation to a stay in Mexico from 4-12 June. The letter sent by Rasmussen to the UCI had, for some reason, two postmarks, one dated 4th of June and the other the 8th of June. In response to the warning, Rasmussen advised the UCI that he had sent the letter

on 4 June. Although he had the evidence of the postmark dated 4 June, he was still given a recorded warning on 29 June, a few days before the Tour de France commenced.

Under the rules that were in place at the time, and because of the English version of the UCI Whereabouts form, Rasmussen was under the impression that he could send his updates by mail. However, the French version of the guidelines did not state that the updates could be sent by mail. Rasmussen does not read or speak French. Despite their own rules, the UCI later insisted that the French version took precedence over the English version.

Rasmussen's first purported warning was admitted as a mistake, nevertheless, it remained on the record. The second warning turns on the evidence of the postmarks. If one accepts the decision not to accept his explanation for the second warning, at best, he had at the time of the 2007 Tour de France, one valid warning from the UCI. The relevant UCI rule relates to both a failure to provide Whereabouts information and to missed out-of-competition tests.

Along with the UCI Whereabouts warnings in 2007, Rasmussen also received two warnings from Anti-Doping Denmark (ADD), the Danish national anti-doping agency, for missed out-of-competition tests. Møller questions these warnings on the basis that other cyclists, who also missed tests as they were away from home racing in another country, had such warnings withdrawn but that Rasmussen's were not. One of the primary concerns with the case is that the information as to Rasmussen's Whereabouts warnings were leaked to the media by the Danish Cycling Union (DCU) whilst the rider was leading that year's Tour de France. The information was only available to three organisations: the UCI, ADD and the DCU.

The UCI anti-doping rules state that:

117. The UCI shall maintain Whereabouts information in strict confidence at all times and shall use it exclusively for purposes of planning, coordinating or conducting *Testing*. The UCI shall destroy the Whereabouts information in accordance with relevant confidentiality requirements after it is no longer relevant.

Consistent with the relevant WADA provision, the information is no longer relevant when the quarterly period in which the information is used to plan out-of-competition testing has expired. Rasmussen's case suggests that administrators acted beyond the limits of their powers in the case of the first UCI warning. Whether his explanations for his second UCI warning and the ADD missed tests were considered fairly may be a question that could be considered. But, for this study, in the context of the overall nature of the Whereabouts system, the breach of the rules pertaining to the confidentiality of the information supplied by athletes raises serious concerns.

Summary

Our research findings on the 'Whereabouts' system concur with perceptions and experiences drawn from our interview participants and an analysis of the legal and regulatory frameworks through which it is enacted. The Whereabouts system is linked closely to the Biological Passport; it provides the samples required for longitudinal testing as well as supporting a regime of random testing and monitoring of the movements of professional athletes. Its legality and reliability are contestable, as we see in our discussion of Michael Rasmussen's removal from the Tour de France - whilst he was wearing the yellow jersey. Additionally, it appears to be a highly complex system utilized at substantial expense, with a considerable bureaucracy, limited reliability, a host of ethical and legal issues and with substantial, and frequently evident, capacity for fault.

We can divide the issues associated with the Whereabouts system into several categories.

First, there are the obvious ethical issues inherent in a system of ongoing surveillance. The prospective human rights issues in such a system have, ostensibly, limited the use of Whereabouts in other sports and produced significant legal objections.

Secondly, it is worth noting that the Whereabouts system is far from cheap, requiring substantial human resources – certainly more than can be sourced to regularly gather the necessary samples to fuel the Biological Passport in anything other than a small section of athletes. Notably, there is the suggestion that the volume of blood tests gathered through Whereabouts, even at the elite level, is not enough to provide reliable data capable of detecting anything more than the more obvious ADRVs.

Finally – and perhaps drawing from the difficulty in managing and paying for a system reliant on constant testing – there are substantial practical issues commonly identified by our interview participants. They include the complexities caused by a globalised workforce, in which multiple anti-doping bodies conduct testing without sharing data – and compounded by the legal issues of sharing personal details across national borders and across organisations. More obvious was the high volume of inconsistency and confused practice evident amongst the testers themselves. Whilst interview participants generally supported the Whereabouts system as a necessary evil, testers routinely failed to turn up within the allocated available times, and seemed to work on the premise that professional athletes, like many other workers, generally remain within a single, geographical space for several hours a day. All it seemed to take to produce a missed test – and set an athlete on the way to an ADRV – was a slight change in a race schedule, a last-minute change in a hotel room number, or a missed bus connection. Such unforeseen circumstances placed clean athletes at risk of receiving an ADRV and created greater grounds for those who were cheating to defend themselves through the inconsistent and impractical testing procedures.

Recommendations

It is difficult to pinpoint positive recommendations for changes to the Whereabouts system. More cohesive systems of testing across national borders would clearly help, but that is endlessly complicated by legal issues. One problem that seems to arise under the new Whereabouts system, is the discrepancy between the nominated time that cyclists make themselves available and the fact that testers are able to arrive at any time. This discrepancy leads to some level of distrust in the system and may lead to the possibility of missed tests. A resolution for this problem is not simple. However, one area in which we do recommend action relates to riders who currently are having to complete multiple Whereabouts information. It would be appropriate for ASADA, Cycling Australia, the UCI and WADA to review the Whereabouts procedures, with a view to WADA making a determination to avoid the required duplication of Whereabouts information that currently occurs.



Chapter Six

The Athlete's Biological Passport

In the previous chapter the Whereabouts system and the attitudes of cyclists to it, were discussed. The rationale for such an extensive surveillance regime was to plan and conduct out-of-competition testing. The results obtained from out-of-competition testing have, in turn, provided the basis for what is known as the Athlete's Biological Passport, which has been heralded by the UCI as a major breakthrough and the avant-garde of anti-doping policy (UCI, 2007a, 2010a). One area in which Whereabouts has been questioned is in reference to privacy concerns. These concerns have been countered by the need to catch the 'cheats'. According to the UCI, the Biological Passport is a new tool which will allow better detection of the cheats (UCI, 2007a). Although the two tools, Whereabouts and Biological Passport, are different, in many ways they stand or fall together. The UCI has stated that the provision of accurate and timely Whereabouts information is critical to the success of the Biological Passport (UCI, 2007a); Whereabouts information is used to plan out-of-competition testing which serves to collect data for the Biological Passport. The main function of the Biological Passport is to allow those planning the testing to better target those they suspect of doping.

... the other thing is, if they see abnormal blood results and it's not abnormal enough that they think they can sanction or even take further steps, at least they can really be on top of them. They can test the hell out of them, they can scare them - they can scare them into awareness or into action or be, you know, make their teams aware and they will be caught, that's the thing. Sooner or later, if that conscience is not there and they're not aware of what they're doing, they won't get away with it forever. We've seen riders like that in the last couple of years.

In the end, it would seem that the impositions on athletes brought about by the Whereabouts scheme are justifiable if they are proportionate (in the sense of being appropriate and adapted) to the need to justify and support a regime based upon out-of-competition testing. This chapter examines the Biological Passport, how it operates, how it is understood, whether it stands up to legal scrutiny, and how it might be used in the future.

What is the Biological Passport?

The Biological Passport is not used to detect the presence or absence of a prohibited substance or a Prohibited Method. Rather, it is used to detect the effects associated with the prohibited substance or method on the human body. The logic of the approach is that if effects associated with a Prohibited Method are observable in a tested person, then perhaps that person might have been using the method. It must be stressed that the Biological Passport points to a probability that a person might have been using the method - it is a method of indirect detection, as no banned substance is revealed nor is any direct evidence of the use of a Prohibited Method revealed. All the science seeks to compare are the parameters of a test sample, with previous samples, to identify any abnormal fluctuations in an athlete's blood values which might indicate a probability that a person might have been using the method. It cannot say with any absolute certainty what caused the abnormal fluctuations.

The Biological Passport is an individual, electronic record for each rider, in which the results of all doping tests over a period of time are collated in the ADAMS system. The results are analysed using the Athlete's Biological Passport (ABP) software, developed by the Swiss Laboratory for Doping Analyses (the Lausanne Laboratory), into a form which can produce a quantitative stream of data that can, in turn, be used by the UCI Biological Passport Expert Panel to determine the likelihood of doping. The Biological Passport contains results of individual urine tests, results of individual blood tests, a haematological

profile consisting of the combined results of haematological parameters analysed in a series of blood samples, and a steroid profile consisting of the combined results of steroid levels in a series of urine samples. The Biological Passport has been heralded as the newest element on the UCI's anti-doping program, allowing a series of tests from each rider to be organised into a profile which enables individual limits for each rider to be established. Rather than a comparison with a population limit, it allows each test sample to be compared with the rider's own individual 'normal' haematological levels. The UCI states that any significant variations can then be assessed for possible blood manipulation (UCI, 2007a).

The UCI argues that a haematological profile created by the Biological Passport "*opens new doors in the detection of riders who choose to manipulate their blood*" (UCI, 2007a). They argue that the Biological Passport:

"applies similar principles to those used in forensic medical science to determine the likelihood of guilt".

And continue that once:

"sufficient evidence is gathered which determines guilt at an agreed level of certainty, scientific experts will recommend that the UCI open disciplinary proceedings for an anti-doping rule violation. It is expected that a profile of six tests will enable the detection of blood manipulation. In some cases, a fewer number of tests may be needed to detect doping".

The penalty proscribed for such a violation is a ban from competition for two years. Interestingly, the UCI also promoted the Biological Passport as allowing the detection of abnormal haematological levels causing a rider to be declared unfit and to be suspended from racing for an agreed period of time (UCI, 2007a). This final point is revisited towards the end of this chapter.

From this brief illustration there are revealed a number of issues that effect the successful implementation of the Biological Passport. Questions arise that relate to its reliability, the accuracy of an inference that a person has used a prohibited substance and the role of the scientific experts in giving evidence before any disciplinary committee. It must be recognised that the Biological Passport is an isolated piece of material evidence only, namely, processed instrumental data and that, ultimately, an allegation of doping or manipulation is based only on indirect circumstantial evidence (measured blood parameters) as opposed to direct evidence (detection of a prohibited substance in a blood or urine sample). Any opinion in interpreting the instrumental data is, by necessity, heavily reliant on statistics (Faber, 2010; Sottas, 2010). Thus, it is extremely important to consider the questions above relating to reliability and proof and the manner of giving expert evidence based upon statistics. In fact, we specifically questioned participants about these issues and whether they had faith in the way both the law and the science were being applied. Many professed a complete lack of knowledge in relation to this subject and suggested that we were in a position to help them understand the issues. Hence, this chapter seeks to provide such an explanation.

Biological Passport Procedure

The steps involved in the Biological Passport procedure can be summarised in the following manner:

Out-of-Competition and In-Competition anti-doping tests are undertaken:

- 1) The laboratories accredited under the Biological Passport scheme upload the test results into the ADAMS system (i.e., the same database that is used for Whereabouts).

- 2) The Lausanne laboratory obtains the results from ADAMS and analyses the corresponding profiles using the Athletes Biological Passport (ABP) Software. This is the initial stage of review under the WADA Biological Passport Operating Guideline.
- 3) The Lausanne Laboratory sends any 'abnormal' profiles identified during the initial review by the ABP Software to the UCI Expert Panel and to the UCI. In the case of other samples that are not considered 'abnormal' but give rise to some suspicion, the initial review might also recommend follow-up testing or the collection of additional Biological Passport information.
- 4) At the stage that the results are sent to the Expert Panel and to the UCI, the UCI is aware of the identity of the person to whom the sample belongs – however, the panel of three experts is not aware of the identity.
- 5) The Expert Panel of three members undertakes a formal review in order to give advice and make a recommendation to the UCI. The Panel is comprised of three of the nine members of the Biological Passport Expert's Committee (UCI, 2008c). The Panel can request further medical, training or sporting information to assist with their review.
- 6) If the three members of the Expert Panel are unanimous in their opinion that the values or profile are abnormal and are considered suspicious of doping, they recommend to the UCI's Anti-Doping Commission that a case be opened against the athlete for an Anti-Doping Rule Violation (ADRV). To date, if any case suggests a finding of doping, the UCI brings together all of the experts (that is, the complete committee of nine experts) to look at each profile around the same table to discuss the possible findings and the opinion of the Expert Panel. We understand that the complete committee has met on at least two occasions to date, and made findings that there were no other explanations other than a suspicion of doping, which have led to the opening of cases against cyclists.
- 7) Simultaneously with the review by the Expert Panel, the UCI undertakes a review to determine whether the cyclist has a Therapeutic Use Exemption or whether there has been a departure from international laboratory standards. If neither of these exculpatory facts is found, the UCI then advises the cyclist that it is considering opening a case for a ADRV. Under the WADA Guidelines they are to provide a copy of the document given to the Expert Panel (presumably the analysis from the Lausanne Laboratory) and invite the cyclists to provide their own explanation for the data they have been provided with.
- 8) The cyclist's explanation is then provided to the Expert Panel who further reviews the information from the UCI, the cyclist and any other additional material that they consider necessary. The WADA Guidelines state that, at this point, the Expert Panel's review shall no longer be anonymous, that is, at this stage they should have before them not only the information provided and the number of the file, but also the name of the cyclist whose case is being considered by them.
- 9) The Expert Panel is then required to make one of the following statements expressing their opinion:
 - a) Unanimous opinion of the panel that there is no known reasonable explanation for the blood profile information other than the use of a Prohibited Substance or Prohibited Method.
 - b) Based on the available information, the panel is unable to unanimously reach the opinion above and, in such case, the panel may or may not recommend further investigation.

- 10) According to the WADA Guidelines, if the Panel reaches the opinion that there is no reasonable explanation, the UCI must proceed with the case and refer it to the relevant national cycling federation for the hearing of the ADRV.

From this brief overview of the procedure it is clear that, essentially, the process up until the referral to the national federation for action, is one of investigation and preparation of the 'prosecution's' case. The hearing before the federation is the first point at which there is a forum where the opinion of the Expert Panel can be evaluated by the athlete and the decision-maker. However, prior to the hearing, the science is determinative at two prior points – when the ABP software analysis is undertaken at the Lausanne Laboratory, and when the Expert Panel conducts its reviews of the Biological Passport evidence. If the UCI has discretion to open a case following the receipt of the Panel's opinion, the science would also seem to effectively determine the issue.

In considering the Biological Passport, the following questions are relevant:

1. How reliable is the science?
2. What is the status of the Expert Panel's opinion given to the UCI?
3. What standard of proof applies and what needs to be proven in order to successfully prosecute an ADRV?
4. How is the science presented in the legal process, and what is the role of the experts in a hearing?

Reliability – Trust the Science

The UCI have made public statements to the effect that the national cycling federations have to trust the science provided by the Expert Panel. Any ADRV decision made by ASADA may be challengeable in (at least) the Court of Arbitration of Sport and, quite possibly, even in the Administrative Appeals Tribunal or the Federal Court of Australia. This process of challenge might rest upon the degree to which scientific interpretation does not necessarily constitute an acceptably reliable standard of evidence. The law requires scientific evidence to be of a certain standard and requires it to be presented in a certain manner in order to safeguard the fairness of any hearing process. Along with the problem of presenting expert evidence in courts is the difficulty of being able to do it in a clear and communicable manner. Commenting on reasoning behind the opinion of the Expert Panel, one participant commented:

... you can't expect the National Federation to be able to unravel what led to that decision. It's not as simple as – well, that value's that, that's there and this here, therefore that's doping. You can't easily reverse engineer how you got to that decision. So, in that sense you've got to trust that we've been through this process, that was our decision, but if you've got another argument, you get an opportunity to challenge our opinion.

The decision here is an expert's opinion which may be incapable of being communicated in a way that can be unravelled by reverse engineering. Notwithstanding the way it is expressed, the decision of the Expert Panel is no more than an opinion as to likelihood but, at this point in the process, it takes on a decisive character. Faber (2009a) has criticised "the situation where a decisive status is conferred upon a single fully isolated piece of material evidence" as being "truly horrifying for scientists" in that those who seek to challenge scientific evidence can only point to procedural or technical errors in the testing process, and that they cannot question the validity of the scientific method itself. In the end, the science needs to be communicated in such a manner as to allow the ultimate decision-maker to be able to weigh it against all the other evidence, including scientific evidence that goes to its reliability. On the other hand, in an interview given with *Cyclingnews.com*, the former head of anti-doping at the UCI, Anne Gripper, referred to the

need for national cycling federations to trust the science behind the Biological Passport. Her comments raise the interesting question of the role of the expert in interpreting data produced by the ABP Software and the Biological Passport itself.

“Our rules advise them [the federations] to follow a number of steps. Obviously, these will be new and difficult cases for them and we’ve offered them any assistance they want. They also have access to our scientific experts and data. What we’re expecting them to understand is that we have the best experts in the world and that they’ve reviewed the data properly. The federations have to trust the review that has been conducted by our experts. Normally, we give them a piece of paper from the lab that says, we’ve found EPO or Nandrolone, but instead we’re giving them a statement signed by three experts with data and rider profiles. We expect them to trust us.” (Cyclingnews, 2009)

Gripper’s statement makes it clear that the Biological Passport does not involve a positive test for a banned substance. The national federations (or national anti-doping agencies), who in the end must deal with any finding of the UCI, are asked to trust the science as proof of doping. The claim is that the *“scientific assessment of a rider’s profile applies similar principles to those used in forensic medical science to determine the likelihood of guilt”* (UCI, 2007). In the explanation given by Gripper, the statement signed by three experts appears as a conclusion and as conclusive proof of the fact that a rider has doped. It is as if the UCI feel that the signed statement of the Expert Panel bears all the hallmarks of an incontestable sovereign certificate. As we will see, this is the manner in which the Expert Panel’s opinion was put to the Disciplinary Committee by the UCI in the *Valjavec* case.

We are not sure that things are as black and white as Gripper and the UCI claim. Below, the extent to which the Passport uses principles similar to those used in forensic medical science is considered. In an earlier chapter in the context of the costs of anti-doping, the reliability of testing to pick up doping was discussed. Bornø et al. (2010) provided evidence that a testing regime of much greater intensity than that undertaken for the Biological Passport was only capable of detecting the signs of doping in 58% of cases. The inference was that for the Biological Passport to achieve such a reliability rate the testing would need to be increased significantly. Notably, they did not conduct micro-dosing of EPO with their subjects, adding further weight to their conclusion (Bornø, 2010). Rather than the reliability of what the scientists call ‘sensitivity’, what is of interest here is the idea of the Passport as a reliable piece of evidence being able to stand alone at a hearing of an ADRV or in a court of law. The question is whether it can adequately be used as a basis for finding that an athlete has doped. One of the developers of the Passport and, in particular the ABP Software, has recently discussed the Passport in a manner that suggests the Passport is not as conclusive of guilt as has been suggested in the media. Sottas (2010) has made the point that the Biological Passport, which uses an adapted form of Bayesian statistics to calculate abnormal fluctuations in blood values, is not a piece of stand-alone evidence. He remarks that regardless of the:

“[A]ctual level of evidence required for taking disciplinary action, the results obtained from a BN (the Bayesian Network) should be considered together with all the other elements pertaining to the physiological and/or pathological conditions of the athlete.” (p. 320)

When considering the process of reviewing the Passport results, the Bayesian statistics within the ABP Software only serve to trigger a review by the Expert Panel, who then consider it with other information that might be given to them or that they request.

But both Gripper and Sottas support the Passport by referring to the manner in which DNA evidence is used in a criminal trial. In doing so, they point to one of the problems that

arises if one seeks to use the Passport analysis and the Expert Panel's opinion to secure an anti-doping conviction. Sottas (2010) discusses the DNA synergy in the following terms:

"In forensic sciences, a suspect may well be identified thanks to a DNA test, but any judge would agree that in spite of an extremely high value of the DNA evidence, a conviction cannot rest on this type of data alone if other elements are diverging. Similarly, the BN should not be the only element that prompts a decision: an abnormal profile (punctual or longitudinal) as found by the BN gives a sound basis to initiate a thorough assessment of the case carried out by experts in the field (mainly haematologists in the case of blood doping). Only this expertise will provide a qualitative interpretation of the quantitative value of the evidence returned by the BN." (p. 320)

Despite these qualifications, Sottas (2010) continues that the:

"level of evidence provided by indirect blood doping markers can be sufficiently high to launch a disciplinary procedure against an athlete". (p. 324)

This might be correct as long as one does not take it further than launching a procedure but, in discussing the "paradigm shift" from detection of substances to the detection of effects, Sottas (2010) is clear that:

"[e]very element constituting scientific evidence must be incorporated into others and/or corroborated by additional evidence". (p. 324)

There are a number of issues to untangle here – the similarities with forensic medicine and the use of DNA by courts to determine guilt, the triggering role of the ABP software and the need for other corroborating evidence. When Sottas speaks of the BN, he is referring to the initial analysis using the ABP Software. This analysis provides data that is provided to the Expert Panel for their thorough assessment of the possible causes of the abnormal values. The ABP software, thus, provides a sifting of the results and identifies those results that are statistically abnormal. One interview participant explains the system as follows:

A: The UCI collect blood samples that are sent to the laboratories. The laboratories send the results to the Lausanne lab, who enter them into the database, formally known as the Athlete's Biological Passport Database. That automatically sieves through the results and looks at the amount of variation in an individual's results over time. And if that variation exceeds a threshold that we've set at 99%, then that profile for that cyclist is brought to the attention of the UCI anti-doping, or I'm not sure who it is within the UCI. Each week any profiles that exceed 99% are sent to three experts who review them.

Q: So, when you say the database sorts through them, it's a computerised operation.

A: Yes.

Q: So, if somebody just feeds it into the computer and it pops out the results and then they get sent to somebody in the UCI.

A: So, it's purely an automatic statistical evaluation.

Q: And what are the statistics that it's actually evaluating? So you've got this 99 point whatever, what is this?

A: We know in a group of non-doped human subjects how much haemoglobin and haematocrit change. Everyone's got a, well, I shouldn't say this because it's not completely accurate. The average haemoglobin level in the population is 149 grams

per litre of blood. Now some people have less, some people have more, but it's a normal distribution and that's your median. Now whether you're low, in the middle or high, you will stay that way. You don't go from high to low, back to high. And what we did is we measured thousands of athletes several times to understand well how much do athletes change higher and lower than whatever their natural value is. And you get a distribution of that as well. And so some people changed a little bit, some people changed a lot. And the 99% is a cut-off where 99% of the population change less than whatever that value is. Or looking at it the other way, only 1% of people change that much or more. And so it's simply a way to filter out most of the profiles that are normal so that we can focus on the unusual ones.

It is clear that without other evidence and analysis, as suggested by both Sottas and the quote from the interview participant above, the ABP software is not able to determine anything like guilt nor the cause of the abnormality. But the initial analysis using Bayesian statistics forms the basis of the data that the Expert Panel reviews. Once the ABP software has sifted through the results, the Expert Panel must undertake its assessment and make its recommendation. Following that opinion, we need to properly understand the hearing process and the crucial question of the reliability of evidence at that hearing. Here what needs to be asked is what can be proven by the Biological Passport? What is the standard of proof and what needs to be proven in order to find that a cyclist has breached the relevant rule? Here the role of the expert witness and decision-makers, respectively, in this process needs to be considered and defined. In doing this it is possible to shed some light on the assertion that the process has similarities with forensic medicine and the use of DNA by courts to determine guilt. What we need to keep in mind as we move on is that the ABP software and the opinion of the Expert Panel can only play a role in triggering the beginning of a disciplinary hearing and, at that disciplinary hearing, there must be reliable and corroborating evidence.

The Standard of Proof

The question of the appropriate standard of proof and, in fact, what the Biological Passport is actually proof of, is possibly the central legal issue pertaining to the system. In material prepared by the UCI it has been stated that the Biological Passport cannot be used to identify the use of a prohibited substance, but that it is possible to show that there is a possibility of a likelihood that an athlete has manipulated their blood. We believe it is important to attempt to resolve these issues. One participant stated:

We know a couple of things. We've tested thousands of athletes and we know how much their blood varies over time. And that's well-established. A second thing we know is that when you manipulate your blood you vary much more than normal. Now if we get a set of results that varies much more than normal, you go through and exclude that there was a problem with the analyser that caused the unusual values, you exclude that there's any medical abnormality that caused that. You go through and exclude any other conceivable explanation for those values that are there in front of you. And if you can't think of any other explanation and you exclude any other possibilities, to the best of your ability, then the one remaining this is, well, we know that doping causes those values and so it's...I don't know what the terminology you used was, but I think it's a little more robust that a likelihood of a possibility of doping.

As stated above, the Passport is based upon indirect parameters that could be an indirect indication of doping. It provides a series of tests which in some cases enables the experts to make a determination as to the likelihood of doping. Another participant was asked:

A: But can you go positive for the Biological Passport?

Q: Well, from that perspective, I don't think you can go positive, because they can't say what it is.

A: No, but has anyone ever gone positive?

Q: Well, but even though you can't go positive in the sense that they can't say what it is, they propose to use it to ban people for two years. So they...

A: Based purely on Biological Passport?

Q: Yeah, on the basis that it is more likely than not, or it's likely...

A: Well, that's impossible, more likely than not.

Q: Yeah, it's likely that you have manipulated your blood, but they can't say how.

A: It has to be absolutely conclusive, the test. You know what I mean?

The requirement that it has to be “*absolutely conclusive*” is a difficult question that the law deals with in different ways according to what is at issue. Traditionally, in common law countries such as Australia there have been two standards of proof – the criminal standard of beyond reasonable doubt and the civil standard of the balance of probabilities. Some statutes such as that dealing with war veteran's pensions use a reverse criminal standard of a reasonable hypothesis. In Australia, the High Court has developed another test which it applies in cases which are not criminal, but where the seriousness of the allegations and the consequences of the decision means that an exactness of proof is required that seems to raise the standard of proof above what might normally be required under the balance of probabilities. The test was first set out by the High Court in the case of *Briginshaw v Briginshaw*, and it involves the question of a court or decision-maker having to be reasonably satisfied as to the evidence. It is this standard that has been adopted by the jurisprudence of the Court of Arbitration of Sport (McLaren, 2006).

The criminal standard of proof - beyond reasonable doubt - means that there is no reasonable hypothesis consistent with the innocence of the accused. Applying this standard to the Passport would require the decision-maker to be convinced by all of the evidence, including the opinion of the Expert Panel, that there is no other reasonable hypothesis to explain the change in blood values other than doping. In stating this, it is important to note that the decision-maker would need to be satisfied of the appropriate standard of proof, but the opinion of the experts as to the possibility of any alternate hypotheses obviously carries significant weight. As already mentioned, the scientific evidence comes into play at a number of points in the process – similarly, the opinion of the experts serves two related but distinct roles which need to be distinguished. First, the Expert Panel sets in train the opening of the ADRV case. At this stage, we might say that the experts play an investigatory or prosecutorial role in recommending a prosecution. Another way of considering it might be that the Expert Panel is, in fact, a decision-making body which triggers a hearing in the way a magistrate might trigger a jury trial by making findings at a Committal Hearing. Secondly, the opinion of the expert is ultimately evidence that is put before the decision-maker at a hearing (e.g., ASADA) – here they play the role of giving opinion evidence in a way that experts do before courts. This sort of evidence must comply with some widely-recognised legal standards to ensure that any case is conducted fairly.

In relation to the first role, one stated:

Q: And so it seems to me that on one hand we're being told we have to trust the science, but on the other hand the scientists are saying well that's not our job, we just do science and this is our opinion. And it's not a criticism of individuals, it's where we are in history at this particular point I think. See, for example, beyond reasonable doubt means in a way that there is no reasonable hypothesis consistent with innocence. And in a way that's sort of where you're going.

A: Well, in that case, if you use that definition, then we do reach that point. I would not recommend to the UCI to open a case if what was your definition? If there was...

Q: If there was a reasonable hypothesis consistent with innocence.

A: Yeah, I would not recommend them open a case. I don't use that terminology in my brain, but if there was another reasonable explanation for the values, I wouldn't ask them to open the case, I wouldn't recommend them to I should say.

Q: Alright and then now...

A: See, that's good we reached beyond reasonable doubt. Great.

Q: Well, maybe.

A: I'm telling you I do ... no one on that expert committee would ever, if anyone at the table says no this could explain it, we say, okay, well in that case you can't open the case. It's never happened.

Q: We may not actually be able to say what it is, but it will show that this rider is highly likely to have been doing something illegal.

A: Well, see, I'd scratch that out now, based on your definition. We reach a standard of beyond reasonable doubt that they don't. Because I know, now that you've put it in English, I would never, and no one on the committee would ever open a case if there was another reasonable explanation.

Q: And but then this goes back to the point is you can't, you still can't put your finger on what they've done.

A: What they used.

Q: Yeah. See the...

A: No, you can have a suspicion there, but you can't know.

Q: Yeah, but see this is where...this might be where the problem comes into it.

Although the criminal standard of proof is not the standard applied in doping cases, it remains a relevant consideration. It is relevant in so far as the experts have taken on board (whether consciously or not) that they must be satisfied that there is no other reasonable explanation available to explain the blood values. The WADA Athlete Biological Passport Operating Guidelines require the Expert Panel to reach a unanimous opinion that there is no reasonable explanation for the blood profile other than the use of a prohibited substance or method. The criminal standard may also be relevant in so far as it is a consideration when assessing the standard to apply in doping cases. We will come to this point below. However, it should be emphasised at this point that the opinion of the committee is indirect, circumstantial evidence – an opinion and not a proven (legal) fact; upon which a recommendation is based to open a case and which may or may not be used as evidence in the hearing of the ADRV.

The law indicates that the standard of proof applied in anti-doping cases is quite high in cases involving indirect or circumstantial evidence. Having said this, one prima facie issue that arises when considering the Biological Passport concerns the need to identify the elements of the violation with a greater degree of certainty. For example, by way of analogy and at the risk of oversimplification, the question of proof in Biological Passport cases, in some ways, might be equated with prosecuting a murder without a body or being

able to say with sufficient certainty what was the cause of death. As lawyers we would argue, that at some point those alleging the ADRV would have to either point to a prohibited substance or a Prohibited Method that has been used. Possibilities might be a Prohibited Method such as a blood transfusion, the use of EPO or a plasma volume expander or a blood withdrawal.

The burden of proof required by the WADA Code and adopted in CAS cases such as *French v ASC*, *NJYW v FINA* and *K. and G. v. IOC* is derived from the Australian High Court decision of *Briginshaw v Briginshaw* (McLaren, 2006, p.11). In *French v ASC*, the CAS stated that the standard of proof required to be met by the Australian Sports Commission was somewhere between the balance of probabilities and beyond a reasonable doubt, and that the more serious the offence, the higher the level of satisfaction required by the Panel. It is because of the seriousness of the allegations and the consequences of an adverse decision for the athlete that the elements of the offence must be proven to a higher level of satisfaction than the balance of probabilities. A very high standard almost approaching beyond a reasonable doubt might be required in some cases (*French v ASC*).

Q: Yeah, whereas in a civil trial, if we're just fighting over money, it's called the balance of probabilities which is more likely than not; which would you think would be more appropriate to anti doping; that one or another one?

A: I don't know. I think you've got to be pretty sure that they're doping, because it's a fairly big stuff-up if it's someone's life, career, their everything; but at the same time, I think it's also obvious a lot of the times and it's probably hard to prove, but I guess you've got to have some proof, you can't just go, "I think he's doping", and go by...

The CAS decision of *NJYW v FINA* is of relevance as, in this instance, the same standard of proof was required from FINA (the international governing body for swimming) in their attempt to apply a two-year suspension to members of the China Swim Team. From this decision two questions arise in relation to proof and the Biological Passport:

1. What is the standard or burden of proof?
2. What is it? That is, what facts have to be proven to this standard?

The answer to the first question is to be found in the case law of CAS, and the law on which the relevant standard adopted by CAS is based is referred to above. However, although the case law does provide some guidance, in relation to the Passport the second question appears more difficult to answer.

In *NJYW v FINA* it was said by the CAS that the standard of proof required of FINA is high: less than criminal standard, but more than the ordinary civil standard and that the:

"ingredients must be established to the comfortable satisfaction of the Court having in mind the seriousness of the allegation which is made".

This is an accurate statement of the law in relation to the standard of proof applied in doping cases.

However, a recent decision of CAS in *Pechstein v The International Skating Union* does not do justice to the test set out in the above cases. This example, involving a German speed skater, Claudia Pechstein, was not strictly a Biological Passport case but was based upon the assessment of longitudinal haematological profiles. In applying the "comfortable satisfaction" test, which it said was "well known in CAS practice", the CAS seems to have ignored the subtlety of the test by stating that this is:

“exactly the same standard as any other anti-doping case brought before the CAS and involving blood doping: nothing more, nothing less”.

Clearly, the applicable test is not one applying the criminal standard of proof, but nevertheless a consideration of the test does require that one is alert to the criminal standard. That the standard is not the criminal standard is shown by the requirement that an athlete needs to rebut an allegation on the balance of probabilities (see Rule 22 of the UCI Anti-Doping Rules). In effect, what we have is a standard of proof that moves or floats within a defined range – less than beyond reasonable doubt and more than the balance of probabilities; the more serious the allegation and the consequences the higher the standard moves towards beyond reasonable doubt. Thus, in certain cases – because of, for example, the seriousness of the allegation or the consequences of the decision, the standard may in fact be required to be very close to the criminal standard. Finally, it appears that the CAS has resorted to a mechanical formula, not consistent with the previous case law, when it has stated that all cases of a particular type – e.g., blood doping – should have exactly the same standard applied. *Pechstein* seems to disregard the need to take into account both the seriousness of the allegations and the consequences of a decision – that is, the particular circumstances of the case before it in assessing the requisite level of proof required.

Comparably, in his judgment in *Briginshaw*, Justice Dixon of the High Court of Australia, was clear that *“the nature of the issue necessarily affects the process by which reasonable satisfaction is attained”*. When something must be proven to the standard of comfortable satisfaction, the ingredients or elements of the offence or allegation should not be produced by inexact proofs, indefinite testimony, or indirect inferences and that exactness of proof is expected (*Briginshaw* at 361-362). Later in his judgment Justice Dixon makes it clear that the importance and the gravity of the question at issue make it impossible to be reasonably satisfied of the truth of the allegation without the exercise of caution and unless the proofs survive a careful scrutiny and appear precise and not loose and inexact. Crucially, circumstantial evidence cannot satisfy a sound judgment of a state of facts if it is susceptible of some other not improbable explanation (*Briginshaw* at 369). This was expressed by a participant as follows:

A: You can't consider something that's based solely from a medical basis having anything to do with morality. In criminal law you've got the mental aspect, the criminal mind, and the actual act itself. Whereas in this, it's just the act.

Q: Yeah, it's the act and intention doesn't seem to matter at all.

A: Exactly, there's no...

Q: It's a sort of floating standard that falls between the two, but one of the things that I'm trying to get my head around with the biological passport is that they can't say what anybody took. They can only say we think it's likely that you have manipulated your blood.

A: Exactly, there's no specificity about different levels and what's actually occurred, unless it's a substance or whatever that's actually come up and they know that that's happened. On the other hand with things like blood, it's like the likelihood that that's occurred is unquestionable and that's just science. So I don't know, to me it's quite a difficult area because you're dealing with every athlete having different qualities, and I suppose that's why the amount of testing is being increased and the whole biological standards thing acknowledged; this is a good thing because if they can get a continual record of that, and then they can see subsequent changes that are completely...

As noted above, in satisfying the standard of proof the seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the

consequences flowing from a particular finding are considerations which must affect the answer to the question whether the issue has been proved to the comfortable satisfaction of the tribunal. In actuality, the consequences of a finding that an athlete has committed an ADRV may be far-reaching. We are not convinced that the question of the appropriate standard of proof in a doping case remains the same for each type of case (e.g., all blood doping cases), nor are we convinced that the standard of proof remains unaffected by the real-world consequences for the athlete. The question of the standard of proof, therefore, we do not accept is a pure sporting question unrelated to matters outside the world of sport, as decisions made by anti-doping decision-makers have consequences on the lives and livelihood of athletes. An anti-doping penalty in cycling is not like a red card in football – it does not carry with it mere sporting consequences and it encompasses disputes that are resolved far from the sporting field of play, in both terms of place and form.

Notwithstanding this, athletes may also be liable to criminal prosecution if found to have violated anti-doping rules. In fact, the same material used to find an ADRV is also available to prosecute an athlete under the criminal law (a number of European states, such as France, Spain and Italy have criminal doping laws). Although an athlete is not imprisoned as a result of an ADRV and although the criminal and sporting jurisdictions may be different, the same data, in many jurisdictions where pro cycling habitually operates, the same facts are used to achieve both sporting and criminal results. Criminal prosecution may be a possibility, but in any event the consequences of an ADRV can be life-destroying for an athlete, and it is these consequences that are relevant to an assessment of the appropriate standard of proof in any given case.

A: Yeah, that's the thing, I think these days...it was interesting watching the Tour de France two years ago when Ricco's case came out and the French thing was to just throw him in a prison automatically. And that was sort of, a lot of people particularly where I live in Italy they were laughing at it because they were like how does that operate, it's just a game. But I suppose that awareness of how the team structures are really being thrown in the bin in a way if that occurs and the awareness that it's not just the individual case by case thing, that came to mind as well for a lot of people because they realised that now the whole team's getting thrown out and they're like that's quite terrible.

Q: But doesn't it also destroy somebody's career, it's not just throwing them out of a game?

A: Yeah exactly, it sort of goes across the boundary of just sport in itself. It goes into the livelihood of not just the person who's done it, but everyone else around them. So it crosses that border, and that's probably similar to something like Marion Jones in athletics. And looking at someone's entire livelihood as a person just being destroyed and I don't know ... it becomes more of a general moral destruction as opposed to...

Q: Like blowing the whistle in a football game and awarding a penalty.

A: Yeah, it's like stop the game or in other sports if you punch someone then you get say, five minutes, whatever, and then you come back on. Now it's like now you lose your job, you have to pay back a whole bunch of people and you're either out of the sport for two years or you just can't come back full stop. And in that regard it's a totally different sport to any other sport, because it becomes your life and as much as other sports people say it takes over your entire personality, there's no other sport that probably does it as much as cycling does...

In *NJYW v FINA*, the CAS said that the resolution of the questions of burden and standard of proof, however, do not *per se* answer the further question of what it is that has to be proved to this standard. In the case of the Biological Passport, this issue still requires to be disentangled (*NJYW v FINA* p. 14):

Q: If one of your guys goes positive, or they've got blood passport fluctuations that are unexplainable would you expect it to be proven beyond reasonable doubt or would you be happy with a lesser standard?

A: Depending on what the penalty was.

Q: Two years standard isn't it?

A: The thing is to do the blood passport to get to that point you've got to be well off the Richter scale and I haven't heard of anyone getting a two-year suspension.

The Biological Passport has been used to date as evidence to support a proposition that a cyclist has used a Prohibited Method under the UCI rules. At least six riders have been given two-year suspensions based upon abnormal blood values detected by the Biological Passport. Notably, the Senate of the Disciplinary Committee of the Slovenian Olympic Committee recently rejected a case brought by the UCI against Tadej Valjavec. We will discuss this case shortly.

What needs to be proven?

Having considered the issues impacting upon the necessary standard of proof, we can now consider what it is that a cyclist must be alleged to have done in a case based upon the Biological Passport. The question is, accordingly, what are the elements or ingredients of the case that need to be proven? From there, we can consider the relationship between allegation, standard of proof and the use of evidence from the Biological Passport.

In defining the offence, or what needs to be proven against an athlete, Article 2.2 of the WADA Code simply states:

Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method.

Correspondingly, the relevant UCI rules state:

Anti-doping rule violations

21. *The following constitute anti-doping rule violations:*

...

2. *Use or Attempted Use by a Rider of a Prohibited Substance or a Prohibited Method.*

...

2.2 *The success or failure of the Use of a Prohibited Substance or Prohibited Method is not material. It is sufficient that the Prohibited Substance or Prohibited Method was Used or Attempted to be Used for an anti-doping rule violation to be committed.*

What we are concerned with is the use of a Prohibited Method. What constitutes a Prohibited Method is set out in the 2010 WADA Prohibited List. From Article 2.2 it appears that what must be proven in the end is the use or attempted use of a Prohibited Method. The relevant Prohibited Method listed in the WADA Code is:

Method 1: Enhancement of Oxygen Transfer

The following are prohibited:

1. *Blood doping, including the use of autologous, homologous or heterologous blood or red blood cell products of any origin.*

2. Artificially enhancing the uptake, transport or delivery of oxygen, including but not limited to perfluorochemicals, efaproxiral (RSR13) and modified haemoglobin products (e.g. haemoglobin-based blood substitutes, microencapsulated haemoglobin products).

The other methods deal with interference or tampering with the testing procedure (Method 2), such as the use of Protease, which was common at one time to avoid EPO detection (see for example Dilger, 2007, and Hardie, 2010) and gene doping (Method 3). As was argued in the *Valjavec* case, an allegation should distinguish between the two paragraphs and identify which method is alleged to have been used. In turn, a reading of Method 1, the enhancement of oxygen transfer, involves two distinct limbs. Blood doping and the use of artificial blood booster is, for our purposes, the most relevant and it too appears to have two distinct limbs. The first limb refers to various uses of blood and the second limb refers to blood products such as EPO and CERA.

At a very minimum under Method 1 it would appear that what needs to be proven is either one of the forms of blood doping referred to (note the use of the word ‘including’ means that other forms of blood doping may be proven as well) or artificial enhancement of uptake, transport or delivery of oxygen, (again, methods other than those set out in the provision may be proven). Notably, the WADA Biological Passport Guidelines (WADA 2010 para 3.3.1) state that the Biological Passport:

“has the sensitivity to identify among other doping methods, enhancement of oxygen transport, including recombinant erythropoietin abuse and any form of blood transfusion or manipulation”.

Thus it appears, at least according to WADA, that it is possible to frame the allegation of blood doping to a finer resolution.

If we consider this in practice, in the aforementioned case of *Pechstein*, the CAS decided that the ISU needed to prove that:

- i. the blood samples were properly taken;
- ii. there was a reliable chain of custody of the blood samples from the place of collection to the laboratory;
- iii. the machine used to analyse the blood samples was capable of reliably recording haematological values;
- iv. the transmission of those values to and the storage in the ISU data base was reliable; and
- v. the haematological values of Ms Pechstein are reliable evidence of her use of a Prohibited Method (*Pechstein* para 113).

Lippi et al. (2010) have recently discussed the circumstances under which blood samples have been taken from professional cyclists, suggesting that certain practices of anti-doping testers are not conducive to producing fail-safe samples. However, we do not wish to focus on this factor overly – the proper collection of samples should be obviously paramount. The same can be said for the need to ensure that proper quality control procedures are observed during the analysis process. We have no information concerning the questions relating to the reliability of data transmission and storage within the UCI. In this regard we do note that there have been reported concerns about the manner in which the Biological Passport decision-making process has been administered by the UCI, including allegations that the UCI might be shielding guilty riders from punishment (Albergotti, 2010; UCI 2010 17.8.10 & AAP 2010). We do not wish to enter into that debate,

but it may be that rather than these processes being concealed from public view they are not being properly explained to the public and it is not surprising that misunderstandings have arisen. Proper explanations and transparent processes instead of media puffery might go a long way in dealing with these issues. To date, sport has never succeeded in putting up a convincing argument as to why its legal processes should be kept in camera (Weatherill, 1998).

However, in regard to *Pechstein*, it is the final item, that the haematological values are reliable evidence of a Prohibited Method, that raises difficult legal questions that must be considered. As discussed above, an ADRV based upon the Biological Passport is a violation for the use of a Prohibited Method such as a blood transfusion, use of EPO, a plasma volume expander, or a blood withdrawal. Proof at law would normally require proof of an actual method, not an allegation that it might be one of several methods where the exact method cannot be pinpointed with any greater degree of certainty. The level of certainty which it appears has been adopted by the Expert Panel involves no finer resolution than stating that, in their opinion, blood manipulation or blood doping has occurred. Putting aside for now whether or not this is the proper question for the experts to address, the point we need to explore here is that, given some methods of blood manipulation may be legal and others may not, is it arguable that a finer resolution is required by the law? The alternative is to claim that haematological values are reliable evidence of blood doping may, by itself, be sufficient.

In the *Pechstein* case the Court of Arbitration of Sport said that in order to prove a case based upon evidence similar to that used in the Passport system, firstly the haematological values need to be proven as abnormal in inter-individual terms – both in the case of the general population and the particular sporting population (*Pechstein* p47 ff). Once this had been achieved the Court said that then the haematological values need to be proven as abnormal in terms of intra-individual terms – i.e. for the individual's personalised values profile (*Pechstein* p49 ff). Once this was done the Court said that it must also be shown that there is no other reasonable explanation for the abnormal blood values (para 207-208 *Pechstein*). In a pure Biological Passport case, where population levels are not included (Sottas, 2010) it might be that the inter-individual and population values would not be relevant and that the focus would be solely upon the personalised profile of only the individual in question.

Thus, at this point of the enquiry what needs to be shown is at least that:

- the haematological values need to be proven as abnormal in terms of intra-individual terms; and
- there is no other reasonable explanation for the abnormal blood values.

This is what the signed opinion of the Expert Panel seeks to prove. Whether it constitutes reliable proof to the necessary standard depends upon how it is presented at the hearing. Nevertheless, the question still remains as to whether a finer resolution is required rather than, for example, a global and un-detailed allegation of blood doping or artificial enhancement? That is, are the experts required to hang their hat on a particular substance or method? In *Pechstein*, all that was alleged was a Prohibited Method – some form of blood doping. The question as to whether or not the decision-maker requires a finer resolution than simply 'blood doping' we would submit would appear, in part, to turn upon the seriousness of the allegation and the consequences of an adverse finding. Thus, the more serious both the allegation and the consequences of an adverse finding, the closer the standard of proof moves to the criminal standard of beyond reasonable doubt and, accordingly, a finer resolution may be required.

In answering the question as to whether the Biological Passport satisfies the necessary standard of proof – that is, is it reliable evidence of the use of a Prohibited Method, we submit that a decision-maker would need to be satisfied that the opinion of the experts in

relation to the blood values was evidence that went to the question of proving the ingredients of an offence, namely:

1. the use of a Prohibited Method - blood doping; and
2. the form of blood doping was either:
 - a. the use of blood (i.e. a form of transfusion) or
 - b. the use of red blood products (e.g EPO or CERA) and
3. there was no other reasonable explanation for the blood values other than 2a) or 2b).

In the case of *UCI v Valjavec*, the UCI did not even go so far as to identify blood doping as the Prohibited Method, merely relying on a statement that the method used was:

“- the oxygen transfer enhancement is a Prohibited Method, which is listed as a Prohibited Method according to M1 on the List of prohibited substances or methods of the World Anti-Doping Agency.”

This was rejected by the Slovenian Olympic Committee as being insufficient. Valjavec had stated in his written defense that:

“- it is not clear, what the subject of charges is, since they are listed in detail (and not as examples) in points a) and b) of the category M1 of the Prohibited Methods;

- it is not evident from the notification of the UCI when the Athlete supposedly used any of the Prohibited Methods;”

The Slovenian Disciplinary Committee Hearing considered the arguments and decided that:

“In the opinion of the Disciplinary Committee, the UCI has not even proven with the named standard of proof (comfortable satisfaction) that there was an oxygen transfer enhancement in the case of the Athlete. Even the statements of the UCI in this regard are insufficient, since it is not clearly evident which event (blood sample, sequence) the UCI regards as the one, from which it can be established that there was the use of Prohibited Method of oxygen transfer enhancement. As late as during the evidence procedure (expert opinion dated 15 June 2010 (A30) and testimony of Dr. D’Onofrio) it became evident for the first time which samples (sequences) are regarded by the UCI as abnormal, whereas the UCI has not at all stated this in its submissions. All along the UCI only stated that no other explanation, other than that there was the use of Prohibited Method of the oxygen transfer enhancement, is possible in the case of the blood profile, as arising from the Athlete’s biological passport. The Disciplinary Committee is of the opinion that such statement is in itself too general. In addition, the UCI has not supported its statements ... with any evidence; even more, it has not even proposed any evidence in this regard. The Disciplinary Committee adds that it regarded Article 23 of the UCI Anti-Doping Rules, which states two cases as examples presenting the proof of oxygen transfer enhancement. The Athlete’s blood profile could ‘indicate’ the first as well as the second example, set out in Article 23 of the UCI Anti-Doping Rules, however, the UCI has not stated to which of the two examples (first, second or both) the Athlete’s biological passport refers in the case at hand; thus, the Disciplinary Committee could not execute the evidence procedure in this regard. The Disciplinary Committee cannot even by far be comfortably satisfied that there was an oxygen transfer enhancement in the

case of the Athlete without any appropriate statements and without proposed evidence, which would prove the statements.

Regardless of this, the UCI has in no case proven that the Athlete used the Prohibited Method of oxygen transfer enhancement. Even if the Disciplinary Committee regarded that the UCI has stated and proven the oxygen transfer enhancement in the sense of Article 23 of the UCI Anti-Doping Rules already by submitting the blood profile, the UCI has neither stated nor proposed any evidence with regard to the Prohibited Method of oxygen transfer enhancement. The only statement of the UCI in this regard was that "it is not necessary to state which Prohibited Method took place in the case at hand". The Disciplinary Committee assesses that merely stating that "there is no other known reasonable explanation" cannot be sufficient for finding that an athlete violated anti-doping rules. In any case the Disciplinary Committee cannot be comfortably satisfied on the Athlete's use of Prohibited Method."

Even if we (and the Slovenian Olympic Disciplinary Committee's Hearing) are wrong on this point and the UCI is correct in asserting that *"it is not necessary to state which Prohibited Method"*, the question of a finer resolution may still arise again at a hearing where an expert would be required to give an opinion of alternate hypothesis. We will now turn to discuss the proper role of the expert in giving evidence.

The role of the expert

We can see that the material contained within the Biological Passport becomes relevant to the process of disciplining a cyclist - at the point of the Lausanne Laboratory running results through the ABP Software, when the Expert Panel gives its opinion and at the hearing of an ADRV. In the case of the ABP software, what is really being reported is that there is a 1/100 likelihood of the result having an abnormal value. The Lausanne Laboratory's web site makes this clear in its explanation of the Passport:

"Firstly, because the decision rule as described above is not based on a true probability of doping, but rather on "how the profile differs from what is expected in clean athletes". This conceptual difference is well known in forensics for the evaluation of scientific evidence: to sentence an athlete solely from a high level of specificity would be a fallacy of statistical reasoning that results from misunderstanding the idea of multiple testing. ... Secondly, doping is not the only possible cause to explain a detected abnormality." (Lausanne, 2009)

All that the ABP software does and can do is to prompt a decision, albeit a preliminary decision, which then sets in train the further assessment of the case carried out by the Expert Panel. This assessment is said to provide a qualitative interpretation of the quantitative value of the evidence returned by the Lausanne lab (Sottas, 2009, p. 320). What is more problematic for us is the question of the manner in which the statistical information from the Biological Passport and the opinion of the Expert Panel based upon that statistical information can be received as reliable evidence at a hearing.

The admissibility of expert evidence was considered in the English case, *R v Reed*, concerning the death of two children from Sudden Infant Death Syndrome (SIDS). In that case the Court of Appeal said that it is important to distinguish between the issue of the admissibility of expert evidence and the assessment of that evidence by a jury. In a Biological Passport case, evidence would need first to be considered admissible. Once this is done the manner in which it is presented to the decision-maker and the manner in which the decision-maker assesses that evidence would become the issue. Although one needs to distinguish between the two at the same time the issues flow into each other – evidence presented to the decision-maker in an impermissible form would not be admissible per se. Opinion evidence is not ordinarily admissible in a court unless it is based upon an area of expertise which is normally outside of the judge or jury's

experience or their proper role and function. To be admissible, firstly, a decision-maker would need to be satisfied that the scientific basis for the evidence was sufficiently reliable. This is a lower bar than that set out by US Courts and the ‘enhanced test’ adopted in *Daubert v Merrell Dow Pharmaceuticals*. Secondly, the subject matter of the science must be part of a body of knowledge which is sufficiently organised or recognised to be accepted as a reliable body of knowledge or experience. Related to this is the condition that the evidence must be within the scope of the expert’s expertise. An expert can give evidence on possibilities and probabilities in relation to the evidence within their expertise but, when doing so, they must conform to procedures that seek to ensure the fairness of any hearing. The form in which their opinion is presented and the need to evaluate all the possibilities that the evidence presents are important for the proper reception of the evidence. We will now turn to this issue.

From the work of Sottas and others, the WADA Operating Guidelines and the public comments of the UCI, the Expert Panel’s recommendation appears to be couched in terms of the likelihood that the cyclist in question has doped – that is as a determination “as to the likelihood of guilt”. To repeat the opinion of the Expert Panel states that there is no reasonable explanation of the blood profile other than the use of a Prohibited Method. The decision of the Slovenian Olympic Committee in the case of *Valjavec* confirms the manner in which the UCI phrases the opinion of the Expert Panel. In their notification to the cyclists in that case, the UCI stated that:

“- the conclusion on the alleged violation of anti-doping rules arises from a unanimous statement of the Expert Panel that the haematology profile, containing Athlete’s blood samples from 2008 and 2009, convincingly proves there is no other reasonable explanation for the Athlete’s blood profile information other than the use of prohibited substance or method of oxygen transfer enhancement;”

It may be given, based on the preliminary nature of the opinion at this stage, that there is not a problem with statements “as to the likelihood of guilt” by the Expert Panel. Yet, the law is clear that at the latter stage, for example, the hearing of the ADRV before ASADA, the opinion of the experts could not be phrased in terms of the “likelihood of guilt”. In order for an Expert Panel’s opinion to be admissible as reliable evidence, that evidence must be set out in a particular way so as to guard against the expert’s opinion usurping the role of the decision-maker, whether that decision-maker be a national cycling federation, an anti-doping agency or a court of law. The giving of scientific evidence and, in particular, evidence which interprets data based upon the types of statistical evidence that underpins the Biological Passport is strictly controlled by the courts in order to ensure that any legal process is conducted fairly and without prejudice to the accused. In asking us to “trust the science” the UCI and Sottas made much of the manner in which the Passport “applies similar principles to those used in forensic medical science to determine the likelihood of guilt”. The disciplinary committee in the *Valjavec* case did not seem to swallow the plea to “trust the science” in the manner the UCI would have liked them to have.

Accordingly, if the opinion of the expert in a Biological Passport case is phrased in terms of the “likelihood of guilt” then it is *not* used in accordance with the principles applied by courts in relation to forensic medical science. In fact, the manner in which evidence of the Passport is presented would appear to be in contradiction to those principles. If this is the case, the opinion of the expert would be inadmissible as reliable evidence.

There is ample judicial and academic opinion to support our contention that if opinions of likelihood are presented in this manner they are not being presented to the standard that the law requires. An example from a case involving DNA illustrates the difference between opinions of likelihood of guilt and the manner in which evidence should be presented to a court. In the English case of *R v Deen* (Redmayne, 1996) the main evidence against the defendant was DNA evidence. The expert who gave evidence in the case concluded that

the DNA profile would be found in one in three million people. In court the expert gave a different interpretation of the DNA evidence – they agreed with a statement by prosecution counsel that the likelihood of this being any other man than the defendant is one in three million. When asked by counsel what their conclusion was, the expert responded that their conclusion was that the DNA came from the defendant. The Court of Appeal overturned the conviction on the basis that these statements were misleading and prejudicial to the fair trial of the accused.

Redmayne clearly states the distinction between the permissible and impermissible manner of giving expert opinion:

“The expert's error lay in confusing two different questions, namely: (1) What is the probability of finding the evidence, given that the defendant is innocent? (2) What is the probability that the defendant is innocent, given the evidence? The difference between the two questions may not be immediately obvious, but it should become clear when two different questions which have the same logical structure are considered: (1) What is the probability that an animal has four legs, given that it is a cow? (2) What is the probability that an animal is a cow, given that it has four legs?”

The difference between the two ways of framing the evidence of the expert's opinion can be seen if we frame the statements in terms relevant to the Biological Passport:

- 1) What is the probability of the abnormal blood value given the athlete has been at altitude?
- 2) What is the probability that the athlete is innocent (of an ADRV) given the abnormal blood values?
- 3) What is the probability of the abnormal blood value given the athlete has blood doped?
- 4) What is the probability that the athlete has blood doped (and is guilty of an ADRV) given the abnormal blood values?

Statements 1) and 3) are permissible as evidence, whereas statements 2) and 4) are not permissible. The WADA Guidelines state the Expert Panel's opinion in terms of their being high probability that the athlete blood doped given the blood values – that is, in the impermissible form similar to 2) and 4). The impermissible form is known as the Prosecutor's Fallacy. In the Biological Passport process, the Prosecutor's Fallacy is institutionalised at the point of the Expert Panel giving their 'opinion'.

The importance of the logical distinction between the two questions is that, depending on the other evidence presented to the court, the two questions may have very different answers. If there is very little other evidence against a defendant, or if the other evidence favours the defendant, then the probability that the defendant is innocent given the expert evidence may be very much greater than the match probability. Conversely, if there is other strong evidence against a defendant, then the second probability may be smaller than the first. The consistent point made by the cases and the academic writing on this topic concerning the Prosecutor's Fallacy, or the Transposed Conditional, is that it is generally not the expert's task to assess the other evidence in the case: this should be left to the decision-maker who needs to make the ultimate determination of fact, such as ASADA, a court or, in the case of a criminal trial, the jury. Thus, in giving their evidence the expert can give an answer to Redmayne's first question above, but they cannot properly give an answer to the second question. Faber (2010) and Berry (2004) raise the interesting role collegiality could possibly play in determining jury questions in anti-doping hearings such as these. We will return to this point later in the report when we consider the

possibilities of using collegiality and the social construction of professional cycling as anti-doping mechanisms themselves.

It is correct that the WADA Code (and UCI Rules) allow an ADRV to be established by “any reliable means” (see e.g. Article 3.2 WADA Code). The comments to that Article and to Article 2.2, which govern the standard of proof, suggest that an ADRV for use of a Prohibited Method might be established by an:

“Athlete’s admissions, the credible testimony of third Persons, reliable documentary evidence, reliable analytical data from either an A or B Sample as provided in the Comments to Article 2.2, or conclusions drawn from the profile of a series of the Athlete’s blood or urine Samples” (see also Faber, 2009).

We must stress that the Comments do not form part of the Code itself but are merely an aid to its interpretation. Nevertheless, the fact that evidence from a profile of a series of the Athlete’s blood samples (e.g. a Biological Passport profile) may be used as evidence does not mean that it can be used in any manner whatsoever – it must be used in a reliable manner and, to be used reliably, we submit it should conform to the rules adopted by the law that govern the giving of such expert evidence. Unfairly presented evidence is not reliable evidence.

As we have said, at present, it appears that the recommendation of the experts is couched in terms of a likelihood of guilt. Given the manner in which expert evidence should be received at a hearing to ensure its reliability and non-prejudicial character, it would seem appropriate that such a practice is also adopted at the stage of the Expert Panel giving its opinion to the UCI. In this manner we may be able to overcome the institutionalisation of the Prosecutor’s Fallacy within the current system. Currently, the Expert Panel’s opinion to the UCI is given in a manner which constitutes the error of the Prosecutor’s Fallacy as it confuses two different questions, namely:

(1) What is the probability of finding the evidence, given that the defendant is innocent?
with

(2) What is the probability that the defendant is innocent, given the evidence?

In the end, whether the decision-maker is convinced that the athlete is innocent will depend upon their assessment of the weight of all of the evidence. They would be required to be comfortably satisfied, in the way we have set out above, that there was no other reasonable explanation for the abnormality.

Valjavec argued in his case that:

“- The Expert Panel was set up with irregularities and the Expert Panel prejudged the matter and violated the principle of innocence when it stated that the haematology profile of the Athlete presents convincing evidence of the use of the Prohibited Method according to M1.”

It seems that what is being raised here is that the opinion of the Expert Panel and the manner in which it was presented as a conclusion as to the likelihood of guilt, is the Prosecutor’s Fallacy:

“convincingly proves there is no other reasonable explanation for the Athlete’s blood profile information other than the use of prohibited substance or method of oxygen transfer enhancement”.

By couching the opinion in such a potentially prejudicial and misleading manner, Valjavec’s argument is that the presumption of innocence has been violated by the

prejudgment of his case by the Expert Panel. It is clear from what we have said that the analysis using the ABP software and the opinion of the Expert Panel are not proof of anything. But the problem is that the evidence is presented as proof, but at law it cannot be treated as proof of anything other than possibly a blood value abnormality. This misconception is institutionalised in the process from Lausanne to the opinion of the expert panel, but it isn't acceptable for a hearing. The problem is compounded for the UCI when the media perception they have created is to the contrary.

Valjavec's argument is consistent with the law on the subject we have set out above. The Disciplinary Committee had no hesitation in going beyond the opinion of the Expert Panel and considered the evidence in its totality. In doing so it found that:

"the method of biological passport was applied wrongly and that this could have influenced the "abnormality" of the Athlete's blood profile. ... the Disciplinary Committee still finds, based on all other statements and submitted evidence, that the Athlete has proven with the balance of probability that his blood profile from the biological passport is not a consequence of the use of Prohibited Method.

... the UCI has not comfortably satisfied the Disciplinary Committee that the Athlete used the Prohibited Method and at the same time the Athlete established with the balance of probability that he did not apply the Prohibited Method ..."

In Valjavec the UCI were not able to prove to the appropriate standard that there were no other reasonable explanations for the abnormal values. One of the problems that the UCI faced in proving its case was that other than the signed statement of the Expert Panel, no member of the Panel actually gave evidence. Hence, in effect, there was no evidence before the Disciplinary Committee on which to support the Panel's opinion. Valjavec argued that:

"- the Expert Panel has not sufficiently researched the possible causes for the Athlete's blood profile as were presented by the Athlete in his written explanation;

- the cause for the abnormal blood profile in the case of sample No 17 (19 April 2009) is the loss of blood due to bleeding corrosion in the stomach;

- the cause for the abnormal blood profile in the case of samples No 20 and 21 (27 August 2009 and 29 August 2009) is firstly haemodilution (sample No 20), which occurred after the wasp sting and administration of the therapy (corticosteroids) and intake of greater amounts of fluids, and secondly, previous altitude trainings and living in a hypoxic room."

The Disciplinary Committee decided:

"Dr. Sottas explains that the statistical method of the biological passport or the values arising from it do not show the probability of doping; they only show that there are abnormal values, which cannot be a result of the natural physiological fluctuations. Dr. Sottas states that only an external cause (health condition, altitude exposure, if not considered) can explain such fluctuations. That stated means that both parties need to prove the cause of abnormal value of blood profile (whereby the UCI bears the burden of proof). The UCI has not done so."

The Disciplinary Committee considered the explanation put forward by Valjavec and the opinion of the Expert Panel and other experts who gave evidence. It decided that Valjavec had shown that there were other reasonable explanations for the abnormal values

recorded by the Biological Passport. The following part of its decision shows the complexities in such a case, and the difficulty that the UCI has in proving an allegation based upon the opinion of the Expert Panel to the appropriate standard of proof:

“In the opinion of the Disciplinary Committee, the Athlete has proven as likely that the results of blood samples dated 19 April 2009, 27 August 2009 and 29 August 2009 are a consequence of other factors and not of the use of Prohibited Method.

It is evident from the testimony of Dr. Udir and according to the information from the Athlete’s health records that the Athlete had long-lasting health problems, which he had not treated adequately and continuously. The witness, his ex-coach Polanec, confirmed that the Athlete is a person, who handles the stressing situations relatively poorly or that they reflect in his health condition. It is evident from the esophago-gastro-duodenoscopy and from the path histological diagnosis in relation to that, and from the opinion and testimony of Dr. Zver, that the Athlete has acute and chronic changes of the stomach mucous membrane (erosions in the stomach, certain covered haemotin corks), which lead to fresh bleeding from the stomach mucous membrane. There is dead tissue in the Athlete’s stomach. The Athlete has reactive gastritis (inflammation of the stomach mucous membrane), which could cause the bleeding in April 2009. The Athlete himself stated that he was noticing black excrement in April 2009 and the Disciplinary Committee entirely believes the Athlete’s convincing testimony. Even Dr. D’Onofrio himself told, questioned as witness (he is a witness proposed by the UCI) that the cause for such blood profile as was Athlete’s on 19 April 2009 could be a bleeding in the digestive organs and that he could not exclude this possibility. Dr. D’Onofrio confirmed also that it is possible that in such case the Athlete would lose an amount of blood equivalent to 1 to 2 bags of blood (450 to 900 ml). The Disciplinary Committee concludes from the above stated that the Athlete has proven with the balance of probability that the loss of blood due to the bleeding in the digestive organs was the cause for his blood profile on 19 April 2009.

The Disciplinary Committee was not convinced by the opposing statement of the UCI, which arises from the opinion of experts (A30) that it is strange that an Athlete being in such a bad health condition could only 18 days later participate in Giro d’Italia, at which he achieved a very good qualification (9th place in the overall standings). ... The Disciplinary Committee is of the opinion that it is not impossible that an athlete has the ability of faster renewal of blood compared to an average person in addition to the exceptional regeneration abilities in the sense of physiologic capabilities, which were confirmed by the witness Polanec and which enabled him good result at the Giro d’Italia.

*The Athlete stated with regard to the blood profile dated 27 August 2009 that before that he had been living in the conditions of oxygen shortage (living in Pokljuka at the altitude of 1,300 m and in the hypoxic room at the simulated altitude of 2,800 to 3,200 m). The Athlete convincingly stated that he had been living and training in his house in Pokljuka in July and August 2009, which the Disciplinary Committee believes him; furthermore, he has proven this fact with the newspaper articles from that period (B7). It is evident from the medical certificate (B12) that the Athlete was administered, due to an insect (wasp) sting, on 25 August 2009 a therapy, namely corticosteroids methylprednisolonum in the amount of 80 mg with the instruction of the doctor to take in as much fluids as possible in the next 24 hours. It is evident from the opinion and the testimony of Dr. Zver that methylprednisolonum holds the fluids in the human body, which was, in addition to the intake of greater amounts of fluids, *the cause of haemodilution and therefore lower*

value of Hb despite the longer living in the altitude conditions. The Disciplinary Committee considering the lack of evidence, which would convincingly indicate otherwise, believes the witness and is of the opinion that the Athlete has proven with the balance of probability that the cause of his blood profile on 27 August 2009 was so called haemodilution. ... The Senate has, based on the statements and submitted evidence of the Athlete, assessed that it is probable that the result of blood profile on 27 August 2009 is the consequence of the treatment of wasp sting.

The Athlete stated with regard to the blood profile on 29 August 2009 that the high value of haemoglobin (Hb) is the consequence of living in the aforementioned conditions of oxygen shortage, whereby the effect of haemodilution faded out within two days. Dr. Zver stated in his Opinion that the value of Hb on 27 August 2009 was without the wasp sting very likely the same to the value on 29 August 2009, to which the Disciplinary Committee believes considering the lack of evidence, which would convincingly indicate otherwise. Thereby Dr. Zver explains in the opinion and also when questioned as witness that it is normal that the share of reticulocytes falls, if an athlete does no longer live in the conditions of oxygen shortage, which entirely confirms the Athlete's statements with regard to the blood profile. The UCI experts stated in the opinion only information that according to the modern scientific research (they have not stated which research) it is required that one is exposed to hypoxic conditions for at least 2 to 3 weeks in order for such conditions to actually have the effect on increase of the HB; however, the Athlete had only been exposed to such conditions for 11 days in August 2010. Considering the lack of more detailed analysis, which would confirm the statements of the UCI experts (Dr. D'Onofrio stated the same, however, no more convincingly), the Disciplinary Committee is of the opinion that the Athlete has proven with the balance of probability that the cause of his blood profile on 29 August 2009 was living in the hypoxic conditions. Thereby the Disciplinary Committee has not regarded as relevant the note of the UCI experts that the Athlete's Hb value from 26 September 2008 until 14 December 2008 was comparable to the value on 29 August 2009, even though he had not been living in the hypoxic conditions. The Disciplinary Committee is of the opinion that this fact cannot present evidence that it is not probable that the hypoxic conditions would influence the Athlete's blood profile.

The Athlete stated and has proven also that the abnormal blood profile is the consequence of wrongly applied statistical method of biological passport. Dr. Pohar Perme, questioned as witness, showed that the graphs of the Athlete's blood profile would considerably change if the UCI technical documents were respected in entirety, especially considering the correction factors with regard to the Athlete's altitude living. Dr. Perme, sufficiently explained why in the case of Athlete's biological passport the correction factors with regard to the altitude living had not been regarded. Thus, the Disciplinary Committee finds that the Athlete has proven with the balance of probability that the method of biological passport was applied wrongly and that this could have influenced the "abnormality" of the Athlete's blood profile."

The scientific literature to date on blood doping has pointed to the pathological condition known as polycythemia as the only apparent pathological condition that might cause an increase in blood values in the same way as blood doping may. The same scientific literature suggests that this condition would not be compatible with elite sport as it is mostly associated with tissue hypoxia, chronic obstructive pulmonary disease, heart disease and smoking (Parisotto, 2003, p. 939). This is a similar argument to the one rejected by the Slovenian Disciplinary Committee in relation to Valjavec's intestinal bleeding. Other than pathological conditions, illnesses, and injuries we have also

mentioned errors that may arise in the collection and analysis phases of the process. Another explanation for an abnormality might be the effects of altitude or hypoxic tents, as was argued and accepted in the *Valjavec* decision.

Altitude training, artificial altitude training, and sleeping in hypoxic tents have an identical effect on the body's natural production of EPO as do the various forms of blood doping. If a person goes to altitude, the body senses that there's not enough oxygen, and it compensates by producing more EPO which goes to the bone marrow and starts stimulating the production of more red blood cells. In the case of, for example, the injection of EPO by syringe, instead of the kidney producing the EPO at altitude it goes to the bone marrow and starts the production of red blood cells. Other than the injection of EPO, the effect is identical and experts expect the same signature with both scenarios.

However, there are two very important distinctions between the natural and artificial methods. One is that at altitude the body has its own homeostasis and ability to positively or negatively feedback to that loop. In the case of an injection of EPO, the body's natural homeostasis is overridden. The second difference is in terms of scale - an extreme reaction at altitude would thus be equivalent to a very small dosage of EPO. This is the problem that has arisen with EPO micro-dosing. It may be possible to detect small changes that may be brought about by way of micro-dosing EPO, but it would also give rise to a reasonable hypothesis that it was caused by altitude. In such a case it is not possible for the experts to reach an opinion that the abnormality was caused by doping (Sottas, 2010).

The question of proving or disproving reasonable explanations brings us to the need for the expert giving the scientific evidence to give opinions as to all the relevant alternate hypotheses. Not only must the evidence be given in the proper form, it must also test the relevant alternate hypotheses. The value of evidence in testing an assertion against an alternative and in discriminating between alternatives in this area is expressed by a likelihood ratio (Freckleton 2010 28.110). In considering likelihood ratios, one is not concerned with an assumption that a case is true or not – this is misconceived; what must be considered is how probable the evidence would be supposing a particular hypothesis – that is the prosecution or defence case; this process does not require any belief in any particular hypothesis (Freckleton 2010 28.240). No piece of evidence is of any value in itself; its value depends entirely upon its ability to discriminate between one hypothesis and another. For a hypothesis to be useful it must be well formed, positive and specific (Freckleton 2010 28.250). Hypotheses should also be mutually exclusive in the sense that not both can be true (Freckleton 2010 28.360), they need not be exhaustive – that is, they do not need to account for all possible explanations (Freckleton 2010 28.370). Given that hypotheses may be non-exhaustive, a 'prosecution hypothesis' may have to be compared with several alternate hypotheses (Freckleton 2010 28.390).

We have earlier referred to the problem of framing the allegation to a finer resolution than "blood doping" given the manner in which Article 2.2 of the WADA Code is framed. It may be possible to incorporate this need for a finer resolution into the process of framing alternate hypotheses upon which an expert may be able to give a proper opinion. We might frame the alternate hypotheses for abnormal blood values in the manner set out in Figure 1.

Figure 1: Alternate Hypotheses for Abnormal Blood Values

- HD1 = blood doped
- HD1a = EPO etc
- HD1b = transfusions
- HND2 = altitude, tents etc
- HND3 = pathological condition, illness

- HND4 = sample collection error
- HND5 = instrumental/quality control error
- HND6 = statistical/software error

H = hypothesis
D = doped
ND = not doped

The task of the expert is to provide the decision maker with evidence in relation to each alternate hypothesis. Consistent with the authorities, this evidence might be in the form of likelihood ratios for each hypothesis. Likelihood ratios can be expressed as a numerical value or verbally. There have been tables compiled to allow for the computation of a numerical into a verbal value (Evetts 2000, Sottas 2008, Freckleton 2010).

Figure 2: Examples of Likelihood Ratios Expressed Verbally

Likelihood Ratio	Verbal equivalent
1 to 10	Limited support
10 to 100	Moderate support
100 to 1,000	Strong Support
More than 1,000	Very Strong Support

(Freckleton 2010 80A.250)

Value of likelihood ratio	Verbal equivalent
> 1–10	Weak support for proposition
10–100	Moderate support
100–1000	Moderately strong support
1000–10,000	Strong support
10,000–1,000,000	Very strong
> 1,000,000	Extremely strong

(Association of Forensic Science Providers 2009)

<i>Likelihood of blood doping in function of the plausibility of blood doping, following Hummel's transformation in parentage testing.</i>	
Plausibility of doping	Likelihood of doping
0.9980–0.9990	Practically proved*
0.9910–0.9979	Extremely likely
0.9500–0.9909	Very likely
0.9000–0.9499	Likely
0.8000–0.8999	Undecided
Less than 0.8000	Not useful

(Sottas 2008)

* Note Sottas incorrectly incorporates a determination of guilt (the Prosecutor's Fallacy) into his verbal likelihood ratios.

Expressed as a verbal likelihood ratio, an expert might give proper opinion evidence by stating:

In my opinion there is a moderate support for (the likelihood of) the abnormal blood value given the athlete has been at altitude.

The process would be repeated for each relevant alternate hypothesis set out above in Figure 1. Rather than the form used in Valjavec:

- the case of blood doping has been proven given the evidence;

The correct form should be a statement as to the probability of the evidence, given each hypothesis. For example, an opinion should be couched in terms such as:

- there is a moderate possibility of the abnormal blood values given the athlete has spent time at altitude; or
- there is a strong possibility of the abnormal blood values given the athlete has taken EPO.

The correct form in statistical terms is:

- $P(E|H)$ (the probability of the evidence given the hypothesis)

not

- $\text{Proves}(\text{Hypothesis}|\text{Evidence})$.

Faber (2009) has put it as such:

“Formal logic dictates that forensic scientists can only make statements about the likelihood of the evidence given the hypothesis, symbolized as $p(E|H)$, which is referred to in the current context as the ‘transposed conditional’. If these scientists properly execute their task for both the prosecution and defense, this leads to the presentation of likelihood ratios, calculated as $p(E|\text{guilt})/p(E|\text{innocence})$, to a jury or a judge who subsequently chooses between hypotheses.”

P = probability

E = evidence

H = hypothesis

Faber’s final point here is that the determination of guilt is a ‘jury question’ – that is, it is a matter for the trier of fact, whether it be a judge, a jury or an administrative decision maker such as ASADA. This accords with the approach taken by the Disciplinary Committee in *Valjavec*. The limit of the expert’s evidence is set out by the opinions as to the likelihood of the evidence (see the discussions in Faber (2009b), Berry (2004), *R v Dohony*, *R v Adams*, *Latcha v R* and *R v Smith*. It is then for the decision maker to decide having regard to all the evidence whether or not the athlete has committed an ADRV. The expert giving evidence must stay within the confines of their proper role and only give opinions on matters outside of the knowledge of the decision maker and not intrude or usurp the decision maker’s function.

Health Monitoring or Doping Sanction Tool?

Q: Yeah. How would you feel about a two-tier anti-doping thing, one which said all we can really do with the blood passport. Because what they say publicly is we can't say what a rider's taken. We can just say there's a possibility that it's likely they've manipulated their blood which to me is a very high standard of proof.

A: It depends what aspect they're looking at. If they've got doctors and they're saying this person's values are all over the place. If they're saying something's not right this person isn't healthy then stop them from racing. You need to sort this out. If you don't have anyone to sort it out for you then we'll provide someone to help you with that. But if they're looking at it from an anti-doping point of view like you said I don't know if that's such a high standard of proof to stop people from racing.

Q: You said something interesting. You said if you don't have anybody to help you sort it out we'll find someone to help you sort it out. That might be another thing we talked about rehabilitation and support networks and things like that. When people do have dodgy blood vessels they actually have to go and see some other doctor. Do you think that would be useful?

A: Yeah definitely.

Q: I never thought about it before.

A: If they could provide someone to help them through these things.

Q: Detox?

A: Whatever it is to get them healthy again then for sure.

Some consider the Biological Passport as being primarily a health monitoring mechanism. This may be as a result of the manner in which the system has been promoted and also may be related to the manner in which the old 50% Hct rule operated. What we learnt in discussing the Passport with one participant was that it was not envisaged by those administering the procedure as a health test but firmly as an anti-doping measure. By that we mean that the rationale for the test is not the health of the athlete but it is a further tool in enforcing a level playing field and of deciding whether or not to open a, ADRV case against a rider.

There appeared to be a level of misunderstanding in relation to this point from some participants:

Q: What was it that you were concerned about? That they can't actually prove what it is? This is what worries you?

A: Not that they can't prove what it is because they don't need to. They know that it's clear that when someone's taking something they can identify it. But they can't sanction you because you can't go to court and say I know you did it. But I don't know what you did.

However, the participant we interviewed with experience with the Biological Passport stated:

They've misunderstood and perhaps understandably because there are groups who have this vested interest in painting this with a health brush and saying oh we're looking after the rider's health, it's crap... there are groups who want to help push this forward by appeasing people, by saying look, we're looking after your health, we're doing this for your own good. The reality is that's bullshit. We're trying to stop people doping. ...whoever brings those in (other anti-doping rationales) might have their little barrow to push, but the problem is athletes dope and that's unfair and so you try and catch the athletes who are doping to exclude them. A spin-off might be their health, but that's not what the motivation is.

In fact, even some scientists such as Gerard Dine, have concerns about questions of proof and the Passport being used as a basis for sanctions:

"The passport must not be repressive, because it doesn't serve as proof of illegal practices. It should play the same role as preventative medicine within the workplace. If an employee has some kind of problem, they stay at home for a few days. Cycling must follow the example of skiing, where athletes are not given a starting slot. Consequently, the penalty is not a sporting one but an economic one for the athlete and their employer. By employing the passport for repressive means, the UCI is exposing itself to action from a rider who has enough money to hire a good legal team. That's perhaps why they are only giving out the names of small fry!" (Carrey 2009).

The website of Science and Industry against Blood Doping (SIAB) provides an explanation of the Biological Passport written by one of its developers, Mike Ashenden, who is also a member of the Biological Passport Experts Committee. The conclusion to this explanation is interesting in the light of comments by Dine and the questions we have raised in the context of whether the Passport is capable of constituting reliable evidence at a hearing:

“... key researchers who developed the mathematical models underlying the Passport approach agree that perhaps the most powerful application of the Passport lies in the realm of no-start penalties. Although this currently sits outside of the WADA Code (an athlete is deemed to have doped, or not doped, but nothing in between) it is hoped that federations will realise the deterrent effect this would pose and introduce no-start penalties under specific rules of sport.

It is to be expected that as athletes seek to evade detection by maintaining blood values within thresholds, the variations apparent in blood profiles collected by federations will become smaller and less extreme over time. A rule of sport, rather than the WADA Code, could be the key to counter this evolution. Athletes would quickly realise that even ‘modulated’ doping within Passport limits would be counterproductive if it led to them being ruled ineligible to compete at a major competition. The burden of evidence to exclude an athlete from competition is necessarily less than the level of evidence required to impose a two-year sanction, and it is envisaged that this ‘interim’ step to counter profiles that were suspicious but remained within the threshold might form a crucial pillar of future Blood Passport strategies” (SIAB 2009).

What is being proposed here is that blood values that are suspicious but remaining within the threshold should be subjected to a sporting penalty - a no start rule; which is in some ways similar to the manner in which the old 50% Hct health test rule operated in cycling. Whilst not mentioned in the WADA Code, these types of health controls exist in other international sports such as ice skating and skiing and they are not prohibited by the Code. The main difference between the 50% Hct rule and a no-start rule based upon the Passport would be that rather than fixing a threshold on a population based figure of 50% Hct, the Passport would be based upon an individual athlete's personalised blood values. Any relevant abnormality giving rise to a no-start penalty would thus be an abnormality in relation to that particular athlete. In such a scenario the problems associated with the standard of proof and evidence would not arise, as the sanction would not carry with it the societal opprobrium attaching to the allegation of doping, nor the far-reaching consequences such as loss of livelihood or possible criminal prosecution.

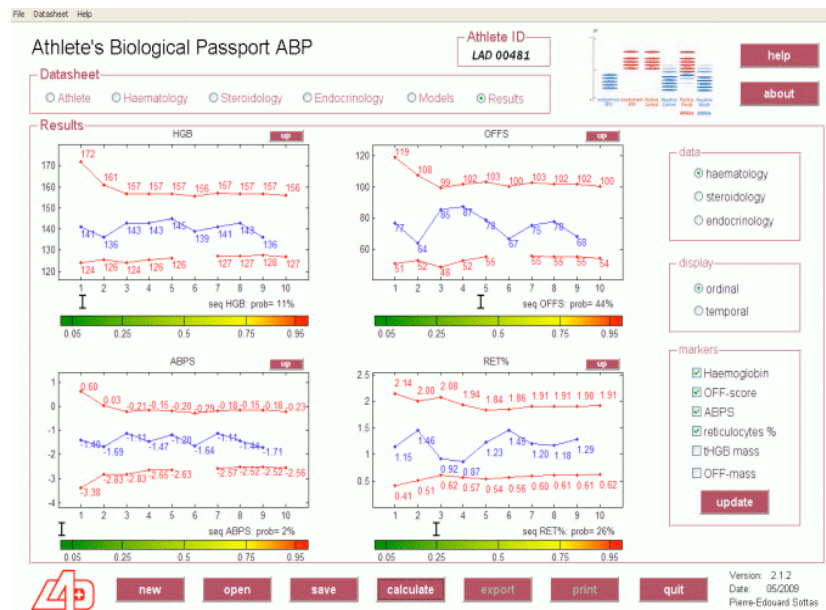
Q: What do you think the standard of proof should be if somebody is to be found guilty? So should it be like in a criminal trial, beyond reasonable doubt, or should it be in a civil trial which is more likely than not? So they're quite different...

A: It depends what, if they're going to sentence them. So a two week...

Q: You should study law!

A: Well if you're going to give them a two week hiatus from cycling, it can be the lower standard. If you're going to hand somebody a ban, there's probably enough people that will still, right or wrong, would still employ somebody who has had a two week holiday. I don't know, how far do you need to go before you say it's worth taking down a few false positives...

Figure 3: Example of A Data Sheet from the ABP Software (Lausanne 2009)



Conclusion

The Biological Passport stands at the vanguard of the UCI's attempts to ensure the integrity of competition in cycling. It is a central pillar of the sport's anti-doping regime, yet its legitimacy rests less on rational principle than on an article of faith. The Passport hinges on statistical analysis and expert interpretation of relatively ambiguous, longitudinal data which, whilst a very useful tool, does not on its own provide the necessary onus of proof to stand alone as a method of trial.

Rather, it is best considered as one element in a complex matrix of factors, each of which needs to be considered in relation to the other. Only when those factors are considered collectively can authoritative conclusions be drawn regarding a cyclist's activities relative to the regulatory framework of anti-doping. That is more pressing given the verdict goes beyond short-term punishment or deterrence and can quite easily curtail an athlete's career.

As it currently stands, the investigative and disciplinary processes within which expert evidence regarding a cyclist's biological parameters is received misconstrues the contribution which the Passport, and expert testimony interpreting Passport results, can make to a determination of whether a doping offence has occurred. This is because:

Cases have permitted expert testimony to enter the reasoning process as an opinion as to likelihood of guilt which:

- usurps the role of the decision maker;
- ignores the pertinent issues regarding the standard of proof; and
- fails to consider whether the Passport addresses or answers questions which unambiguously go to the question of doping.

That reasoning process has become institutionalised within the disciplinary system dealing with allegations of doping offences.

The Biological Passport evidence is isolated as proof and acts as the standards such that if other factors are considered at all they tend to be measured against the Passport such that it ceases being another piece of evidence, but becomes the reference point for evidence to be tested against.

These misconceptions threaten to distort the requirements of due process on which judicial investigations are inherently grounded.

Recommendations

Recommendations to be drawn from our research into the Biological Passport's capacity to serve as decisive evidence of anti-doping practice suggests the need to consider further procedures in judging the likelihood of an ADRV, and a revision of the role of expert interpretations of data.

Procedural:

- That doping cases adopt an appropriate standard of proof, which may not be the same in all cases.
- That allegations against cyclists be specifically framed, such as pointing to a prohibited substance or a Prohibited Method that has been used.
- That the decision maker base their conclusions on an assessment of all of the available evidence, the adequacy of that evidence, and the weight to be attached to any piece of evidence.

Role of the Expert:

- That the opinion of experts in relation to blood values be treated as testamentary evidence.
- That the opinion of experts in relation to blood values goes to the question of proving the ingredients of an offence.
- That experts be asked to provide opinions on alternate hypotheses.
- That expert opinion on alternative hypotheses be expressed in the form of likelihood ratios.

Guidelines:

WADA should revise its Biological Passport Guidelines, and the UCI its procedure, in order to set out the steps necessary to avoid the procedural and evidentiary problems institutionalised in the current process. These revisions should be published in an Explanatory memorandum to aid anti-doping decision makers.



Chapter Seven

An introduction to the Social Peloton

There is something inherently social, even possibly democratic, about the peloton of road cycling. Social in that it is a place where conversations take place – both in the heat of the battle and in the lulls along the road as a race progresses toward the next event, the next point on road. Conversation occurs at a verbal level between teams and between team members. But it also occurs and takes place across teams in a manner in which no other sport can achieve. At times divisions blend into nothing as riders simply catch up, meet or talk over the hours spent on the road over the expanse of the long racing year. It is a conversation across languages, borders and generations ... All have to cross the same hills, fight the same winds and the same conditions as a multitude – an ever-changing amoeba-like amorphous movement that moves onwards.

(Hardie 2009)

Earlier, when we discussed the rationales for anti-doping policy, we referred to Houlihan concerning sport as a socially constructed activity. By analysing the cyclists' rationales for doping and anti-doping, we have sought to begin to understand how the peloton has constructed its view of the doping problematic. In this section we wish to take that one step further and begin to enquire into how the peloton itself is socially constructed. As alluded to earlier, we wish to understand whether a focus on the social construction of professional cycling, and the guiding rationales and principles within it, may be of benefit to the sport in outlining sustainable approaches to the prevention of doping.

In our analysis of the semi-structured interviews, a common theme became apparent whereby the peloton is regarded by those within it as a self-organising and regulating group or community. Often this issue, pertaining to the nature of professional cycling as a relatively cohesive social body, is explained through descriptions of how the peloton seems to work together innately. A bicycle race is governed by collective, frequently unspoken rules, allowing for cooperation as a basis for, and even in the midst of, competition. Professional cyclists regularly work together within and across teams to bring about a result within a racing context. That sentiment isn't confined to competition but includes other forms of cooperation as well: the self-organisation of the peloton can designate sustainable speeds, make on-the-move decisions about safety on the course and work to protect the collective interests of its members. Thus, one participant notes:

In a way, you look at the peloton when it works and it seems to work, in a way, subconsciously when guys are riding. It gets organised, you know, there's organisation going on for people just falling into place. You've got a role, you know where you are, there's a sense of co-operation in cycling which I think doesn't exist in other sports across teams and between teams and between guys who are not on the same team and all sorts of things ... It is a unique sport. I guess it can be perceived as an individual sport but it is such a team sport.

The capacity for self-organisation within the group is described as being quasi-instinctual, producing a collective capacity to evaluate, appraise and respond to situations fluidly, without top-down orders or a discernible hierarchical decision-making process:

I mean, when you get a lot of experienced riders in a group together and they're just even trying to chase down a breakaway, people get surprised that you catch them with two kilometres to go everyday. You naturally know how fast to ride when

you're in the front of the bunch and you're chasing, you see the time cuts coming down, and you know, 'Shit they're coming down too fast'. It's just a feeling you have, they're coming down too fast. You can make a calculation in your head and work it out if you want to. But pretty much you know that if you catch them too fast, you got to slow down, so you just naturally slow down. Then you can see in the distance and you just bring them back at the speed you need to, to bring them back at the last minute, and maybe if there's a bit of cross-wind you just naturally just move to the left ... so it's all just sort of innate it's just feeling ... there's no discussions.

This capacity for self-organisation reflects a common set of practices, beliefs and attitudes; a set of values and rules that each cyclist recognises and responds to. Once inducted into those values at the start of their career, they are able to maintain them almost without recognising their existence. If the rules are broken, however, they are policed. Riders do not, for instance, attack at a feeding zone. To do so, brings sanction from their peers. Even in times of high competition, the rules are collectively recognised and maintained.

In some cases, senior members of the peloton were recognised as playing a role in this self-organisation and its internal regulation and sanctioning:

Q: Is there anybody in charge, or is it sort of..?

A: No, it's its own beast.

Q: It's a sort of self-organising beast though, isn't it.

A: Yeah. I mean, I guess, yeah. Through any good or bad it's either seniority, years being around, I guess I'm already starting to feel that, guys recognise you more and you might be pushed, or it's done on results. So somebody who has won world championships gets to say that, 'No, today is too dangerous', or they get pushed to the front. So whether we choose the person who is probably the most intelligent, is probably not always the way. So it's either seniority, you do it one way or the other, or somebody has the biggest pull, merits kind of...

At the same time these same senior members of the peloton were not regarded as being in control in a conventional sense of being 'in charge'. The structures of power were more about assertions of respect and certain voices being recognised as influential, rather than actively dictating the rules:

Q: Are there guys who don't, who aren't necessarily winners who have a lot of respect in the peloton as well?

A: ... for sure, the older domestics are really well-respected; domestics definitely have a lot of say. ... But it, it's not, when you say they've got control of the peloton - they don't.

Whether or not riders were seen as being in control did not seem to impact upon their ability to organise and to take collective action when necessary. An example might be the aftermath of Mark Cavendish's sprint in the 2010 Tour de Suisse. The manner in which Cavendish rode resulted in a horrendous crash in the final metres of Stage Four, it resulted not only in sanctions from race organisers but, more importantly, a two minute long delay at the start of Stage Five, in which the riders collectively refused to start as a protest against Cavendish's perceived lack of respect for his colleagues. *Cyclingnews.com* reported the incident as follows:

"Cavendish was deemed responsible for the dramatic crash which happened in the final metres of the sprint on Tuesday in Wettingen by the race jury, who

decided that he veered off his line before running into Cervelo's Heinrich Haussler and sending both to the pavement in the path of the entire peloton.

The Manxman was penalized 25 points, 30 seconds and 200 Swiss Francs, but the injuries from his crash and the ire of his colleagues who lost teammates to the crash is further punishment.

"We just want to send a message to Cavendish to ask him for more respect," said AG2R directeur sportif Gilles Mas to AFP. Two of his riders took dramatic tumbles, with Lloyd Mondory having to quit the race from his injuries. Mas described his rider Sebastien Hinault being elbowed by Cavendish as another example of the sprinter's excessively aggressive riding." (Cyclingnews 2010a)

Here, it wasn't so much that certain forces within the peloton opted to bring competitive sanction to Cavendish. The issue was more a policing of respect – a respect for the rules which kept the group as a whole safe, and an overt show of a lack of respect for a rider deemed to have breached those rules.

As we will see, the idea of respect looms large within the peloton, but what this incident indicates is the degree to which the values upon which the peloton operates continue to function even after the stage is over, spread through to team management and respond to the regulations governing the sport. They do so despite a lack of formality and without the directives of a substantial, hierarchical governing organisation within the riders themselves. This capacity for collective decision making lies at the heart of the notion of the social peloton.

There are many forms that cooperation may take on within a race. We will discuss some of these further below. But it is clear, as one of our participants commented, that in cycling, unlike many other sports:

... your opposition this year might be your ally this year and then your opposition the year after so often they might be your ally 100k into the race but 200k into the race they are your enemy ... It is different isn't it?

As we wrote this report we witnessed a perfect example of this sort of in-race cooperation between erstwhile rivals. On Stage 9 of the 2010 Tour de France Alberto Contador and Andy Schleck were in the midst of marking each other as their other rivals fell behind on the 25 kilometre climb of the Col de la Madeleine. Schleck attempted on a number of occasions to dislodge Contador. In a reference to the intensity of his attacks, Schleck said after the race, *"If I'd attacked one more time I'd have dropped myself"* (Cyclingnews 2010b). Nevertheless, shortly thereafter the two reached an accord and commenced to work together until the finish of the stage so as not to let those in the breakaway move out of their reach and to distance the other possible Tour contenders behind them.

Former Spanish professional Pedro Horrillo put it thus in the Spanish daily, El Pais:

"In the peloton there is an unwritten law that must be observed. When the leader stops for a piss the rest waits for him, although first he should be able to interpret the race in order to stop at an appropriate time. Another unwritten law is, and that's the one I mean, when a rider gets into a break he has to work and pull together unless he is someone from the leader's team, in which case it is logical he doesn't. Yesterday Cunego broke that rule, and there are no reasons that serve as an excuse. There are directors who do not agree with such laws, so the responsibility may not be his, but what is clear is that the riders that act this way become outcasts from the rest. There still remains much time to go on the Tour, many mountain stages, perfect ground for Cunego, but he might pay the price any day in the last week.

There is much of the Tour yet to go, rather a lot, as yesterday's was only the ninth stage, but the first two placed riders agree. "This tour is about two, Contador and I, though there is still plenty of time and everyone is free to attack," said Andy in the press conference. "We had to work a lot," Contador said in reference to working with Andy Schleck, "with our pace and the Saxo Bank's (Voigt was great once again), we have left the other riders affected."

Another rule of the peloton is the non-aggression pacts when both parties benefit from it. Albert and Andy spoke at La Madeleine after seeing that their forces were equal and that the remaining rivals were left behind. And that deal proved effective when crossing the finish line of Saint Jean de Maurienne. Now there are 41 seconds between them, and the third and fourth, Samuel and Denis, are more than two minutes behind the second" (Horillo, 2010).

With this in mind, we can see that, as a feature within a race, the social peloton is capable of bringing numerous teams, and individuals on different teams, together, sometimes for competitive goals, such as attacking a common opponent or chasing down a breakaway. Notably, it is also the social peloton that can also do things like ensure safety whilst riding as a fast-moving, densely packed group, maintain sustainable racing speeds, respond to dangerous conditions and police the rules which allow its members to collectively work together with minimal issues and injuries throughout the season. The social peloton works to minimise harm to it and its members.

Beyond a breakaway

When we consider the social peloton as a purely sporting phenomenon, it takes form because of the specific conditions governing the sport at the elite level. The number of professional cyclists is relatively small, they race year round and work within teams that are generally staffed by people who have been in the sport for extensive periods of time. Furthermore, they're impacted upon by the nuances of endurance sport, as distinctly separate from the more concentrated, goal or points-based scoring system of things like football or cricket. The defined nature of the community, both the cyclists and many of the staff surrounding them, and the situations under which they work and race, produce a relatively defined, stable set of values and a sense of social cohesion. To that end, many of our participants talked about the peloton as a social group or community which is based upon what was described as a feeling of "solidarity", "mateship", "camaraderie" and "brotherhood" which responds to an 'unwritten law book' on top of traditional sporting rules:

... it's a really dynamic sport and it's part of the beauty of it and also there's a sense of community in the peloton, a lot of people talk about the pro peloton you know, there's someone stepping out of line they're usually brought back into line pretty quick. There's almost this rule, unwritten law book or things, and guys know it's there but they often ignore it and then they're brought back into line, so the sense of community is really strong in road cycling and that's something really cool about the sport I guess

Furthermore, this camaraderie brings with it a self-regulating system of internal control and sanctioning. For example:

... the camaraderie, you've got a group of guys, you're doing races together and, yeah, it's different to what normal people do in normal jobs, you can see that they don't have this connection to the guys and to something like we do.

Respect, trust and the need to keep danger or injury at bay appear as a cement that holds the peloton together as a "big family". Importantly, the factors that brought the family together, evidenced by a substantial measure of cooperation, appear as necessary conditions to the fact of competition; respect and trust for each other first, and then:

... after that team tactics and the racing things.

Without those things, the sport simply becomes too risky to pose as a sustainable career:

It is like a big family and at the end of the day whether you've got the same jersey or a different jersey, you're still racing with each other and you've got to have the respect for each other that if you do something that's likely to put the bloke behind you's life at risk. So everyone has to have a certain amount of trust between each other and then after that team tactics and the racing things. ...

When that respect and trust are breached by an individual, riders with social standing within the peloton, such as the older riders, are in a position to police it:

Once you're riding, everyone's got a number on. If you're riding around like a little smart-arse obviously they'd [the older riders] be the first ones to tell you to pull your head in. But as long as you're just as civil as everyone else, you know, it's just like a big family I suppose, in a way.

As noted above, trust and respect within the peloton is something which is rationalised in relation to collective threats or actions which may cause either individual or collective injury to the peloton or its members. In reflecting on how those rules had been constructed, one of our participants felt they were a long standing characteristic of the sport, noting:

It's been a culture for decades.

He continues:

... there's certain standards that bike riders have with each other, just say, like cricketers do too. There's respect within the peloton. So I mean ethically guys don't try to piss other guys off. Do you know what I mean? Because they know the long term-effects.

This comment returns us to the consistent theme of respect, in which a valid sense of identity hinges on being respected by one's peers and workmates. Poor behaviour, as the Cavendish incident indicates, carries the risk of sanction, and those sanctions can have "long-term effects" such that if "you get a bad name ... it sticks":

...sometimes you spend two or three weeks trying to knock each other off, and on the last day of a grand tour, everyone is friends. There is, because if you race as an amateur, there's a lot of difference, a lot more aggression in the bunch, a lot more out of control, and the pros do tend to know that you are going to see these guys again next week, and if you do something to somebody, it's quite easy to make someone crash, it's pretty easy. You do that, and it'll come around. Like you get a bad name, and it sticks, and there's only how many are there, how many pro tour riders are there, it's 18 x 25. And then divide that by the races you're doing where you come up against the same guys week in, week out. So that's a bit different to the amateur where it's really just everyone's just trying to get a pro contract, and they don't really care, they might never see the guy again. But we are riding side by side. So there's a little bit of courtesy and respect there ...

The long-term effects of a bad name can have a substantial impact on a rider's career. As we saw in the above citation from Pedro Horrillo, friendship and cooperation are necessary in order to win a cycling race. A rider who has not observed the unwritten rules may find themselves left out of the race spoils at the end of the day:

So pull your head in, you're not going to make any friends like this and that's really an important part of cycling - is having friends in the peloton, because if you're a really disliked rider you have to be bloody good to win races.

Along with the attempts to limit risk and avoid injury, another factor that was put forward as bringing the peloton together was the fact that cycling was a particularly hard endurance sport, and that this alone brought about a significant degree of mutual respect:

... it's a hard sport, you know. At the end of the day it's one of the hardest sports out there and there's good reasons for being so hard. It's not like a marathon runner for example. They run, they do so much damage to their muscles that they have to recover, you know, they have to let their legs recover physically. You know cardio-wise they're fine but their legs are just hammered so they have to sit up and just let themselves recover, whereas cycling being a non-weight-bearing sport, I guess, you can hammer yourself day after day after day and the body has an amazing ability to recover. So you've probably got some of the most physically fit athletes around that and therefore it's one of the hardest sports around and everyone's got a bit of a mutual respect for each other because of that.

Some participants felt that the self-organising aspect of the peloton and its internal regulatory mechanisms were, in fact, one of the most powerful aspects of life within the peloton providing a “strong cohesive kind of morality”:

The community aspect of professional cycling is probably one of the powerful things that people don't realise, for instance in terms of moral sanctioning, or sanctioning against stupid acts in the peloton ... so there is quite a strong cohesive kind of morality that floats through the peloton because if you do something stupid that causes injury to one of the riders or some other team, you are actually threatening their ability to earn a living, to support their family ... so it is quite heavily sanctioned ... against unnecessary stupidity ... and the other thing is that whether you are the smallest or the biggest rider in the peloton, everybody has to go through the same hills and do the same kilometres, so there's quite an egalitarian kind of goodwill that reigns in the peloton and that's one of the very enjoyable things about it.

Again, these are themes evidenced within our earlier comments on rider rationales as to why they don't dope: the sense of identity built around notions of respect correlates to the fear of losing the good opinion of one's peers. One of the key ways to lose respect is to put the careers of one's peers at risk, either by causing a crash or producing some comparable disruption or difficulty – attacking during a feeding station or an unofficially neutralised zone. That, as the above quotes show, results not just in the occasional verbal barb but in the kind of uniform, mass sanctions seen in the Cavendish example. The need, within a close-knit, relatively small group of professionals, surrounded by an equally close-knit, only slightly larger system of teams, produces a network where actions deemed dangerous or disrespectful not only matter but can be policed with relative success despite limited conscious organisation. In this respect, the peloton clearly moves beyond being merely a sporting entity, becoming a social force in its own right and one with a marked capacity for self-organisation both during and after a race.

Self Organisation and Cheating?

Some of the traditional forms of self-organisation within professional cycling can sometimes be of such a nature that outsiders might assume that cooperation within the peloton takes the form of cheating. Throughout the interviews we discussed the nature of cooperation, the peloton's unwritten laws and whether the way they play out on the road could be seen to constitute cheating. In interrogating this topic, in-race cooperation was juxtaposed in the minds of most interviewees against breaches of the rules, including violations of anti-doping rules.

Interestingly, the tradition of in-race cooperation in professional cycling is rationalised along principles of sustainability and spectacle rather than being seen as a rule violation. For example, nobody we interviewed would regard the type of inter-team cooperation that characterised the victory of Allan Davis in the 2009 Tour Down Under, as cheating.

Of course, there are a couple of teams who don't have to win. Who can win the race - and everyone wants an Aussie to win the home tour - they might try and lend a hand. And the spectacle is good, whatever happens a good race is a good race, that is the issue, the craft of ... professional sport, that's why it is accepted ... and these very things (are) more accepted in a professional sport than in an amateur one.

This quote explains clearly the forms that traditional in-race cooperation might take:

There are probably 3 ways of cheating to a greater or less extent.

Say, two of you have broken away you can both ride, trying to win the race but then you risk having no winner at all because if one's faster, a better sprinter, the other one is not going to work with him because he knows he will be beaten on the line, so they may sit on the back of the fastest sprinter and then the sprinter says, 'Oh bugger you!! I am not working because you will drop me because I will have done all the work!' and so it breaks down.

So then what you do is to try to increase your chances of winning and say, there are two alternatives: you can agree to work, you ride straight out, you both try to win, but then whoever does win will pay an agreed amount of money to the other one.

So in a sense, if you look at that from outside, if someone wins the race and pays to the other guy, could be cheating but it is not really because you just ensure that you will continue to work together and then whoever happens to cross the line first, gets the benefit of the win and gives the other rider a certain amount of money.

Then the third way, it is really fixing the result, that is when a rider absolutely has to win cause he maybe does not have a contract next year, or is about to be ditched out by the team, or whatever, and it is worth a lot more money for him to win than it is for the other guy and he would say: 'I will pay you twenty grand or whatever if you let me win but we have to make it look real'.

Now from the outside you would never have, there are a lot of occasions which have been fixed and the public has no idea, there are some occasions which have not and the public thinks for sure it is fixed, professional sport has got very good at making it look right.

Co-operation was internal and routine within the peloton and thus regulated along customary lines, rationalised by a belief that those within the sport needed to work together to ensure their collective benefit; to ensure a breakaway stayed away, to ensure a contract was secured or a career stayed on track. As the above quotation indicates, the means through which those things became acceptable were clearly defined, and generally not seen as cheating – indeed they were seen as part of sustainably producing a sporting spectacle and protecting the collective interests of the riders. Notably, the label of 'cheating' appeared to emerge at the point at which someone outside the peloton became involved in deciding results:

Q: Is that cheating?

A: No, I don't think so.

Q: Is it different to match fixing? By match fixing I mean somebody from outside fixes the game.'

A: Oh yeah, sure, I think so.

Q: Does it say anything about the community within or the social context of the peloton? That there is some sort of sense of we're all in this together?

A: Yeah, I think it does absolutely, doesn't it? I think it completely does.

Although those interviewed did not regard co-operation as a form of cheating, it was acknowledged that some of the practices of the peloton had questionable origins:

A: Yeah, I guess, I don't think about it, I just think it's normal. You know what I mean, and it's because it's always happened in cycling, I don't know where it ever started. But I mean I've read books on cycling where they talk about corruption as early as the days of ...

Q: The first race.

A: Yeah, 600 mile race, behind a motorbike and some guys got a piece of fishing wire coming out of the motorbike with a cork in his mouth getting towed along.

Q: I read that book I think it is called The Sweat of the Gods.

A: Is it? Yeah, I'd read it somewhere, anyway it's, so I just think it's so inbred in the culture of the sport that it becomes ...

Q: Would you think it's corruption? Or do you think it's something else about this social idea?

A: No, I don't think it is [corruption] at all.

Q: The cork in the mouth is, but the other stuff?

A: Yes, but the deals and the wheeling and dealing and stuff that goes on inside the bunch and the collusion that happens amongst the riders, I just think that's part of the sport, and it is just part of the sport, it's not corruption but it seems when people don't know anything about cycling they'd be just in an uproar if they knew what was going on, it'd look so bad, you know what I mean?

Although serious cycling fans tend to understand the forms of inter-team co-operation that occur, it was nevertheless felt by some participants that it was preferable if these forms of co-operation were not normally matters of public knowledge. Inter-team co-operation represents internal practices of the sport, which many seem to feel are best left unexplained or unacknowledged in public.

A: ... at the end of the day, as a viewing perspective whether either one of them won, you know it was still a good race. At the end of the day he proved that he was better. If this guy wants it he's going to have to buy it. And it might not be the most professional from an outsider's point of view but I suppose that's just how it is.

Q: I was thinking about the outsider. You've got a press, you know, a cycling press trying to interpret all this stuff for people. Some people are avid you know they read it all the time and they do it in the stadium. Some people they watch it once a year maybe. They'll watch the Tour, that's about it. Is the press able to interpret things like this and try and explain?

A: No. I think it's better left, personally. Because things like that, in every way of life, sometimes things are better if people just don't know.

Q: Don't even try to explain?

A: Exactly. And I think that it's just part of the sport. If you don't know what's going on, you won't be able to tell unless someone told you so why bother knowing or talking about it when it's just an agreement, whatever? Within, inside a couple of people because of whatever.

This raises a level of complexity around the notion of the social peloton, and the degree to which the close knit sense of camaraderie produces a closed and secretive community. We will return to this shortly. At this point, the issue isn't so much the morality but merely the recognition that the social construction of the peloton has produced, over the course of the sport's history, a set of unofficial rules, common assumptions and accepted practices into which riders are inducted during the early phases of their careers. Those unofficial rules become a form of common sense; they inform the way individuals respond to, and evaluate, the actions of their peers and act in a cooperative manner to sustain their jobs and their sport. That 'common sense', as we have seen, isn't the same as one might expect outside the peloton. Indeed, for those not initiated into it, it may seem decidedly unsporting.

From our own experience in discussions with university colleagues, we have encountered concerns regarding cooperation or agreements between teams and riders. An example occurred in Stage 9 of the 2009 *Giro d'Italia*. The day before Spanish cyclist Pedro Horrillo (cited above in his subsequent role as sports journalist) had fallen eighty metres off a cliff when attempting to rejoin his team leader on a narrow and dangerous descent. The next day in Milan the riders were confronted with a dangerous city circuit and, as a protest against what they saw as unnecessarily risky conditions, agreed to ride slowly in one group and to allow a member of Horrillo's team to cross the line first. Interestingly, it was Damiano Cunego's team, Lampre, acting under their team director's and sponsor's instructions, that first broke the agreement. In the end the main beneficiary of this breach was Mark Cavendish who thought the crowd deserved a show. When recounting this episode to one of our colleagues he was concerned with the effect such an arrangement might have on people who had placed bets on the race.

Even when confronted with concerns such as these, interviewees underscored their belief that when it occurred cooperation of this sort was not a form of cheating. Their interest was not the welfare of the gambling industry or outside factors, but on a sense of obligation to others within the peloton. One rider rationalised engineering particular results for particular reasons as follows:

... maybe it's his birthday and he needs to win this, and finishes in his home town and it's something special. Because riders know at the end of the day, there's so many races that can be won, and so much money out there to be won, you've got to sort of share it around, and the next day you're going to be in a race with the same guy and it's going to come back to you. You let this guy win this day, like most of the deals that are done in the peloton now at the top level are all scratch my back and I'll scratch yours. You helped me that day, we'll remember that, we'll get on the front for you the next day or we, I won't chase you hard, that's the sort of wheeling and dealing that goes on ...

What we see here is a rationale, connected to the value placed on respect amongst one's peers. That respect is earned, at least in part, by engaging in behaviour that keeps the sport sustainable, safe and manageable for those who have to work together, regardless of their team or personal ambition, in race after race after race. As we've seen, that can be partly about reducing the risk of crashing, helping to keep sustainable speeds and thus ensuring those within the peloton are physically able to keep racing and earning a living.

Partially, and extending from there, it's about the sense that "you've got to share it around" because "the next day you're going to be in a race with the same guy and it's going to come back to you."

The logic is simple and, in a working environment unrelated to sport, where the spectacle of competition wasn't a factor, would be considered entirely normal. One co-operates with one's colleagues, regardless of whether they're in a different department or branch of the company because good relations, a sense of mutual obligation and respect are necessary to keeping the company as a whole working. One of our participants was quick to make this comparison:

A: There might be only two guys in the break who actually have the ability to have an influence on that and the rest are just hanging in there and they don't talk to them. But it is about long term continuity, favours and respect. I'll look after you here but you owe me. And a lot of this goes on all the time. You can have the stage but you've got to work for me so I can get a GC result. It happens all the time and that is fair enough. There is no problem with that, it is just professional management. It is investment and return like any corporate decision and that is acceptable and there is no problem with that.

Q: I think it goes a lot to people always have an eye in cycling on the sustainability of their career and other people's career.

A: It also goes the other way. If you burn people it can stick with you forever. You never know who you are going to line up with in a team or someone you burnt six or eight years ago is now a director of a team and you are trying to get a gig on this team ... But that is life. Business is the same. It is what happens in the legal profession and everywhere else. Talking about the legal profession, the two-headed monster, the bloody lawyers go and have lunch together and then come in and attack each other in court. That is what happens.

Q: Yeah, but that is part of the thing we find difficult sometimes in the outside world, that we can go in there and do that [argue] and then go have a beer.

A: It is the same thing in any profession. The inner sanctum of what goes on, that is the way it works because we have all got to line up tomorrow and two years down the track and whatever. That is the eternal world. That is what goes on.

The difference in comparison to other industries is, obviously, that the product professional cycling produces is the spectacle of competition, or as Ehrenberg puts it, democracy. Yet, whilst one of the clear rationales for anti-doping policy amongst cycling was 'fair play', the way that notion of 'fair play' is described by our participants inherently involves a level of co-operation and collusion which could be easily mistaken for unsporting behaviour. As one participant comments, accepting money in return for helping someone on another team win was seen less as 'cheating' and more as 'an investment':

I suppose you would say it's ... like an investment, I suppose, or something like that. 'I'll buy this race off you and it'll cost me money but I'll be able to get the contract out of it' and he'll be like, 'I've trained hard. Good, and this guy's going to pay me more than I can win even if I win and he needs it for this reason.'

The idea of 'fair play' here goes beyond 'a fair chance to win' and incorporates 'giving one's peers a fair chance to keep their jobs' and ensure the collective sustainability of the sport. This attitude is exemplified well by the traditional practice known as 'the chop'. It is probably true that this practice is less common now in professional cycling than it has been in the past, which is probably a result of the increasing professionalism of teams and the fact that most professionals now receive at least a livable salary. However, it has not been uncommon for an agreement to be made within the peloton whereby the prize

money for a race will be pooled and divided equally amongst a group of, or all, competitors.

In the pros, they don't do it as much. Like, at Noosa a couple of years ago, it was \$60,000 on for the win and 17 pros went all in. But I know at Cronulla this year someone came up to me and goes, "What's the deal? Everybody in?" Because I wasn't racing, and I said, "No." Look at it, like Sutto had a good break with somebody else and Brownie just launched across but had like six guys on his wheel or something. It was like, there's no deal been set there. But I know it's always a lot safer to race in the big races in Europe because everybody knows they have to get up the next day and race again and train again to earn their money and get their wage. Whereas, if you race in the amateurs and it's just open slather and there's no respect.

Again, the issue of respect arises. Respect amongst professionals means 'fair play' but that, in itself, means more than winning or not winning; it means abiding by the rules that allow a small group of athletes involved in an endurance sport to sustainably work together for an entire season and ensure resources, including prize money, are distributed in such a way as to maintain the collective welfare of the peloton.

Outside of an industry based on the spectacle of competition, this sort of attitude would be hardly surprising. And, if we can clearly see the peloton making collective, social decisions as to how to catch a breakaway, maintain sustainable racing speeds, ensure safety in poor conditions and produce a mass rider strike against Mark Cavendish, then it's hardly surprising that they can also, without any central organisation, manage resources like prize money and opportunities for victory. As our participants identified, the peloton shares a sense of close-knit camaraderie borne out of their need to work together day after day. That 'working environment' is shaped by the need to maintain an income in a frequently unstable market, the value placed on respect, and a recognition that it's not physically viable to engage in endurance sports at the elite, professional level without some sense of non-competitive interaction. With some cyclists racing anything up to a hundred days a year, it's simply not possible to treat every race as if only the win matters.

Some of this behaviour could quite easily be seen as cheating. Certainly, if the forwards of a football team promised a portion of their prize money to their opposing defence in the final stages of a tight match it would be considered against the spirit of the sport. Under this logic, it's an easy jump to say that if pro cyclists are willing to pay for a win, then they will turn to doping with the same logic. That said, if we return to the lessons we saw amongst the riders' rationales against doping, there is a very clear distinction. Cycling, unlike football, involves multiple teams, well over a hundred individual riders, races that last for several hours and prizes ranging from intermediate sprints, distinct jerseys, stage and general classification victories. It's not possible for every rider to race for every prize in the same way two football teams compete for victory in every match. Indeed, it's not possible for a team built around a sprinter to compete in a stage better suited for a mountain climber. The nuances of the playing field produce a totally different *modus operandi* amongst those who work within it.

As we've seen, rider rationales worked against doping when it was seen as a threat to rider health, when it decreased the sense of a fair playing field by giving an individual an unfair physical advantage, when it potentially jeopardised the reputation of the sport and when it risked their personal reputation. There was a consistently negative attitude towards doping and a clear sense that it *is* cheating. That doesn't extend to buying a win or bargaining in a breakaway because the rationale was seen as markedly different. Whereas EPO abuse aids the individual at the expense of their opponents, there was a sense of mutual benefit and co-operation in dividing up prize money, a sense of earning goodwill, strengthening networks, helping one's colleagues to retain their contracts and keep a stable income. When the peloton is on the road, it automatically does things to conserve the collective physical energy and ensure the safety of its members. Without a capacity to self-regulate,

the members of the peloton would be at greater risk of physical exhaustion and injury. At the same time, they would be more susceptible to the precariousness that characterises their working environment. By and large, the acceptance of potential 'unsporting' behaviour is rationalised by the same logic; as part of an effort to make the sport a sustainable endeavour.

There are points of contention. Participants recognised that, like doping, the unspoken collusion that occurs on the road could serve to undermine the sport's sense of authenticity. However, possible 'unsporting' behaviour suddenly enters the rationalised sphere of fair play and the protection of the integrity of their sport (giving everyone a fair change to earn a living), respect (earned through a sense of fulfilled duty to one's peers) and wellbeing (enough money and a career path long enough to ensure a decent standard of living). As individual riders enter into the pro peloton they are inducted into a social system and set of values designed to support those rationales and install them as a rudimentary part of sense making, akin to collectively slowing down when cornering on a wet road. Those values exist for the simple reason that the members of the peloton simply could not sustain working at the elite level of an endurance sport without collectively supporting behaviour that protects their mutual benefit.

A reference to our late nights whilst writing the report provides an excellent example. In Stage 2 of the 2010 Tour de France, a number of riders fell on the descent of the Col de Stockeu thirty kilometres from the finish in Spa. By this time the Stage winner was away and was not to be caught. What is interesting for our purposes, is the manner in which Fabian Cancellara – a senior member of the peloton and World Time Trial Champion, who was wearing the race leader's yellow jersey at the time - was able to organise the group to slow down and then went back to the race director's car to organise a neutralisation of the stage. The incident shows the manner in which self-organisation under the direction of a senior member can occur in order to protect the safety of the riders, and to send a message to race organisers concerning danger. But the incident did not occur without suspicion. Cancellara's team leader, Andy Schleck, had fallen on the descent and some raised the concern that the action was not driven by an ethos of co-operation but his team's self interest in ensuring their leader did not lose time on the day (Velonews, 2010).

A Principled or a Functional Community?

When we consider the social peloton the issue is neither wholly negative nor wholly positive. What the social peloton defines is the set of values and naturalised responses professional cyclists utilise to ensure they get the best possible outcomes from their chosen profession. We might go so far as to say that the communal or social nature of the peloton, or of cycling itself, gives rise to both the problem and the possibility of a 'solution' to doping in professional cycling. The doping scholar, John Hoberman, has an analysis that illustrates this tension:

"... the solidarity of the professional cycling fraternity has accommodated the clandestine (but only semi-concealed) consumption of illicit drugs. Solidarity of this kind raises a number of questions about the sources and the resiliency of group cohesion. What kind of solidarity among athletes can be built upon a shared allegiance to a clandestine drug culture? What are the other values or shared experiences that make solidarity possible? Is this a genuine community that can inspire loyalty and self-sacrifice, or is it essentially an aggregation of individual entrepreneurs who have merely consented to maintain a mutually advantageous arrangement?" (Hoberman, 2003, p.108)

Hoberman interrogates the nature of solidarity within the peloton. In doing so he seeks to ascertain the nature of the community in order to understand whether a case can be established which would exempt professional cyclists from society's prohibition on the use of drugs and doping:

"The unspoken question here is whether the special status of the cycling world entitles its members to an exemption from the War on Drugs." (Hoberman, 2003, p.120)

This difficult question, as to whether this community should be granted the right to use drugs that are banned by other sports, was, interestingly, absent from all of our conversations with participants. Indeed, the widespread use of performance enhancing drugs was directly identified as a threat to the sport, capable of reducing it to the level of body building or the WWF. Unlike Hoberman and others, our purpose here is not to mount a case against anti-doping policy or whether cyclists should somehow be exempted from it. We found no support for this position from those we interviewed. Furthermore, whatever the merits of such an argument, we do not believe it is a viable option within the current global politics of anti-doping.

What interests us is the extent to which the idea of community or camaraderie within the sport provides a vehicle for a sustainable and principled change in the practices and ethics within professional cycling? Hoberman identifies two types of community and distinguishes between them:

"[W]e may distinguish between two kinds of community. The first is characterized by cooperation, the shared acceptance of principles, and an ethos of restraint on behalf of shared goals. The second type of community is essentially an arrangement, a modus vivendi that allows its members to pursue individual goals in a self-interested way that may well be compatible with community coherence in a functional sense ..." (Hoberman, 2003, p.115)

This is the fundamental question raised by Hoberman relevant to our enquiry. Does the peloton share more than an 'arrangement' and an aggregation of individual entrepreneurs to pursue self-interest? Or is the form of self-organisation one that is based upon co-operation, shared principles, an ethos of restraint and ability to inspire loyalty and sacrifice? Hoberman recognises that the forms of self-organisation within the peloton:

"[make] it possible to claim that the cycling community does amount to something more than an alliance of self-interested entrepreneurs. Invoking - or imposing - this code of honor is also one of the few responses available to the cycling community when doping scandals cast the sport into disrepute." (Hoberman, 2003, p.119)

Within the interviews, we consistently found suggestions that, while evidence appears to confirm the existence of an ethical code or community of practice, participants also highlighted the closed nature of the community. Hoberman cites a Danish official:

"There are those who think that cycling is a corrupt sport," the Danish cycling official, Henrik Elmgreen, said in June 2001. "We do not feel this way. We think it is a wonderful and fascinating sport that contains a very high degree of justice that has been built into it." If cycling was misunderstood by some outsiders, that was because "its unwritten rules and moral concepts can be difficult to understand for anyone who has not grown up in it or lived one's way into its world. Because there is, of course, a morality and an ethics in cycling, and there are limits one does not cross." (Hoberman, 2003 p.120)

What we take from Hoberman are these questions: Is it possible for the peloton to constitute a sustainable and principled community of athletes with power to effect change within their community in relation to doping? Or, is it merely the second type of community - essentially an arrangement, a modus vivendi that allows its members to pursue individual goals in a self-interested way that may well be compatible with community coherence in a functional sense, e.g., professional cycling as a profitable enterprise? On the other hand, is the fact that some:

People are just looking out for themselves ...

an insurmountable barrier to such a community?

No one knows who to trust. Everyone is looking over their shoulder, which in some ways is good because guys are just not trustworthy. There are obviously those who are.

Change and the Social Peloton

As the interviews show, there is evidence that appears to confirm the existence of an ethical code or community of practice which we have dubbed the social peloton. At the same time, participants have also highlighted the closed nature of the community in the manner in which some of its practices are hidden from public view. We do not wish to be seen to be suggesting that it is only the peloton which is closed. Along with that, insularity is also a characteristic of sport's law, administration and management. As we have alluded to previously, the private nature of sports law and administration itself is insular and inward-looking and the walls of this insularity have only been really breached in recent times by the intervention of the state and international organisations in relation to anti-doping policy. Nevertheless, our point here is to consider some of the pressures upon the forms of co-operation that we have tried to flesh out and that serve as the basis of the social peloton.

We could say that one of the defining concepts in the minds of many observers of professional cycling, particularly in relation to the problematic of doping, has been that of the *omerta*. As an ex-professional cyclist and outspoken critic of the lost opportunity post-Festina (Velocity Nation, 2009) and the manner in which doping has been tackled by cycling, Paul Kimmage has said:

"The law of silence: it exists not only in the Mafia but also in the peloton. Those who break the law, who talk to the press about the dope problems in the sport are despised. They are branded as having 'crache dans la soupe', they have spat in the soup." (Kimmage, 1998, p. 229; Møller, 2010b, pp.57-58)

Kimmage, of course, has been ostracised by cycling. He has been told that he is "*not worth the chair that you're sitting on*" by Lance Armstrong (Time, 2009; Sports Scientists, 2009). Kimmage is, of course, not the only one who has been ostracised in such a manner.

It is common in cycling to hear of a Mafia-like law of silence, the *omerta*, when talking about doping. In his classic text on the Sicilian Mafia, Anton Blok (Blok, 1974) describes the *omerta* as something which is inevitable, even for honest people:

"Mafiosi were denoted as 'honorable', 'respected', or 'qualified' persons. They were men able to 'look after their own affairs' and to make themselves respected". At issue, a code of behaviour that is neatly summed up by the term "omerta" (from omu, man). According to it, a person makes himself respected by keeping silent over "crimes" witnessed, suffered, or committed. reticence and secrecy, at times amounting to conspiracies of silence, especially vis-à-vis legal authorities, Silence was enforced upon the weak: talking involved attempts to draw on external resources that would threaten the established balance of power It is important to see the code not in isolation, but as an aspect of the real inter-dependencies between people who formed the community. Omerta was not something abstract, floating in the air so to speak, reinforcing or influencing actual behaviour. On the contrary ... it constituted a very concrete and real part of the behaviour of people who depended on each other in specific and fundamental ways." (Blok, pp. 211-212)

We are not proposing here a defence of the Mafia nor of the *omerta*. However, we believe the final part of the quote from Blok is useful for the purposes of our enquiry – we should not see the closed nature of the peloton's community in isolation but as an aspect of the real dependencies that the peloton has formed as it has sought to maintain itself within the bounds of the physical and structural conditions of their sport. Thus, the *omerta* in cycling and the community which it has helped to sustain:

“was not something abstract, floating in the air so to speak, reinforcing or influencing actual behaviour. On the contrary ... it constituted a very concrete and real part of the behaviour of people who depended on each other in specific and fundamental ways”. (Blok, p. 212)

Møller (2010b, pp. 58-59) has commented on what he calls the “*media's love of the mafia notion of omerta, the law of silence*”. He quotes the retired Danish cyclist, Jesper Skibby, as saying:

“They could just as well write about comradeship, loyalty and any instinctive human urge to protect oneself and one's family at any price. There are, of course, no agreements, no sworn declarations that everything will be kept secret. You just keep your secrets for yourself and avoid pointing a finger at others. It is no different from any other workplace. There are not many journalists, for example, prepared to stand up in front of their colleague's TV camera and recount all the sordid details of their lives and of those of their colleagues. The difference is just that there are such a lot of secrets to keep under wraps in cycle sport. And behind the questions there is always prejudice and the demand that cyclists should, of course, be cleaner in body and mind than anyone else on this planet.”

The themes of “*comradeship, loyalty and any instinctive human urge to protect oneself and one's family at any price*” are ones that we have seen come through strongly in the interviews. But we must also consider that there are considerable pressures upon these ideas as cycling passes from being a small, European-based sport to a global commodity. The process of globalisation has not been without its contradictions for cycling, as one participant observed:

The Americanising and the non-European, for want of a better word, of the sport, two things, .overall, it was fantastic for the evolution of the sport but the negative of it is that we lost so many traditions of the sport and the hierarchy and whatever, but in other terms, so be it. It had to open up.

Americanisation might not necessarily be about ‘opening up’, but it seems to have contributed to a loss of tradition and respect. Most of those we have interviewed have been active throughout this period in which the sport has been Americanised. There can be no doubt that a key factor in both the globalisation and Americanisation of cycling has been the seven victories of Lance Armstrong in the Tour de France, which define the period we have called, in Chapter Two, ‘The Armstrong Era’ – what we might also dub the ‘Lance Effect’. A problem one of our experienced participants noted was that, with the globalisation of the sport, had come about a situation where one person had become bigger than the sport itself and, implicitly, the peloton. They felt this was a real danger for the sport's future. The participant went so far as to suggest that the fact the sport had one very high profile figure was, itself, one of the problems that it faced in tackling the doping question:

A: I still see it as a joke that journalists are still scared of certain people in this sport. Super, super scared of people in this sport.

Q: Journalists?

A: Journalists are scared of the big man himself here.... People are scared of Lance ... People are scared he's bigger than the sport.

Q: Do you see this as a danger? Are we in the Tiger Woods position?

A: People are just looking out for themselves and I understand how business works and the connections that people like that have, that have very long tentacles. But some people do become nearly untouchable ... It's hypocritical very, very hypocritical. I've come in contact with journalists with people who are supposed to be anti-doping journalists or people who are looking for the thing and there's stuff smack in their face. They still don't touch. Do you know what I mean? There's two very, very big standards that's been put out there and they still won't touch it. You're a joke, an absolute joke. What's the fastest guy in the world?

The subtext here might be that becoming so big, so untouchable, altered not only the manner in which the doping question is dealt with by the media and others, but it has altered the balance of power within the peloton itself. This brings Hoberman's question back to the forefront – to what extent is the social peloton a functional community, where individual success is the only measure, as compared to a principled community in which the sustainability of all participants is the collective goal? In some ways it might be like a reality TV show – how far does co-operation extend? Only up until one needs to kick someone out of the house? Or is co-operation the fuel that sustains the sport for all involved? To what extent do these two ways of seeing the world affect the manner in which the peloton sees itself? The issue raised is to what extent is co-operation prior to competition within the peloton?

These issues raise the question as to what extent the nature or level of solidarity within the peloton has diminished in recent times? We do note that there are substantial pressures on this notion of community, as both globalisation and anti-doping policy de-territorialise the old forms of self organisation. It seems to us that primarily the pressure on the notion of community appears to be related to ideas or tensions such as 'old school' and 'new school', 'old world' and 'new world' cycling nations, and between older and younger riders. The idea of respect seems to play a large part in organising people's perceptions in this area. These tensions relate to views expressed by some participants that the sense of solidarity within the peloton was not increasing but had decreased in recent years:

Something that I think is less - maybe, I don't know if this is a relevant example, bring me back if it's not. But when I first started racing three or four years ago in Europe, there seemed to be a bit more understanding in the peloton as well, in that holes would get pointed out and dangerous things in the race would sort of - there was a bit more community there. I think that's only becoming less.

Another participant put these kinds of changes down to the changing composition of the peloton both in terms of age and in terms of nationality. He also raised the question of there being no one within the peloton who was in charge and thus able to teach younger riders the traditions of respect:

Q: What's interesting, and what you were talking about before within the peloton, there was respect. In some people, I heard older guys say similar things to what you're saying. But at one point there seemed to be some sort of common logic, common sense or social culture of the peloton. People talk about a family, a brotherhood, a camaraderie, all these sorts of things. Do you think that makes sense?

A: Yeah, and I think one thing that probably changed the globalisation of cycling at the end of the early 90's, there were probably four or five nations in cycling. Not to rip on the Russians or those guys, but I think those guys haven't brought anything

to the sporting perception. They're just scum-bags. Those guys don't give a fuck about anyone else except themselves. With us before, there were French, Belgian, Italians and whatever. There were only four or five nations. Now you line up in any big race and there's blokes from thirty-five countries. There was also the language thing.

Q: The language has changed?

A: The language has changed and people come from a totally different background than the European blokes. So it's a lot harder to get everyone united. It's a big thing as well. ... We had six English-speaking teams at the Tour de France probably this year ... I think it's more of a change of the age of the guys and where the guys are coming from. There was a survey of who was [in] the bunch in 1994 compared to the bunch in 2010. There was a variety of ages, the variety of nationalities where they come from. That's what made relationships. When you had four groups of people it's a lot easier to have a relationship between the French, the Spanish, the Italians and the Belgies, whereas now you've got the Germans, you've got all the Anglos, all your Eastern Blockers, South Americans ... It's totally different ... different mentalities ...

Whilst others rightly raise concerns about too much emphasis placed on certain notions of respect:

Q: Some guys say the younger generation have less respect in some ways as well.

A: Yeah. There's a lot of this word 'respect' gets bandied around a lot.

It is, nonetheless, apparent from the interviews that there is a common and dominant concept at play when talking about the things that bind cyclists together as a group or community.

The perception that younger riders have lost respect for an older generation might be perceived as being related to the changing attitudes to doping within the peloton – old school or older riders and old world nations seem to be perceived to be more likely to be dopers than new school, younger riders from new world cycling countries (save, for example, those “*Eastern Blockers*”). As anti-doping policy brings with it increasing surveillance and suspicion it may be that some cyclists are retreating into smaller, more private worlds than the wider social world of the peloton and are, in fact, looking over their shoulders more than before. Along with this perceived lessening of solidarity may be a reflection of wider societal and economic changes related to competitiveness and the increasingly prevalent exhortation to be an individual rather than a member of a social group or community (Ehrenberg, 1991, 2009). We perceive a tension here between two complementary but conflicting goals that the peloton seeks to resolve – co-operation and competition. Borrowing from a whole literature on community and the commons (e.g., Ostrom 1994; Esposito 2009) we might be able to get an inkling of the outline of this tension by turning to the question of co-operation and gifts within the social peloton.

Gifts and no gifts

The importance of friendship was repeated by various participants throughout the course of the investigation. Clearly, friendship is a coherent ethical or moral concept. In this sense it is a force which confronts structural-organisational requirements. Furthermore, concepts of friendship suggest that cycling as a sport, as competition and as a contest, must be described in terms of relationships, as well as structures and interactions.

Friendship is articulated in and through the analysis of situations and actions, some recalled and some imagined, in the spirit of ensuring that the peloton refuses to show indifference to the needs and the sustainability of the sport, the group, and the individual. In considering whether friendship forms the basis of a functional or principled community, it may be that the participants themselves, somewhat misleadingly and disingenuously,

described the relations between cyclists in the peloton as ‘friendships’. This is because they suggested that certain structures arose from, or that outcomes (such as winning races) could be explained by, friendships within the group. The nature and definition of friendship itself was thus a result of the induction into the values of the peloton that a cyclist undertakes. In fact, it must be admitted that the organisation of the peloton and the structure of the sport must, to some extent, cut across those relationships, if not fundamentally transform them.

A number of participants stated clearly that sporting outcomes are not dependent on talent but on a social organisation within the group. Indeed, some said that the politics of the group could be converted into performance and outcome:

Q: Somebody said to us you can't win the Tour without friends.

A: Absolutely not possible and that has been Cadel's biggest problem too; not having enough friends. It is a fact of life. He hasn't gone out of his way to make friends. Phil Anderson was the same. He could have had five times the amount of victories that he had. If you look at the results, go and look on cycling.com and look at all the classics and go through classics season. Have a look at the past. Some of them give top threes from the seventies and the eighties, not just the winner. Have a look how many placing[s] Phil Anderson got. Every single classic he run top five over and over again. He only won Amstel Gold Race and something else because he was never allowed to win. He just didn't have enough friends, yet he was there every race. Cadel is much the same. He is good enough to be there but his internal politics haven't been good enough. So many people want him to not win compared to - he has respect and deserves to win, which makes his worlds victory even greater because he just smashed them. He was the best and good on him. Hopefully it will give him a bit more respect.

The structure of cycling, therefore, cannot be simply defined and delineated on the basis of obvious classifications such as ‘teams’ and ‘nationalities’ or, for that matter, ‘fair play’. These may play a part, but they do not define the event structure, the competitive interactions, and the production of outcomes in such a networked sporting arrangement.

Respect feeds into the economy of exchange which permeates the entire system – the peloton at every level – big races and small. As we have seen with some of the comments by participants that we have already referred to, what is exchanged is not necessarily of monetary value but of socially symbolic value. Our point here is that the peloton's knowledge and calculation of the economic system in which they work leads them to develop strategies to manage risk and ensure the sustainability of individual careers. But with increasing globalisation and commodification, what we might term the ‘economy of favours’ itself has come under pressure.

One of the most celebrated instances of articulating the economy of relationships in cycling is Lance Armstrong's declaration of ‘no gifts’, a declaration he repeated on the road to Pau in the 2010 Tour. On the one hand, the gift economy represents the recognition that the satisfaction of needs lies external to the self, and the expression of gratitude that those needs are met. But the bonds thus formed are broken by the adversarial logic of pure exchange (‘no gifts’) which forces us to imagine all bonds in terms of debts and repayments. These are also different imaginations of responsibility – one constructive (of community – indeed the Latin root of the word ‘community’ integrates ‘muni’ or ‘the gift’ as in *munificence*), the other reductive, pointing simply to an aggregation of self-interested entrepreneurs. Exchange defines relations in terms of competition, quantification and measurement; and exchange attempts to obscure the facts that gift giving is indeed paradigmatic within the peloton.

"Armstrong's original plan had been to let Landis win. But in the end the chance for a 20th career individual victory in his favourite cycling race was too

good to pass up ... Something came over me and I said, 'OK. I have to go for it.' To get to win in the sprints is exciting," said Armstrong. "When I first started I thought, 'I'm not going to catch him ... But the finish line was far enough away that I made it through.'" (Leicester, 2004)

The satisfaction of one's needs is the real purpose of the ego-driven activity. The compelling logic of this 'overcoming', this overwhelming need, is the logic of scarcity created by the exchange mechanism itself; and scarcity determines the value of the good (the stage victory). And the logic is clear in this vignette of Tour history in which one tries to give less and gain more. In direct (but not conscious) opposition to the unilateral economy of exchange declared by the 'no gifts' statement, one interview subject emphasised the systematic nature of the economy by means of the circular image of payments, accounts and receipts :

Yeah that's the nature of cycling is a spectacle of something, like if you went to the six day circuit it's the same thing, you have to be bloody good to win that spectacle but there is also question marks. I guess you can relate that to the community that we spoke about a lot then, there's favours done and there's things done to look after each other or here or there and then if you're an arsehole you're not going to get those favours basically. At some point what goes around comes around.

This balance of accounts within the social peloton is what is frustrated by, and at the same time, frustrates the declaration of 'no gifts'. The tension within the peloton, then, is between a dynamic formation which negotiates justice, harmony and community in the complex unfolding of the event, but which is also in danger of retreating into primitive forms of friendship that insist on the equivalence and sameness of the parties and fixed, pre-given hierarchies – 'the way things are done'.

Who is in Charge?

We have referred to many comments from participants that the peloton was viewed as self-organising and we have seen how senior members were recognised as playing a role in internal regulation and sanctioning. Nevertheless, there has been a tradition within the peloton of having a patron, who was in one way or another the figure seen as being 'in charge'. In the interviews participants approached the question 'Who is in charge of the peloton?' in a number of ways, interpreting it to mean variously power, control, command, domination, and even intimidation. One interview subject observed that the historical record showed that:

... there's always been somebody in charge of the peloton ...

Many participants identified the subject of leadership as embodied in a given actor – specifically, Hinault, Indurain, Merckx, Armstrong, or Cipollini.

But then there were times when guys like Bernard Hinault absolutely totally dominated sport. You didn't do anything unless you were told to do it. That is not good. And Phil Anderson challenged him and took him on, and Hinault to this day hates Phil Anderson and he cost Phil Anderson so much of his career because he didn't like him, because he dared challenge him and he didn't do what he was told. He paid for it the rest of his career and that happened a lot. Armstrong did it to a certain extent. He didn't dominate on the one day races as well as he dominated a Tour. He and his team dominated the Tour. He did what he was told on the Tour but he didn't dominate the classics ... Merckx did to a certain extent but it is not such absolute power that he used ... it used to be a lot more closed, and that is a good thing.

Leadership took on a life and identity of its own, and was treated as an independent force, sometimes divorced from any notion of self-organisation. One participant stated that:

Cipollini was the worst for telling people what they could and couldn't do.

Another that:

Bernard Hinault absolutely totally dominated sport. You didn't do anything unless you were told to do it.

A powerful example was given in the following response:

Q: *So they have influence on how the race will play out?*

A: *Yeah, definitely. One day, at the start of the season, just before the Giro and San Remo, Cipo didn't want to race because it was too cold. So everyone jumped in the cars, the whole race was stopped. Everyone jumped in the cars until 30km to go and they all jumped out and raced that last thirty. It was all because he said he didn't want to race and he said if you go ahead I'm going home and he was too big a draw card for the race to let him go.*

The participant significantly notes that the effect of the figure of a leader also can have an effect beyond the competition per se, to the event organisation. On the other hand, we have already observed a situation in which the peloton can similarly express itself without necessarily having any leader. With the recognition of different historical periods and their respective leaders, came observations of changes in the composition and organisation of the peloton during the contemporary period, including a suggestion that those 'in charge' don't command the respect that they once did:

Q: *Peloton, a little sociological question. Who's in charge of the peloton as a rider?*

A: *I think things have changed a bit from the 90s. In the 90s in Italy certain riders controlled the peloton ... There were some big personalities like Cipollini for example. There's no-one like that anymore, there's no-one.*

Q: *Not even Armstrong?*

A: *Yeah when he's around for four races a year. Now there's no-one. There hasn't been anyone in France for even longer and they had a young peloton before anyone else. There's no-one to teach them any respect. I think there's one thing or a few things - the races have more crashes. The young blokes have got no fucking respect. I've seen Cipollini bloody helmet pop people. You know older riders, if someone did something wrong they'd talk to them and say you just don't do that. Now the young blokes would turn around to you and tell you to fuck off.*

Q: *I remember (name) said the same thing to me once in the Vuelta in 2004. The peloton's younger now, do you reckon?*

A: *Definitely. The average age of the peloton's younger than it's ever been, for sure.*

Q: *Why do you think there's less respect from the younger guys?*

A: *Because there's not so many older guys now that the guys respect. They just say, 'We're not doing this'. It used to be like, in the 80s, if they said 'We're striking', no-one'd say anything [i.e. there would be no dissent]. There were personalities back in those days that I respected ... the younger guys ... now I don't think it's the same.*

Q: *We haven't had a rider's strike since the Festina Tour have we?*

A: No. That's just the whole culture. There's always someone ... with something to be gained out of something so they'll go 'Fuck you, I'll ride anyway'.

Without a certain form of respect and restraint able to form a principled community, or formal structures of authority, or avenues for conflict resolution, a community is more susceptible to potential dominance. An ethical basis for self-organisation becomes harder to establish in the face of the de-territorialising effects of globalisation. It might be, as the Italian philosopher and social commentator, Maurizio Lazzarato, has commented, in relation to the globalisation of the dominant economic paradigm, an observation which is equally apt when considering the process of the globalisation of cycling. Both it seems have contributed to the erosion of trust and have, in fact, more often produced more of its opposite, distrust (Lazzarato, 2009).

Self-organisation and self-regulation

Despite the caution we have noted when considering the social nature of the peloton we, nevertheless, remain convinced that the

strong, cohesive kind of morality that floats through the peloton

has the potential to be a vehicle for change within professional cycling and that the question of change is related to the problem of creating and maintaining a sustainable sport.

Earlier in this chapter we made what might be regarded as a divergence to speak about the different visions of cycling that might be manifested by the 'gifts – no gifts' dichotomy. The idea of a gift economy is not something new. Anthropologists such as Mauss (1970) took this theme up quite some time ago in relation to the forms of organisation that characterise some indigenous cultures. In more recent times, the idea of the gift economy has been applied in relation to the environment and the management of what are known as common pool or common property resources. Software production and the internet has been another area where this logic has been applied to great effect (Lessig 1999). Interestingly, this is another area where the line between science and law tends to become blurred. In 2009, Elinor Ostrom received the Nobel Prize in Economics for her long-term work on this issue (Ostrom, 1994). The concept of common pool resources has also been discussed in relation to the organisation of, and rule enforcement in, sport (Bird and Wagner, 1997; Castranova and Wagner, 2009).

In sport, rules might be said to have two effects: one is private where the rules produce a game which generates private rewards and benefits for players, administrators and spectators. The other is social where rules tend to reward play that exhibits self-discipline, sacrifice for the common good, and fair play (Bird and Wagner, 1997). Sports rules are also a response to a classic common pool resource problem. If the rules are abided by, the sport becomes more valuable for all those involved. However, there is also the temptation for individual interest to violate norms based upon ideas of collective interest. The problem that common pool logic seeks to address is: if it is in each individual's interest to violate a norm that is in the collective interest, how does one change individual incentives? (Castranova and Wagner, 2009). In other literature this has been discussed as the Prisoner's Dilemma vis-à-vis doping (Petroczi and Aidman, 2008).

There is a whole body of examples in the common pool literature where informal norms represent equilibrium strategies that solve various social problems (Ostrom, 1994; Bird and Wagner, 1997, p. 752). As we have seen, regulation and rule enforcement operates in cycling at two distinct levels. There is the level of the Code, written norms which stand above those on the playing field. Then there is, at the level of the factory floor, the unwritten norms of the peloton which seek to manage risk and ensure sustainability. Rules are either thus centralised in a transcendent legal order, or are immanent to a decentralised social order. The regulation of common pool resources often employs both these centralised and decentralised mechanisms. Castranova and Wagner (2009) argue

that a centralised approach works best when behaviour is easy to observe and it is equally easy for a central authority to impose sanctions. Conversely, when behaviour is hard to observe and imposing sanctions is costly, decentralised mechanisms are preferable. It is in this latter approach that participants in the common pool resource announce, observe and enforce their own specific punitive responses to socially damaging behaviour – violators become outcasts (Bird and Wagner, 1997). Is not the action of the peloton managing risk and sustainability on the road an example of such an accord to manage common-pool resources?

Bird and Wagner (1997) recognise doping as a common pool resource problem where athletes are bound together in a tightly-knit community with strong preference for normatively approved behaviour that includes concepts of fair play. Doping in their view is a natural case for the application of common pool norm enforcement mechanisms (Bird and Wagner, 1997). The proposals they put forward to deal with the problem involve the abolition of a banned list, which they say only encourages experimentation with new things not on the list, and its replacement with a positive (rather than banned negative) list and 'Drug Diary' where athletes would publicly state what supplements and substances they used to prepare. In thinking about the Drug Diary we were reminded of the sense of trust and transparency created by some riders when they make publicly available their own blood and other values online (e.g., Basso, 2010). There is some merit in this but it is not the issue we wish to immediately pursue here. The other proposal put forward draws upon the nature of rule enforcement in golf.

In golf players are considered to have behaved honourably if they observe the rules rather than be discovered by an official. Players who have been considered by other players not to have acted fairly are regarded as having acted in a disrespectful manner to their sport. Reputation is important in golf and cheats are definitely regarded negatively. Current anti-doping work with international golfing organisations has adopted the approach of making anti-doping a similar part of the rules. Doping in this way becomes synonymous with conduct unbecoming and is contrary to the idea of how to play golf fairly. If the unwritten, self-enforced nature of golf is not observed then there really is no point to the game. What really does make a difference in golf is the honesty of players to own up to a rule infraction which may not otherwise have been noted by an official, regardless of the penalty. From this basis the current golf anti-doping education programme has been built upon what players can do rather than the negative of what they must not do and must not take. The player's advice for the World Amateur Championships has been recently rewritten to emphasise players' rights as responsibilities. Responsibilities appear to engage players in the anti-doping process more than does a dialogue of rights. Clearly, collegiality is inherent in the sport of golf. It is part of the education about respecting fellow players and the course (Verroken, 2010).

In golf players sanction themselves for rule violations, grounding a club in a bunker or causing the ball to move whilst preparing for a shot. At the same time, other players enforce rules against others, for example, after noticing thirteen clubs in a bag or having grooves too wide on a club face. The point is that in golf (and as we have seen, it is by no means an exception) norms are enforced by those who are also competitors. Thus, the formal rules are grounded in the collegiality of the golfing community. It is this sense of collegiality that pervades in golf which allows for such a regime of norm enforcement to operate successfully.

Another point made by Bird and Wagner (1997) is that those who are most able to observe their competitors on a constant and close basis are fellow competitors. They are the ones with access to behind-the-scenes information, they are the ones who are included in the rumour mill and have the ability to observe sudden and unexplained changes in performance. One participant told us that this was just the situation in cycling:

A: You know, it's hard to get in to or to see it through the eyes of a rider if you haven't been a rider. ... I feel embarrassed about, every time someone goes

positive and the thing is people that are in the know, Martin you know - people that are in the know, know. There was a kid who went positive on the Tour de France last year and I already saw something in the Dauphine Librere [a French race held a few weeks prior to the Tour de France]. I saw his face. I saw him in the same hotel as me. He was from another team and all the warning bells were on; he looks too good. I don't know, and then I saw him riding in the Tour. Guys from one other team had a party at the end of the Tour and they were all joking around from what I heard and said for sure, he'll be hanging on - they'll hang him in the next couple of weeks and for sure he was on the board. I mean riders know it not because they've seen anything they just see the rider. They know the subtle changes and they know what can and can't.

Q: And did he get caught?

A: For sure.

Q: Who was it?

A: Bernie Kohl.

A: So that's the thing you know and if you're - that's another thing about awareness. If you've been - if you're not a bike rider you probably don't see that. But if you've been a bike rider and you are aware of subtle changes in your riders' appearance in their form - you know because you don't get form in a week. It comes and there's a lot of factors around it and you have your setability and you can rise above that a little bit but not much and all those factors you can calculate in, and that's where it comes back to sort of management. We have also a role of being the watchers.

Observations such as this, if combined with athlete-based enforcement mechanisms, would have the potential to deal with doping in an altogether different manner than it currently is. A manner which could be complementary to the costly current regime based upon testing. There are many ways in which collegiality could be infused into anti-doping policy. Any such mechanisms would require a study in themselves and obviously very close work with the peloton itself for them to be effective.

Another manner in which athlete collegiality could operate in anti-doping is in relation to what we have referred to in our chapter on the Biological Passport as the 'jury question'. In their work on standards to be adopted in anti-doping cases and what is known as the Prosecutor's Fallacy, both Faber (2009b) and Berry (2004) have made the point that the jury question in anti-doping could ideally be decided by a panel of the athlete's peers (Faber 2009b). The problem that we encountered there is the ultimate findings of fact that are needed to support a finding of an ADRV are not to be made solely on the basis of scientific opinion but on the weighing of all relevant evidence. Berry has proposed that findings of fact as to the prevalence of doping in a population could conceivably be made by a panel of peer athletes (Berry 2004), as well as other findings, such as a particular athlete's reputation that might give rise to suspicion, so that an athlete's prior conduct could also conceivably be determined by such a panel. In whatever form it ultimately takes, collegiality and the finding of facts in a hearing by a panel of peers could only serve to bring together the formal and informal, the written and unwritten, anti-doping law and the norms of the social peloton in a powerful and positive manner.

Conclusion

We outlined the notion of the social peloton to indicate the capacity of a close-knit workforce to moderate collective behaviour and apply a certain set of rules. We've shown how that works on the road during races – with the peloton capable of both deciding upon and enforcing things like sustainable speeds, safety in dangerous conditions and a

reduction in behaviour by individuals that might cause accidents. We've also used it as an opening point to exploring how the industry itself, made up of relatively densely connected social and professional networks, has the capacity to self-moderate and respond to activities which might damage the collective welfare of those involved. We haven't suggested this is entirely positive. As we noted, the social peloton has the capacity both to prevent and conceal unethical behaviour. The question is, therefore, how it falls one way or the other.

With this in mind, we considered whether the social peloton was a principled or functional community. In other words, is there a discernible ethical code, or merely a set of collectively recognised necessities? The point is debatable, but certainly our participants strongly suggested that their 'work' as professional cyclists was bound up in something more complex than a need to win or a desire for short-term profit. That code was potentially driven by a degree of pragmatic, economic sense that, at points, conflicts with the notion of the noble amateur sportsman for whom sacrifice provides the spectacle of sporting achievement. Yet, the complexities between sport-as-spectacle and sport-as-profession were, as we saw, interwoven rather than mutually exclusive. Our interview subjects certainly seemed to suggest the peloton, and the industry that surrounds it, had the capacity to enforce an ethical code largely in synch with both institutional and governmental anti-doping rationales.



Chapter Eight

Work, Career, Education, Change

Sport as Spectacle and Sport as Work

The difficulty we've consistently struck up against in preparing this report relates to a point of tension between regulatory and legal frameworks designed to maintain certain social values and the practical 'coal face' experiences of our participants. That tension reflects a difference between what sport 'means' as a cultural spectacle or social force, and what it means to its workforce and the industry that surrounds it. Of course, the two are inherently linked. As participants constantly pointed out, being a professional cyclist isn't just another day job. The values of fair play, athleticism and competitive spirit are part of their sense of self just as much as they're part of the wider social appeal of sport. At the same time, it's hard to have a healthy sense of identity when you're faced with pressing poverty or you know full well that a minor crash might result in an untimely return to a 'career' stocking shelves at a supermarket. The increasing importance of cycling as identity work, coupled with the high buy-in and the negative impact it has on other career paths, appears not to transcend more mundane concerns about working life so much as exacerbate them. When considering cycling as work – perhaps glamorous, perhaps exciting, but work nonetheless – it becomes obvious that its actors are still part of the wider world, both socially and economically, and need to be considered in such a light.

Hoberman makes an important point in his piece entitled '*A Pharmacy on Wheels*', which leads back to the beginning of this study and the profile of a professional cyclist. He poses an important question in that he asks us implicitly to consider the position of the cyclist as a worker in order to better understand the problem and the possible solutions. He writes:

"Once we admit that the athlete is a worker, we must recognize that he may also be a vulnerable or an exploited worker. Keeping one's job, Alex Zülle points out, concerns not only "riders who are making big money, but also family men who are just making a living." "I don't believe that there is even one rider in the field who wants to take drugs," Greg Lemond once said on Bicyclist Online. "But half of these guys are high-school drop-outs with a wife and three kids at home; and if they don't deliver the goods, they won't get paid." Such observations make the conflict between professional demands and amateur ideals painfully clear. For the professional rider who survives on the racing circuit, life on the road may be the only realistic alternative to a life of boredom or poverty." (Hoberman, 2003, p.117)

Hoberman continues:

"While it is essential to recognize that riders are workers, to depict cycling as merely a labor culture would be a serious distortion of this sport and its storied history. The point here is that journalists and intellectuals have consistently downplayed the labor dimension of the sport in favor of more romantic interpretations of these "giants of the road." Perhaps the best known of these celebrations of the Tour is Roland Barthes' essay "The Tour de France as Epic" (1957). Barthes' interpretation of the Tour emphasizes "the great risk of the ordeal," the "magnificent euphoria" it makes possible, and the mythical essences that animate its colorful cast of characters. At the same time, he points out that the myth of the Tour, the tension between its "vestiges of a very old ethic, feudal or tragic" and "the world of total competition," obscures its commercial core. He does not, however, portray the riders as workers, because this would subvert their status as heroes of an epic ordeal." (Hoberman, 2003, p.118)

Hoberman's insights highlight an obvious tension that is at the heart of the problem. Professional athletes are seen as otherworldly creatures in so many ways – this, of course, is one of the things that excites and draws people to sport; athletes characterising something 'above and beyond' the mendacity of every day life. But the flip side to Barthes' '*giants of the road*' is the image of professional cyclists as the '*convicts of the road*'. This phrase was coined by Alberto Londres when he interviewed the Plessier brothers after they abandoned Stage 3 of the 1924 Tour de France in angered response to an official's attempt to enforce an obscure dress code (Londres, 2009). On one hand, the cyclist is the equivalent of a hero of a Greek myth and, on the other, a poor worker, exploited by media barons and others to sell newspapers and scrutinized, as the Plessier brothers pointed out, like petty criminals. These two images are not mutually exclusive and both of them potentially influenced Henri Plessier's comments to Londres:

"You have no idea what the Tour de France is like," said Henri. "It's a Calvary. But Christ had only 14 stations of the cross. We have 15. We suffer from start to finish. Do you want to see what we run on? Look." From his bag he took out a phial: "That's cocaine for the eyes, that's chloroform for the gums." "That," said Ville, also emptying his musette, "is a cream to warm up my knees." "And the pills, do you want to see the pills? Look, here are the pills." They each took out three boxes. "In short," said Francis, "we run on 'dynamite'." (Londres, 2009, p. 27)

As Mignon (2003) points out, this is the scene that popularised the image of '*the convict-labourers of the road*', positioning Tour de France riders as workers who have to use whatever is in their power to complete their job. And this is the image of the cyclist that the then French Sports Minister, Marie-George Buffet, felt the need to 'protect' from being exploited by the sports organisers. During the Festina crisis, Buffet recalled the responsibilities of sports organisers and managers:

"The obligation of results at any price is an incitement to doping. The increasing number and increasing frequency of competitions pose a problem" (Hare and Dauncey, 1998, p. 195).

One participant recalled the Festina crisis:

Who knows, the apocryphal tale, the sort of the legendary background is that the French Minister for Sport wanted to go after soccer in '98 but it was the year of the World Cup in France and the powers have said, 'No way. You are not going to, these are the tales from history', so she went after cycling. Whatever sport in Europe the French Minister of Sport went after she would [have found evidence of doping]: rugby, absolutely soccer, absolutely, they could have gone and raided any club, any cycling team, any rugby or football club at that era and would have had a similar impact ... Cycling seems to have been leading the way on doping though throughout its history.

The two faces of the cyclist – exploited worker and mythical hero – leads us back to the participant's comment we've consistently cited: *my body is not a temple, but I have to live in it*. The athlete's body is subject to an ideology of sport far larger than their own individuality, part of a global economic franchise, scrutinized by national and international laws and regulations and inherent to their capacity to earn a living – yet still something they have to live in, the same as anyone else.

This faces us with the dilemma of 'sport as spectacle' in inextricable bind with 'sport as work' – the spectacle of the athlete's body as a temple of achievement and the material reality involved in working as an athlete, particularly an endurance athlete. The interview extracts used throughout this report recognise both aspects of this but clearly place questions of 'work' as key to the question of doping policy. Some participants expressed this quite clearly:

Yeah, yeah, definitely. I mean, your body is your foot pedal. Your career is your body. You know what I mean? The better condition it's in, the more likely you are to have a job the next year. So, but if you knew that you had a long-term, yeah, if it was structured and secure long-term, I think guys would be much less likely to take drugs.

In the profile of a cyclist, this report has already described aspects of the nature of a professional cyclist's induction to the sport and their employment within it, including its precariousness, as factors that do not necessarily provide a stable career/life path. It is possible to estimate from the interviews that over the past ten to fifteen years over five hundred riders have passed through the ranks of elite and professional cycling in Australia in one form or another. Of these, the anecdotal evidence collected as part of this current study suggests that only about six riders (or less than 1%) have moved into the AU\$1,000,000 plus salary bracket. Most others have not even approached this figure during the entire length of their careers. Indeed, teams may offer no guaranteed or minimum wage, and riders frequently are non-salaried (receiving only material support in the form of the tools of their trade), or have 'bought' their own contracts with the hope of capitalising on the 'investment' in their careers. For example one respondent stated:

Q: Were you putting money away?

A: Always. I was driving a \$2,000 car when I was making good money.

Q: But you weren't quite making what Stuart makes.

A: That's right. If you are Stuey or Robbie or Baden or McGee it doesn't matter. You can blow your money because you are making so much.

Q: So the investments you make - it doesn't matter?

A: Yeah, because Stuey and those guys have made bad investments but they don't care. Same as Hincapie. He's lost 300 grand here and there but it doesn't matter.

Q: If you take the history of Australian cycling, how many guys have actually got to that status?

A: Bradley McGee, Baden Cooke, Robbie McEwan, Stuart O'Grady, Cadel Evans of course, Phil Anderson, yeah those guys. And then you've got Steven Hodge, Neil and me are all underneath that bracket. So you've got the star bracket and then domestique. Me, Neil and Hodgie were all domestiques and Scott Sunderland ... Yeah, and Alan Peiper are just all workers.

As already noted, older and retired riders generally leave the sport with very little income or savings with which to support themselves. Similarly, many riders stated that on leaving the sport they did not possess the relevant skills necessary to start a new career. Educational support for them during their cycling careers has been unavailable, inadequate or not tailored to the demands of their existence. One of our participants reflected that he left for Europe to pursue a professional career almost immediately after completing an apprenticeship. He never returned to his original trade:

Q: So post-electrician and post-riding, cycling has continued to be your only profession?

A: Yes. I don't have many life skills really. All the money I earn is to do with cycling. I go on cycle trips away.

Q: So you still do that?

A: I do whatever I can, yeah.

A cyclist who does not “have many life skills” nor much of a future career in anything, may not be in the best position to make choices that are consistent with the lofty ideals of institutional anti-doping policy. A participant we cited earlier, and now retired, stated:

If I knew then what I know now, yeah, I would have done things differently.

His implication is that he would have doped in order to try and set himself up financially for life. The same attitude came up elsewhere:

Yeah exactly, I think it's well documented, I've heard someone say it as well, an older cyclist, that you've got X amount of years to do cycling and you've got X amount of years to make as much money as you can from it and you use what avenues you can, that's the attitude.

Lentillon-Kaestner and Carstairs (2009) emphasise the need to understand “the link between doping and sporting careers” (p. 1). They also note that, to reduce doping use, it is important for cyclists to maintain relationships outside cycling and to have something else besides cycling, such as higher education or community work (p. 8). A participant who was able to undertake and complete tertiary studies whilst a young professional said:

I think it's good to have something else there as well. For me, personally, it was anyway. So, you know, sometimes you have an injury or something, especially if you're young. If you're nineteen and you got an injury, you know, and you can't ride for a month or so and you're just sitting at home doing nothing I think you'd go crazy. At least then for me it was one month I could work ahead in my university so I could focus more on cycling after that.

A number of other writers have also commented on the link between ‘employment’ factors and doping. In his work on economics, corruption and doping, Maenning (2002) identifies various factors or behavioural determinants affecting micro economic calculations and doping. These include income, moral qualms and short and long-term health risks. He further identifies:

“variables such as intelligence, age, education, wealth and family background as being included in the explanation of whether an individual has recourse to illicit behaviour” (p. 63).

For our purposes, Maenning’s comments in relation to education and morals (or ethics) are revealing where he notes:

“an individual who is less educated and talented ... is more likely to choose an illegal course of action. Individuals with extensive moral qualms ... reject illegal behaviour across a greater range of realizations of the other variables.” (p. 63).

Maenning also noted that:

“the supply of illicit behaviour will be determined by the distribution of ethical values within the population.” (p. 63).

The point here isn’t that immorality is confined only to the stupid, untalented and poorly educated. What is clear is that impending poverty and unemployment pose significant motivators for otherwise unethical behaviour. To that end, one consistent aspect of this study has been the interviewees’ concern about the relationship between the lack of adequate post-career options and planning (e.g., pension or superannuation schemes or the like for professional cyclists) and the choices made in relation to doping. One

participant, who considered himself more organised than many of his colleagues, felt that the sport's administrators needed to play a greater role in ensuring proper career and post-career financial planning:

A: Yeah because I'm self-employed. Which I knew before entering into the contract. Then one person will do it this way, one person will do it that way, another person doesn't have it, they'll tell somebody they're not allowed to race until they get that done, and then you find out somebody else is paying \$150 there and it's all good with them. It's just not uniform. Then I end up with a Belgium licence and they're not putting anywhere near that kind of money as a percentage of my contract into a pension account, and they're like, 'All right, he's got a pension'. Now I'm high and organised enough to be looking after myself, but the idea is that they are out looking after, whether it's the CPA (Professional Cyclists Association) or the UCI, and making sure the riders have a pension so they've got something when they...

Q: Because the pension that they have got is pretty puny as well.

A: Oh I mean that one, but we're talking a bit more like a superannuation.

The CPA is a body established ostensibly to represent the interests of the professional peloton. Its high point was under the leadership of retired French rider, Cedric Vasseur. Since Vasseur's departure from the position in 2009 its future has been in doubt. As some participants noted, it is commonly perceived as being ineffective and too close to the UCI:

A: Like the CPA, I mean in my honest opinion what a load of shit. What the fuck does that do? I don't know that any change has ever become of that. Maybe it has in some things, or maybe for the guys who are having problems with bank guarantees and that, maybe it is helping them, or have you heard information about that or?

Q: Well you see, I get the CPA newsletters as well, and for how many years have we been reading in the CPA newsletters about the prize money from the Tour de France in 2006 and whenever it was, it's never resolved.

A: Well exactly, what weight does it have? Really nothing. Oh and they're trying to get minimum wages to increase to this and people just laugh at them. That's what it seems like anyway to me. I don't think there's any - that would be a big thing, something that I hope maybe we could do something about with this or have some weight to push something with is - that we can get a sense of unity with the riders. I mean, they need us and we need to throw that weight around, or not throw it around but just make sure that we're...

Q: At one point riders did do that. Riders did sit down and say we're on strike and in the old industrial type of militancy, if we can call it that, we'd say 'We're not racing today' and these sorts of things did happen.

A: I think there needs to be more of that again.

One issue the CPA did seek to address under Vasseur's leadership were the options available to riders after their careers and other measures, such as pension funds. Although the UCI has established a rider's pension scheme of a sort, participants did not think highly of the scheme or the manner in which it was administered:

Q: Have you collected your super from the UCI?

A: I haven't put my form in yet. Have you seen the form you've got to fill out? Absolute bullshit, like they don't know that I race thirty-five days a year? I should

print that in. Actually I might do that because if you go for five or four years with [team director name] you've got to sign for two different teams ... Our director at [pro team name], and I'm still good friends with one of the guys from [pro team name]. So I'll just fax it off to him. It's not going anywhere and certainly not making money for me.

Q: There's one idea that obviously some guys talked about, superannuation funds and trying to have a deal where teams are actually paid in to a super fund ... you pay into a super-fund and then guys who go positive actually lose part of their investment.

A: They can get no money I think as well. I think the idea as well is the prize money is so shit in our sport at the moment anyway, that they should take more and put that in a super-fund. Pros won't really miss the prize money. At the end of their career if they've taken a million dollars out and invested it and popped it back in to a super-fund. I think it's absolutely ridiculous that after five years you get ten thousand Euro, yet someone like Ekimov, at fifteen years, still gets ten thousand Euro. I think it should be graded. I think if you do ten years you should get double the money. That means you don't get anything for super.

Q: But if you're paying it in?

A: It's brand-new so they understand it they have to start somewhere. But I think the best way is to take more money out of prize money and maybe the sponsors can put a little bit more in to it as well so it actually creates a decent fund. If you do it in a ten to fifteen-year career you could get a hundred grand. You can actually invest it in something you want to do after your career, not ten thousand dollars. I don't even know – do we tax that?

Another participant was cynical in his comments on the UCI fund:

A: And then there's our retirement fund, which I'm really banking in that's going to carry me in my golden years, is the rider retirement fund...

Q: Well I was about to ask you about that.

A: I've been paying into that I know of, and I'll see the square root of fuck all out of all those contributions.

Consistently the participants questioned the effectiveness of current superannuation and pension arrangements within the sport. One participant considered that factors such as the short span of an athlete's career should be taken into consideration when formulating such schemes:

Q: But aside from doping, we talked about super and things like this, when we were on the Sun Tour, decent pensions and all these sorts of things. And then you go through ten years, fifteen years...

A: Then the rider's got nothing.

Q: Then the rider's got nothing?

A: I think that has to be, and I think what you just showed me here with the idea of an Australian ... a Cyclist's Federation [could play a role], I think that's something that should be made mandatory for every team that has, they'd have to pay superannuation for ... you cannot get a [team] licence unless you pay that. So if that means each rider has to get \$10,000 [into a] super fund which the UCI

regulates, so that that \$10,000 after fifteen years is \$150,000 ... because [now] they just walk away with nothing. And that will lessen, that will definitely lessen the...

Q: The temptation?

A: The temptation, it will lessen the temptation because they know that if they just do their jobs and not necessarily win, that they know their family's going to be fine. Do you understand? So like [different bodies have a role such as] the national federation. If you're someone who's not working you still have to pay a fee so that they get looked after. I don't know, something like that because these bike riders are full-time ... Do you understand? ... I have nothing. Nothing after my retirement...

Q: Yeah and you're going to pay the bills out of this and not much more as well.

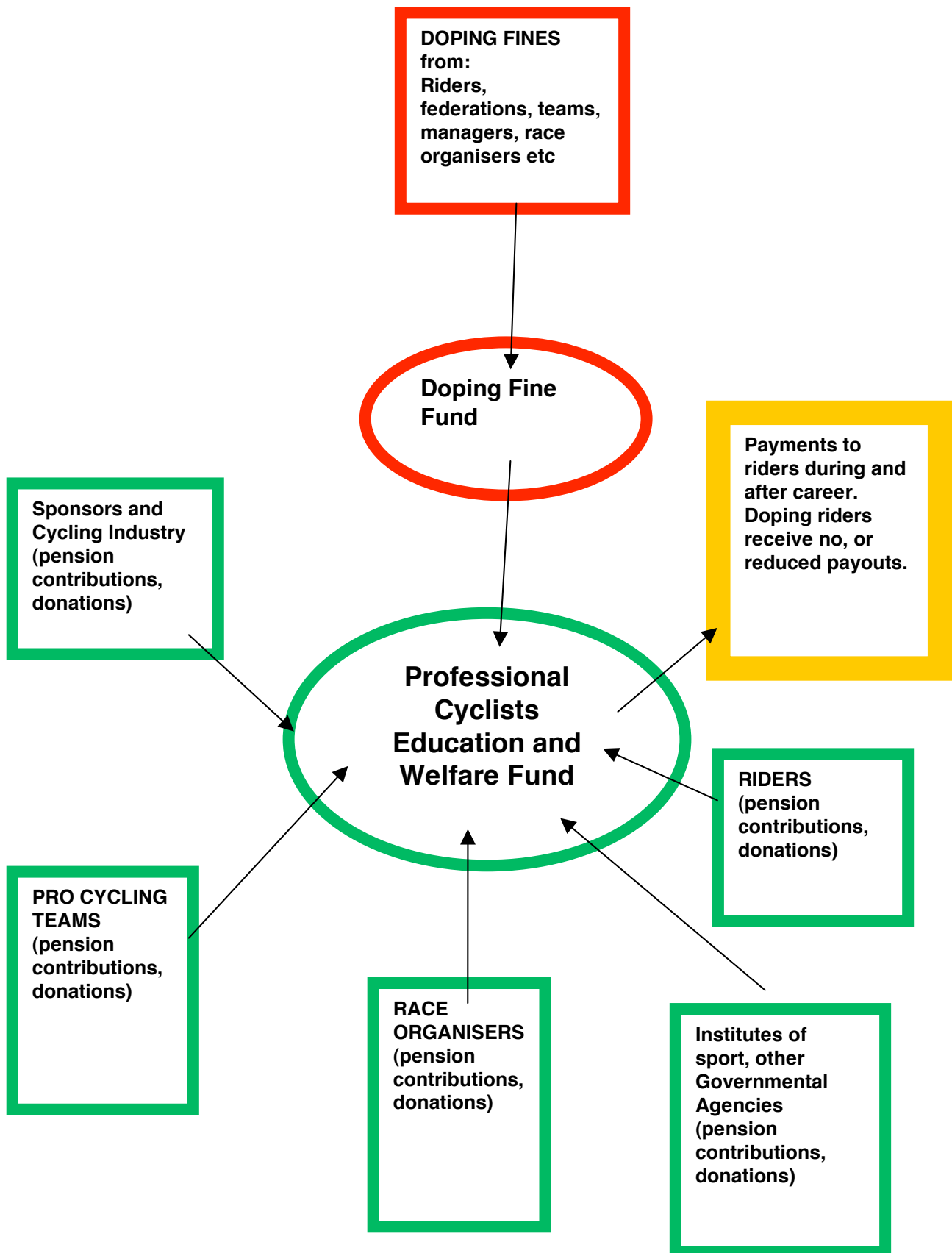
A: I've got four kids Do you know what I mean? Like I have a house that has equity and that's it. I pay my bills and I run out of money on the last week of the month, every month. And that's how it's always been for minus about two years [of my working life]. Looking after the long-term future of cyclists after cycling is the answer I believe to a certain extent.

Q: ... you're never going to stop it?

A: You won't. I guarantee you right now. I'll look you in the face right now and I'll say to you, you will never stop doping as long as there's money and people who want to win. Any sport and where there's money with any sport makes it more, you will never stop it. But you can lessen it I think.

The feeling expressed consistently is that with a more stable career and post-career structure, the temptation to dope would be lessened. Post-career planning was seen as a question related to a functioning superannuation or pension scheme that provided real, rather than token, benefits to a rider on or during their retirement. Significantly, the operation of this concept of a pension scheme was linked back not only to doping prevention but also to the enforcement of the peloton's norms – those that risked the sustainability of their sport should be sanctioned by reductions in, or the loss of, their pension fund. These two things should, and could, work in tandem. The financial security provided by proper post-career planning at an individual and institutional level would, in the view of most participants, significantly lessen doping. As the interviews suggested, there is room for a pragmatic 'carrot and a stick' approach, ensuring financial loss for breaching ethical codes, whilst providing the potential for security regardless of the volume of sporting victories. The issues of collegiality, as have previously been raised, could also come into play here – like many superannuation schemes, there's a potential for worker representatives to play a role in their administration, which could include determining appropriate sanctions when they put the livelihood of others at risk by doping.

Figure 4: A Possible Anti-Doping/Welfare Fund?



Education

Whilst the discussion of superannuation, investments and financial security post-cycling provides a clear influence on the rationale to dope or not dope, it's unrealistic to assume every pro who spends two years in the peloton will generate enough money to ensure their long-term welfare. Hence, it is important to revisit education, one of the other notable themes discussed in the rider profile section. Even a short-term career generally seemed to involve training from the late teens and has, inevitably, a negative impact upon the years in which most people transition from high school to university or TAFE through to their first forays into skilled employment. For the average pro cyclist, the demands of their profession not only disrupted that but absorbed them into a short-term athletic career which, in many cases, placed them back in the same position as the average eighteen-year-old when they were in their late twenties or thirties. This was raised as an issue by participants, partly because education was perceived as providing something more lasting, but also because it was seen as a tool kit capable of producing better, more ethical riders:

Oh well, I think education is not bad for riders. The riders have got to be educated more. That is the thing.

Another participant noted that his access to an education, within a family with high social capital, placed him in a far more privileged position, whereby doping came down to personal choice, over those lacking privilege for whom their cycling career carried with it a far greater weight:

... it's no wonder that all those poor Spaniards with little education, they were prepared to do whatever it takes. As far as, like, me from a background of an educated family and all that, it's a continuum, it's not what you do or don't, you just make/pick your point, how far you are prepared to go ...

Yet another participant grounded education back to the issue of economic security, highlighting the young age of most neo-pros and the loss of education opportunities common to the profession:

You just asked me where's your background, what do you have? And it's like, it's seriously, I think it comes down to the individual. If the individual is someone who's a smart person who knows that if he stops cycling and doesn't get a professional contract in 2011 he's got other options to make money and not just, you know. But that's kind of, I think that's half the problem is that bike riders maybe are pushed into it maybe a bit too early and just neglect what they need to be doing. But maybe you should make it compulsory, you can't come onto a national team unless you have tertiary studies.

In the past, discussion of athlete 'education' has traditionally been focused upon education concerning compliance with anti-doping rules. For example, the 2009 UCI education project, True Champion or Cheat, was aimed at educating cyclists as to their obligations and responsibilities under the WADA Code. The responses given to the UCI in a survey they conducted in relation to the project, suggest that it is neither effective nor ineffective in changing attitudes. Questions relating to their overall impression of the project, the concept of learning, what was learnt and the project's contribution to lessening doping cases were all answered with a neutral response by nearly half of those surveyed (UCI, 2010b).

It may be that such programs are aimed at ensuring ignorance is not a defence rather than genuine education. This is not the type of education relevant here; education is one of the best ways of grounding participants back into the 'real world'. Participants linked education to the wider challenges facing them in their careers and lives and to the wider choices involved in the decision not to dope. The participant quoted directly above continued, noting that there were other sports with a successful focus on education:

A: *Just like the NBA basketball.*

Q: *Right, is that how they do it there?*

A: *They cannot play basketball at university unless you're passing your university studies. You are not allowed to make \$1, not a dollar, I think behind the back, like dadadada, come and play for Duke, I'll get your grandmother to the Bahamas for two weeks. No, no, no. You're fucked. You're out. And you get screwed from the NBA after that.*

Q: *Have you talked to Drapac at all, Michael Drapac at all?*

A: *No.*

One Australian team, Drapac Porsche, has been innovative in this regard by requiring their riders to undertake studies – whether secondary or tertiary; whilst they're on their team. This approach is said to not only offer the riders something to fall back on after their cycling careers but also, importantly, to provide them with something beyond sport whilst they are actually competing – to produce, as it were, a bit more of a well-rounded person. One younger participant drew attention not only to the financial issues of an abrupt break from the sport, but its impact on identity and sense of personal worth:

A: *... I raced a lot in the first half of the year so when I came back after the team folded ... I had a lot more time so I really wanted to, probably the main reason was as well that I lost a lot of self-esteem when the team folded, and I had sickness and things weren't going my way. It was probably the toughest year I'll have and cycling throws curve balls, so I really wanted to find another basis for my self-esteem outside cycling because I really went down when I wasn't riding, when I was in a bad situation like I was, so it was really good for me to go back and further myself in another area and know that there's ...*

Q: *That there's something other than cycling?*

A: *Yeah, just that there's something other to feel good about yourself because if your cycling's not going well and then you don't feel as good about yourself as what you should, you know, you need to know that you've got something else to offer the community ... I know that I've got something else to offer so its just to redirect that in my own mind and feel like I'm putting that into place.*

Education might be the key to ensuring the longevity and the moulding of the peloton's sense of community, so that this may, in fact, form an anti-doping tool in itself. The recognition by an educated, well-rounded or ethical peloton that 'we're all in this together', that 'we all have to make a living' is a powerful force to be enlisted as a 'second generation anti-doping' tool (Mazanov and O'Connor, 2010).

This certainly seemed to be a side-effect of the Drapac Porsche model, as was explained by a participant familiar with it:

A: *All the riding stuff is taken care. All the riders would be on some kind of salary and they have to submit what they're doing every month and if they're not satisfied with that they can chase that up and say what's going on sort of thing.*

Q: *What do you have to submit – when you're going to the pub, study you're doing? Is it like Whereabouts?*

A: *Not quite. You break it down into what races you did for the month, what results you obtained and comments. So how it went, how you thought it went, if someone*

cut you off and other crap, whatever that is. And the next section is study, work commitments, and how that's going. There was a period there where I was really struggling to fit uni work in with my racing, and I had to back off the racing so that uni would be going OK and I put that in that section. So, as I said, I'm really studying at the moment and I can't do a couple of these races coming up, and the next section is community service and the riders are required to do so many hours per year of community service. So that could be going to the Amy Gillett ride and participating in that, or going out to a primary school and a bike ed class or something like that, and then that gets sent out to the managers and directors sportif of Michael Drapac and they all get a copy and read it. Then if there's anything that needs to be talked about we just talk about it, otherwise it just keeps going.

One of the difficulties posed by rider education is that of combining the nomadic and often intense lifestyle of the professional cyclist with the demands of higher education:

Q: One of the questions you'll probably get somewhere is that do you think you can actually balance another job or a profession or study and being a pro?

A: It's a good question.

Q: I've been talking to [name] about it the other day and he said he had to pull back on the racing.

A: Exactly, and you look at all the Drapac guys. Their massive emphasis on study, or at least working and doing an apprenticeship and racing, which is fine. But the level that they do is not one that you were good enough to call a full-time job as a cyclist or a professional cyclist. They do it as a sport but I look at them as more athletic uni students as opposed to professional athletes. Do you know what I mean?

Q: Sure.

A: And there's nothing wrong with that and full credit to them to be able to handle two things at the same time. But if you want to be a pro cyclist I think it's hard enough to make it when you're 100% committed, or I found it anyway. Maybe some people are more gifted and they don't have to train so hard so they've got time.

Q: As far as I know everything's hard if you do it right.

A: Exactly.

Q: What was the motivation to do the commerce degree?

A: I'm interested in business and entrepreneurial kind of things and it was just a general degree that enhances your general knowledge in that area without being too specific. I did the whole of VCE in Europe as well so I didn't get quite as good. I was aiming around a bit over 80 but once I spent the whole of Year 11 and 12 virtually in Europe teaching VCE to myself, I thought I'll just do what I can do. I only did four subjects which is the minimum, and I figured it's better off doing as good as I can in four subjects as opposed to doing six and not getting 80% of all six, and then anything more than four counts as 5%.

Q: They should've standardised you against everyone else who was doing the year. It would've been fair.

A: Which is no-one. So I got 74 or something so I was a bit limited in what I could

get in to. It was good what I was doing, I was happy with what I was doing. It was just too hard.

Certainly balancing study with the life of a professional cyclist is not a simple task but it is not an insurmountable problem either. Information technologies obviously are being employed in higher education to provide flexible distance learning education mechanisms and they could be adapted to suit a globalised workforce.

Regardless, education was overwhelmingly viewed by participants as a significant addition to the anti-doping package, and an important means to shifting the anti-doping bell curve. A participant suggested that, regardless of the difficulties in developing educational pathways for those negotiating a sporting career, there was reason to believe it is a positive endeavour:

A: Looking after the long-term future of cyclists after cycling is the answer, I believe, to a certain extent.

Q: Yeah, that's what I'm saying. How do we shift the bell curve a bit?

A: Well, I've just given you one [wind noise]. I haven't given it a huge amount of thought...

Q: Education and this one you mean?

A: Education. Listen you cannot go on a pro. conti. or a continental team or even be part of a national organisation unless you have Year 12 finals. Or even say half a uni course. I mean listen, these fuckin' guys who can't read and write but they can dunk, six foot nine ... They can't play for Duke University because if they don't do their classes they cannot fucking play on the weekend. And if they can't play, NBA doesn't pick them up. So do you understand? And listen, most of them that finish, get an NBA contract for two years and [wind noise]. And why would you want to [wind noise]. Because they've got the university. These cyclists, they're seventeen fucking years old. They've left school. Everything now, their lives ahead of them, 'What do I do now? I've got to make it as a pro'.

Other participants placed the issue in even starker contrast, suggesting that the decline of a pro career meant the loss not only of income but the fundamental pillars of identity:

... So if it's not going well, and everybody in cycling, yeah I wasn't there but I mean back in the day I think everybody was pretty aware of where to go to get it and that type of thing by my understanding. It's like things aren't going well, I have nothing else to offer or their view of themselves, even though they're probably not aware of even saying this, but their probably subconscious thought is that they haven't got anything else to offer and this is it, this is their livelihood so they want to continue doing that and continue to have self-worth. So that's an option.

And:

Oh, yeah, absolutely, absolutely, and the pressure in the team to always be going good. You know what I mean? Like, you can be, and cycling's such a hard, physical sport in the fact that when your body's down, it can be down for months, and you're just riding through quicksand and you're, up here you want to be able to do your job properly, but in here it's just not happening. People get disheartened and they turn to something like that just to keep their career alive.

Career transitions, especially exits, are often viewed by the subjects themselves in the most extreme terms, such as a form of dying or death. This may be a result of their sporting selves being profoundly disrupted, and life apart from or without the group is experienced as a draining of energy or of life itself – a social if not a biological death. As one subject observed:

I speak to a lot of guys who are retired after years and years in the sport and the first couple of years are horrific: they feel like they're just, the whole world's caving in. It's like you've had your arms chopped off. Everything you've always done has been taken away from you and it takes them a long time to find their niche and their groove in regular life again.

The imagery of devastation and the sense of the tragic was a feature of a number of responses, as exemplified by:

It's frightening in the bunch, and I mean it's amongst, I know a lot of people in a lot of different sports I've seen as well, alcohol and drug use amongst professional athletes seems to be rife, absolutely out of control. When they stop cycling, or you stop whatever professional sport you do, it goes choooo, through the roof.

Perhaps the most interesting thing here is that professional cyclists were so quick, and so consistent, in pointing out that the bubble of professional sport ultimately had an impact upon its participants that was negative and made them more susceptible to things like doping during their careers, and more prone to mental health concerns later on. The following comment captured the sentiment well:

Absolutely, I think that's a really, really, really important aspect of any person is that yeah like I spoke a lot about self-worth and self-esteem and all that, giving guys the tools to be able to do that ... that's why there's so many people falling into black holes after their careers, or they end up packing shelves at a supermarket. Not that there's anything wrong with packing shelves at supermarkets, I mean that they don't have a passion in life post-cycling.

The suggestion here is that the temptation to dope, or an ethic of respect and sustainability backed by career planning and education, hinges on a broader context. Without other pathways and opportunities, participants consistently suggested that one does the things one has to do to make it as a pro, otherwise one leaves the sport. If the choice is between a future of poorly paid jobs 'packing shelves at supermarkets' and taking a risk on doping to secure a big contract, it's a choice with pressures forcing it in one direction. Those fears, whilst less akin to the sentiment of Barthes "*giants of the road*", are pressing. A participant put it in blunt terms:

A: I absolutely used to shit myself about what I was going to do.

Q: When you finished?

A: Martin, I still do. I still worry about what I'm doing now.

Again, the recognition amongst cyclists that their professional, athletic careers were part of a much larger world - one in which they often seemed to lack the training, connections and resources to integrate back into. This isn't obvious to the spectator, nor is it necessarily of interest to the sponsor, for whom the product of competitive spectacle is the primary draw card of professional sports. However, for the riders, it was a driving factor in contemplating the rationales, and the opportunities for, ethical behaviour. To that end, it is inherently of worth to any sport that wants to avoid the caricatured nature of things like the World Wrestling Federation or body building. If athletes are to personify the socially beneficial meanings sport is seen to embody, there is a necessity to provide the structural support to ensure ethical behaviour doesn't simply result in a non-renewed contract and regular losses to less scrupulous, or more desperate, competitors.

Norms, Morals, Ethics and Anti-Doping

Career stability and planning for education have been the focus of this chapter to this point. The final part of this chapter will expand the package to develop real and

sustainable options for change – an ethical cycling body. This isn't perceived as a replacement for more deterrent-based models of anti-doping policy, or as a utopian gesture to the better side of sport. Overwhelmingly, riders valued the opinion of their peers, worked cohesively together within the social peloton and were aware of, and worked to accommodate, their behaviour on the bike with their life after cycling. Given the sway exerted by the social peloton – capable of sanctioning riders for doing the wrong thing by their colleagues – mechanisms for reflecting and enhancing that collegiality and connecting it to other stakeholders within the industry stand out as a vehicle with significant potential.

In proposing such a body, the question of how it could be developed arises – how can the rationales and moral codes already existing within the sport be used to produce an ethical individual cyclist and an ethical peloton? Such a process might allow the social body of the peloton and its members to enter into dialogue with the institutional bodies, and it might also enhance the manner in which the cyclists conduct their own identity work. One participant considers this in relation to the 'win at all costs' attitude self-evident in some of their colleagues:

It's all about being aware of it. I think that's the most important thing - is to be aware of your own self-worth and where that lies. Yeah, I guess that's what I mean, the importance is that guys know that there's more to themselves that are of value to the community than how fast their legs can pedal.

An interest in the social nature of the peloton as a community leads to a consideration as to whether various ethical theories and practices can be introduced as part of the process of building character and value systems. The classic works of Plato and Aristotle on sport and society, virtue and equity, provide a rich starting point with which to consider these issues. More recently the work of Markula and Pringle (2006) and Hickey and Kelly (2009) introduce the concepts of the care of the self, or the ethics of self-care, into a sporting context. Hickey and Kelly have examined the development of ethics in AFL football players and, like Markula and Pringle (2006), their contributions are influenced by Michel Foucault's work on biopower and the care of the self (Foucault, 1978). What has been termed identity work might also be viewed through the lens of biopolitical production (Hardt and Negri, 2009). What is meant then by an ethics?

In this area of ethical thought, morality is "a set of values and rules of action that are recommended to individuals through the intermediary of various prescriptive agencies" (Markula and Pringle, 2006, p. 140 ff). Any such set of moral values can consist of two aspects: the moral code which denotes the prescriptions for 'good' conduct, and moral acts which denote the way individuals actually behave based upon the prescription (i.e., how carefully they follow the code). If this is thought about in terms of anti-doping, it is clear that the 'moral code' is reflected in what is considered the institutional rationales – that is, the code as set out in the WADA Code, the UCI rules etc. Moral acts are those acts that either do or do not comply with the code, in this case the practice of doping and anti-doping rationales amongst the peloton.

Three aspects of the moral code can be distinguished: it determines first which acts are forbidden (e.g., the acts embodied in the prohibited list), second, which behaviour has positive or negative values (doping and anti-doping behaviour) and, third, how the individual is supposed to constitute himself as a moral subject of his own actions. It is this third aspect that is termed an ethics. It is this aspect of ethics that has been located in the social peloton and its rationales and actions that seek to minimise harm and ensure sustainability.

What has been seen throughout this study is that, in developing and moulding this ethic of the social peloton, the link between education, career and ethics is an important core. It is a linkage that should be investigated in more detail in future studies. Outcomes from this study support the view that sustainable change only takes place in the area of ethics: the

manner in which one ought to form oneself as an ethical cyclist and peloton in relation to the prescriptive elements of the anti-doping code. What Markula and Pringle noted (2006, p. 141), and this study illustrates, is that the individual, while obeying the general principles, can respond to the code in different ways by choosing from a variety of ways to 'conduct oneself morally' – that is, in the process of 'individualising' the code or self-constitution. This is the place where ethical identity work occurs.

Furthermore, Arjun Appadurai (1996) suggests that sport represents a 'hard cultural form', solidifying connections between certain values and practices in an environment that tends to reinforce, rather than critique, its own workings. As individual athletes enter into this environment, in this case the pro peloton, it shapes the way they view themselves and ascribes meaning to their participation. Again, this isn't unusual; most corporations try to induct their staff into a set of values specific to their industry. The issue with sport is both its mass hegemonic strength, and that it primarily employs a young workforce whilst offering only short-term security. Some of our participants noted this in more practical terms and drew attention to its negative impact:

... sport can create mono-dimensional personalities, so I guess it's really not a healthy aspect. A lot of guys can just ride and things and I believe I can now, but I think there's times when you need to, not take a step back necessarily, but just know that there's something else to feel good about yourself other than cycling.

That said, there is reason for positivity when considering the pro peloton. It is the point at which all of the institutional and social factors converge. Nearly all participants lamented the 'mono-dimensional personalities', and proposed potential solutions – education, security in the longer term, better links and representation by organisations such as the UCI. Again, the question emerges of whether there is a way to amplify the 'power' of the peloton', as a source of normalising ethics for anti-doping policy in professional cycling.

In support of this, Petroczi and Aidman (2008) have considered the potential for a holistic approach, incorporating the rationalisation of health issues, broader life goals and so on, as a potentially effective complementary tool alongside the current models of anti-doping policy. Of course, there is always the issue in doing non-quantitative research that 'flowery' theories ultimately produce limited practical merit. But work such as that of Petroczi and Aidman (2008), Mazanov and O'Connor (2010), or for that matter the economic work of doping and collegiality, on which we seek to draw support, has very much a quantitative basis. Furthermore, participants largely supported and, indeed, suggested the potential for a holistic approach to anti-doping, partly because of its impact at a personal level, and partly because they did see issues with the long-term viability of the Whereabouts system and Biological Passport. One criticised existing methods as follows:

I certainly agree that it needs to be an investment in ensuring, for all the reasons that I said earlier, that the anti-doping system works, the question here is one of degree then, the degree of the comparison of the relativities of the different areas of medical research versus anti-doping is a little bit shocking but it just goes to show how much politics plays a part. I don't know if we could achieve, if we can't achieve an effective anti-doping system with all of that money then what the hell are we doing? If all of those millions, multimillions, can't get a viable anti-doping science put in place, then, we can't drop it but you've got to ask the question why on earth can't we do better for the money? There's got to be, I mean, that's a ridiculous cost, for something that some people say is not even working.

The notion of developing the athlete holistically extends from the debate around whether elite sports should be about processes or outcomes. The idea is that a happy athlete is one who performs well and one who has more than their single (cycling) identity, with social roles in, for example, education, family and society. This engages the ideas discussed by Houlihan (2004) that current anti-doping policy degrades the athlete by

making them the passive object, rather than active subject, of their profession. The comments of participants concerning career structures, education and social norms could be further configured around the ideas of building the character and value systems of the athlete rather than limiting them. If the athlete is prioritised as a person (instead of solely focused on winning) along with values of co-operation, mutual respect and the other values of the social peloton that come before competition, if these factors are injected into the regulatory framework, does the nature of the problem and its regulation change?

Change and Changing Consciousness

In an earlier chapter the notion of the social peloton was introduced; a roughly cohesive set of social rules, expectations and norms, with a non-hierarchical but none-the-less frequently pressing degree of enforcement. The social peloton equates to a sense of sporting collegiality, in which existing rules and regulations, reflecting the moral rationales behind things like anti-doping policy, take practical form within the less formal ethical codes of the close-knit workforce of professional cyclists and their cohort. It is those codes that allow the peloton to race together over the course of an entire season with relatively few crashes, making decisions on the fly as to course safety and sustainable race speeds. As also demonstrated, they impact upon things like breakaways, deals done between both individuals and teams and, at points, seemed to implicitly sanction behaviour that might be seen as cheating.

The social peloton might be considered both part of the problem and part of the solution to the doping question. A “strong cohesive kind of morality that floats through the peloton” has been noted and has the potential, seen by participants, to be a vehicle for change within professional cycling. It operates as a sort of organisational culture, designed to protect the welfare of those within the sport. Given doping was quite clearly seen as a threat to the sport’s economic viability, and to the health and welfare of its workforce, there already seemed to be a degree to which the social peloton was working to reduce the impact of doping. For example, a participant reflected on a high profile doping case:

A: The thing that pisses me off is the guy’s selfishness is endangering the sport and the, it’s not the right word, saleability I guess of cycling.

Q: Or the sustainability?

A: Exactly, the sustainability, the point I’m trying to get at is cycling’s actually in a rough period to try and get sponsors. When you see a team like Saxo Bank who would usually have quite a massive budget, this year it’s not actually that big a budget if you look at it and they’ve had to cut things down. I think Bjarne Riis is putting in some of his own money and we’re talking about one of the premier teams in the world, you don’t see that type of thing for the budgets that are relatively modest for an international sport [such as] the Tour de France and you look at soccer or Formula One or even V8 supercar racing have got massive budgets. It’s just the sustainability of cycling that I guess angers most of us.

This logic – that doping threatened not only the health of individuals, but the economic welfare of the entire peloton – was common. It reflected a change in attitude, whereby the impact of harsher anti-doping regulations had, regardless of their dubious degree of effect, translated into an ethical code which had shifted from seeing doping as an unavoidable evil to something actively against the interests of the peloton.

One participant made a comment after interviews had been completed and after he had watched the 2010 Tour de France – “*I could have won that race*”. More than a retrospective piece of wishful thinking, the remark reflected his belief that the fabric of the sport had changed such that a clean rider could now compete at the highest level and, further more, that this was valuable; something wanted not only by the WADA and governments but by the riders themselves. This view wasn’t an anomaly. There was a persistent belief that change was starting to occur within the peloton itself:

I think it could already be happening. I have a little bit of faith in the younger generation at the moment, and maybe I'm just so naïve and gullible.

Another participant noted that this change in attitudes was rationalised through the concept of respect and a revised 'don't spit in the soup' logic that, in the past, had stopped people speaking out against doping:

...it's a self-preservation thing by everybody, and I mean it is a real social sport in the way that there's a lot of etiquette involved in the riders, and you race with each other day in, day out, everyday, everybody knows each other, you know what I mean? You get a, you don't need enemies in the peloton, no you don't want to piss anyone off. You piss someone off and you're going to see him the next week and they're going to tell their friends, and all of a sudden you're getting fucked over in the cross-winds or you're not getting an extra bid in when you need it, or you know what I mean? And you see guys get, guys with a lot of talent getting outed from the sport just because they get a reputation and people don't, can't get along with them, and they do the wrong thing all the time and that's it. There's no spot for them.

Nevertheless, the idea of community was seen by some cyclists as being crucial to achieving any sustainable change:

It's pretty big because the reliance on each other's not just when you're going down the road and you're all together. That's one thing. But on the other hand, the whole changing the atmosphere of the culture of cycling is largely dependent on everyone having that community feel and getting an understanding that people, if they are doing the wrong thing or what's considered as the wrong thing, it's going to continually tarnish the community, as probably any laws being broken would upset any community. And I think that's gradually changing now because everyone has realised that they're not just accountable for themselves but their whole team and the whole sport in general.

An issue is that even in the current anti-doping climate the spirit of the *omerta* still operates. Even in a climate where the logic of anti-doping appears to prevail, cycling at an institutional level and at the level of the peloton finds it difficult to produce positive dialogue around doping. The change that is occurring is in its infancy, it is fragile and most definitely influenced by increased policing and the negative media attention that the focus on doping has brought about. All of these issues converge and are bound up with, and influence, the perception of 'ethical conduct' within the peloton. Attitudes to doping might be shifting from an accepted, if unsavoury, necessity, to something more actively frowned upon. But many of the old patterns of behaviour that sustained doping still remain within the system as a whole. But in saying this, there is a change occurring. As one participant has already noted, he wished it had occurred earlier in his career:

Q: And when do you think it started to change?

A: I think it started to change about three years ago. I think they were still doing it three years ago. Systematic. Every team ... I think some still may be a little bit but now they've been ... But I think now I wish I was twenty-one now. If I was twenty-one now I guarantee you I would have been twice as successful as I have been in my last fifteen years

What's more interesting, from a pragmatic point of view, was the correlation between a shifting ethical framework amongst the riders themselves and comparable shifts around them. As noted earlier, those shifts weren't just internal to the sense of sporting competition. They related to how those involved were positioned within a wider, socially-constructed environment, ranging from their teams:

I think that the culture that started in the last five years and the culture that's in our team, it works.

To their understanding of the economical threats facing their entire industry:

I think possibly that cyclists start to realise that actually the sport has been threatened, their income has been threatened by this ... and the expectation that they could carry on as before ... I hope it has, because the riders do seem to accept that all these things (the anti-doping controls) ... they seem to be accepting the impositions of it all, that this is what they need to do to pursue this sport. Basically it (the choice to dope or not) is an economic decision.'

From here, a move away from the traditional confines of sport as an insular environment is apparent, and a return to the themes seen in comments on rider rationales against doping, which clearly indicated that things like career structure, health and the precarious nature of the industry had influenced attitudes to doping as much, if not more so, than pure competitive drive. One rider noted that his team's progressive attitude to rider health, and attempts to cushion the tenuous nature of sport as a profession by recognising the demands of athleticism, shifted attitudes towards doping. His remarks are interesting in that they show the effect of an ethical approach forming not just in riders but in the support systems surrounding them:

A: ...if you don't get results you're out on your rear so you won't have a contract and that can be - but still that's not an excuse.

Q: No, it's not an excuse.

A: It does happen but it's still not an excuse and coming back to the fact that I've said before, you know, we've had two years of super results at our team that have let the riders see that they can have great results with riding on water. The thing is they stay much more stable in their health they stay - you know, in the long term that's going to be fantastic and that's the only point you can work on all that awareness.

Q: And their heads as well as their health, like mental health as well as physical?

A: Yeah, because the thing is they can't train as hard as they did five or ten years ago because of various reasons. A lot of teams I've seen and probably I've seen this in the last two years - they're copying us as well, riding less races. Instead of sending your own team to every race you could possibly ride because they have to work for their money, we're seeing teams cut down their race programs so they specifically know where they're going - talking about the maximum number of race days. Because the evolution of a cyclist's form is rest period, base training, build-up, peak period, rest period and that's the evolutionary cycle of the season which can probably take three ways in to that. Unless if you're riding clean, then you have to respect that because if you really want to peak, it costs you energy in your training and then you're going to have to rest to allow your body to come back up again. But once the structure of the team realises that and calculates that in to the factor of racing, and then the riders see that they can get results from that system, that's the awareness and consciousness change.

The critical point here is “once the structure of the team realises...” – which contains within it an assumption that teams will recognise potential alternatives. Herein lies the point at which the notion of the social peloton has both the most potential, but also the greatest chance of regressing; the point at which the substantial change in ethical culture develops the capacity to extend back from an informal set of values within the peloton into something that influences, in a more formal sense, the structure of the sport itself:

I think the flipside of that is though, and you know as well as I do, that this problem is a big problem that has been ongoing for centuries and that I don't think it's going to go away overnight, if ever, and I think the battle we're trying to fight now is futile, and I think we probably need to change policy towards it in terms of ways in which we battle it. Like, I think we can't win, we certainly can't win the war the way we're fighting it right now.

The suggestion here isn't that a shift in rider ethics alone will 'cure' the sport of its doping problems. It's naïve to think cycling will ever attain the level of staid stability one expects in, say, the public sector; the workforce will always be subject to a unique mix of commerce, sporting competition and the nuances of a highly competitive, ambitious workforce. None of our participants saw doping as something that could be entirely eradicated, but overwhelmingly there was a belief that the peloton was not only capable of enforcing ethical standards but that greater change could be achieved by linking riders to policy and regulatory changes and enforcement, rather than seeing them purely as the subject of those forces. In the end, one participant summarised the situation in a way better than we could probably have done ourselves:

Certainly finding a way to change that culture is really the only sustainable option I suspect. But given the avenues it opens to people, you can't ever get a complete change of culture in everyone, but what you can do is address the larger part of the bell curve ... and maybe shift it a bit, so in fact it affects the tail anyway so if you can shift the bulk a little bit it is much better than spending a lot of resources on the tail, the tail of the bell curve where you only get perhaps a shifting by a minority, is much better to attack the body, or the corpus of the sport, and get some movement which in fact ends up being a large movement. ... Finding something that you get the riders to promote would definitely be a very powerful thing.

He continued:

... we should be doing more than policing - I think as you have talked about, an examination of how to get a bit more cultural change can occur, I think a broader, more holistic approach should be looked at.

There's a lot that could be read into what terms like 'cultural change' and a 'broader, more holistic approach' actually mean. This report has tried to avoid becoming bogged down in political theory, placing instead, the focus on direct representations of participants' comments. It would be possible to connect the above remark with an analysis of the nature of the social contract and the nuances of an engaged population. But this isn't a study about theories of social and political engagement – it's an investigation on how those within the workforce of professional cycling perceive their industry in the wake of the substantial changes brought about by primarily negative, drug-related controversies and the sudden globalisation of what was formerly an overwhelmingly Western European sport. The positive premise to emerge from the interviews is a very strong and consistent sense that those involved with professional cycling care about their peers, their health, their industry and their own reputations, and see doping as a threat to all of those themes. When the term 'holistic' comes up in regard to anti-doping policy, the suggestion is that those themes are worth taking into consideration.

It's notable that there were no attempts to justify doping within our interviews. Surprisingly, for a workforce built around competition, few participants saw winning as the be all and end all of their profession. The point at which doping became rationalised generally related to the fear, as one participant noted above, of going from living out one's dreams of riding a bike professionally back to stocking shelves in a supermarket. Here, the notion of sport as socially constructed is revisited – not as something isolated and populated exclusively by Barthes' mythic "*giants of the road*" but as a highly glamorised, highly unstable workforce populated by ordinary people who have given up a great deal, devoted a large

volume of energy, and take a substantial amount of pride in their profession. To lose that is significant.

As has been noted by numerous participants at many points throughout this report, there will always be a need for deterrents and up-to-date science around doping prevention as there will always, barring some utopian development in human evolution, be a small proportion of people for whom the validation of winning eclipses ethical concerns. But what has been demonstrated in this chapter suggests that there are concerns outside of winning, and ways of giving those who value the ethics of their profession the best possible chance to behave ethically. The primary opportunity for that to happen is to ensure that there is something standing between being a professional cyclist and stacking shelves; a sense of career paths that won't disappear because of a minor injury or a stint of bad luck, or the ability to formulate an identity and pathways outside of professional sporting success. There are some obvious, practical contenders in this respect which have been outlined above – education and realistic superannuation plans being the most obvious. This study posits that what those forces can achieve is more than a supplement to individual riders, but an erosion of the rationales which can lead to doping and, from there, an increased sentiment within the peloton itself that doping is not a legitimate response in any situation.

Summary

This chapter attempts to offer some conclusive remarks to a topic that winds its way throughout the report as a whole; the clash between sport as a spectacle of fair play, perseverance, sacrifice and physicality, and its more pragmatic and economic facets. As both of those play a role in shaping the rationale of doping and anti-doping practice, we attempted to trace their impact at a practical level, revisiting themes from earlier in the report, particularly in relation to rider profiles, to consider what sport means to those who watch it, regulate it and work within it.

As this report has built itself upon primary data gathered directly from those working, or who have recently worked, as professional cyclists, our focus was on representing their perspectives and voices. Accordingly, rather than a theoretical discussion of sport as a hegemonic force or the capacity to shape it purely for commercial sustainability or the best possible social impact, we focused on the riders. From there, we looked at what happens when we place the athlete as worker, and sport as work place – a workplace bound up in notions of fair play, competition and larger ideological forces, but a workplace none-the-less.

When we ground the experience of the athlete-as-worker back to the themes uncovered in our section on anti-doping rationale, we see the suggestion for positive change within the sport through connecting its workers to more stable career paths, positioned in relation to their social and working life outside of the pro peloton. Themes related to superannuation, opportunities for flexible access to education and increased chances for their experiences to impact upon regulatory and policy frameworks, provided a practical direction for the future, suggesting avenues through which the best parts of sport as an ideological force could link with the positive experience of the athletes who provide its workforce.



Annex One

Summary of Institutional Anti-Doping

Instruments and their Rationales

Strasbourg Anti-Doping Convention 1989

The Strasbourg Anti-Doping Convention was passed by the Council of Europe in 1989. In its Preamble it notes that the member states are conscious that sport should play an important role in the protection of health, and in moral and physical education in promoting international understanding.

Furthermore, the member states expressed their concern about the growing use of doping agents and methods by sportsmen and sportswomen throughout sport and the consequences thereof for the health of participants and the future of sport.

The Convention states that it is:

Mindful that this problem puts at risk the ethical principles and educational values embodied in the Olympic Charter, in the International Charter for Sport and Physical Education of Unesco, and in Resolution (76) 41 of the Committee of Ministers of the Council of Europe, known as the "European Sport for All Charter".

Lausanne Declaration on Doping in Sport 1999

The Lausanne Declaration considers that doping practices:

- contravene sport and medical ethics;
- are a contravention of the rules established by the Olympic Movement;
- threaten the health of athletes and youth in general.

Art. 1 extends the application of the Olympic oath to coaches and other officials and that this oath shall include the respect of integrity, ethics and fair play in sport.

Importantly, Art. 4 set in train the process of the establishment of WADA.

Warsaw Additional Protocol to the Anti-Doping Convention 2002

The Warsaw Additional Protocol to the Anti-Doping Convention is an addition to the Strasbourg Convention. It acts to reinforce the application of the Convention (Art. 2), and in Art. 1(3) recognises the competence of the World Anti-Doping Agency (WADA) and of other doping control organisations operating under its authority to conduct out-of-competition controls on their sportsmen and women, whether on their territory or elsewhere.

Copenhagen Declaration on Anti-Doping in Sport 2003

The Copenhagen Declaration on Anti-Doping in Sport (Copenhagen Declaration) was drafted and agreed to by governments at the Second World Conference on Doping in Sport held in Copenhagen, Denmark, in March 2003.

The Copenhagen Declaration was the political document through which governments signalled their intention to formally recognise and implement the World Anti-Doping Code. This initiative was the first step taken by governments towards the preparation of the UNESCO International Convention against Doping in Sport.

The Copenhagen Declaration on Anti-Doping in Sport begins with a prelude, which suggests that sport is to play an important role in the protection of health, in moral and physical education and in promoting international understanding. It is said that doping undermines the values of sport and thus the concern of doping agents. There is an awareness that public authorities and sports organisations have complementary responsibilities to combat doping in sport, notably to ensure the proper conduct, on the basis of the principle of fair play, of sports events and to protect the health of those that take part in them.

The purpose of this Declaration (as defined in Art. 2), is to articulate a political and moral understanding among participants to recognise the role of, and support, WADA: see Arts. 3-4 also.

UNESCO International Convention against Doping in Sport 2005

The UNESCO Anti-Doping Convention sought to have the State parties to it undertake the steps necessary to reduce and eventually eliminate doping in sport.

In its Preamble the Convention:

- recognised that sport is a means to promote education, health, development and peace and that sport should play an important role in the protection of health, in moral, cultural and physical education and in promoting international understanding and peace;
- expressed its concern at the use of doping by athletes in sport and the consequences thereof for their health, the principle of fair play, the elimination of cheating and the future of sport;
- stated the State parties were mindful of the risk to the ethical principles and educational values embodied in the International Charter of Physical Education and Sport of UNESCO and the Olympic Charter;
- stated the State parties were mindful of the influence that elite athletes have on youth;
- that the State parties were aware of the importance of ongoing education of athletes, athlete support personnel and the community at large in preventing doping to ensure the proper conduct, on the basis of the principle of fair play, of sports events and to protect the health of those that take part in them; and
- recognised that these authorities and organisations must work together for these purposes, ensuring the highest degree of independence and transparency at all appropriate levels.

Australian Sports Anti-Doping Agency (ASADA) Act 2006

The mission of ASADA is to protect Australia's sporting integrity through the elimination of doping. Furthermore, ASADA aims to develop a sporting culture in which performance is purely dependent on an athlete's talent, determination, courage, honesty - a culture motivated by a commitment to the true spirit of sport and what it represents for Australia (see the ASADA doping control guide: in the ASADA file).

ASADA is given power via the ASADA Act: See s 3.

The ASADA Act also establishes a National Anti-Doping Scheme, the details of which are outlined in s 13, with rights of athletes and support persons under such scheme found in s 14.

The functions of ASADA can be found in s 21 and importantly include:

To support, encourage, develop and implement initiatives that increase the skills and knowledge of people involved in sporting activities about sports, drug and safety matters, to support and encourage the sporting community to develop and implement comprehensive programs, and educational initiatives, about sports and drug safety matters, to support, encourage and conduct research about sports, drug and safety matters, to collect, analyse, interpret and disseminate information about sports, drug and safety matters, advise the Minister about any matters and do anything incidental to or conducive to the performance of any of its functions.

By virtue of s 24, the Minister may also give directions to ASADA.

Furthermore, ASADA must keep a record of decisions and the minutes of meetings: ss 44-6.

There are also ASADA regulations, to which Part 2 is quite important as it outlines the purposes of a NAD Scheme.

Furthermore, ASADA have collated a model anti-doping template for National Sporting Organisations (NSO). See below.

[NSO] condemns the Use of Prohibited Substances and Methods in sport. The Use of Prohibited Substances and Methods is contrary to the ethics of sport and potentially harmful to the health of Athletes: See Art. 1.1 Australian Sports Anti-Doping Authority's Model Anti-Doping Policy Template for National Sporting Organisations.

The IOC Charter 2007

The current version of the International Olympic Committee Charter came into force as of 7 July 2007.

The introductory part of the Charter recalls the fundamental principles and essential values of Olympism. Along with the concept of Citius, Altius, Fortius (Faster, Higher, Stronger), Olympism is described as including the educational value of a good example (role models) and the respect of fundamental universal ethical principles.

The mission and role of the IOC is stated to be to encourage and support the promotion of ethics in sport as well as education of youth through sport, and to dedicate its efforts in ensuring that, in sport, the spirit of fair play prevails and violence is banned (Chapter 1, s. 2).

Importantly, a further function of the IOC is to lead the fight against doping in sport (s. 2(8)).

By virtue of Chapter 5, s. 44, it is deemed that the WADA Code is mandatory for the whole Olympic Movement.

WADA Code 2009

The 2009 WADA Code commences with a brief outline of its purpose and scope.

This is stated to include:

- the protection of the Athletes' fundamental right to participate in doping-free sport; and
- the promotion of health, fairness and equality for Athletes worldwide; and

- to ensure harmonised, co-ordinated and effective anti-doping programs at an international and national level, with regard to detection, deterrence and prevention of doping.

Anti-doping is based upon the notion of the 'spirit of sport', which is defined in the Code's rationale to include, inter alia, ethics, fair play, honesty and health. Thus, the Code considers that doping is fundamentally contrary to the spirit of sport.

FUNDAMENTAL RATIONALE FOR THE WORLD ANTI-DOPING CODE

Anti-doping programs seek to preserve what is intrinsically valuable about sport. This intrinsic value is often referred to as "the spirit of sport", it is the essence of Olympism; it is how we play true. The spirit of sport is the celebration of the human spirit, body and mind, and is characterised by the following values:

- Ethics, fair play and honesty
- Health
- Excellence in performance
- Character and education
- Fun and joy
- Teamwork
- Dedication and commitment
- Respect for rules and laws
- Respect for self and other participants
- Courage
- Community and solidarity
- Doping is fundamentally contrary to the spirit of sport.

To fight doping by promoting the spirit of sport, the Code requires each Anti-Doping Organisation to develop and implement educational programs for Athletes, including youth, and Athlete Support Personnel.

International Cycling Union (UCI) Regulations 2009

The Constitution of the UCI outlines a list of purposes in Art. 2. According to the Constitution, these purposes are to develop, regulate, control cycling, promote sportsmanship and fair play.

The UCI anti-doping rules are found primarily in Part 14 of the regulations made under its Constitution. Clause 2 states that the UCI's anti-doping rules are based upon the WADA Code and represent the consensus of sports organisations and anti-doping organisations around the world with an interest in fair sport.

Part 13 of the UCI regulations deals with rules relating to sporting safety and conditions. Within this Part there is no direct mention of anti-doping.

However, §1, which contains general provisions suggests that each cyclist shall take care of his physical condition and be attentive to health and safety risks: 13.1.001.

Furthermore, each team taking part in cycle races shall constantly and systematically ensure that its members are in proper physical condition to engage in cycling and ensure that their members practise the sport under safe conditions: 13.1.002.

National Federations have freedom of action as regards health protection and medical monitoring (13.1.003) and procedures for testing athletes are outlined (see §4), which suggests that there is a connection between health and anti-doping, however, no rationale is provided.

Cycling Australia Anti-Doping Policy 2009

Consistent with its public stance that it is not in a position to set an anti-doping agenda in isolation, Cycling Australia has stated that it must maintain an awareness of policy adopted and implemented by international and national doping authorities. (Interacting with WADA, IOC, UCI and ASADA: A Cycling Australia Perspective, Graham Fredricks, Shayne Bannan, David T. Martin, Economic Analysis & Policy, Vol. 39 No. 3, December 2009) Consistent with this public statement, the Cycling Australia Anti-Doping Policy, essentially, implements the relevant provisions of the WADA Code and the ASADA Act.

Cycling Australia's position on doping is outlined in paragraph 2 of the policy:

2 WHAT IS CA'S POSITION ON DOPING?

CA condemns doping as fundamentally contrary to the spirit of sport. The purpose of this ADP is to protect Athletes' fundamental right to participate in doping-free sport and to ensure harmonised, co-ordinated and effective anti-doping programs at the international and national level with regard to detection, deterrence and prevention of doping.

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