Chapter One

Why Study the Relationship between Race and Sport?

1. Introduction

This study will examine the relationship between race and sport. Our essential argument is that races differ in achievement in various sports in part for genetic reasons. The different races are adapted to various environments, and their adaptations provide them with a variety of physical and psychological advantages and disadvantages in relation to each other in various sports. This is reflected in differing levels of racial accomplishment in sports requiring different physical and psychological abilities. Although culture and other environmental factors play a part in racial differences in achievement in some sports in some countries, we will show that the theory that the differences are at least in part genetic explains a great deal more with fewer assumptions and, therefore, that it is the most parsimonious one. An entirely environmental explanation potentially explains portions of the evidence in some instances, but it cannot explain the full body of data without assuming improbable coincidences and making significant assumptions.

2. Original Contribution

There are a number of studies on the issue of race in sport, but very few have looked at the issue from an evolutionary perspective. In sociology, Hylton's (2008) '*Race' and Sport* is in fact a critique of the concept of "race" and an examination of racial discrimination in the sporting world.

For this reason, presumably, the word race is in quotation marks in the title. In 1964, Thompson (1964) published another book called *Race and Sport* which, likewise, focused not on the possible genetic reasons for racial differences in sporting achievement but simply on racial discrimination against non-white sportsmen. There are many similar books in sociology which examine the relationship between race and sport that make the argument that racial discrimination is a problem in sports and that this plays a part in the racial profile of sporting achievement (e.g. Joseph et al., 2012, Ross, 2005, and Carrington & McDonald, 2002), or that various other sociological factors explain racial differences in sporting achievement, such as the supposed lack of black role models in the USA who are anything other than sportsmen (e.g. Sailes, 1998). A large number of studies examine "sport and ethnicity" in terms of racial discrimination or the significance of sport to national identity (e.g. Jarvie, 1991, Eisen & Wiggins, 1994, MacClancy, 1996). Finally, some studies have looked at the racial dimension in individual sports, but they discuss this relationship purely in terms of cultural and historical factors (e.g. Heiskanen, 2012).

Our study takes a different viewpoint from the literature discussed above. Until relatively recently, it was taboo to discuss the proposition that races differ in sporting achievement for genetic reasons, and there are still those, even among academics, who appear to find it difficult to discuss this issue in a calm, analytical way. Though these racial differences in sporting achievement have been examined, with regard to certain sports, in various academic articles, many of which we will cite, book-length studies of the issue are rare. Evidence of the taboo nature of the topic can be seen in the reaction to Jon Entine's (2000) attempt to examine aspects of it in his book *Taboo: Why Black Athletes*

Dominate Sports and Why We're Afraid to Talk About It. When he presented his book proposal to publishers, he experienced numerous rejections. "Again and again, I heard: 'This is a racist subject. By even suggesting that blacks may have a genetic edge in sports, you are opening up the Pandora's box of intellectual inferiority'" (Entine, Summer 2000).

In 2013, sports journalist John Epstein published *The Sports Gene: What Makes the Perfect Athlete* which examined and concurred with, although did not focus on, the view that racial differences in sporting achievement are partly genetic. Interestingly, *The Sports Gene* has not aroused the kind of controversy which Entine's book did only thirteen years earlier. Both books were very useful contributions, but, where they examine genetic and cultural reasons for differences in sporting achievement, the focus is substantially on black-white differences, and though the issue of female sports is cursorily examined, the focus is upon male sporting achievement. This book attempts to build upon this by examining male and female sports relatively equally and by providing in-depth analysis with regard to a broader range of races and sports.

In addition, Tanner (1964) penned *The Physique of the Olympic Athlete.* Tanner measured 140 male track and field competitors at the 1960 Rome Summer Olympics on 14 separate anthropometric measurements and categorized them into three body types: mesomorphic (muscular), ectomorphic (long and skinny), and endomorphic (round). He noted that particular body types were associated with certain events, and he was especially intrigued by the way that certain events were dominated by certain races. However, his sample was small and problematic, with only 15 black athletes and only 3 of East African descent.

Our study goes beyond these by presenting a comprehensive case demonstrating that sporting achievement is partly genetic (at a racial level) based on a large body of research conducted since the 1960s, proving the case with the most up-to-date data, examining both male and female sports, and examining a much larger range of sports (with much greater racial diversity) and thus a much larger body of data. In addition, we look at the racial dimensions to aspects of sport beyond simple sporting excellence, such as cheating and watching live sport, and we examine many sports that have never been discussed in relation to race and genetics before. Our study will also counter the environmentalist arguments in depth. In other words, this will be the first in-depth academic study of the relationship between race and sport from an evolutionary perspective.

3. Why Study Race and Sport?

An in-depth study of the relationship between race and sporting achievement is useful for a number of reasons.

Firstly, sport (or certain sports in particular) is extremely popular, and the general public is often fascinated by why some people, or teams, excel in a sport and others do so to a lesser extent. In highlighting the importance of race in this regard, our study should contribute to a better understanding of an important and popular phenomenon. Furthermore, academics are sometimes accused of researching obscure areas of knowledge that are of no interest to ordinary people. This is clearly not so with sport and so we are contributing to a better understanding of something which most people, at least in advanced societies, have a desire to understand.

Secondly, we discuss how, precisely because sport is so popular and so many people want to genuinely understand it, examining sport is an ideal way of refuting cultural determinism (the belief that individual or societal differences can be entirely explained by cultural or environmental factors). Despite its empirical inaccuracy, environmental or cultural determinism is widely accepted, at least in Western societies. Examining racial differences in sporting achievement can serve to demonstrate the fallacies of cultural determinism in a way that is interesting and relevant to most people in Western countries. It will thus open a gateway to persuading them of the veracity of partly genetic explanations with regard to other issues.

Thirdly, this study allows us to refute a number of myths that have become associated with sport such as that "blacks are better at sport than whites" or that blacks are only good at sport, or only at certain sports, for various sociological reasons. We show that not only do blacks excel at the sports at which they do for genetic reasons (and fail at others for the same reasons), but also that different races are good at different sports in line with their evolved, genetic capabilities. In a critique of the argument that blacks excel in certain sports for genetic reasons, Fleming (2002, p.110) asserts that: "For whilst black sporting success is often explained with reference to a genetic predisposition associated with being black, similar analyses are seldom (if ever) advanced for white athletes." Of course, there may be very good reasons for this difference in analyses. If we accept that blacks in the USA are socio-economically disadvantaged and routinely discriminated against[1], then it is likely that if they are nevertheless able to dominate a particular sport, then this is for genetic reasons, and we

[1] For a critique of this argument, see Levin (2005).

would be less able to make the same assertion about white dominance of a particular sport. But even so, our study is one of those apparently rare analyses which argues that "whites" also succeed in certain sports for genetic reasons.

Fourthly, as we will see, the very concept of "race" has been subject to considerable criticism, especially in the social sciences. For example, in 2004 the American Anthropological Association asserted on its website that "Race is not a scientifically valid biological category" (quoted in Lynn, 2006, p.12). As discussed in more detail below, a category is scientific if it allows successful predictions to be made. Indeed, this is the test of whether or not a category is scientific. Our study shows that race does indeed allow correct predictions to be made, specifically with regard to sporting achievement. As such, the board of the American Anthropological Association in 2004 was incorrect with regard to the nature of the race category, and this study argues that it is important that their error is made known.

Fifthly, there are practical consequences to the research. The environmentalist perspective would effectively tell a Northeast Asian school pupil that if he practices enough he should be able to reach his ambition of becoming a 100m sprint Olympic champion. Our research is useful, from an educationalist perspective, because it demonstrates that for racial reasons some sporting ambitions are simply not realistic and that time that might be invested in them might better be invested elsewhere. In the instance discussed above, for example, it might be invested in learning to play badminton or table tennis. These are sports in which, as we will see, Northeast Asians excel, in part, for genetic reasons. We will also show that certain races are more likely to be injured in certain specific sports.

4. Potential Criticisms

We deal with many of the counter-arguments from environmental determinists later in this study. But critics of the kind of research in which we are engaged tend to present four essential arguments (or forms of argument) against it. It is worth responding to these at an early stage in the study.

Firstly, they tend to argue that this kind of research is "simplistic" and "reductionist," because it attempts to reduce a very large amount of data down to an essential theory that explains all the data. This method, they suggest, is simplistic and ignores nuance. This is, first of all, a straw man argument, since we are only arguing that genetic racial differences are partly behind racial differences in sporting achievement. More importantly, scientific theories inherently involve simplifying a mass of information into a theory which explains that mass of information, and it is axiomatic in science that, all being equal, the simplest explanation is the best. Science is inherently reductionist, because it is only through reductionism that we can comprehend the mass of information by which we are surrounded. To suggest that this is problematic is inconsistent since, as we explore in more detail in the next chapter, we could not possibly stay alive if we could not reduce (simplify) the mass of information by which we are surrounded into accurate theories of how the world works. "Simplistic" can, of course, be used to imply "over-simplification" and the ignoring of nuance. But, as already stated, we emphasize the significance of cultural and environmental factors in this study.

Secondly, it is often argued that the use of race as a category (even if it is a scientific category) is somehow "immoral," because using it at all is a slippery slope at the foot of which lurk evil organizations whose members think

one race is inferior to another and who may even wish to exterminate those races which they regard as inferior. As such, this area of research should be left alone. Firstly, as we note in our broader discussion of race, this kind of argument is an appeal to emotion and an appeal to consequences. It is therefore fallacious and cannot be accepted by anyone interested in reasoned discussion. Secondly, it could be argued that suppressing research on race is itself a slippery slope at the bottom of which sits dictatorship, rigid ideological conformity, and even the collapse of science (and thus civilization). The ability to develop a more complex and technological society (in essence, civilization) is, in part, predicted by advances in science; advances in the degree of accuracy of our understanding of the world (Lynn & Vanhanen, 2012) frequently via the questioning of dogmas about the world which people regard as unquestionable (Andreski, 1974, p.249). If this slippery slope argument had been followed in the nineteenth century then evolutionary theory (and all the benefits to medicine and civilization built upon that) would have been suppressed as a slippery slope to immorality, Godlessness and savagery. Moreover, as we will see in the next chapter on race, knowing a person's race can allow a doctor to save their lives.

Thirdly, critics of studies of this kind (which present large amounts of data) often nitpick and exaggerate the implications of this. As Allik (2008, p.707) summarizes: “A useful strategy is to discover a few small mistakes, declaring that all the results are equally suspicious.” This criticism risks the fallacy of composition. However, that there is a particular error or relevant omission in one place does not mean that it will be the case throughout the work. Additionally, the existence of such an error does not necessarily undermine any correlation or explanation

proposed based on the data set of which the error is part, nor does it necessarily undermine the broader argument built on all the data. Moreover, as Clark (2007, p.x) put it, when a work does something that has not been done before, "far better such error than the usual dreary academic sins, which seem to define so much writing in the humanities, of willful obfuscation and jargon-laden vacuity."

The fourth method is to simply dismiss the work as full of "specious reasoning" or lacking in "rigor" or some other strongly worded criticism without actually justifying this, or only justifying it with composition fallacy and so forth. Clearly, this is just an appeal to insult.

5. Method

We take our data on sporting achievement, medals, records, or ranking from the official body that organizes each sport or from sports records organizations such as the Olympics, ESPN (ESPN.go.com) or Sky Sports (SkySports.com). In some cases, the data are from other online sources, and references to these are provided in footnotes or next to the data tables.

The method we employed to analyze the data in racial terms takes three forms. With team sports in particular, we look at the degree to which, within certain nations, members of different racial groups are represented in proportion to their percentage of the national population in team sports at the highest level. This will usually be top division national level as well as at international level. We discern the racial background of sportsmen and women in each case through information easily available on the internet, in particular photographs. Where possible we check these photographs against available biographical information. As will be seen below, it has been found to be

possible to recognize a person's race simply from appearance 75% of the time. As such, a method based on physical appearance alone is less than perfect, and involves elements of subjectivity. This is especially the case when categorizing some African Americans as either "African American" or mixed race because the average African American in the north of the USA has approximately 25% European genes, while even in the South it is 10% (Levin, 2005, p.20). This is why we have looked into biographical information about the sportsmen and women included in the study.

In sports in which the competitors are individuals, we have adopted three approaches. Where the Olympic or World records are not tainted by proven doping or possible doping, we examine the recent record progression or the top ranked ten performers in terms of Olympic or World Championship result. The advantage of this method is that the Summer Olympics, especially in more recent years as developing countries have increasingly participated (Lee, 2004, p.57), is a relatively fair means of testing racial differences in sporting achievement. It might be argued that it is unfair because developed countries are likely to have better facilities, meaning they will be over-represented in all sports. This is certainly a possibility. However, we shall see that racial differences in Olympic and World record holding are as racially-based as physical differences would predict. We strengthen our case by examining Summer Olympic medalists between 1992 and 2012 in these sports. This is a useful method since countries from all parts of the world participate in the Summer Olympics. We have chosen the 1992 Olympics as our cut off point because doubt is cast over the genuineness of many previous results due to doping being less well controlled for before this time. Only five

cases of doping were detected at the 1992 Barcelona Summer Olympics (De Rose, 2007).

In some sports, unfortunately, the Olympic or World record progression and list of top performers cannot be drawn upon. This is either because the records are tainted by proven or likely doping – something which is especially likely to be the case with records achieved by Soviet Union and East German competitors – or because the nature of the sport means than an analysis of the records that are possible in the sport is not useful. For example, in wrestling winning a match extremely quickly does not inherently mean that one is a superior wrestler. In these instances, we only draw upon the Olympic medal records.

Where the sport is not an Olympic sport, we look at the top ranked current players and note the degree to which players from a particular country are representative of their country. In some cases, we will see that world top ranked players in some sports are so overwhelmingly of one race, just as our analysis of likely racial differences in ability in that sport would predict, that no further analysis is required. However, we also strengthen our case by looking at the racial composition of championship winners in that sport.

It might be argued that some of the samples upon which we draw are small, but it should be emphasized that they are samples of the most elite players in any given sport (such as Olympic medalists or record holders) and, as such, the findings are simply the way things are. As noted, in many instances we find similar racial compositions in similar sports based on different measures, such as a combination of top ranked players, tournament winners, and Olympic medalists. Even so, in many cases - and in particular with regard to the degree to which team sports at an elite national level in a given season reflect the ethnic composition of a particular country - we have conducted

chi-square tests of statistical significance. The chi-square test allows us to discern whether differences between the observed number of individuals in a given category and the expected number are due to sampling variation or a real difference. We have also been able to conduct this test in certain cases where high-ranking players in individual-participant sports are sufficiently dominated by a particular country. Thus, we have proven that the elite-level racial composition of a sport from a particular season is not a matter of chance. It has not been possible to conduct tests of statistical significance with regard to sporting world records or Olympic sports. However, in these instances we present the entire valid body of data and, as such, the differences we find simply reflect the ways things are. Unfortunately, due to insufficient representation from a single country at the most elite level, it was not possible to conduct a test of statistical significance with 'World's Strongest Man' or tennis. However, it was shown that the Olympic data was congruous with the broader Strongest Man data and that Olympic tennis data was congruous with tennis rankings. It was also not possible to conduct such a test with motor (car) sports, none of which are Olympic sports. However, these data are in the direction which we would predict and thus contribute to a broader cumulative case. In the case of squash, the results, though in the direction we would predict, had a p value of 0.2. Though these are non-significant they still render it quite likely that the results are not a fluke. In all other cases, statistically significant differences in terms of racial representation were found.

It would be impossible to conduct an analysis within reasonable length constraints of all known sports. Accordingly, we have had to be selective. We have focused on sports which are popular, such as those in the Olympics or those which are televised. We have also attempted to

present many different kinds of sports and, as such, our study is divided into chapters based on the categorization of the sport. With each sport, we show which physical (and sometimes psychological) profile predicts the highest level of achievement in the sport in question. It will be shown that success in any particular sport is predicted, to varying degrees, by body type (somatotype) which predicts strength and power, upper body strength, flexibility (due to fat-muscle ratio), and balancing ability (due to trunk-limb proportions). It is also predicted by bone density, muscle fibre distribution (which predicts, at the extremes, either high endurance or the ability to engage in bursts of speed and power), and lung capacity (which predicts endurance). In addition, though this is more relevant to some sports than others, reaction time, fine motor skills, working memory, intelligence, testosterone levels (predicting aggressiveness and muscularity), and simply personality (which affects how assiduously athletes practice) all influence performance in particular sports. We show that the races differ, genetically in these predictors of sporting performance in a way that would parsimoniously explain the data.

There is one problem with all these data which should be borne in mind and this is the potential effect of environmental variables on racial differences in the performance on the day that, for example, records are set or a medal is won. An obvious example of this effect can be seen in the Summer Olympics. It might be argued that if it happens to be slightly windy on the day of the male 100m sprint final then this environmental factor will select in favor of races that have better balance, even if only to a miniscule degree, than would be the case on a calm day. African American Bob Beamon's record breaking long jump at the 1968 Mexico City Summer Olympics (which remained a record for 22 years) was actually broken at the

same Olympics by him but this was discounted due to the wind assistance being so obvious. Also, the place in which the event is held may have some effect on the results in racial terms. Mexico City, the venue for the 1968 Olympics, is at a high altitude and so has thin air. This means that there would be less air resistance than had the event been held closer to sea level. Seemingly for this reason, many sprinting and jumping events saw record-breaking performances at the 1968 Summer Olympics (Ward-Smith, 1986). But it is possible that such a venue would skew results in favor of those evolved to high altitudes. Likewise, if the Olympics were held somewhere that was particularly hot or cold, then this might have some influence in assisting races evolved to – or individuals who are used to – temperatures of that kind. It has been found, for example, that African-Americans have a lower threshold of cold pain tolerance, and also heat pain tolerance, than do white Americans (Rahim-Williams et al., 2007). In addition, as we will see, African-Americans are physically evolved to a hot environment. As such, this is one factor which may sometimes explain anomalous data. However, as we will see, our data is in line, broadly speaking, with predictions based on race regardless of where the Summer Olympics were held.

With regard to our data on the physical and psychological characteristics of particular sports at a high-level of performance, we have, where possible, drawn upon meta-analyses. Thus, with regard to somatotype, we have mainly drawn on Carter and Ackland's (2009) "Somatotype in Sport," a meta-analysis of somatotypes among international level sports participants. This method is useful because this source brings together a large number of studies, all controlled for sporting level by focusing on international competitors. Where these sources have

indicated the sample number, or given more precise details about the international level sample, we have done so also.

In some cases, where the sport is not especially popular, it has not proven possible to find such meta-analyses and, as such, we have had to draw upon specific available studies, the details of which we outline in the relevant section. In general, however, they are, as with the meta-analyses, studies of international level or top national level players and thus can be drawn upon to illustrate racial differences in sporting achievement at a high-level. In the few instances where the studies do not draw upon what we might call "elite sports people" we have used them with hesitance. However, from a pragmatic perspective (James, 1907), they are the only data we have, and so we have to use them.

As will be seen below, defining "sport" satisfactorily raises a number of philosophical questions. We had to make a choice regarding both where we would draw the boundaries of the sport category and which of the accepted sports we would analyze. Analyzing every single sport would have led to a study of enormous size and would have been superfluous in making our case. As such, we have chosen to present a large number of widely recognized sports in order that they are representative of the field. As this study is aimed at students and researchers around the world, we have generally included a brief introduction to most of the sports we examine in case some readers have only limited familiarity with them.

There are a number of omissions. We have not examined the Winter Olympics in great detail. This is because the ability to participate in this is heavily skewed in favor either of Northern European countries (as well as the USA, Canada, and Southern European countries with mountain ranges) and Northeast Asian countries, due to the

near absence of snow in many countries which are not in these regions. The Summer Olympics attracts a far more representative body of participant nations, and we have therefore chosen to focus on this. As such, we have only used the Winter Olympics to assess the degree to which racial minorities in multi-racial societies are represented in certain winter sports.

We have also avoided looking at paralympic sports. These sports involve athletes with a range of physical and mental disabilities. The events are broken down into six disabilities: amputee, cerebral palsy, "intellectual disability," wheelchair, visually impaired and "other." One of the problems with this system is that there are significant disability variations within these categories, which would mean that it would be very difficult to use paralympic sports as evidence for or against genetic racial differences in sporting ability. In addition, paralympic sports are less able to control for cheating than Olympic sports. One of the ongoing problems in certain paralympic sports is "boosting." Athletes can artificially increase their blood pressure by self-harming parts of their bodies (which are disabled) which can increase performance by around 15%. For example, they can break bones below a spinal injury or strap disabled limbs too tightly. These injuries are painless but increase blood pressure (McGrath, 22 August 2012). In addition, paralympian representation is likely to be skewed in favor of developed countries in which facilities for disabled people are of a higher standard and possibly even in favor of countries which are more inclined towards political correctness, an ideology which promotes those regarded as disempowered, including disabled people (Ellis,

2004). For these reasons, this study does not look at racial differences in paralympic achievement.[2]

6. Outline

In Chapter Two, we look at what constitutes a meaningful, scientific category. This is necessary because some research into race and even the race category itself has been dismissed, by the American Anthropological Association for example, as not being scientific.

In Chapter Three, we define "sport" and examine the debate over the boundaries of the sport category.

In Chapter Four, we define "race," and we show it to be a meaningful, scientific category which allows successful predictions to be made.

In Chapter Five, we show that sporting ability is partly genetic, with the heritable component varying according to the sporting ability in question.

In Chapter Six, we examine racial differences in physical adaptations as they pertain to differences in ability in various sports.

In Chapter Seven, we examine racial genetic differences in psychological factors that relate to sporting ability and, in particular, differences in intelligence (and related abilities) and personality. In this regard, we will defend the concept of "intelligence" in some depth. We also examine racial differences in the propensity to cheat at sport and use performance enhancing drugs.

In Chapter Eight, we look at environmental and sociological factors which might potentially influence racial differences in sporting ability. We also refute the

[2] For a detailed examination of the paralympic movement, see Vanlandewijck and Thompson (2011).

environmental and cultural deterministic arguments as they relate to racial differences in sporting achievement.

The remaining chapters will present the data on a variety of sports, showing that their racial profile is as racial differences in physical and mental ability would predict.

Chapter Nine focuses on team sports: American football, football, basketball, baseball, rugby, cricket, ice hockey, field hockey, netball, volleyball, and handball.

Chapter Ten examines track events: sprint, long distance, middle distance, and race walking.

Chapter Eleven studies field events: Shot, discus, hammer, javelin, pole vault, long jump, and high jump.

Chapter Twelve discusses combat sports: boxing, wrestling, fencing, judo, and taekwondo.

Chapter Thirteen examines swimming, diving, and gymnastics. Gymnastics is examined together with diving because of the relatively similar skills involved.

Chapter Fourteen focuses on boating: rowing, canoeing, and sailing.

Chapter Fifteen explores tests of aim: golf, darts, shooting, archery, and snooker.

Chapter Sixteen analyzes weight lifting.

Chapter Seventeen dissects racquet sports: tennis, table tennis, squash, and badminton.

Chapter Eighteen looks at vehicle sports: Formula 1, rally driving, and cycling.

Chapter Nineteen discusses equestrian sports, focusing on the Olympics, British jockey rankings, and the Kentucky Derby.

Chapter Twenty examines Winter sports: skiing and skating.

Chapter Twenty-One looks at the so-called “Mind Sport” of chess.

Chapter Twenty-Two discusses the race factor as it relates to sports managers, fans, and sports injuries.

Finally, in Chapter Twenty-Three, we summarize our conclusions and recommend further research.

7. The Educated Reader

This study is aimed at the educated reader with an interest in sport. Accordingly, it is aimed at those with training in the humanities but also at those with a social scientific or scientific background. There are perspectives that we will defend in this study that may be taken for granted among natural scientists. However, they are not necessarily taken for granted among those from social science or humanities backgrounds. Accordingly, this study presents defenses of them. Readers trained in science may wish to skip the sections, such as in Chapter Two where we defend the scientific method. They may also wish to skip the defense of the concept of intelligence and of IQ tests.

This study also includes introductions to issues to which scientists will require no introduction (such as genetics), because other scholars may require it. Readers with training in the natural sciences may wish to skip some of these sections too. However, we hope they are useful to those with a social science or humanities background.