

## Racial factors in sports performance

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### ABSTRACT

*Superior athletic performance of athletes has often been associated with their racial profiles. The opinions are divided on the subject of performance in sports with respect to racial groups. According to some scientists, the training and hard work of athletes is what makes them elite. However, other scientists give biological determinism the credit. Scientists have successfully shown that the skeletal muscle system differs among different populations and that it does affect our athletic ability. Social scientists on the other hand provide equally strong and compelling research studies to prove against this view. Taking a binary vision of 'nature versus nurture' argument does not seem to resolve this issue. It is the intent of this paper to give a neutral perspective on the relationship between 'race' and performance in sports by presenting views from both standpoints and leaving the conclusion to the reader's acumen.*

**Key words:** athletic performance, sports, race, muscle fibre, endurance, genetic superiority

### INTRODUCTION

Since the time Blumenbach (1865) divided the human species into races, many questions have been raised about one's ability in connection to this concept of 'race', whether it is physical or mental such as IQ. Athletic performance is one such aspect where multiple discourses have been held, resulting in heated debates generating much passion, with one side putting forth arguments for strong relation between race and ability, while the other against it. With both sides presenting reasonable arguments in their favour, it is on us to get to the truth. This article endeavours to present an unbiased view of the relationship between 'race' and performance in sports and leave the conclusion to the reader's discretion.

When the concept of 'race' was first introduced, most people accepted the idea that there might be some biological superiority to certain races. Whether it is IQ or sports performance, this strong sentiment guided and paved way for many researches. Certain ethnic groups have reported a dominating niche in particular sports, e.g. African Americans in Basketball, Kenyans in middle and long distance running, Chinese in gymnastics, Japanese in wrestling and West Africans in sprinting. One can confirm this simply by judging the record numbers of gold medals they win in international competitions in the world. In 1950, post World War II, UNESCO gave a landmark declaration on race. It declared equality of humans on various grounds; amongst which was the acknowledgment of similarity in the mental capacity of all races and the fact that "race was less a biological fact than a social myth" (The Race Question, 1950). It was a radical statement in those times, however equality based on science remains controversial even today.

### **STUDIES DONE ON BIOLOGICAL TRAITS**

On one hand, there are researches backing up the notion that specific populations possess traits that are conducive in bringing a superior athletic ability in their athletes. Hoberman (1997), a professor at University of Texas, found that a population of West African origin is endowed with an unusual proportion of type II, i.e. fast twitch muscle fibres. These muscles have a higher contractile speed thus giving a quicker reaction time i.e. a clear advantage to short duration events like sprinting. Type II fibres tend to hold extra sugar and enzymes that burn as fuel in lieu of oxygen (Simoneau and Bouchard 1989). He also accepted that "there are East Africans whose resistance to fatigue, for both genetic and cultural reasons, exceeds that of other racial groups". This idea was widely supported (Simoneau and Bouchard 1995). The world renowned sport geneticist, Bouchard researched on Black West Africans and French Canadians (Bouchard et al 1992). He took biopsies from the thigh muscles of students and found that the Africans possessed significantly higher percentage of fast twitch muscle fibre than the Canadians. This confirmed that there is difference in the type of muscle fibres that dominate in certain racial groups. He has also proven the existence of certain heritable traits that directly affect athletic ability like the anaerobic power of a muscle, which is 44-92% inherited (Bouchard et al 1986). But the fact that a trait is inherited however does not imply that it is inherent to a particular stock or race of people. Bouchard's study also showed that in West Africa there may be a larger pool of people who have higher levels of oxygen uptake.

Carter, a professor at San Diego State University has conducted several studies on Olympic athletes (Carter and Ackland 1998). He observed that the biochemical demands of a particular sport limit the range of physiques, which can satisfy these demands (Carlson et al 1994). For instance, in endurance activities such as swimming, long distance running or cycling, optimal performance is partly dependent on skeletal muscle characteristics. A large amount of type I or slow twitch muscle fibre in the primary muscle of the lower limbs is directly related with increased performance outcomes in association with aerobic energy ("Genetics and Athletic Performance," 2019). Sports physiologists state that type I fibres have denser capillary networks and are full of mitochondria. A significant finding in this regard is that Kenyans (East Africans) can resist fatigue

longer than athletes from other nations. The lactate produced by fatigued oxygen deprived muscles assembles more slowly in their blood. Comparisons of lactate levels suggested that Kenyan runners absorb about 10% more oxygen from the same intake as Europeans. Entine (2000) in his book 'Taboo' explained 'Black athletic superiority' through a framework i.e. functional bio-mechanical and physiological differences among racial population can and do determine the outcome of elite athletic competitions. According to the ideology of biological determinism, athletic success is associated with complex linked genetic traits that can be explained by genetic differences. Hoberman and Entine suggested that different phenotypes are encoded in the genes, therefore conferring genotypic differences that often result in an advantage in certain sports.

### **SIDDIS; TEST OF GENETIC SUPREMACY THEORY**

Closer home, in Karnataka, India, there is an Indo-African tribal community named Siddi, which is a small community of descendants of the Bantu people of southeast Africa, whose ancestors journeyed to India between the 15th and 19th centuries as slaves, domestic help or soldiers. In November 1986, a government project was launched with an objective of nurturing Siddis, who has 'natural' aptitude for sports, by giving them exclusive training. It was based on the conviction that the best athletes hail from Africa (Janardhan and Pathak 2013). Thus, exploring the possibilities of great sporting talent among Siddis is a test of genetic supremacy theory. Though the initiative ended a few years later by 1992-93; it has again been revived since then. Scientific training from sports scientists is being provided as a part of agreement between Manipal Academy of Higher Education (MAHE) and a non profit organisation called 'Bridges of Sports' which was founded with the support of many Indian Olympians and other foundations (Bhat 2019).

### **STUDIES DONE ON SOCIAL ASPECTS**

On the other hand, sociologist Edwards (1970) argued that "blacks are physically superior to whites is merely a racist ideology camouflaged to appeal to the ignorant, the unthinking and the unaware". He challenged this impression by questioning about the quantity of 'blackness' required, for making it physically advantageous to an athlete. His cleverly crafted question reflected the limitation of our biological knowledge.

The conjecture that Kenyans have higher lung capacities was also scrutinised by scientists. It was found that the fact that many of these runners were trained at a higher altitude levels may have contributed to their capacity to expand their lungs as well as an increased capacity to process oxygen. Sociologists also counter the viewpoint that Kenyans have larger number of slow twitch muscles that supposedly confer them higher edge in endurance sports by posing a simple question: Why are there lack of East Africans in other endurance sports such as cycling? Why only within certain sport does a particular ethnic group outshine while many sports require very high endurance levels? The only sensible answer here seems that other factors too play important roles. In this case, the social values associated with the discussion of speed, strength and endurance in relation to the sport.

According to the ‘theory of Stereotype Threat’, individuals believe what is postulated about their racial and genetic makeup and these beliefs become far more important than their actual ability. Stone, professor of social psychology at Arizona University gave laboratory golf task to black and white students that intended to measure athletic ability, sport intelligence and psychology (Stone et al 1999). Both groups performed equally well on controlled psychology test. However when the perception of what was being measured changed, the blacks outperformed in athletic ability while the whites outperformed in sport intelligence. Social psychologist, Steele examined effect of ‘stereotype threat’ on standardised intelligence scores (Steele and Aronson 1995). It is known that Blacks typically score lower in such tests than non-Hispanic whites. However both blacks and whites scored well, when the tests were framed as simple diagnostic tests that did not measure intellectual capacities. Such researches provide us additional framework with which to examine genetic or ‘racial’ factors in relation to athletics as well as in other areas. It has been shown that psychological factors perpetuate perceptions that highly impact both individual and a group’s self efficacy to accomplish and complete tasks. Simply put, people are influenced by the expectations built upon them, concept called as the Pygmalion effect or the Rosenthal effect in psychology (Rosenthal 2002).

Furthermore, the emergence of athletes competing in events traditionally dominated by other than their ethnic groups, confronts the concept that racial factors determine athletic predominance. In 2004 Olympics, Jeremy Wariner, a white American won the gold in 400m sprint, an event dominated by African ancestry. In Tennis, where wealth and class convey sizeable advantage, Venus and Serena Williams of African descent have made it to the top, as has James Blake whose father is African American while his mother is British. Tiger Woods, with an African American father and a Thai mother has shown outstanding performance in golf; a sport long dominated by whites. Players like Tiger Woods and James Blake are of mixed descent and ethnicity. These elite level players are hard to categorise in terms of their racial identity or biological aspect. This gives us more complicated questions to deal with such as how much of a person should be black to have athletic superiority. No one can accurately estimate as what portion of being black constitutes or supports the physical supremacy debate.

Caught in between the two sides of whether ‘race’ affects performance or it does not, there is another dilemma to deal with. The concept of ‘race’ in itself is a challenge, starting with its definition (Bhopal 2007). It is not what it was first thought to be. Traditional mode of racial categorisation is questioned by individuals who are a blend of several ethnicities as well as cultures. Increasingly sociologists, anthropologists and other scientists now explain ‘race’ as being a social construct of people instead of a biological reality.

## **CONCLUSION**

A sharp divide can be seen where the scientific and cultural frameworks collide in the context of racial pre-eminence in sports performance. Like in so many phenomena, perhaps the truth will be revealed only when we view the matter through a holistic lens, one that identifies the role of biology as well as recognises the impact of the social values, individual hard work, training and the environment. Clearly, one cannot disregard the biological, psychological, environmental, social or cultural aspects, but how much of which aspect confers an athlete to be elite; this may well be a matter of chance, an aspect that takes a tangent from the nature versus nurture debate. This is an unknown territory and adds an additional 'chance' factor to the performance in sports - a variable so necessary to enjoy the sport itself.

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