False Start? UK Sprint Coaches and Black/White Stereotypes

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Abstract

UK sprint coaches' employment of common racial stereotypes in explaining the success of Black and White sprinters was studied. It was hypothesised that the Black success would be attributed to innate genetic factors, whereas White success would be attributed to socio-economic advantages, intelligence, and hard work. Thirty-one sprint coaches participated in success attribution exercises. Quantitative results revealed that Black and White photograph conditions were generally scored similarly in relation to stereotypical factors. However, qualitative results indicated some stereotype replication, and susceptibility to natural ability stereotypes due to an over emphasis on biological determinism, and modest recognition of less immediately apparent developmental factors. Whilst reassuring evidence was gained that UK sprint coaches do not widely employ stereotypes in attributing differently the success of Black and White athletes, there was sufficient evidence to necessitate continued vigilance. A theoretical model of stereotype influences in sprinting, and recommendations for both coaching and coach education are presented.

Keywords: Racial stereotypes, sports coaching, sprinting, success attribution.

Introduction

Racial stereotypes in sport remain firmly established as a kind of folklore, with a commonly assumed notion that Blacks are more naturally athletic than Whites (Hoberman, 2000). This has been reinforced both via disproportionate success and over-representation in some sports and positional roles, and media representation emphasising inherent physicality (Coakley, 2003). As a consequence, there is a view that Blacks and Whites are biologically

different in meaningful ways (Halinan, 1994), and that Blacks dominate certain sports due to perceived genetic advantages (Davis, 1990), even in the absence of convincing scientific proof (St. Louis, 2004). Such racial stereotypes, however, fail to recognise wide with-in group variations (Bamshad & Olsen, 2003), and falsely assume fixed and unambiguous biological divisions (Birrell, 1989). Nevertheless, whilst the habitual assignment of individuals to monolithic Black/White groupings may be problematic, it remains a social reality (McCarthy, Jones, & Potrac, 2003), and one which can have negative, as well as positive connotations. The tendency to explain Black sporting success solely in terms of inherited factors, and thus devalue Black achievements, may be indicative of subtle racism (Davis, 1990). Whilst White athletic success is often equated with qualities of character, dedication, work ethic, dependability, and intelligence, Black success is often equated with instinctive physical qualities, and a lack of cognitive endeavour (Hoberman, 2000). These assumptions attain apparent commonsense legitimacy, and sporting mythology is reinforced (St. Louis, 2004).

For sports coaches these apparently plausible explanations appear influential. For example, in some team sports positional roles are allocated in accordance with racial stereotypes (e.g. Norris & Jones, 1998). Actual evidence for Black genetic athletic superiority, however, is scant and often flawed (Hoberman, 1997), and the supposed superiority of Black sprinters appears geographically isolated, and inconsistent over time (Samson & Yerles, 1988). Clear genetic explanations for Black athleticism and the relative contribution of sociological factors are unknown. Nonetheless, various physiological characteristics that might explain Black sprinting success have been postulated (Entine, 2000). If such factors are emphasised in explaining population group variation, differences are deemed relatively stable and unchangeable. If, on the other hand, environmental factors, such as opportunity and access, are emphasised, such differences are considered modifiable (Martin & Parker, 1995). Thus, coaches adhering to the former may overestimate group differences, and athletic potentials. In reality, excellence is developed through adaptive qualities resulting from cultural values and strenuous training. Hence, a more integrative approach is needed that recognises that both nature and nurture inextricably interact (Singer & Janelle, 1999), with certain genes responding to environmental stimuli (Shermer, 2000). Athletic performance can only be

explained by a complex combination of factors, including opportunities, motivation, and economics. Speculated average physiological differences between races are only part of the puzzle, and have little bearing upon individual achievements. Nonetheless, simplistic assessments based on stereotypes could lead some coaches to jump to false conclusions (Coakley, 2003).

Schema theory proposes a mental framework for the categorisation of individuals resulting from our accrued beliefs, and knowledge, and shaped by our experiences (Atkinson *et al.,* 1993). Thus, stereotyping represents a habitual cognitive process of substituting absent information concerning unfamiliar persons, by organising knowledge based on distinctive features and applying supposed qualities to perceived social groupings, thus enabling information processing efficiency (Levy, 2000). Schematic processing models posit that stereotype schemas are stored subconsciously, activated automatically, and are likely to affect interactions with stereotyped group members (Bargh *et al.*, 1996). Several schemata may be linked in semantic networks; and the closer two schemata are, the more likely simultaneous activation is (Hewstone *et al.*, 1996). For example, Blacks are instinctive athletes *and* Blacks are poor decision makers. Although schemas reflect accumulated attitudes towards other social groups, they may arise less from overt discrimination than from attempts to simplify complexity (Myers, 2001). Paradoxically the price of cognitive economy is often distortion and overgeneralisation (Atkinson *et al.*, 1993), for example, attributions constructed on the basis of media portrayals of Black athletes. Although personal characteristics are most powerful in person perception, where scant pertinent information about an individual is available, we tend to rely on stereotypes (Kunda & Thagard, 1996).

When one possesses stereotypical views information processing is biased by a premature cognitive commitment (Hamilton *et al*., 1990), with a tendency to seek stereotype consistent evidence that confirms preconceptions, whilst contrary information is more critically analysed, attributed differently or ignored (Myers, 2001). Individuals may attribute positive descriptions of behaviours in relation to their group, but the same behaviour is viewed as negative in another (e.g. White sprinting success attributed to hard work, Black sprinting success to

natural abilities), or a stereotyped group member's negative behaviour may be attributed to their disposition, but positive behaviour is qualified by situational factors or as a special case (Ostrom *et al*., 1993). For example, the last White 100m Olympic champion is often explained as a consequence of the US boycott of the 1980 Games. Such stereotype associated explanations become extremely credible, with little motivation to recognise flawed reasoning (Harrison, 2001).

The media tends to reproduce racial sporting stereotypes (Denham, Billings, & Halone, 2002), and over exposure of exceptional Black athletes can distort judgement of the group's general athleticism, predisposing audiences to stereotype schema (Myers, 2001). This includes Black self-stereotyping via powerful role models (Hoberman, 2000). But while the gifted natural ability premise may seem attractive, and confidence boosting, it could also invite associations with intellectual inferiority and primitivism (Harrison, 2001). Self-schemata may not only define past, but also predict future possible identities, enhancing processing of self-identity consistent information, and predisposing individuals against incompatible choices (Markus & Nuris, 1986). Thus, effort may be focused towards developing abilities deemed suitable for particular social groups. For example, guiding Blacks towards keener practice, and persistence in specific sports, with elevated expectations of success (Harrison *et al.*, 1999). Since athletic superiority represents a rare positive Black stereotype, associated with fame and status, it is perhaps unsurprising that self-stereotypes are perpetuated. Harrison, Harrison, and Moore (2002) argued that Nigrescence theory (Cross, 1995) offers a useful framework for understanding the relationship between Black racial identity development and that of athletic identity. The potent influence of race based self-schemas may pressurise Black youths to seek group acceptability by developing abilities in particular sports, and may also influence educational and occupational patterns.

S*tereotype threat* theory (Steele & Aronson, 1995) holds that athletic performance may be depressed by negative stereotypes, through heightened anxiety, and endangered self-esteem. Stone, Lynch, Sjomeling, & Darley (1999) found Blacks performed worse than controls when a golf task was described as a test of sports intelligence, Whites performed

worse when it was described as a test of natural athletic ability. Baker and Horton (2003) argue that stereotype threat may perpetuate East African distance-running dominance, by attributing racial differences to stable external factors, and disempowering White runners by strengthening perceptions of inferiority. Ultimately, these internalised stereotypes can lead to disidentification, and affect participation patterns (Coakley, 2003). Evidence also suggests that a similar mechanism may operate in reverse; with positive self-stereotyping promoting a *stereotype lift* effect (Walton & Cohen, 2003).

Coakley (2003) contends that societal emphasis on Black physicality, and encouragement to excel in selected sports, along with limited socio-economic opportunities elsewhere, causes belief in a bio-cultural destiny, and thus the motivation to develop abilities. Similarly, Smith (1995) speculates that Blacks may spend longer practising, due to having narrower opportunities; whilst Jones (2002) found that Black footballers felt they had to be much better than Whites to succeed, and trying harder was the best response to racial taunting. Black athletes might be more driven to succeed, due to cultural norms, and fewer ways out of oppression (George, 1994). However, It seems likely that various other factors discussed above may also affect racial participation and achievement. Whilst Blackness may be a commonly recognized societal fact (Fanon, 1992) with strongly defined identities, Whiteness is often considered as normal, raceless, and less obvious (Bonnett, 1998). Because of related privileges, Whites are more able than Blacks to adopt possible identities, and are thus less restricted by symbolic boundaries (Hall, 1996) in regards to sporting options (Long & Hylton, 2002).

Today's few elite White sprinters can run no faster than their predecessors from the 1970s, despite improved equipment, support, and facilities (George, 1994). Proposed racial physiological differences would not adequately explain White sprinting stagnation over a quarter of a century. Proponents of biological determinism might stress that whilst racial athletic differences are small, split seconds can separate champions and also-rans (Entine, 2000). However, the influence of stereotypes could also account for performance differentials, with Whites effectively defeated at the starting-line, by inflated impressions of Black rivals. For

White sprinters fear of failure, and over arousal could be triggered by negative stereotypes, whilst Black sprinters may be more relaxed, and confident, due to positive stereotypes. It certainly seems that contemporary sprinting is more important in Black subculture (George, 1994), and few Whites choose to participate, perhaps because of perceptions of inferiority. Coaches may be significant agents in shaping attitudes and channelling Black or White athletes into or away from sprinting due to stereotypical assumptions.

The self-fulfilling prophecy effect, is well established in education, and also appears to exist in elite sport settings (Horn *et al*., 2001). It upholds that coaches' expectations become prophetic of athletes' subsequent behaviour (Sinclair & Vealey, 1989). For example, in basketball, it has been shown that high and low expectancy athletes receive differing amounts of feedback from coaches (Solomon and colleagues, 1996a, 1996b, 1998). Coaches adhering to racial stereotypes may also communicate expectation disparity. For instance, Black sprinters may elicit higher performance expectations, and be assessed against elevated standards. Similarly, coaches might tend to push White athletes towards longer distances, because of perceptions of Black ascendancy in sprinting. Since individuals with stereotypical expectancies are usually oblivious of the process, it is difficult to persuade them that they contributed to fulfilled expectations, or that original viewpoints were erroneous (Harrison, 2001). Whilst self-fulfilling prophecy effects might be pertinent in regards to coaching and race (Smith, 1995), little empirical evidence exists. Solomon *et al.* (1996a) did find that Black basketball players received more instruction, whilst White players received more praise, which might conform to natural ability and hard working stereotypes respectively. However, the sample was small and results were not statistically significant. Nevertheless, coaches adhering to stereotypical views about racial athletic aptitudes will probably treat athletes differently, such that progress will be inhibited or facilitated. Horn, Lox, and Labrador (2001) highlighted the need for future research examining the interaction between coaches' expectations and athletes' race.

Coaching is complex and demanding, and often requires evaluative decisions without sufficient objective information. Thus, coaches might succumb to faulty cognition based upon

stereotypes (Harrison, 2001). Literature on the coach's use of stereotypical assumptions is sparse. But their likely employment and impact on athlete performance is strongly implicated in areas reviewed above. For instance, athletes have expressed the opinion that coaches adhere to popular racial athletic stereotypes (Jones, 2002). Whilst stereotypical comments by coaches are rare, assumptions might not be articulated due to concerns regarding political correctness (Entine 2000). Nonetheless, little should be assumed about an athlete based on perceived race, since racial categorisation could be inaccurate, the extrapolation of perceived group differences to an individual invariably leads to flawed judgements, and the principle of individualisation (Rushall, 1985) indicates that every athlete is a unique mixture of experience, qualities, and therefore potential. Whilst coaching cannot be free of societal context (Potrac *et al*., 2002), nor of personal values, coaches have the ethical duty to evaluate assumptions underlying their professional practice. The aim of the present study was therefore to assess the extent to which UK sprint coaches employ common racial stereotypes in attributing the success of Black and White sprinters. Based on previous results with American college students (Johnson, *et al*., 1999), and UK novice coaches in a higher education setting (Rasmussen, Esgate, & Turner, 2005), it was hypothesised that Black success would be attributed to innate genetic factors, whereas White success would be attributed to socio-economic advantages, intelligence, and hard work.

Method

Sprint coaches (n = 31) with at least 2 years practical experience volunteered to participate. The sample consisted of 25 males with a mean age of 53 years (*SD* = 12.24), and 6 females with a mean age of 50 years (*SD* = 7.22). 11 coaches were qualified at level 2 (UK Athletics Group Coach), 16 were qualified at level 3 (UK Athletics Event Coach), and 3 at level 4 (UK Athletics Advanced Coach). These coaches, recruited from athletics clubs within South-East England, were qualified to lead specialist sprint sessions unsupervised, and were deemed to have a appropriate level of expertise. The mean experience of sprint coaching was 14 years

(*SD* = 12.82). A subjective assessment of participant race was employed, so as to not draw attention to the subject of the research. 28 were White, and 3 were Black.

Quantitative data were collected using a two-way between subjects design, with scaled item survey questionnaires, based upon photo elicitation, and subsequent statistical analysis via Mann-Whitney tests and Spearman's correlation. This methodology has been successfully adopted in the past to examine the use of racial stereotypes in basketball (Johnson *et al.*, 1999) and sprinting (Rasmussen *et al.*, 2005). For the purposes of this study, each subject was randomly assigned either a Black or White photograph condition of a supposedly successful club standard sprinter, and asked to indicate the degree to which they felt that each of eight survey items contributed to success. Four survey items were associated with White stereotypes (hard work and dedication; knowledge and intelligence; access to coaching; access to facilities), and four with Black stereotypes (natural speed and quickness; relaxation and movement economy; longer limbs; natural large muscle mass). Survey items were selected following a review of the literature, as representative of those stereotypically believed to contribute to success in sprinting for Blacks/Whites, and were rotated to counterbalance for order effects. Photographs were of the head and neck only, to minimise differences in physical characteristics. Pilot studies were undertaken to gain agreement as to whether pictured individuals were perceived as Black or White, and to ensure that the survey forms were clear, adequate to gain relevant data, plus that the element of race was not overtly clear in the success attribution process.

Responses were recorded on a seven-point Likert scale, ranging between *highly probable* and *highly improbable* in relation to whether a factor contributed to an athlete's success. Responses were scored by subtracting the sum of the four Black (natural ability) stereotype scores, from those associated with White success (socio-economic, intelligence, and hard work) for each picture. Mean scores for the sum of the Black stereotypes, and the sum of the White stereotypes, for each of the two photograph conditions were also compared, to further examine emerging patterns of success attribution. Additionally, the comparative scoring of the

eight individual factors was examined, in order to assess both general patterns, and the relative strength of individual stereotypes.

Qualitative data were collected, via a one-to-one interview design (open-ended and semi-structured), with subsequent inductive content analysis, in an attempt to gain further insight into the reasoning behind identified patterns of success attribution. Subjects were allowed the freedom to emphasise and discuss areas that they perceived as most relevant. Questions followed a standardised sequence. Probing techniques were pre-prepared to aid clarification or elaboration, and to ensure consistent depth of questioning. Whilst some questions initially appeared more closed in nature, these were followed by open-ended elaborative questions. The interview was deliberately kept brief (four main questions), as data collection took place in field conditions where the coach was in demand. To maximise the validity and reliability of the data, only one interviewer was employed throughout, who was knowledgeable within the area of the study, and familiar with the coaches' role and the sport. Again, a pilot study was undertaken, to ensure that questions and probes were clear, and adequate to gain relevant data. Interviews were tape-recorded, and transcribed verbatim, with only minor grammatical changes made.

Participants were initially asked an icebreaker question – *What are your personal reasons/motivations for coaching?* - to encourage interaction, and also to gain enlightening information on coaching philosophy and values underpinning practice. The second question - *What personal attributes or qualities do you believe that sprinters have to possess in order to be successful?* – focused on factors associated with sprinting success, but was broad and general, allowing participants to develop their own ideas and opinions. The third question – *Do you believe sprinters are mostly born or made?* - specifically drew attention to the nature-nurture debate, and encouraged consideration of the relative influence of innate qualities and developmental influences. The final question – *Do you believe that there is a level playing field in relation to sprinters and their likely success?* - encouraged consideration of equality issues, and factors inhibiting or promoting success. Thus, whilst not making race or

stereotyping explicit, these questions were designed to elicit responses related to common racial stereotypes.

Transcriptions were analysed inductively using qualitative techniques proposed by Cote *et al.* (1993), and used by Bloom *et al.* (1999). Interview text was divided into separate pieces of information or meaning units, containing one idea or concept, and capable of standing alone. Once identified, meaning units were named or tagged based on content. All identified tags were then listed and compared, with similar tags regrouped into broader categories with common themes, which attempted to capture the essence of particular topics. Categories were not pre-determined, although it is recognised that the structure of the interview questions may have provided an initial framework (thus although mostly an inductive analysis, there is some element of a deductive approach). Three individuals with experience in qualitative research acted as judges within the coding process to ensure validity of the coding. Results from individual consideration were compared, and discrepancies deliberated until consensus was reached.

The mixed-method approach employed represents an attempt to gain a broad picture in a complex area, and to extrapolate conclusions from both objective and subjective data. Coaches were interviewed at training sessions or track meets, and were informed that the study investigated success attribution in sprinting. The subject of race was not made salient, so that the use of stereotypes in success attribution could be evaluated without an adjustment by coaches.

Results

There was no significant difference between the scoring of the Black and the White photograph survey forms, for the sum of the 4 stereotypes associated with White sprinters minus the sum of the 4 stereotypes associated with Black sprinters ($U = 95.00$, $N_1 = 16$, $N_2 = 15$, $p = 0.338$, two tailed). Therefore, there did not appear to be an identifiably different

pattern of success attribution by coaches, for Black and White photograph conditions, based on race consistent stereotypes.

The scoring of the sum of the White and the sum of the Black stereotypical factors, for the White photograph condition, is consistent with that predicted by the hypothesis. That is, White stereotypes were scored more highly than Black stereotypes, in attributing the success of the pictured White sprinter. However, for the Black photograph condition, results are not consistent with the hypothesis, with White stereotypes scored more highly than Black, in attributing success (see Figure 1).

Insert Figure 1 about here (all figures and tables at end)

Figure 2 shows a highly significant positive correlation between the Black and the White photograph survey forms, in relation to the comparative mean scores for each of the eight stereotypical factors ($r = 0.994$, $N = 8$, $p = 0.001$). This indicates that coaches tended to score the individual stereotype factors in a very similar fashion, regardless of the pictured race. This is reinforced via the highly similar rank order of the scoring of the eight stereotypical factors, for each of the conditions (see Table 1). Analysis of the eight individual stereotype factors revealed only one statistically significant difference between the relative scoring for Black and White photograph survey forms. That is, in the scoring of the factor *longer limbs,* with coaches scoring this factor as being more probable as contributing to the success of the pictured Black athlete, in comparison to the pictured White athlete ($U = 54.00$, $N_1 = 16$, $N_2 = 15$, $p = 0.008$, two tailed).

Insert Figure 2 about here

Insert Table 1 about here

The qualitative data were perhaps more enlightening. A clear majority of coaches considered that sprinters are mostly born with necessary qualities for success, rather than made through development (see Table 2). Indeed, if *born* and *mostly born* are amalgamated, they account

for 68% of responses. Responses for a *mixture* of both born and made represent less than half, whilst those for *made* represent less than a fifth, of those for *born.* The number of coaches who offered a stated percentage in favour of born, was over four times that of the number of coaches who offered a stated percentage in favour of made (see Table 3). The former also represented the majority of responses, and a further three coaches were in favour of born, but did not state a specific percentage. If *inextricably mixed* and *even split* are amalgamated, they equal the amount of *made* responses.

Insert Table 2 about here

Insert Table 3 about here

A clear majority of coaches felt that there was not a level playing field in relation to sprinters and their likely success (see Table 4). If one adds *no* and *qualified no*, and *yes* and *qualified yes*, the comparison is 71% versus 29% respectively. Thus, over two thirds of coaches perceive a lack of equality of opportunity in relation to sprinting success. The importance of genetic factors accounted for the most meaning units of responses to open questions (see Table 5), reflecting the earlier emphasis of coaches on born qualities. However, *social support and socio-economic factors* and *psychological factors* also score highly. Each of the aforementioned areas represented around 25% of total responses. Thus, potential developmental factors also seem to score more highly in this section. Nonetheless, relatively small percentages account for comments relating to the *interaction of nature and nurture*, or specifically the *importance of made* aspects. Finally, a small but important percentage of meaning units relate to *direct generic racial comments*. This is particularly significant since this subject was not overtly broached with the coaches, and several comments clearly reflect established sporting racial stereotypes (see Table 6).

Insert Table 4 about here

Insert Table 5 about here

Insert Table 6 about here

Discussion

Generally, the hypotheses are not supported quantitatively. Although sprint coaches did attribute the supposed success of a pictured Black sprinter more to genetic factors than to that of a pictured White sprinter, the difference was very small. Furthermore, sprint coaches did not attribute the supposed success of a pictured White sprinter more to intelligence, hard work and socio-economic factors than that of a pictured Black sprinter. In fact, the success of the Black sprinter was attributed slightly more to these White stereotypical factors, than it was for the White sprinter. There was no significant difference in the global scoring of the stereotypes, the individual factors were highly correlated in regards to their relative scoring, the rank orders were almost identical, and there was only one significant difference between the scoring of the individual stereotypical factors, across the two conditions.

It is speculated that the highly similar pattern of success attribution by coaches across the two photograph conditions, may be due to reference to the personal characteristics of successful sprinters whom they have experienced coaching over extended one-to-one relationships. They might effectively have become race blind and stereotype blind in the success attribution exercise for the Black and White conditions, because they had a personalised reference point rather than group one. Kunda and Thagard (1996) indicated that stereotypes are far less powerful than personal characteristics in regards to person perception. Thus, rather than measuring stereotype scores, it is possible that the survey forms ended up measuring the amalgamated characteristics of successful sprinters regardless of race.

However, specific aspects do partly provide support, and there is a tendency to score the Black athlete more highly across all stereotypes, possibly indicating that coaches believe Black athletes to be more generally suited to sprinting than White athletes, perhaps as a result of Black over-representation in contemporary sprinting (Entine, 2000a). This was evidenced by the higher Black total stereotype score, the line of best fit in the correlation between the relative scoring of the individual factors revealing that average Black scores for

the stereotypical factors were generally slightly higher than White scores, and the fact that 5 out of 8 factors were scored more highly for the Black athlete. However, these differences were not of a great magnitude. Nonetheless, there were some differences in the way that the Black and White conditions were scored by coaches, and some of these were consistent with the hypotheses, such as the White athlete being scored more highly in relation to White stereotypes than Black stereotypes.

Qualitative results indicate that sprint coaches may be susceptible to the employment of natural ability stereotypes because of an over emphasis on biological determinism, and a lack of recognition for less immediately apparent developmental factors. For example, over two-thirds of coaches were of the opinion that sprinters were born, or mostly born, as opposed to made, or a mixture of the two. Only 3 coaches felt that sprinters were made through development. Similarly over two thirds were willing to express that the likely balance between born and made was in favour of the former; with the average stated percentage being 75/25. Only 4 coaches were willing to express a balance in favour of made, whilst a further 4 indicated a mixture of the two. Over two thirds of coaches perceived a lack of equality of opportunity, whilst only 3 coaches expressed the opinion that there was a level playing field in relation to sprinting success. Presumably, this is at least partly as a result of the perceived importance of innate qualities detailed above.

The *importance of genetic factors* also accounted for the most meaning units of all responses to open questions – again indicating a strong trend towards biological determinism in success attribution in sprinting. However *social support* and *psychological factors* scored almost as highly, such that potentially developmental attributions were also well represented. Nonetheless, meaning units directly related to the *interaction of nature and nurture*, and the *importance of made factors* combined represented less than a fifth of all responses to open questions.

Direct generic racial comments made up only 4.5% of meaning units. But this is perhaps not surprising, as the subject was not overtly broached with coaches. Nonetheless, these

comments are very revealing, and do provide considerable support for the hypotheses. Common stereotypes are shown to persist in this sports specific setting – relating to Black suitability for sprinting, Black propensity for fast twitch muscle, Black laziness, and White hard work (despite lack of natural ability). There were also comments pertaining to the socio-economic background of sprinters, which indicated that a rough urban developmental background might be perceived as a potential advantage for Black sprinters. This reflects socio-economic advantages that were included as White stereotypes in the survey form – that is, possible disadvantages in relation to sprinting in the light of the previous comments. There were also some doubts expressed regarding the accuracy of common stereotypes (which nonetheless indicate that they exist in this domain).

It was proposed earlier that stereotypes are rooted in schema theory (Atkinson *et al.,* 1993). Schemas allow us to cope with cognitive complexity, which is certainly a demand in the coaching role. However, that benefit is tempered against issues arising from categorisation, and information processing bias, which operate to maintain the simplicity of the coping mechanism (Levy, 2000). Thus, whilst schemas are conducive to making simple associations and linking semantic networks regarding stereotypes (because this reduces complexity), they are not conducive to recognising multifaceted contributions to performance and dealing with naturalistic paradoxes (because this increases complexity). Consequently coaches may be subconsciously drawn to appealingly simplistic, but not necessarily accurate, explanations for racial athletic performance. Furthermore, as Harrison (2001) indicates there is little motivation to challenge such apparently straightforward reasoning, since stereotypical beliefs can gain considerable credibility in success attribution. To combat this effect, coaches need to recognise the complexity of their role, and regularly employ critical self-reflection, in order to review the appropriateness of their opinions, beliefs and values. This will require a greater consideration of the *why* of coaching practice, as opposed to the *what*. Furthermore, coaches need to ensure that they develop and refine their knowledge base through continuing professional development, and therefore promote evidence-based practice.

Effectively, it is proposed that the cumulative effect of various influences is profound in relation to the relative importance of sprinting in Black and White contemporary sub-cultures, regardless of whether meaningful physiological differences actually exist or not. Thus, it is important that all coaches recognise the potential power of the stereotyping dynamic upon athlete development (see Figures 3 and 4).

Insert Figure 3 about here

Insert Figure 4 about here

Recommendations arising for coaches are:

Provide consistent feedback, and equal practice opportunities to all athletes.

- . Continually supplement subjective athlete evaluations with objective data.
- . Develop strategies to reinforce athlete self-efficacy.
- . Avoid triggering stereotypes.
- . Value intuition, but critically reflect on knowledge and assumptions.
- . Implement individualisation, but recognise the influence of racial identity.

Recommendations arising for coach education are:

- . Develop socially adaptable and critically self-reflective practitioners
- . Address and challenge the stereotyping issue.
- . Encourage ongoing knowledge development, and evaluation of assumptions.
- . Recruit more Black coaches.
- . Help coaches address White stagnation in sprinting.

Conclusion

Reassuring evidence has been gained that UK sprint coaches do not widely employ stereotypes in attributing differently the success of Black and White athletes. However, there is sufficient evidence of susceptibility and replication, via a prevailing emphasis on biologically

determinist explanations of sprinting success, to necessitate continued vigilance. Socio-economic, cultural, and developmental influences do not seem to be recognised so readily by these coaches, perhaps because they are not so immediately apparent as supposedly natural talent.

Future research might replicate this study in other sports specific contexts, or could evaluate the experience of under-represented athletes/coaches. The interdisciplinary nature of this study, and the use of both qualitative and quantitative methodologies are deemed to have provided a broad and deep view of the problem, representing a contribution to a neglected area of study. It is hoped the resulting holistic view has provided a valuable contribution to the literature in this area, particularly in regards to the UK context, theoretical models of stereotype influence on sprint performance, and recommendations for coaching practice and coach education.

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Figure 1. Mean Stereotype Scores for Black and White Photograph

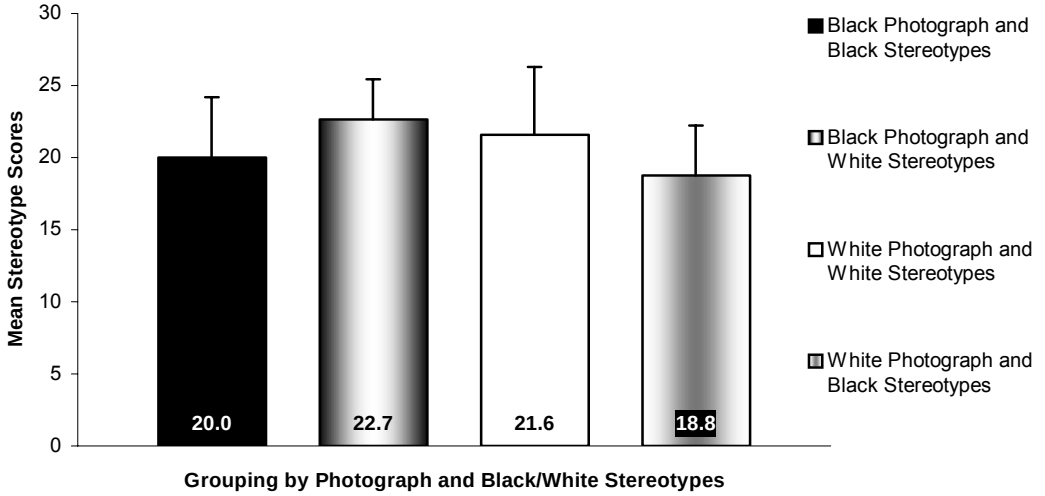

Figure 2. Scatter plot of Black and White Average Stereotype Factor Scores

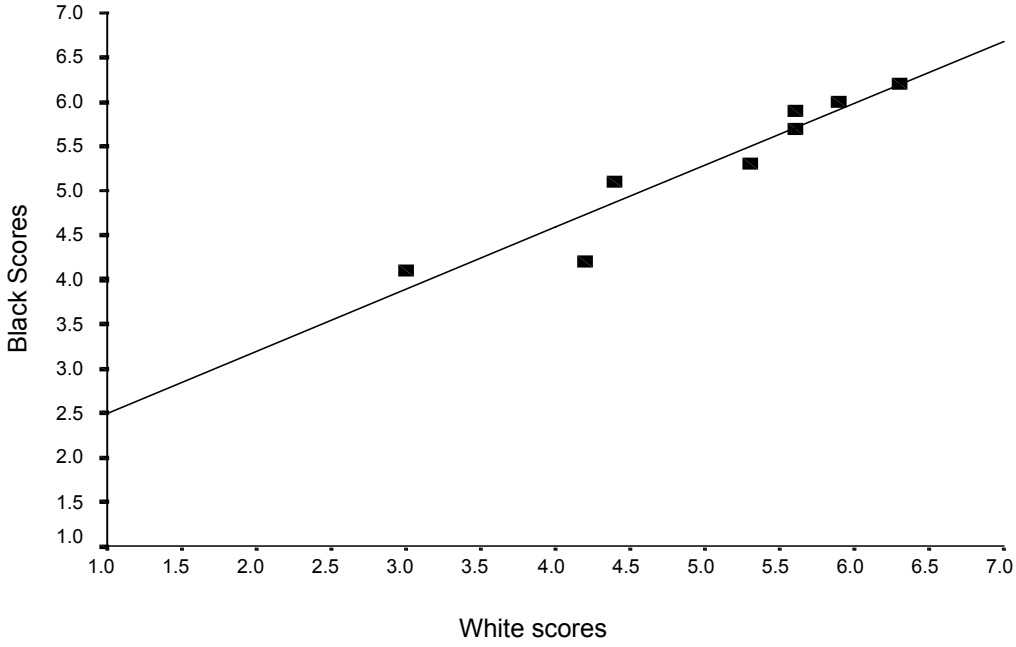

Table 1. Rank Orders for Stereotypical Factors

Black Photograph Stereotype Rankings			**White Photograph Stereotype Rankings**			**Overall Stereotype Rankings**		
	Total	Mean		Total	Mean		Total	Mean
Hard work and dedication	93	6.2	Hard work and dedication	101	6.3	Hard work and dedication	191	6.2
Natural speed and quickness	90	6.0	Natural speed and quickness	94	5.9	Natural speed and quickness	184	5.9
Knowledge and intelligence	88	5.9	Knowledge and intelligence	90	5.6	Knowledge and intelligence	178	5.7
Relaxation and movement economy	85	5.7	Relaxation and movement economy	89	5.6	Relaxation and movement economy	174	5.6
Access to coaching	80	5.3	Access to coaching	85	5.3	Access to coaching	165	5.3
Access to facilities	77	5.1	Access to facilities	70	4.4	Access to facilities	147	4.7
Longer limbs	63	4.2	Natural large muscle mass	68	4.2	Natural large muscle mass	130	4.2
Natural large muscle mass	62	4.1	Longer limbs	49	3.0	Longer limbs	112	3.6

Table 2. Are Sprinters Mostly Born or Made?

Theme	**Meaning Units**	**Percentage**
Born	16	52%
Mostly Born	5	16%
Mixture	7	22.5%
Made	3	9.5%

Table 3. Likely Balance Between Born and Made?

Theme	Meaning Units	Percentage	Mean	Range
Stated % in Favour of Born	18	58%	75/25%	90-60%
Stated % in Favour of Made	4	13%	70/30%	85-65%
In Favour of Born but No Percentage Stated	3	9.5%	N/A	N/A
Inextricably Mixed	2	6.5%	N/A	N/A
Even Split	2	6.5%	N/A	N/A
Could Not Attempt	1	3%	N/A	N/A
Misinterpreted question	1	3%	N/A	N/A

Table 4. Is There a Level Playing Field?

Theme	Meaning Units	Percentage	Example
No	14	58.5%	*There is no level playing field – others get a better deal.*
Qualified no	3	12.5%	*It is not perfectly fair – but athletics vis-à-vis other sports is more of a level playing field.*
Yes	3	12.5%	*A good sprinter could come from anywhere in the country.*
Qualified yes	4	16.5%	*There probably is a level playing field – but there are so many variables involved.*

Table 5. Amalgamation of Responses to All Open Questions

Theme	Meaning Units	Percentage	Example
Importance of Genetic Factors	126	28%	*Ultimately, they would have that fast twitch, that reaction – that would make a huge difference in sprinting performance.*
Social Support and Socio-Economic Factors	114	26%	*Best sprinters are from a background with a bit of a rough neighbourhood – Black or White.*
Psychological Factors	108	24%	*Everyone starts off wanting to be a 100m runner, because that's who they see on TV.*
Interaction of Nature and Nurture	54	12%	*Might be born the fastest, but you have to build on it. You don't stay naturally the quickest. Got to work damn hard. Born to begin with, made as an end result.*
Importance of Made Factors	25	5.5%	*Some of the greatest sprinters – it is hard work that takes them there – not just being physically fit.*
Direct Generic Racial Comments	20	4.5%	Blacks are not as bothered about doing the work. The White boys are really keen, but havn't got the natural ability.

Table 6. Sub-Themes for Direct Generic Racial Comments

Sub-Theme	Meaning Units (20)	Example
Black Association With Sprinting	4	*Afro-Caribbeans tend to be quite attracted to sprinting (you don't see many in middle distance) – they do see it as their event/field.*
Black Physiological Stereotypes	5	*Obviously the classical fast sprinter will always be a coloured boy/girl – it's a lot to do with their physical make up.*
		Afro-Caribbean group is advantaged in sprinting – they have a bigger proportion of fast twitch.
Black Laziness Stereotype	1	*Blacks are not as bothered about doing the work. The White boys are really keen, but havn't got the natural ability.*
Black Socio-economic Background	3	*I think a lot of coloured boys do well because it's like getting out of the ghetto.*
		The top sprinters, they come from the South, the Black community, the inner city.
Doubts about Racial Stereotypes	4	*A lot more Black guys are very good sprinters. They have been more in the limelight – and that's the reason why. I don't think race as such has anything to do with it.*
White Stereotypes	3	*You'll always find coloured people are a lot faster – you have to accept that, and you have to guide your training to compete with those guys.*
		You will get a fast White sprinter every so often, but not as often as Afro-Caribbean sprinters.

Figure 3. Theoretical Model of Stereotypical Influences Upon Black Sprint Performance

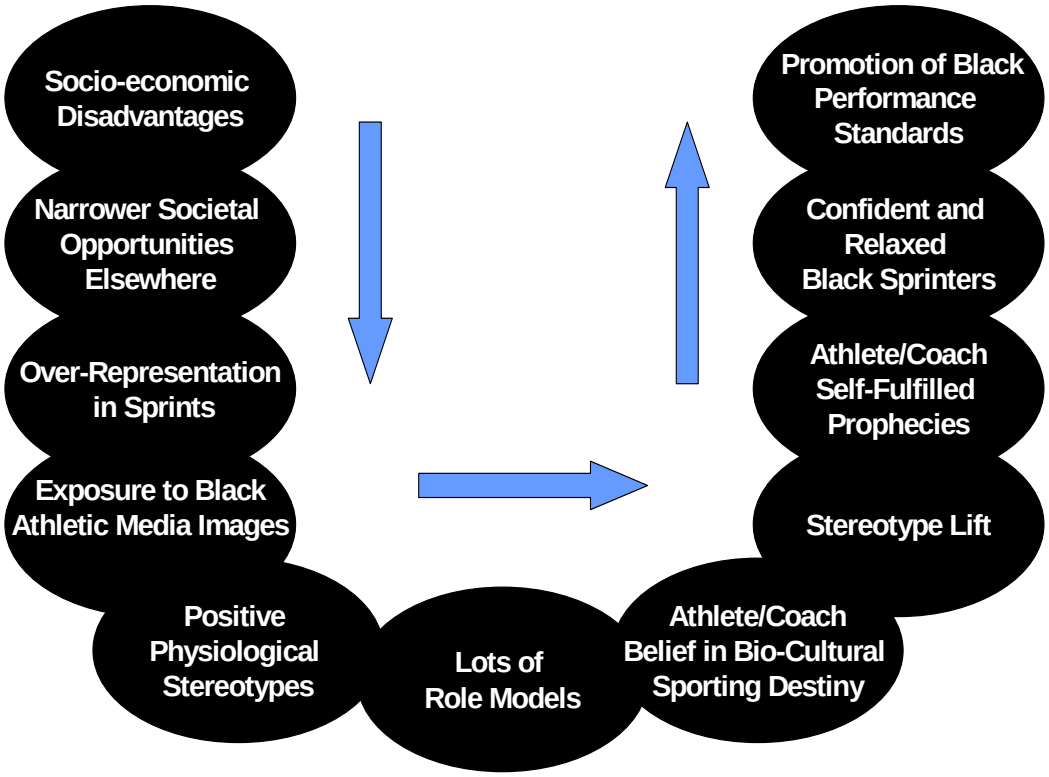

Figure 4. Theoretical Model of Stereotypical Influences Upon White Sprint Performance