Examining the influence of skin tone on playing position in the Premier and English Football Leagues

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Abstract

Within the present manuscript we explore the role of skin tone on playing position within English football's top four professional leagues. Player data (N = 4,515) was collected across five seasons (2010-2015). Results indicate that in general, darker skin toned players are more likely to operate within peripheral rather than central positions. Using both one and two-way ANOVAs, results suggest significant differences between skin tone and individual playing positions. Between league differences were, however, non-significant. Although darker skin toned players are still more likely to occupy peripheral positions, the situation is more nuanced than first thought. Instead of segregating players by central versus peripheral roles, it appears that darker skin toned players occupy positions associated with athleticism. In contrast, lighter skin toned players appear to fulfill roles requiring organization and communication skills.

Keywords: Racial stacking; Racial Stereotypes; Racial Stratification; Soccer; Positional Segregation

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2 **Football Leagues**

3 Lapchick, Dominguez, Haldane, Loomer, & Pelts (2014) suggest that although coaches

4 are less likely to assign position based on race than they were in the 1980s, they are still, in part,

5 basing their decisions on outdated notions of social Darwinism. Although epidemiological

6 differences between light and dark skin toned individuals are often anecdotally cited (Entine,

7 2000), the notion of increased skin pigmentation improving athlete physiology or performance is

8 absurd (Kerr, 2010). Instead, variation in physiological capabilities is largely derived from the

9 environment in which an individual was born into, rather than the tone of one's skin (Harpalani,

10 2004). For example, although Kenyan athletes have become synonymous with long-distance

11 running, it is not their skin-tone that dictates the level of performance. Instead, the Kenyan

12 people's success in this field is far more likely to be the result of how they have adapted to their

13 environment and the way in which distance running is revered socially within their culture

14 (Larsen, 2003). As such it is highly unlikely that the tone of one's skin or any other physical

15 characteristic used to define race has any discernible bearing on the ability to run long distances.

16 As Harpalani (2004) suggests, race is neither a genetically nor biologically sound paradigm, but

17 rather a social construct based on Western society's obsession with superficial physical features.

18 Despite these examples, skin tone and race are still regularly referred to within sport as

19 having an influence on sporting performance and playing characteristics (Furley & Dicks, 2014;

20 Rasmussen, Esgate & Turner, 2005). Within the media, for example, it is commonplace for

21 broadcasters to discuss darker skin toned players as naturally athletic and lighter skin toned

22 players as intelligent (Buffington & Fraley, 2011, Eastman & Billings 2001; Stone, Lynch,

23 Sjomeling, & Darley, 1997). Recently, former footballer turned pundit, Mark Lawrenson, made

24   the following statement about Middlesbrough Football Club's Adama Traore: "When he has to

25   think about things, he struggles, [but] when it's instinctive, it's easy" (Finch, 2016, November

26   21). Although such comments may at first appear benign, if an individual repeatedly suggests

27   that certain characteristics are representative of a social group (e.g., that darker skin toned

28   players lack game intelligence), this suggests that stereotypes are being drawn upon in the

29   evaluative process. According to Koch, Sackett, and D'Mello (2014) such stereotypes are

30   cognitive shortcuts that represent a set of qualities that are thought to represent the essence of

31   group membership. In other words, stereotypes are the typical picture that quickly comes to mind

32   when considering a specific social group (Lippmann 1922). However, the speed in which

33   stereotypes can be recalled often comes at the expense of considering individual qualities

34   (Macrae, Milne & Bodenhausen, 1994).

35   Beyond reflecting general beliefs about the traits which characterize typical group

36   membership, stereotypes also provide contextual information around social groups (e.g., the

37   social roles) and generate expectations about group members' anticipated behavior (Dovidio,

38   Hewstone, Glick, & Esses, 2010). When applied at a group level, stereotypes often result in the

39   systematic and favorable evaluation of one's own membership group (i.e., in-group) as opposed

40   to those outside who fall outside of own group membership (i.e., outgroup). Steele (1997)

41   suggests that when an occupant of a social group becomes aware of a negative stereotype related

42   to the task being undertaken, their performance may become impeded. Steele and Aronson

43   (1995) first defined this phenomenon as 'stereotype threat' and suggest that it is the by-product

44   of one's reduced working memory capacity. Similar to the phenomenon of 'choking' when under

45   pressure, scholars believe stereotype threats are the result of heightened attention to tasks

46   typically completed instinctively (Beilock, Rydell, & McConnell., 2007; Schmader & Johns,

47 2003) or by a lowering of effort (Stone, 2002). Stereotype threat may also lead to self-stacking,

48 by which the pressure to conform to stereotypes influences the individual's choice of playing

49 position (Anderson, 2010). Eitzen (2016) argues that stacking refers to situations in which

50 minority group members are relegated to specific team roles and excluded from competing for

51 others. Consequently, stacking can lead to a form of racial stratification, whereby players are

52 categorized based on the tone of their skin. Within soccer these stereotypical beliefs may lead

53 coaches to conclude that such individuals are more suited to peripheral (i.e., full back and wide

54 midfield) positions. In contrast, players of a lighter skin tone are viewed as creative, intelligent

55 and ultimately, more suited for central (i.e., goalkeeper, central defense, central midfield and

56 forward) positions.

57   **Prior literature and the need for further exploration.**

58   Given the documented influence of skin tone on playing positions within sport, it is

59 somewhat surprising that only limited research has explored this phenomenon outside of North

60 America (Furley & Dicks, 2014). Although the consequences of racial stereotyping have been

61 explored extensively in basketball and American football (for a review see Coakley, 2010), only

62 Melnick (1988) and Norris and Jones (1998) have empirically examined the aforementioned

63 processes within English football. Although the previously mentioned research has undoubtedly

64 advanced our understanding, both studies are somewhat outdated and have methodological

65 limitations that cannot be overlooked. For example, Melnick (1988) gathered player information

66 by contacting the public relations officers of 22-football clubs and requested that they provide a

67 list of their players names (n = 468), primary playing position, and race. It is worth noting here

68 that by 'race', Melnick appeared to solely refer to the tone of skin as no further physical, social,

69 or ancestral characteristics were requested. Using a playing position x race (i.e., binary skin tone)

70 chi-square, Melnick's results suggest an under representation of darker skin toned players in

71 midfield and goalkeeping positions, an overrepresentation in attacking positions, and equal

72 representation in defensive positions. Next, Norris and Jones (1998) evaluated 10 pre-recorded

73 Premier League games before assembling squad information (n = 1937) for each of the 92-

74 football leagues clubs based on newspaper reports during the first 20-games of the 1994-95

75 season. Using the same binary black-white distinction as Melnick (1988), Norris and Jones

76 (1998) also reported a disproportionate representation of skin tone x playing position. For

77 example, they found that black goalkeepers were underrepresented when compared to white

78 goalkeepers, while black centre forwards, were overrepresented when compared to white centre

79 forwards. Building upon this initial observation, Norris and Jones (1998) contacted 25 of the 92

80 teams evaluated for their perceptions on whether some positions are more important for team

81 success than others. Of the 25-managers contacted, 10 replied and suggested that the three key

82 positions are: (1) goalkeeper, (2) central defense, and (3) central midfield. Unfortunately, they

83 did not state why only 25 team managers were contacted, which newspaper was used to generate

84 the squad lists or how race was identified within their study. Although these studies are not

85 without limitation, they do provide a baseline for further research to examine if and how attitudes

86 have changed.

87   **Data and method**

88   Our data comprise 4,515 male professional football players across five seasons (i.e., 2010

89 to 2015) and four leagues (i.e., English Premier League, Championship, League One, and

90 League Two). For each player the data consists of a unique player ID, name, date of birth,

91 leagues in which the player has played in during the 2010-2015 season's, primary playing

92 position (i.e., the position in which the player made the most appearances), nationality, ethnicity,

93   and skin tone. The latter is rated on a 20-point scale from lightest skin tone to darkest. Each of

94   the variables included within the present study have gone through the following four-stage

95   quality assurance process: (i) Each club is assigned their own researcher who is required to

96   watch each player regularly throughout the season. Within the leagues included, it is expected

97   that researchers attend at least one game per week (i.e., First, reserve, and youth teams). A

98   constant comparative approach is also adopted at club level, whereby researchers compare

99   reports when observing each other's teams for accuracy. Across the five seasons reported, this

100   equates to approximately 380-460 observations of the 4,515 players included. (ii) Club

101   researchers report to league researchers who then cross-check the data against photographic and

102   video evidence three times per season. (iii) The data are then re-checked by a six-person internal

103   research department. (iv) The data is checked for errors by two-million users with errors reported

104   via a dedicated forum.

105   Our analytic strategy is to first investigate the question of whether skin tone has an effect

106   on central versus peripheral playing positions in English football (Melnick, 1988), before

107   exploring in greater detail the possible differences between individual playing positions and

108   leagues. In Melnick's study, skin tone was judged by club officials and based on a black versus

109   white dichotomized scale. However, we are uncomfortable in adopting the same approach, as for

110   us, skin tone is a continuous variable. Due to the methodological limitation of previous research

111   within this area, the present study is not identical in design as those that have gone before, which

112   limits us from conducting confirmatory research. However, the notion of identifying whether

113   there is a relationship between position and tone of skin remains. Finally, as there are now vast

114   financial discrepancies between the top four divisions in English football, we investigate the

115   question of whether there are between league differences in playing position by skin tone.

116   **Results**

117   We began these analyses by examining conducting descriptive analysis (see Table 1) to

118   outline the basic features of the population. From there the distribution of players across skin

119   tone and playing position were assessed (see Table 2). A t-test was then conducted to examine

120   potential differences in skin tone between central and wide playing positions across the four

121   professional leagues in England (i.e., the Premier League, the Championship, League One, and

122   League Two). The results suggest that, like Melnick (1988) we report a significant difference in

123   the skin tone of players who occupy either a central (i.e., goalkeeper, central defender, defensive

124   midfielder, central midfielder, attacking midfielder, and striker; M = 8.14, SD = 4.69) or

125   peripheral (i.e., right fullback, left fullback, right wing, and left wing; M = 8.80, SD = 4.78)

126   playing position; t(4513) = -4.24, p <.001, d = .14.

127   [insert table 3 around here]

128   A One-way ANOVA was then conducted (see Figure 1) to provide a more detailed

129   analysis of how playing position may vary according to skin tone (F(9, 4505) = 31.10, p < .001,

130   partial ω^2 = .06). Tukey post-hoc comparisons demonstrated significant differences in skin tone

131   based on playing position (see Table 3).

132   [insert figure 1 around here]

133   A two-way ANOVA was then conducted to explore the effect of skin tone on playing

134   position across the four professional football leagues in England (See Figure 2). Results suggest

135   that there is no statistically significant interaction between skin tone and playing position across

136   the four leagues. Although the previously identified differences between positions are still

137   observed, they relatively consistent across the four leagues.

138

139   [insert figure 2 around here]

140   **Discussion**

141   The current manuscript investigated the role skin tone plays in positional allocation in

142   English league football. By building on the methodological underpinnings of previous

143   investigations (e.g. Melnick, 1988; Norris & Jones, 1998), the results suggest that darker skin

144   toned players are more likely to operate in peripheral rather than central positions. As such, our

145   results are in line and consistent with previous literature examining racial stacking (Pitts & Yost,

146   2012; Stone et al., 1999). The present study also advances the literature by being the first to

147   assess the role skin tone plays in positional allocation across the entire population of the English

148   professional football leagues. Further, the present study is also the first to demonstrate a detailed

149   analysis of where the imbalances occur. For example, the results suggest that although darker

150   skin toned players may occupy central roles, lighter skin toned players still dominate the types of

151   positions traditionally associated with organization and communication (i.e., central and

152   attacking midfield, and goalkeeper). In contrast, darker skin toned players appear to primarily

153   fulfil positions linked to athleticism (i.e., full back, wide midfield, and striker).

154   The findings also suggest relative parity in the distribution of skin tone by playing

155   position across the four professional leagues assessed (i.e., Premier League, Championship,

156   League One, and League Two). Given the financial resources available in the Premier League, it

157   was thought that clubs would purchase the most suitable candidate for the position. However,

158   this fails to consider that, according to Pitts and Yost (2012), the most suitable candidate may

159   also mean the one who best fits the stereotype. As Melnick (1988, p. 126) states:

160

161   "In the absence of any compelling evidence to support the belief that white and black

162   soccer players possess certain physical and/or psychological characteristics which make

163   them better suited for playing particular positions, one must look elsewhere for an

164   explanation of these findings."

165

166 With this in mind, we consider whether issues such as stereotype threat and racial stratification,

167 result in players experiencing such processes upon entering sport; therefore, culturally

168 normalizing the phenomena in childhood (Thomas, Good & Gross, 2015). Further, the lack of

169 exemplars available to counter the stereotypes may also function to perpetuate the cycle. As our

170 data show, there are outliers who counter the stereotype within the population, within some

171 positions (e.g., goalkeeper, and attacking midfield), however, such individuals are few and far

172 between. Research examining the processes in which playing positions are allocate should

173 therefore investigate potential barriers to access and solutions to resolve this disparity.

174   It is worth noting that although issues around racial stereotyping and stratification are

175 inferred within the present manuscript, as an exploration of cross-sectional data, causality is by

176 no means implied. Although we have advanced the literature by conducting a detailed

177 exploration of the present landscape in English football, further analyses are required that

178 explore the processes discussed in other parts of Europe, North and South America, Africa, Asia,

179 and Australasia. Additional research that examines both why and how this phenomenon occurs is

180 also required. Given that many of the processes described are likely to operate at a subconscious

181 level, special attention should be paid to better understanding how implicit attitudes and

182 stereotypes are formed, accessed, and acted upon. To achieve these aims, a longitudinal design

183 could be adopted to identify why and how racial stereotypes in sport develop. Further, quasi-

184 experimental research could be conducted to examine whether existing attitudes can be modified

185 and if so, what effect this has on providing more equitable opportunities. Given the socially

186 sensitive nature of such attitudes, the authors encourage the development of an indirect measure,

187 which is capable of assessing stereotypical views while limiting the impact of social desirability

188 bias (Fazio & Olson, 2003).

189 Finally, although the data presented here suggest that some barriers may be in the process

190 of being broken down, there is much still to be done. As Thomas, Good, and Gross (2015)

191 conclude, we as fans, coaches, scouts, directors, and pundits must do more to recognize when

192 stereotypes are being perpetuated and attempt to fairly evaluate players on their individual

193 merits. Within the present manuscript, we have taken a valuable first step in highlighting the

194 disparities within English football and hope that this will allow others to move forward and begin

195 the process of testing the phenomena we have discussed.

196 **Perspective**

197 Discrimination, be it in the form of self-stacking or racial stratification, would still appear

198 to be prevalent within English football. For example, the findings presented here demonstrate

199 that as skin pigmentation decreases, so does the likelihood that players will operate in the

200 positions of goalkeeper, central midfield, and attacking midfield. Despite vast differences in

201 available resources within the four English professional leagues, skin tone x playing position

202 variance remained relatively stable. Although the empirical evidence of the cause of this

203 phenomenon is unavailable, factors such as the media, lack of role models, and persistent notions

204 of social Darwinism are thought to play a role. Resolving such discrimination is not without

205 challenge and research can support this effort through identifying the mechanisms and situations

206 where the processes described within this manuscript are activated. Although difficult, this

207   challenge should be met as with such understanding players, may eventually be evaluated with

208   clearer eyes and afforded equal opportunities to develop.

209

216

217 **Contributions**

218 Conception or design of the work – JM / FG / TM

219 Data collection – TM

220 Data analysis and interpretation FG / JM

221 Drafting the article – JM / CI / FG / TM

222 Critical revision of the article – CI

223 Final approval of the version to be published – JM / FG / CI / TM

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294

	Age	Appearances	Primary Position	Skin Tone
Mean	28.96	36.98	5.92	8.14
Median	28.0	22.0	6	6
Mode	25.00	1.00	10.00	5.00
Standard deviation	5.40	41.20	2.94	4.93
Minimum	18.00	1.00	1	1
Maximum	48.0	223.0	10	20
Standard error	0.0804	0.6132	0.0437	0.0733
Skewness	0.4533	1.6222	−0.0287	0.7583
Kurtosis	2.60	5.37	1.81	2.25

Table 1: Descriptive Statistics

Primary Position	Skin Tone																				Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1. Goalkeeper	0	59	0	25	106	64	69	7	12	0	1	4	4	4	3	1	2	1	1	0	363
2. Right fullback	1	19	6	15	72	46	46	6	4	0	1	9	25	14	22	14	12	9	1	0	322
3. Left fullback	0	0	35	18	75	42	44	5	8	0	0	4	16	16	15	12	5	8	1	0	304
4. Central Defender	0	0	83	47	170	105	105	12	12	3	3	15	34	46	22	35	26	36	2	1	757
5. Right Midfield	0	0	0	39	69	55	44	6	9	1	2	14	26	24	22	26	14	21	4	0	376
6. Left Midfield	0	0	0	46	55	39	25	6	5	0	4	9	14	18	23	16	15	11	3	0	289
7. Central Midfield	0	0	0	140	211	118	104	9	12	2	4	13	22	21	18	28	14	16	6	0	738
8. Defensive Midfield	1	0	0	29	43	32	30	4	5	2	1	4	10	8	5	13	13	18	4	1	223
9. Attacking Midfield	0	0	0	34	49	24	39	1	13	2	0	5	7	3	4	3	4	7	0	0	195
10. Striker	0	0	0	108	190	141	104	11	24	0	9	18	40	40	51	67	51	81	13	0	948
Total	2	78	124	501	1040	666	610	67	104	10	25	95	198	194	185	215	156	208	35	2	4515

Table 2. Contingency table of the distribution on Skin Tone and Playing Position in Professional English Football.

	M	GK	RB	LB	CB	RM	LM	CM	DM	AM	ST
GK	5.72	-	2.82***	2.06***	2.49***	3.79***	3.47***	1.57***	3.49***	1.64***	3.83***
RB	8.55		-	-0.75*	-0.32	0.97**	0.64	-1.24***	0.67	-1.17**	1.01***
LB	7.79			-	0.42	1.72***	1.4***	-0.49	1.42***	-0.41	1.76***
CB	8.22				-	1.3**	0.97**	-0.91***	0.99**	-0.84*	1.34***
RM	9.52					-	-0.32	-2.21***	-0.3	-2.14***	0.03
LM	9.20						-	-1.89***	0.02	-1.82***	0.36
CM	7.30							-	1.91***	0.07	2.25***
DM	9.22								-	-1.84***	0.34
AM	7.37									-	2.18***
ST	9.56										-

1 Table 3. Tukey HSD post hoc analyses of between position mean differences in skin tone. *$p < .05$, ** $p < .01$, *** $p < .001$

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2

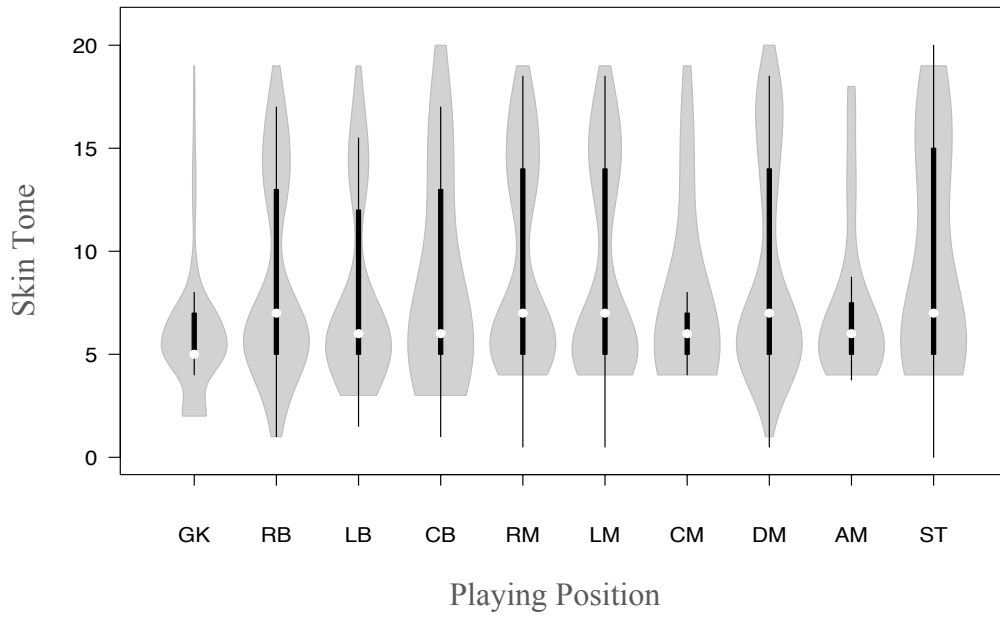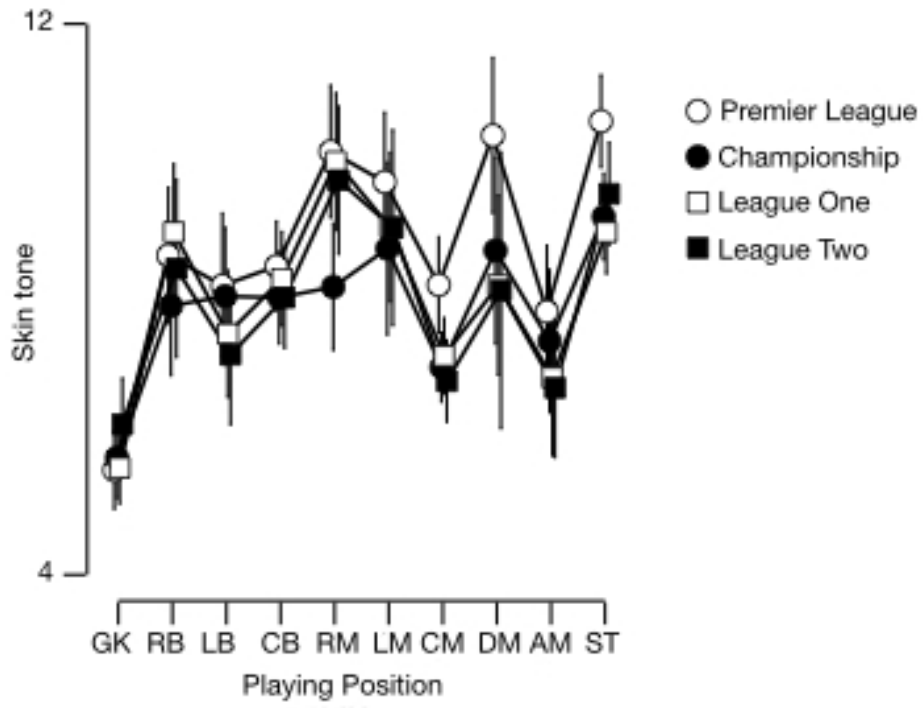Distribution of Skin tone x Playing position ($N = 4515$)

Figure 1. One-way ANOVA (F(9, 4505) = 31.10, $p < .001$, partial $\omega^2 = .06$)

1

2
3 *Figure 2*. Two-way between groups ANOVA ($F(27, 4480) = 1.04$, $p = .41$, partial $\eta^2 = .01$).

4