It is Not Black and White: A Comparison of Skin Tone by Playing Position in the Premier League and English Football

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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 and strength. In contrast, lighter skin toned players appear to fulfil positions requiring organizational skills and creativity.

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

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> "As a scientist rather than a sociologist, I am prepared to risk political incorrectness by drawing attention to the seemingly obvious but under stressed fact that black sprinters and black athletes in general all seem to have natural anatomical advantages". ~ Sir Roger Bannister speaking at the British Association for the Advancement of Science in 1995 (Smith & Leonard II, 1997).

Anecdotal comments – such as Sir Roger Bannister's – citing differences in epidemiology between light and dark skin toned athletes are common in soceity (see Entine, 2000). However, variation in physiological capability derives from the environment in which an individual is born into, rather than the tone of one's skin (Harpalani, 2004). For example, although Kenyan athletes have become synonymous with long-distance running, it is not their skin-tone that dictates the level of performance. Instead, the Kenyan people's success in this field is far more likely to be the result of how they have adapted to their environment and the way in which distance running is revered socially within their culture (Larsen, 2003). As such it is highly unlikely that the tone of one's skin or any other physical characteristic used to define race has any discernible bearing on the ability to run long distances.

Despite these examples, skin tone and race are still regularly referred to within sport as having an influence on performance and playing characteristics (Furley & Dicks, 2014; Rasmussen, Esgate & Turner, 2005). Within the media, for example, it is commonplace for broadcasters to discuss darker skin toned players as naturally athletic and lighter skin toned players as intelligent (Buffington & Fraley, 2011, Eastman & Billings 2001; Stone, Lynch,

Sjomeling, & Darley, 1997). Recently, former footballer turned pundit, Mark Lawrenson, made the following statement about Middlesbrough Football[1] Club's Adama Traore: "When he has to think about things, he struggles, [but] when it's instinctive, it's easy" (Finch, 2016, November 21). Although such comments may at first appear benign, if an individual repeatedly suggests that certain characteristics are representative of a social group (e.g., that darker skin toned players lack intelligence), this suggests that stereotypes are being drawn upon in the evaluative process (Ferrucci, Tandoc, Painter, & Leshner, 2013). According to Koch, Sackett, and D'Mello (2014) such stereotypes are cognitive shortcuts that represent a set of qualities that are thought to represent the essence of group membership. In other words, stereotypes are the typical picture that quickly comes to mind when considering a specific social group (Lippmann 1922). In sport, Eastman and Billings (2001) have identified that the qualities associated with light skin tone players are: (1) intelligence, (2) leadership, (3) personality, and (4) work ethic. In contrast, the qualities associated with players of a darker skin tone are: (1) natural ability, (2) background, and (3) physical strength. Ferrucci et al. (2013) have since provided partial support for these associations by asking students to rate photographs of Black and White baseball players based on stereotypes identified in previous literature.

Beyond reflecting general beliefs about the traits which characterize typical group membership, stereotypes also provide contextual information around social groups (e.g., the social roles) and generate expectations about group members' anticipated behavior (Dovidio, Hewstone, Glick, & Esses, 2010). When applied at a group level, stereotypes often result in the systematic and favorable evaluation of one's own membership group (i.e., in-group) as opposed

[1] For the purposes of the current research 'football' refers to Association Football (AKA Soccer), unless otherwise prefixed (e.g., American Football).

to those outside who fall outside of own group membership (i.e., outgroup). Steele (1997) suggests that when an occupant of a social group becomes aware of a negative stereotype related to the task being undertaken, their performance may become impeded[2]. Steele and Aronson (1995) first defined this phenomenon as 'stereotype threat' and suggest that it is the by-product of one's reduced working memory capacity. Similar to the phenomenon of 'choking' when under pressure, scholars believe stereotype threats are the result of heightened attention to tasks typically completed instinctively (Beilock, Rydell, & McConnell., 2007; Schmader & Johns, 2003) or by a lowering of effort (Stone, 2002).

Athletes may also self-stack, by which the pressure to conform to stereotypes influences the individual's choice of playing position (Anderson, 2010). Building on Edwards (1973) definition, Eitzen (2016) argues that stacking refers to situations in which minority group members are relegated to specific team roles and excluded from competing for others. Consequently, stacking can lead to a form of racial stratification, whereby players are categorized based on the tone of their skin (see Smith & Leonard II, 1997 for an overview of the first 25-years of stacking literature). Although not directly related to skin tone, Furley and Mehmert (2016) provided evidence that coaches hold specific stereotypes about physical size and beneficial performance characteristics. More specifically, they reported an automatic association between tall players with positive performance attributes and small players with negative performance attributes, within a sample of youth football coaches. It is not a huge leap, therefore, to expect that stereotypes around physical attributes to influence coach decision

[2] It is worth noting that recent criticism of the stereotype threat literature suggests that its effect on performance may not be as robust as previously thought (Flore & Wicherts, 2015).

making when assigning players to positions (Eastman & Billings, 2001; Ferrucci & Tandoc, 2017). Most notably, those stereotypes regarding the association between physicality and a darker tone of skin will result in players occupying peripheral positions linked with athleticism (i.e., full back and wide midfield). In contrast, players of a lighter skin tone may be viewed as intelligent, organised, and ultimately, more suited for central (i.e., goalkeeper, central defence, central midfield and forward) positions.

Prior literature and the need for further exploration.

Given the documented influence of skin tone on playing positions within sport, it is somewhat surprising that only limited research has explored this phenomenon outside of North America (Furley & Dicks, 2014). Although the consequences of racial stereotyping have been explored extensively in basketball and American football (for a review see Coakley, 2010), only Melnick (1988) and Norris and Jones (1998) have empirically examined the aforementioned processes within English football. Although the previously mentioned research has undoubtedly advanced our understanding, both studies are somewhat outdated and have methodological limitations that cannot be overlooked. For example, Melnick (1988) gathered player information by contacting the public relations officers of 22-football clubs and requested that they provide a list of their players names (n = 468), primary playing position, and race. It is worth noting here that by ‘race’, Melnick appeared to solely refer to the tone of skin as no further physical, social, or ancestral characteristics were requested. Using a playing position x race (i.e., binary skin tone) chi-square, Melnick’s results suggest an under representation of darker skin toned players in midfield and goalkeeping positions, an overrepresentation in attacking positions, and equal representation in defensive positions.

Next, Norris and Jones (1998) evaluated 10 pre-recorded Premier League games before assembling squad information (n = 1937) for each of the 92-football leagues clubs based on newspaper reports during the first 20-games of the 1994-95 season. Using the same binary black-white distinction as Melnick (1988), Norris and Jones (1998) also reported a disproportionate representation of skin tone x playing position. For example, they found that black goalkeepers were underrepresented when compared to white goalkeepers, while black centre forwards, and were overrepresented when compared to white centre forwards. Building upon this initial observation, Norris and Jones (1998) contacted 25 of the 92 teams evaluated for their perceptions on whether some positions are more important for team success than others. Of the 25-managers contacted, 10 replied and suggested that the three key positions are: (1) goalkeeper, (2) central defence, and (3) central midfield. Unfortunately, they did not state why only 25 team managers were contacted, which newspaper was used to generate the squad lists or how race was identified within their study. Although these studies are not without limitation, they do provide a baseline for further research to examine if and how attitudes have changed.

Data and method

Our data comprise 4,515 male professional football players across five seasons (i.e., 2010 to 2015) and four leagues (i.e., English Premier League, Championship, League One, and League Two). For each player the data consists of a unique player ID, name, date of birth, leagues in which the player has played in during the 2010-2015 season's, primary playing position (i.e., the position in which the player made the most appearances), nationality, ethnicity, and skin tone. The latter is rated on a 20-point scale from lightest skin tone to darkest. Each of the variables included within the present study have gone through the following four-stage quality assurance process: (i) Each club has their own researcher who is required to watch each

player regularly throughout the season. Within the leagues included, it is expected that researchers attend at least one game per week (i.e., first, reserve, and youth teams). A constant comparative approach is also adopted at club level, whereby researchers compare reports when observing each other's teams for accuracy. Across the five seasons reported, this equates to approximately 380-460 observations of the 4,515 players included. (ii) Club researchers report to league researchers who then crosscheck the data against photographic and video evidence three times per season. (iii) A six-person internal research department then re-check the data. (iv) The data is then used within a popular football management simulator (e.g., two-million users), which provides a dedicated forum for error reporting.

Our analytic strategy is to first investigate the question of whether skin tone has an effect on central versus peripheral playing positions in English football (Melnick, 1988), before exploring in greater detail the possible differences between individual playing positions and leagues. In Melnick's study, skin tone was judged by club officials and based on a black versus white dichotomized scale. However, we are uncomfortable in adopting the same approach, as for us, skin tone is a continuous variable. Due to the methodological limitation of previous research within this area, the present study is not identical in design as those that have gone before, which limits us from conducting confirmatory research. However, the notion of identifying whether there is a relationship between position and tone of skin remains. Further, by utilising population rather than sample data, and adopting a more rigorous approach to the identification of skin tone, the current research goes some way in rectifying the aforementioned limitations. Finally, as there are now vast financial discrepancies between the top four divisions in English football, we investigate the question of whether there are between league differences in playing position by skin tone.

Results

We began these analyses by conducting a descriptive analysis (see Table 1) to outline the basic features of the population. From there the distribution of players across skin tone and playing position were assessed (see Table 2). A t-test was then conducted to examine potential differences in skin tone between central and wide playing positions across the four professional leagues in England (i.e., the Premier League, the Championship, League One, and League Two). The results suggest that, like Melnick (1988) we report a significant difference in the skin tone of players who occupy either a central (i.e., goalkeeper, central defender, defensive midfielder, central midfielder, attacking midfielder, and striker; M = 8.14, SD = 4.69) or peripheral (i.e., right fullback, left fullback, right wing, and left wing; M = 8.80, SD = 4.78) playing position; t(4513) = -4.24, p <.001, d = .14.

[insert table 3 around here]

A One-way ANOVA was then conducted (see Figure 1) to provide a more detailed analysis of how playing position may vary according to skin tone (F(9, 4505) = 31.10, p < .001, partial ω^2 = .06). Tukey post-hoc comparisons demonstrated significant differences in skin tone based on playing position (see Table 3).

[insert figure 1 around here]

A two-way ANOVA was then conducted to explore the effect of skin tone on playing position across the four professional football leagues in England (See Figure 2). Results suggest that there is no statistically significant interaction between skin tone and playing position across

the four leagues. Although the previously identified differences between positions are still observed, they are relatively consistent across the four leagues.

[insert figure 2 around here]

Discussion

The current manuscript compared positional differences by skin tone in the Premier League and English football. By building on the methodological underpinnings of previous investigations (e.g., Melnick, 1988; Norris & Jones, 1998), the results suggest that darker skin toned players still primarily occupy peripheral rather than central positions – albeit via a statistically significant difference, yet tiny effect. As such, our results are in line and consistent with previous literature examining racial stacking (Pitts & Yost, 2012; Stone et al., 1999). The present study also advances the literature by being the first to assess positional differences by skin tone across the population of English professional football. Further, the present study is also the first to demonstrate a detailed analysis of where the imbalances occur and report a medium effect. For example, the results suggest that although darker skin toned players may occupy central roles, lighter skin toned players still dominate the types of positions traditionally associated with organization, communication, and creativity (i.e., central and attacking midfield, and goalkeeper).

The findings also suggest a small effect and relative parity in the distribution of skin tone by playing position across the four professional leagues assessed (i.e., Premier League, Championship, League One, and League Two). Given the financial resources available in the Premier League, it was thought that clubs would purchase the most suitable candidate for the

177 position. However, this fails to consider that, according to Pitts and Yost (2012); the most
178 suitable candidate may also mean the one who best fits the stereotype. As Melnick (1988, p. 126)
179 states:
180
181 > "In the absence of any compelling evidence to support the belief that white and black
182 > soccer players possess certain physical and/or psychological characteristics which make
183 > them better suited for playing particular positions, one must look elsewhere for an
184 > explanation of these findings."
185
186 With this in mind, we consider whether issues such as racial stratification, result in players
187 experiencing such processes upon entering sport; therefore, culturally normalizing the
188 phenomena in childhood (Thomas, Good & Gross, 2015). Further, the lack of exemplars
189 available to counter the stereotypes may also function to perpetuate the cycle. Like Furley and
190 Memmert (2016), we consider whether such stereotypes lead to a self-fulfilling prophecy (cf.
191 Hancock, Adler, & Côté, 2013), whereby two players of the same ability, that only differ in skin
192 tone, may experience different treatment from the coach. For example, players with a darker tone
193 of skin may be offered limited opportunities to play in goal, which may lead to potential talent
194 being overlooked or lost and fewer talented players available to draw from. As our data show,
195 there are outliers who counter the stereotype within the population. However, visibility of such
196 exemplars can undoubtedly be improved. Research examining the processes in which playing
197 positions are allocated should therefore investigate how stereotypes may create barriers to
198 positional access. In order to assure that players of all skin tones have an equal chance to be
199 develop their ability, future research should also examine whether stereotypes around skin tone

affect the selection decisions of youth coaches.

It is worth noting that although issues around racial stereotyping and stratification are inferred within the present manuscript, as an exploration of cross-sectional data, causality is by no means implied. Although we have advanced the literature by conducting a detailed exploration of the present landscape in English football, further analyses of the mechanisms involved are required. Given that many of the processes described are likely to operate at a subconscious level, special attention to better understanding how implicit attitudes and stereotypes are formed, accessed, and acted upon is needed. Further, as the current study focused on English football, the findings warrant cross-cultural comparisons. In order to identify why and how positional differences emerge in sport develop; additional cross-sectional and longitudinal research designs are required. Further, quasi-experimental research examining the malleability of racial stereotypes in sport may also be needed. Given the socially sensitive nature of this topic, the authors encourage the development of an indirect measure, which is capable of assessing stereotypical views while limiting the impact of social desirability bias (Fazio & Olson, 2003).

Finally, although the data presented here suggest that some barriers may be in the process of being broken down, there is much still to be done. As Thomas, Good, and Gross (2015) conclude, we as fans, coaches, scouts, directors, and pundits must do more to recognize when stereotypes are being perpetuated and attempt to fairly evaluate players on their individual merits. Within the present manuscript, we have taken a valuable first step in highlighting the disparities within English football and hope that this will allow others to move forward and begin the process of testing the phenomena we have discussed.

Perspective

The findings presented here demonstrate that those of a lighter skin tone primarily occupy the positions of goalkeeper, central midfielder, and attacking midfielder. In contrast, those of a darker skin tone primarily occupy the positions of winger, defensive midfielder, and striker. Despite vast differences in available resources within the four English professional leagues, skin tone by playing position variance remained relatively stable. Although the empirical evidence of the cause of these effects is unavailable, factors such as the media and a lack of role models are thought to play a role. Resolving such disparity is not without challenge and research can support this effort through identifying the mechanisms and situations where the processes described within this manuscript are activated. Although difficult, this challenge should be met, as with such understanding, players may be evaluated with clearer eyes and afforded equal opportunities to develop.

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Contributions

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

Data collection – TM

Data analysis and interpretation FG / JM

Drafting the article – JM / CI / FG / TM

Critical revision of the article – CI

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

252 **Reference list**

253 Anderson, E. (2010). *The imperative of integration*. Princeton: Princeton University Press.

254 Beilock, S., Rydell, R., & McConnell, A. (2007). Stereotype threat and working memory:
255 Mechanisms, alleviation, and spillover. *Journal of Experimental Psychology, 136*(2), 256-
256 276.

257 Buffington, D., & Fraley, T. (2011). Racetalk and Sport: The Color Consciousness of
258 Contemporary Discourse on Basketball. *Sociological Inquiry, 81*(3), 333-352.

259 Coakley, J. (2010). *Race and Ethnicity in the Sociology of Sport in the United States*. Colorado
260 Springs, CO: University of Colorado.

261 Eastman, T., & Billings, A. (2001). Biased Voices of Sports: Racial and Gender Stereotyping in
262 College Basketball Announcing. *Howard Journal of Communications, 12*(4), 183-201.

263 Eitzen, D. (2016). *Fair and Foul: Beyond the Myths and Paradoxes of Sport* (6th ed.). London:
264 Rowman & Littlefield.

265 Entine, J. (2000). *Taboo: Why Black Athletes Are Better and Why We're Afraid to Talk About It.*
266 New York: Public Affairs.

267 Fazio, R., & Olson, M. (2003). Implicit Measures in Social Cognition Research: Their Meaning
268 and Use. *Annual Review of Psychology, 54*(1), 297-327.

269 Ferrucci, P., Tandoc Jr, E. C., Painter, C. E., & Leshner, G. (2013). A Black and White Game:
270 Racial Stereotypes in Baseball. *Howard Journal of Communications*, *24*(3), 309-325.

271 Ferrucci, P., & Tandoc Jr, E. C. (2017). Race and Deep Ball: Applying stereotypes to NFL
272 Quarterbacks. *International Journal of Sport Communication, 10*(1), 41-57.

273 Finch, I. (Producer). (2016, November 21). Match of the Day [Television broadcast]. Salford,
274 Manchester: British Broadcasting Corporation.

Flore, P. C., & Wicherts, J. M. (2015) Does stereotype threat influence performance of girls in stereotyped domains? A meta-analysis. *Journal of Social Psychology, 53I*(1), 25-44.

Furley, P., & Dicks, M. (2014). "White men can't jump." But can they throw? Social perception in European basketball. *Scandinavian Journal of Medicine and Science in Sports, 24*(5), 857-867.

Hancock, D. J., Adler, A. L., & Côté, J. (2013). A proposed theoretical model to explain relative age effects in sport. *European Journal of Sport Science, 13*, 630–637.

Harpalani, V. (2004). Genetic, Racial and Cultural Determinism in Discourse on Black Athletes: A Critique of Entine's Taboo and Hoberman's Darwin's Athletes. Paper presented at the *annual meeting of the American Sociological Association*, San Francisco, CA.

Koch, A. J., Sackett, P. R., & D'Mello, S. D. (2015). A Meta-Analysis of Gender Stereotypes and Bias in Experimental Simulations of Employment Decision Making. *Journal of Applied Psychology, 100*(1), 128-161.

Larsen, H. (2003). Kenyan dominance in distance running. Comparative Biochemistry and Physiology Part A. *Molecular & Integrative Physiology, 136*(1), 161-170.

Lippmann, W. (1922). *Public Opinion*. New York: Harcourt, Brace.

Melnick, M. (1988). Racial Segregation by Playing Position in the English Football League: Some Preliminary Observations. *Journal of Sport & Social Issues, 12*(2), 122-130.

Mercurio, E., & Filak, V. (2010). Roughing the Passer: The Framing of Black and White Quarterbacks Prior to the NFL Draft. *Howard Journal of Communications, 21*(1), 56-71.

Norris, J., & Jones, R. (1998). Towards a clearer definition and application of the centrality hypothesis in English professional association football. *Journal of Sport Behaviour*, *21*(2), 181-196.

298 Pitts, J., & Yost, D. (2012). Racial Position Segregation in Intercollegiate Football: Do Players
299 become more Racially Segregated as they Transition from High School to College?. *The*
300 *Review of Black Political Economy, 40*(2), 207-230.
301 Rasmussen, R., Esgate, A., & Turner, D. (2005). On Your Marks, Get Stereotyped, Go!: Novice
302 Coaches and Black Stereotypes in Sprinting. *Journal of Sport and Social Issues, 29*(4),
303 426-436.
304 Schmader, T., & Johns, M. (2003). Converging Evidence That Stereotype Threat Reduces
305 Working Memory Capacity. *Journal of Personality and Social Psychology, 85*(3), 440-
306 452.
307 Smith, E., & Leonard II, W. M. (1997). Twenty-Five Years of Stacking Research in Major
308 League Baseball: An Attempt at Explaining This Re-Occurring Phenomenon. *Sociological*
309 *Focus, 30*(4), 321-331.
310 Steele, C. (1997). A threat in the air: How stereotypes shape intellectual identity and
311 performance. *American Psychologist, 52*(6), 613-629.
312 Steele, C., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of
313 African Americans. *Journal of Personality and Social Psychology, 69*(5), 797-811.
314 Stone, J. (2002). Battling Doubt by Avoiding Practice: The Effects of Stereotype Threat on Self-
315 Handicapping in White Athletes. *Personality and Social Psychology Bulletin, 28*(12),
316 1667-1678.
317 Stone, J., Lynch, C., Sjomeling, M., & Darley, J. (1999). Stereotype threat effects on Black and
318 White athletic performance. *Journal of Personality and Social Psychology, 77*(6), 1213-
319 1227.

Thomas, G., Good, J., & Gross, A. (2015). Racial Athletic Stereotype Confirmation in College Football Recruiting. *The Journal of Social Psychology, 155*(3), 238-254.

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	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

324

	Skin Tone																				
Primary Position	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**Total**
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. * $p < .05$, ** $p < .01$, *** $p < .001$

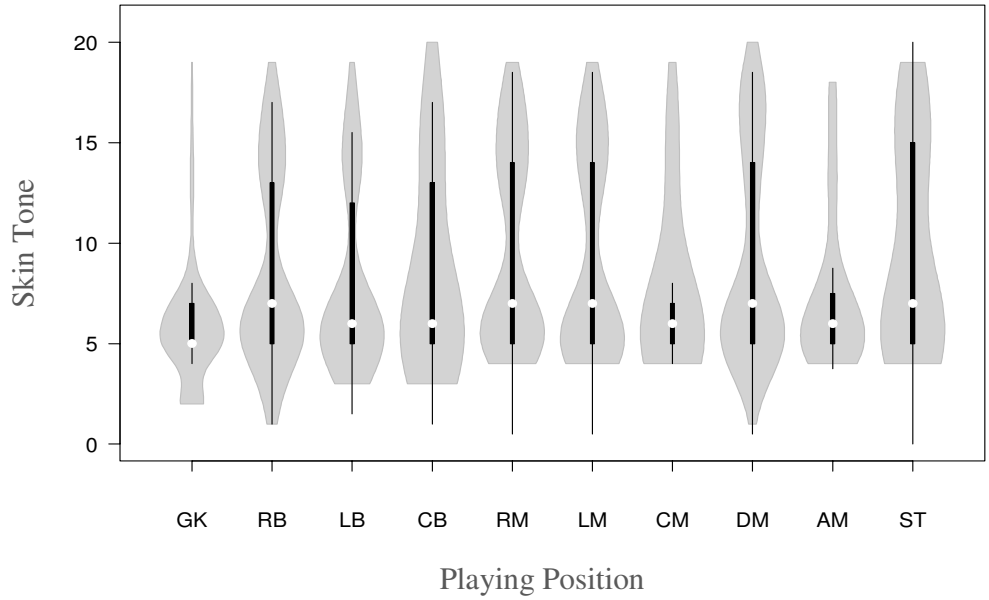

Figure 1. One-way ANOVA (F(9, 4505) = 31.10, $p < .001$, partial $\omega^2 = .06$)

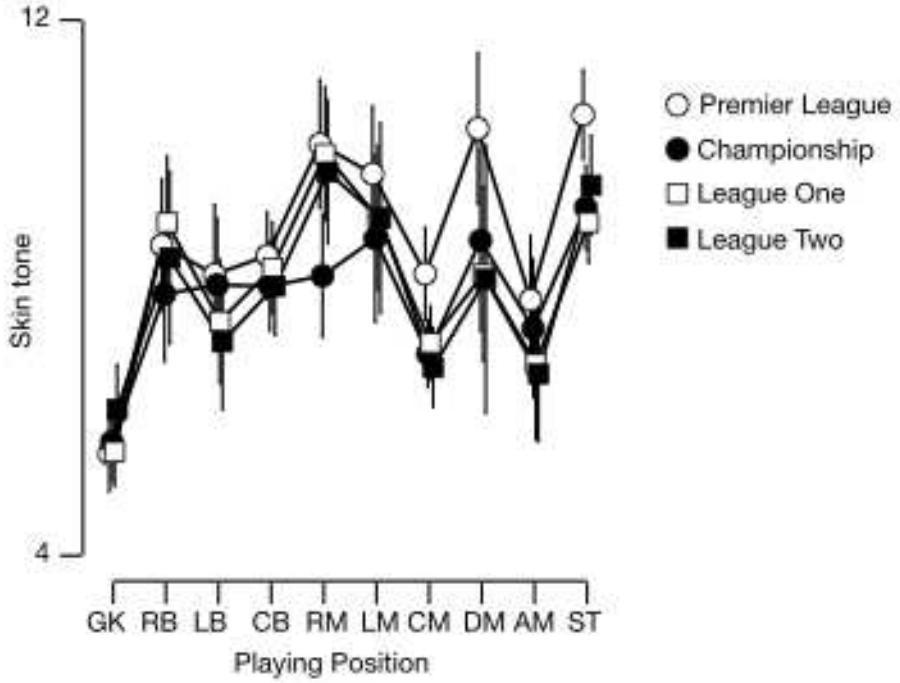

Figure 2. Two-way between groups ANOVA ($F(27, 4480) = 1.04$, $p = .41$, partial $\omega^2 = .01$).