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The Effect of Race on the Evaluation of Quarterbacks

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Abstract

Black quarterbacks have faced stereotypes and biases about their performance for decades. While Black quarterbacks are more common in the NFL nowadays, it is not clear whether their performance is being evaluated without bias. Black quarterbacks are often discussed in ways that emphasize their physical abilities but criticize their mental attributes. This current study sought to investigate the effect of race on quarterback evaluation. Study 1 examined the effect of race on fans' evaluations of quarterbacks; Study 2 looked at the effect of race on evaluations by high school football coaches. Participants completed an online experiment in which they were presented with identical player profiles, except for manipulations of race and perceived athleticism, then were asked to listen to in-game commentary about the player and evaluate his performance. Player race affected the fans' evaluations of quarterbacks, but not coaches' evaluations. Future research would benefit from the use of visual stimuli and samples of participants who work in higher levels of football to increase generalizability of findings.

Keywords: Stereotypes, Quarterback Evaluation, Race, Football, Perceptual Confirmation

Black men have experienced adversity in American sports for decades. In the early 1900s, their struggle was not for success in their sports, but for legitimacy in them (Hughey & Goss, 2015). It took decades to prove that they should not only be allowed to compete with White people, but that they could do so at a high level. In 1908, Jack Johnson made significant strides in dispelling myths of White athletic superiority when he became the first Black heavyweight boxing champion. Immediately after the fight, the public began trying to convince the undefeated heavyweight champion James J. Jeffries to come out of retirement to fight Jack Johnson and to "retrieve the honor of the White race" (Orbach, 2021, p. 178). Jeffries would eventually agree to the fight and said "I am going into this fight for the sole purpose of proving that a white man is better than a Negro" (Remnick, 2003, para 6). On July 4th, 1910, Johnson and Jeffries would compete in the "Fight of the Century" and after 14 rounds and two knockdowns, Jeffries' corner threw in the towel and prevented a knockout. In post-match interviews, Jeffries said "I could never have whipped Johnson at my best" and "I couldn't have hit him. No, I couldn't have reached him in 1,000 years." This fight won Johnson the respect of the sporting community and he was finally viewed as the undisputed champion.

After the fight ended, however, race riots ensued across the nation as White people were outraged and Black people were overjoyed. In Columbus, Ohio, 400 Black Americans held a parade celebrating the victory and throughout the march fighting ensued (United Press International, 1910). In Houston, Texas, *The Democratic Banner* reported, "Charles Williams, a negro fight enthusiast, had his throat slashed from ear to ear on a streetcar by a white man, having announced too vociferously his appreciation of Jack Johnson's victory in Reno" (1910). In New York City, riots ensued within hours of the report that Johnson had won the fight. The

police were called to 11 different riot incidents. One Black man was clubbed to death, over a hundred were injured and many White people were stabbed or shot in self-defense. One Black man was hung on a lamppost and was nearly dead when the police cut him down. Another Black man was pulled out of his car by a mob who would try to hang him, but he was able to hold them off with a stiletto until the police arrived (United Press International, 1910).

In the ensuing decades, Black athletes would continue to make progress in the face of adversity. In 1935, Jesse Owens set five world records in track and went to Germany for the Olympics in 1936. He won 4 gold medals in track and field and his success is viewed as a victory against Adolf Hitler and his master race ideology (Ohio State University, n.d.). Although it is contested as to whether Hitler snubbed Owens' victory or respected it, Owens is quoted as saying "But I tell you, Hitler didn't snub me—it was our president who snubbed me," since President Franklin D. Roosevelt never congratulated the superstar Olympian (Owens, 1936, p. 18). Owens did not gain much commercial popularity from his victory and was forced to take demeaning jobs and continued to deal with the racism in his home country. However, his victory showed that Black athletes could compete on the global stage and would set the scene for future Black athletes to thrive.

In the 1940s, Jackie Robinson broke the color barrier in Major League Baseball. Sports authors Robert Lipsyte and Pete Levine wrote "[Jackie Robinson's debut] represented both the dream and the fear of equal opportunity, and it would change forever the complexion of the game and the attitudes of Americans" (Schwartz, 2003). Despite racist treatment from fans and teammates, Jackie Robinson proved himself a talented player and won the league's Rookie of the Year award—an award for the best newcomer into the league. Two years after entering the league, Robinson would be named the MVP of the National League of the MLB and was the first

Black player to ever win the award. Robinson made crucial contributions off-the-field as a forefather of the Civil Rights movement and he used his influence to speak out against racial discrimination and segregation (PBS Learning Media, 2021).

In 1920, Fritz Pollard and Bobby Marshall broke the color barrier in the National Football League (NFL) and became the league's first Black players. However, the first Black quarterback still would not emerge until 1968 when Marlin Briscoe started for the Denver Broncos. In the 1980s, great progress was made in the position as Warren Moon became one of the league's most prolific passers as a Black quarterback and Doug Williams became the first Black Quarterback to win a Super Bowl. Both Warren Moon and Doug Williams overcame many difficulties in their quest for success in the NFL. Warren Moon played in the Canadian Football League (CFL) for five years and was the league's Most Outstanding Player when he finally left for the NFL in 1984. Moon would go on to become the NFL's highest paid player in 1989 and won the award for Offensive Player of the Year in 1990. Doug Williams, who was the first Black quarterback selected in the first round when the Tampa Bay Buccaneers selected him in 1978, was one of the league's most underpaid players during his tenure. He was paid $120,000 per year. This figure was less than every other starting quarterback in the league and less than 12 backup quarterbacks. Williams entered his negotiations for his next contract asking for an annual salary of $600,000, which was the rate given to the league's best quarterbacks at the time. Tampa Bay offered him $400,000 and refused to budge from that amount. Williams would not re-sign with them and ended up not playing football at all the following season. He then played in the United States Football League (USFL) — a lower level, alternative football league— for two seasons until it was shut down and he found his way back into the NFL (Lieber, 1988). Then,

after the Washington Redskins starting quarterback Jay Schroeder was injured in the season opener, Doug Williams stepped in and led the team to a Super Bowl victory in the 1987 season .

After the success of Moon and Williams, the 1990s saw a great increase in the prevalence of Black quarterbacks in the NFL. The rate of quarterbacks who attempted over 100 passes increased from approximately 5% Black quarterbacks in the 1980s to 24% Black quarterbacks in 1999. In addition to Doug Williams and Warren Moon's success, Randall Cunningham, nicknamed "The Ultimate Weapon" and "Plastic Man" for his remarkable movement ability, emerged as a remarkable dual-threat quarterback. Despite his performance as one of the best quarterbacks of his generation, a dominant theory persisted that running quarterbacks could never win a Super Bowl and were merely gimmicks; references to "black brawn" and "white brains" persisted (Hughey & Goss, 2015, p.183). After Cunningham, however, more Black quarterbacks did indeed emerge as dual-threat stars.

Michael Vick, a transcendent talent from Virginia Tech and still the fastest quarterback in NFL history, was the first pick of the 2001 NFL Draft. Vick, like Cunningham before him, would shock and awe the league with his elusiveness and rushing ability, but playoff success evaded him as well and he finished his career with only two playoff victories (and mired in other controversies).

In the 2000s, about 25% of the NFL's quarterbacks who attempted 100 passes were Black (Berri & Simmons, 2009). The league also had Black elite quarterbacks with varying skill sets. Michael Vick, Donavan McNabb, Daunte Caulpepper and Steven "Air McNair" McNair were all recognized as some of the best quarterbacks of the decade and helped lead to the ensuing era of quarterback play that would fundamentally change how the position was viewed (Fedkiw, 2017).

In the 2010s, Cam Newton and Robert Griffin III (known as RGIII) were key players in

changing the perception of quarterback play in football. Both were Heisman trophy winners in college[1]. Newton was selected by the Carolina Panthers in 2011 as the first pick of the draft and RGIII was selected by the Washington Redskins second overall in the 2012 NFL Draft. The Redskins also traded three first round selections and a second round selection to acquire the second overall pick to select RGIII.

Both of these players were major investments for their respective franchises and their coaching staffs innovated around their dual-threat abilities. Cam Newton's large build and impressive athletic ability at 6'5", 245 pounds meant the Panthers could use him as a running threat through the middle of defenses. RGIII, while not big like Newton, was the league's fastest quarterback since Michael Vick and the Redskins offense schemed to use this ability to get him in space on the edge of plays. Both players specialized in a popular college play called "Read Option," in which the quarterback reads an unblocked defender and has the option to hand the ball off or keep it and run it themselves. Additionally, on pass plays, both players could improvise when their offensive line failed to protect them or wide receivers failed to get open. This addition of dynamic rushing ability would prove to be a headache for defenses and their coaching staffs' willingness to embrace this changed how many perceived the quarterback position. Cam Newton won the award for Offensive Rookie of the Year in 2011 and RGIII won the award in 2012. Neither player won the Super Bowl and struggled to find consistent success with their teams over their careers, but their impact on the game would be seen in the years to come. NFL teams began embracing quarterbacks for their rushing ability and the ability to create outside the structure of a play call would begin to be seen as a necessity for quarterback prospects (Brooks & Jeremiah, 2021).

[1] The Heisman trophy is awarded annually to the most outstanding player in college football. It is akin to an MVP trophy.

In 2021, four of the NFL's five highest paid players were Black quarterbacks and in 2020 a record was set as 10 of the 32 starting NFL QBs in Week 1 were Black (Cluff, 2021; Young, 2020). Despite the great growth in diversity at the position, Black quarterbacks still deal with stereotypes and prejudices. An analysis of NFL Draft coverage media found that Black quarterbacks were primarily described in ways that emphasized their physical abilities and criticized their mental abilities. White quarterbacks were more often described as less physically gifted, but as having greater mental preparation for games and less likely to make mental errors (Mercurio & Filak, 2010). Popular television personality and journalist Stephen A. Smith was even guilty of this as he said Ohio State quarterback Dwayne Haskins was "more of a runner than a thrower," associating Haskins with the common stereotype of Black quarterbacks as someone who is athletic but lacks the intelligence to read a defense. In his career at Ohio State, Haskins had 5,396 passing yards and 194 rushing yards, which means over 96% of his production came from reading defenses and throwing the ball. Stephen A. Smith himself is Black and he still made this racially biased comment.

In his book, *The Nature of Prejudice* (1954, p. 191), Gordon Allport defined stereotypes as "an exaggerated belief associated with a category," arguing that stereotypes can be positive or negative and serve as a fixed representation for individuals' view of a group. Additionally, stereotypes do not have to be logically sound beliefs. People can hold stereotypes about groups that inherently contradict each other. For example, one classic study found that Jews were not only resented by White Americans[2] for "maintaining their social standards" and "resisting the American way of life", but also for "hiding their Jewishness" and "imitating Christian manners and customs" (Adorno et al., 1950; Allport, 1954, p. 191). These are two very conflicting

[2] The sample for this study could be identified as white, non-Jewish, native-born, middle-class Americans according to Brown (2004)

stereotypes. One claims they are too adherent to their ethnic traditions and the other claims that they are too eager to abandon their ethnic traditions. Despite the contradiction, this relationship between White Americans' perception of Jewish people's "seclusiveness" and "intrusiveness" was found to be correlated at $r = 0.74$, meaning that people who accused Jews of being too secluded were also likely to accuse them of being too intrusive (Adorno et al., 1950).

However, just because stereotypes are not logical does not mean they do not affect people. Hamilton and Sherman (1994) argued that stereotypes act as expectations for interactions between individuals. They claim that when information about each other is left ambiguous, people will resort to stereotyping to create the expectation of their interaction. Hamilton and Sherman. discussed an example of a fight involving a Latino man in which stereotypes about his ethnicity led people to believe that he was more the aggressor in the fight than White men who perform the same action. This shows that in addition to creating expectations, when stereotypes are activated, they can affect the perceiver's interpretation of an out-group member's behavior.

In 1976, Birt Duncan studied the effect of race on a perceiver's threshold for what they would consider violent action in a sample of White undergraduate males. Duncan used confederate actors to stage scenarios of two people having a heated interaction that leads to an "ambiguous shove." Duncan found that people were more likely to perceive this act as violent when it was performed by a Black man than a White man. The study's results showed that White subjects' perceptual threshold for what behavior they considered to be violent to be on the following descending continuum: (protagonist-victim) Black-White, Black-Black, White-Black and White-White. When they performed the same shoving action in the same context, Black protagonist actors were perceived by White people to be more aggressive than White protagonist

actors. Duncan also found that people's attributions to the shover were more person-based when the shover was Black and more situation-based when the shover was White.

Sagar and Schofield (1980) followed up Duncan's study with one that examined how 6th grade children would view a similar situation. Sagar and Schofield built on Duncan's work as they attempted to address concerns about the consistency of the stimuli across participants and the all White sample. To address these concerns, they used artistic drawing and verbal descriptions to present the situation to the children and had equal numbers of White and Black children in their sample— 40 White children and 40 Black children. Using this new paradigm, Sagar and Schofield also found that young people perceived Black actors as more mean and threatening, regardless of whether the perceiver was Black or White.

Patricia Devine (1989) studied the effect of prejudice on stereotype beliefs and found that people with low and high levels of prejudice can quite consistently have similar stereotypical beliefs. Devine suggests that stereotypes are an automatic response and that low-prejudice people have controlled inhibitions of prejudice (and high-prejudice people do not). In one study, Devine's research showed that prejudice had little to no effect on participants' direct reports of stereotype content (Devine, 1989). She also found that both low- and high-prejudiced people will produce stereotyped content responses (otherwise thought of as "prejudice-like responses") when their ability to to monitor stereotype activation was prevented (Devine, 1989). When people's racial categories are activated, individuals' responses will include more stereotyped beliefs. While many may think that because they are not particularly prejudiced they do not have such biased beliefs, Devine's studies show that less prejudice does not preclude one from holding stereotyped beliefs. It may just be greater cognitive effort to spurn these beliefs. However, they are still present and can be activated in a variety of situations. Regardless of prejudice, when

one's group stereotype is activated or stereotyped beliefs about their group are activated, people will cling onto stereotype information when ambiguity exists about this person.

In one experiment of activation and application of stereotypes, Gilbert and Hixon (1991) split subjects into busy and non-busy groups and viewed the effect of busy-ness on their stereotype activation. The busy subjects were asked to rehearse an eight-digit number while completing their task and the non-busy subjects were asked to focus on the task. The task involved completing fragmented words, five of which could be completed as common Asian American stereotypes or as other common words (such as RI_E, which could be completed as RIPE or RICE). When the word fragments were presented by an Asian American individual, they found that busy subjects did not show evidence of stereotype activation, but that the non-busy subjects did. They followed up this study with a similar one to assess stereotype application. In their second experiment, Gilbert and Hixon introduced an "application phase" after the activation of stereotypes from the first experimental procedure. The application phase involved subjects listening to an assistant (who was either White or Asian) narrate a series of mundane events in their life and then rating the assistant on traits related to Asian American stereotypes. They found that when stereotype activation occurred, the busy subjects were more likely to apply stereotypes than the non-busy subjects. These studies found that "cognitive busyness" can prevent stereotype activation, but it can also strengthen the effect of stereotypes when stereotypes are activated. This work builds upon Devine's by showing the complexity in stereotype activation, seeing that a concept such as busyness (including watching a football game) can both prevent and enhance stereotype activation.

Race has always been important in the NFL, as seen in the history of the quarterback position reviewed earlier. Beyond the league's inclusion and perception of quarterbacks, there are

other systemic issues in the NFL that permeate the discussion about quarterbacks and race. Most notably, the NFL has still never had a Black team owner nor a Black commissioner. The league's decision makers have predominantly been White and this affects many of the staff positions of the organizations. Black head coaches, general managers and team presidents have often been underrepresented in the league. This context is critical for understanding how quarterbacks are given an opportunity in the NFL and why certain issues and fallacies about quarterback performance could still exist today.

Farnell et al. (2021) examined the relationship between race and coaching positions in the NFL. Their dataset was unique due its inclusion of coordinators, as previous analyses focused almost exclusively on head coaches. Each NFL team has two coordinators, one offensive and one defensive. Each coordinator is responsible for their respective side's performance. This position is seen as a stepping stone to a job as an NFL head coach, which entails far more notoriety and ability over team management. Farnell et al. did not find evidence that race currently plays a role in promotions or firings, but this was not always true.

The NFL adopted the Rooney Rule in 2003, which mandated NFL teams to interview a Black candidate before hiring their head coach. Prior to the implementation of this rule, when Black head coaches were hired, they consistently performed better than White head coaches. Madden (2004) found that, when controlling for differences in team quality, Black head coaches had greater regular season success than White head coaches and also made the playoffs at a higher rate[3]. This suggests that Black head coaches were held to a higher standard than White head coaches, meaning Black head coaches had to perform better as coordinators and candidates to be hired, that they were more likely to be fired for subpar performance levels, or a combination of bias in both the hiring and the firing process. A 2011 follow-up study found that,

[3] This study analyzed data from 1990 to 2002; the Rooney Rule was implemented in 2003

after implementation of the Rooney Rule, there was no longer a considerable performance gap and that Black head coaches were being hired at a similar rate to White head coaches. Farnell et al. (2021) also found that performance of White and Black head coaches equalized after the implementation of the Rooney Rule. Additionally, they found that coordinator performance tended to be statistically similar both before and after the Rooney Rule, which implies that teams have always been able to hire from skilled coordinators and that the rule helped Black coordinators get more jobs as head coach. While these findings may be positive news, they are a notably recent development in the NFL and the effects of greater diversity at the head coach position can take time to affect the perception of players.

These findings are also not conclusive proof of ideal treatment by NFL owners of Black head coaches. In February, 2022, former Miami Dolphins head coach Brian Flores sued the NFL and three of its teams— the Miami Dolphins, Denver Broncos and New York Giants— under allegations of incentivizing losses, improperly recruiting players and, most infamously, sham interviews. Flores believed his interviews with the New York Giants and Denver Broncos were only done to comply with the Rooney Rule. As evidence for this belief, Flores notes that prior to his interview with the New York Giants, he received a text from his former boss, Bill Belichick, congratulating him on getting the position. Flores told Belichick that he had not yet interviewed and Belichick said he meant to text Brian Daboll, who is White.

While it is commonly accepted that head coaches impact the development of players, the effect of players on the development of coaches is far less discussed. All head coaches were once players and playing certain positions as a player can be more conducive to eventually becoming a head coach. For example, due to the great mental responsibility of the position, playing quarterback translates very well to becoming a head coach. Quarterbacks are responsible for

knowing their offensive line's protection responsibilities, their receivers' route patterns and knowledge of the opposing defense's positioning and strategy to ensure they make correct decisions. This great mental burden helps develop skills that are very transferable to coaching. Unfortunately, as seen earlier, Black men have been historically underrepresented at this position in the NFL, which can now in turn affect their abilities to become head coaches.

One proposed explanation of this issue is the theory of centrality, which states that non-minorities are drawn towards positions of greater power and influence, including in sports (Grusky, 1963; Latimer & Mathes, 1985). These positions would be central playing positions in which a player interacts more with other players. Evidence in baseball found that players who play central positions—such as center fielder, shortstop, second baseman and pitcher— are more likely to become team managers than those who play non-central positions, like first and third baseman (Grusky, 1963). In football, there are very few Black coaches, most of whom played primarily in peripheral positions—Running Back and Defensive Back— and least often played central positions— Quarterback, Center, Guard (Latimer & Mathes, 1985). A potential explanation for the underrepresentation of Black football coaches could be their lack of experience playing central positions. Additionally, Pitts and Yost (2013) found that football players are stacked into positions by race as they transition from high school to college and that this stacking during a key period leads to an abundance of White quarterbacks, which is a central playing position. This indicates a potentially cyclical nature between representation in coaching and representation in central positions. Black head coaches can help Black players succeed in central positions, but Black players need to play central positions to become Black head coaches. Other biases may also be at play. For example, 20% of defensive coordinators are Black while only 10% of Offensive Coordinators are Black[4] (Farnell et al., 2021).

[4] This data is based on NFL coaches from 1989-2020

In addition to evidence of discrimination against Black head coaches, there is an increasing body of work on player discrimination in the NFL as well. Lawrence Kahn (1992) analyzed data on 1,363 NFL players from the 1989 season and found that the compensation levels of White and non-White players is positively correlated with the racial distribution of the metropolitan area in which their team is based. This means that in predominantly White metropolitan areas, White players received greater compensation and in non-White areas, non-White players received greater compensation. This is evidence of customer discriminiation, in which fans' preferences about the racial identity of their players affects the employer's decision on their players' salaries. This analysis also found that in the 1989 season, White players benefited from an approximate 4% increase in compensation relative to non-White players, but this difference was not statistically significant.

Berri and Simmons (2009) produced an economic analysis of the relationship between race and the evaluation of quarterbacks in the NFL[5]. In an analysis of data from 1995 to 2006, they found that Black quarterbacks were more likely to run with the football and produce rushing yards. However, NFL quarterbacks were not compensated for this skill in the market, which means that many Black quarterbacks had uncompensated productivity that their White peers did not have. Berri and Simmons also found evidence that Black quarterbacks faced discrimination for their passing contributions in the top half of the salary distribution. Their results showed that as a Black quarterback's passing yards increased, his expected level of compensation relative to his White counterparts would decrease. They discuss Donovan McNabb who was in the top decile of the salary distribution. If McNabb threw for 2,000 yards, his expected compensation would be 72% of what a White quarterback would receive; if McNabb threw for 3,000 yards, his expected compensation would be 61% of what a White quarterback would receive. These

[5] Berri and Simmons use players' financial compensation as a proxy measure for NFL teams' player evaluations.

findings imply that Black quarterbacks face employer discrimination in dismissal of their rushing productivity and discounting of their passing productivity at high levels.

In addition to analysis of employer discrimination in quarterbacks' salaries, there is also evidence of playing time discrimination. Brian Volz (2017) examined NFL data from 2001 to 2009 and found that when controlling for factors such as age, injury, and team investment, Black starting quarterbacks were 1.98 to 2.46 times as likely as their White counterparts to be benched the next game. Similar to Lawrence Kahn's findings (1992), Volz found limited evidence that Black quarterbacks faced more salary discrimination in metropolitan areas with relatively White populations. And in findings similar to those of discrimination against coaches, Volz found that there is a cost to the discrimination Black quarterbacks face. When White quarterbacks were benched, teams tended to perform better than when Black quarterbacks were benched. This indicates there is a cost to this discrimination against Black quarterbacks since teams are punished with inferior performance at their most important position.

Volz points out that in a perfectly competitive market, we could expect this discrimination to dissipate due to the cost it bears, but the NFL is not a competetive labor market. With only 32 employers and a predominantly White ownership, discrepancies in pay and playing time may continue to persist unless otherwise provoked to change in the market.

While Volz focused on playing time and salary discrimination, Ducking et al. (2013) examined evidence of exit discrimination[6] in the NFL. Previous research had shown that teams with a majority of White fans supported owners in keeping lower performing White players on the team (Ducking et al., 2013). However, Ducking et al. (2013) found that from 2000 to 2008 there was no evidence of exit discrimination against six position groups in the NFL. Although

[6] Exit discrimination occurrs when a player is involuntarily dismissed from an organization because of their characteristics and not their performance

quarterback was not one of the analyzed position groups, this shows the potential for discrimination to be counteracted and overcome in the NFL. It is not clear whether the discrimination was resolved by a change in fan preferences or team owner preferences, but Ducking et al. (2013, p. 16) note "the pursuit of championships" as a key motivator against discrimination.

Even if NFL teams are motivated to pursue championships, their decision makers may still be prone to biased decision making. There have been numerous factors related to racism, bias, and discrimination in and beyond the NFL that have made it difficult for Black quarterbacks to succeed in the league and have also enforced stereotypes about Black quarterbacks' playstyle.

Studies have shown that declines in the use of negative stereotypes about Black Americans have coincided with an increase in uniformity of stereotypes and that these stereotypes tend to be considered favorable (Karlins et al., 1969). Stereotypes that reflect positive traits can still negatively affect individuals (Inzlicht & Ben-Zeev, 2000). In the context of athletics, it has been found that when individuals are accounting for racial differences in performance in sports, they view natural physical ability and intellectual ability as mutually exclusive (Edwards, 1973; Stone et al., 1999). One study found that undergraduate students were more likely to perceive Black Americans as more athletic than White Americans (Biernat & Manis, 1994)l; another study asked participants to read a category label (e.g., "black athlete" or "white athlete") and to list the characteristics they believed fit the group. They found that participants more consistently described black athletes as "unintelligent" (Devine & Baker, 1991). There are also differences in how different racial groups perceive racial stereotypes. A study by Sailes (1993) found Black participants were more likely to rate White college athletes

as less athletic than Black athletes and White participants were more likely to rate Black participants as less intelligent and less academically prepared than White athletes.

One key factor that influences people's perception of quarterbacks is media coverage. Even if coaches and administrators are well trained in purely focusing on a player's football abilities, media coverage can still sway fan opinions and change the public perception of players. Mercurio and Filak (2010) examined 10 years of NFL draft coverage and found consistencies between media coverage and the stereotypes of Black and White quarterbacks. Black quarterbacks were described in ways that emphasized their physical abilities and "lack of mental prowess"; White quarterbacks were described as less physically gifted, but with better mental preparation and as less likely to make mental errors. The media may not have been wrong in these assessments. As earlier data showed about the rushing abilities of Black NFL quarterbacks, these NFL draft prospects may have been more athletic. Perhaps the White quarterbacks also placed a greater emphasis on their mental preparation during this time period, but Mercurio and Filak point out that the media can still describe these players with racially coded language. They found a common phrase used by *Sports Illustrated* to describe Black quarterbacks was "an athlete playing quarterback" and similarly able White quarterbacks would be described as an "athletic quarterback." Furthermore, this kind of framing could affect how fans view players' performances. If a Black quarterback throws an interception, the audience would be more likely to blame his intelligence and call it a "dumb play." If a White quarterback performed the same action, they would be more inclined to blame it on his lack of physical ability and say "he just under-threw the receiver" (Mercurio & Filak, 2010, p. 68).

While Mercurio and Filak's study focused on the media's assessment of NFL prospects, a study by Murrell and Curtis (1994) looked at media attributions to six quarterbacks (three Black,

three White) and performed content analyses for the following dimensions: locus (i.e., internal vs. external), stability and controllability. They found that the media described Black quarterback performance as driven by internal, stable and uncontrollable factors, which implies their natural gifts are the reason for their success, and White quarterback performance as driven by internal, unstable and controllable factors, implying their success is due to hard work. Their results also suggest that the media not only reports on performances, but also projects images and evaluations that try to fit into existing schemas and stereotypes about players' performance—such as a Black quarterback who displays great leadership skills being individuated as an exception from his group. Rather than accommodating their expectations for Black quarterbacks, Murrell and Curtis found that sports journalists would more likely separate a Black quarterback to be assessed as an individual.

Racialized stereotypes permeate other sports as well. Baseball and basketball are often accused of relying on stereotypes about Black athleticism and White intellect. Ferrucci et al. (2013) assessed people's stereotypes about Black and White baseball players using a photo and description method. They found that Black players were rated as significantly higher in physical strength and natural ability than White and Latino players, but they did not find that White players were rated as higher in leadership and intelligence. Ferucci et al. replicated their study and once again found evidence that Black players were rated significantly higher than other players in physical strength and natural ability, but they did not find any evidence of stereotypes for White and Latino players.

Following up on their study of racialized stereotypes in baseball, Ferucci and Tandoc (2018) tested people's application of racial stereotypes of quarterbacks using photos and descriptions; their study found evidence to support people's application of stereotypes to both

White and Black quarterbacks. They found that Black quarterbacks were more often perceived as physically strong and naturally gifted while White quarterbacks were perceived as more intelligent and better leaders. What was particularly noteworthy about their findings was that they found that Black individuals had significantly greater stereotypical beliefs about quarterbacks than White individuals. Other research has shown that when a stereotype becomes prevalent, even the in-group will begin to internalize it (Hilton & Von Hippel, 1996). This can lead Black quarterbacks to believe that they are too athletic or not intelligent enough for the position and further amplify the stereotypes they face[7]. Although this study does highlight the stereotypes people hold about race, there is a more critical question into how they evaluate actual performance.

While many studies have found evidence of stereotypes in sports, there is not much evidence about how these stereotypes affect our evaluations of players. People may have stereotyped beliefs that they apply in situations where information is somewhat ambiguous (such as photographs and descriptions), but how do people apply these stereotypes when attempting to assess a player's performance in an actual game situation? Stone et al. (1999) examined people's perceptual confirmations of racial stereotypes of basketball players. Their study employed a 2x2 design with independent variables of player race (Black or White) and player's perceived athleticism (perceivably athletic or unathletic). They manipulated these variables by presenting participants with different player headshots on identical player profiles. After familiarizing themselves with the player profile (and the respective player headshot), participants were asked

[7] During a press conference at the NFL Scouting Combine, former Heisman Trophy winner and future NFL MVP Lamar Jackson was pressed by reporters questioning his intentions to play quarterback and inquiring about his openness to playing other positions, showing that even successful Black quarterbacks can face this adversity. The full clip is linked here.

to listen to twenty minutes of commentary that described a not well known college basketball player's performance.

After listening to the commentary, participants were asked to complete a survey about the player's performance, which included factors of athletic ability, personal performance and contribution to team success. Stone et al. found that Black players were rated as exhibiting greater athletic ability and having played a better game while White players were rated as exhibiting greater basketball intelligence and hustle. This evidence supports the idea that racial stereotypes affect the evaluation of players in sports.

There is significant literature on the biases and prejudices Black quarterbacks face in football, but research has not looked into whether these stereotypes actually affect evaluations. Previous research has looked into media analysis of NFL players and offered economic analysis of discrimination, but it is not clear whether these biases are simply representative of how quarterbacks play once they enter the NFL or if they actually affect how people view quarterbacks' performances. Using a similar perceptual confirmation design as Stone et al. (1999), the current studies aim to explore whether or not racial stereotypes about quarterback performance affect the evaluation of quarterbacks. Study 1 extends Stone et al. into the domain of football, using casual football fans as participants. I predict that casual fans will perceive Black quarterbacks to be athletically superior and perceive White quarterbacks as superior in technical and mental abilities in both perceivably unathletic and athletic quarterbacks. This study employs a similar perceptual confirmation paradigm to Stone et al. by using player profiles, audio commentary and both subjective evaluations and statistical predictions in the questionnaire. Measures such as physical ability and rushing yards represent greater athleticism, while quarterback ability and football IQ represent greater technical and mental ability.

Study 1

Method

Participants

This study collected data from 69 participants. Participants were given an attention check at the end of the survey (asking them to identify the final play in the commentary they listened to) and only those who passed the attention check were included in the survey results. Forty-five participants successfully completed the attention check and the survey. Participants were either recruited via email or social media posts asking "football fans" to participate in the survey. They received no compensation for their participation. Forty-two participants identified as male, and three as female. Thirty-six participants were White and nine were non-White. Most participants were between the ages of 18 and 23 with an average age of 23.6. This sample's fan demographics indicated a high level of familiarity with football. Over 90% had seen 8+ football games in the past year and described themselves as a "football fan." Eighty-four percent identified as very or extremely familiar with football.

Design

This study used a 2 (target race) x 2 (perceived athleticism) experimental design. The outcome variable was quarterback evaluation. Race and perceived athleticism were manipulated by presenting participants with an identical quarterback profile with one of four player photos.

Materials

Quarterback Profile Photos. A pilot study was conducted to identify football player headshots with appropriate levels of perceived athleticism for the quarterback profiles. Forty participants from Macalester College rated the athleticism of either four Black athletes or four White athletes on a scale of one to nine. Based on the responses, four headshots were selected (see Appendix

A): a perceivably athletic (M=5.65, SD=1.68) White player, a perceivably athletic (M=6.63, SD=0.98) Black player, a perceivably unathletic (M=3.55, SD=1.28) White player and a perceivably unathletic (M=4.32, SD=1.30) White player.

Football Commentary. The game commentary was taken from a 2018 NFL game between the Washington D.C. Redskins and the Tennessee Titans and features Josh Johnson as the quarterback. Johnson was a journeyman NFL quarterback who had been rostered by many teams, but had never been a consistent starter. Thus, it's very rare that football fans are able to recognize a Josh Johnson performance.

This game took place in Week 16 of the NFL season and both teams were fighting for a playoff opportunity. Johnson delivered a respectable performance, completing 13 of 23 passes for 153 yards and a touchdown, but unfortunately throwing two interceptions. Johnson also provided 4 rushes for 22 yards in the game.

There was approximately one hour of commentary about the Redskins' offense. After cutting out commentary about other players and uneventful drives, about 20 minutes of commentary remained. From this, five drives were selected and scrubbed for details to be included in the final cut of the commentary. The scrubbed details included any potential identifying information about the game, such as the team names and the names of notable players.

The final nine-minute commentary featured three main speakers: Curt Menefee, Nate Burleson and Steve Mariucci. Menefee was the play-by-play commentator and provided an objective description of events. Burleson was a former NFL player and Mariccui was a former NFL head coach. Menefee and Burleson are Black; Mariucci is White. They provided their

respective insights into players' performance and were featured throughout the commentary for their description of Johnson's performance.

Quarterback Evaluation. The evaluation criteria were based on a study by Stone et al. (1999) and adapted for football quarterback relevance. The quarterback subjective evaluation criteria fell into two main categories, stereotypes associated with Black players and stereotypes associated with White players. The Black stereotyped measures were physical ability, rushing performance ($\alpha = .68$). The White stereotyped measures were football ability, passing performance, football IQ and grit ($\alpha = .82$). Participants were asked to rate Johnson's performance on a scale of one (poor) to nine (excellent) on these measures.

The quarterback objective evaluation criteria asked participants to estimate how many passing yards (range = 0 to 300) and rushing yards (range = 0 to 100) Johnson gained in his performance in the game and what his passer rating was (range = 0 to 158.3).

Procedure

All participants received a link to the survey and completed the survey on Qualtrics. Participants were presented with a consent form and offered the option to agree. Once they agreed, the rest of the survey ensued. Participants were randomly assigned to one of the four quarterback profiles. Participants were introduced to their quarterback profile and presented with a 9-minute audio recording of commentary from a Week 16 2018 NFL game, featuring journeyman quarterback Josh Johnson who was referred to only as "Johnson" throughout the commentary. After listening to the recording, participants were asked to evaluate Johnson's performance. Upon completion of the evaluation, participants completed a brief demographic questionnaire that asked their gender, race, age, and experience watching football. The attention check was the final question. After completing all measures, participants were thanked for their

participation and presented with a debriefing form that told them about the manipulation that occurred and about the study's purpose.

Results

Preliminary inspection of the data revealed that participant gender, age, self-reports of being a football fan and familiarity with football did not correlate significantly with the target ratings. As a result, the participant variables were dropped from any further analyses. The experimental data were analyzed using a general linear model (GLM) method in which player race and athleticism were predictor variables and measures of White quarterback stereotypes, Black quarterback stereotypes, and statistical predictions were separate outcome variables.

A race (Black vs. White) x perceived athleticism (athletic vs. unathletic) two-way analysis of variance on the stereotype measures found that perceived player athleticism had a statistically significant effect on ratings of Black player stereotypes ($F(1, 44) = 5.66$, $p < 0.05$). Figure 1 illustrates that players who appeared as more athletic were rated higher on characteristics stereotypically associated with Black players. Additionally, there was a statistically significant interaction between race and Black player stereotypes ($F(1, 44) = 11.74$, $p < 0.01$), indicating that a player's race affected fans' evaluations of Black stereotyped quarterback performance measures. Figure 1 also illustrates that Black players were rated significantly higher on Black stereotype performance measures than white players.

The GLM found no significant effect of athleticism or race on White player stereotypes. There were also no significant interactions between race and athleticism on subjective player ratings.

Table 1

GLM results of Subjective Measures for Fan Participants who Passed Attention Check

Factor	Measure	Mean Square	F	*p*-value	Partial eta squared
Athleticism	White player stereotype	.036	.04	0.14	.00
	Black player stereotype	5.761	5.66	0.02	.12
Race	White player stereotype	2.146	2.30	0.14	.05
	Black player stereotype	11.954	11.74	0.001	.22
Athleticism x Race	White player stereotype	.006	.01	0.93	.00
	Black player stereotype	.169	.17	0.69	.00

In addition to the GLM analysis for the subjective measures, a GLM analysis of race (Black vs. White) x perceived athleticism (athletic vs. unathletic) GLM on the statistical measures found that there were no statistically significant effects of athleticism or race on any of the statistical measures. However, there was a trend towards athleticism ($F(1, 44) = 2.884$, $p < 0.1$) and race $F(1, 44) = 3.409$, $p < 0.1$) being associated with higher statistical predictions for rushing yards, which is a Black stereotyped measure (seen in Figure 2). That means that, consistent with findings related to the subjective measures, we find some evidence in support of athleticism and race predicting higher ratings on measures stereotypically associated with Black players and no significant evidence of their predictions on White stereotyped measures.

There was a significant interaction of race and athleticism on passing yards, $F(1, 44) = 10.635$, $p < 0.01$). The interaction shows that, among White quarterbacks, the perceivably athletic quarterback was predicted to have more passing yards than the unathletic quarterback . Among Black quarterbacks, the unathletic quarterback was predicted to have more passing yards (seen in Figure 3).

Table 2

GLM results of Statistical Measures for Fan Participants who Passed Attention Check

Factor	Measure	Mean Square	F	*p*-value	Partial eta squared
Athleticism	Passing Yards	11.435	.12	.913	.000
	Passer Rating	27.997	.59	.810	.001
	Rushing Yards	1070.459	2.884	.097	.066
Race	Passing Yards	1381.149	1.469	.232	.035
	Passer Rating	958.399	2.013	.163	.047
	Rushing Yards	1265.283	3.409	.072	.077
Athleticism x Race	Passing Yards	9999.153	10.635	.002	.206
	Passer	287.177	.603	.442	.014

Rating				
Rushing Yards	31.310	.084	.773	.002

Discussion

The results of the GLM analysis support the hypothesis that racialized stereotypes about Black quarterbacks affect fans' evaluations of quarterback performances. These stereotypes are based on perceptions of greater athleticism among Black players, which is reflected in higher ratings in the subjective measures of physical ability and rushing performance and also the objective measure of rushing yards. This is additionally supported by the findings of trends in Black players being perceived as producing more rushing yards, which is also a Black stereotyped measure.

Although there is strong evidence to suggest that fans' evaluations of quarterback are influenced by Black player stereotypes, there was not any evidence to support the hypothesis that White player stereotypes influence quarterback evaluations. Neither target race nor target perceived athleticism had a significant relationship with White stereotyped measures. Study 2 was intended to replicate Study 1 in a sample of football professionals.

It is not clear whether coaches would have a greater internalization of these stereotypes due to constant exposure to them or whether being exposed to more individuating information about players helps decrease stereotyping. Research by Thomas et al. (2015) also experimentally manipulated race by presenting participants with different player profiles, and they found that Division I FCS[8] coaches rated Black running back recruits as subjectively better than their White

[8] There are two levels of Division 1 football, the Football Bowl Subdivision and the Football Championship Subdivision. The key difference is that FBS teams can offer full scholarships to 85 players and FCS teams can offer equivalent aid of 63 full scholarships.

counterparts, despite maintaining similar evaluations of their objective statistical performance. This study's findings show that even in highly competitive industries, such as the Division I FCS recruiting market, coaches can still be influenced racial stereotypes in their evaluations of players.

There is also evidence that individuating information can decrease or even eliminate stereotype bias (Rubinstein et al., 2018). This research implies that, due to their constant interactions with their players, football coaches would rely on individuating information more so than stereotypes to guide their evaluations. Essentially, football coaches are in an environment in which they are constantly exposed to stereotypes about Black players and they also interact with players on an individual basis all the time. Thus, Study 2 explored these two conflicting theories about the effect of race on coaches' evaluations of quarterbacks.

Study 2

Method

Participants

This study collected data from 170 participants. Participants were given an attention check at the end of the survey (asking them to identify the final play in the commentary they listened to) and only those who passed the attention check were included in the analyses. Eighty-two participants successfully completed the attention check. Participants' emails were collected from a Macalester Football football email list that contained publicly available information of approximately 5,000 high school coaches' emails. All of the listed coaches were contacted about participating in the survey. Participants were recruited via email to participate in the survey and the subject line was entitled "College Quarterback Survey". Participants received no compensation for their participation. All participants in the study identified as male. Sixty

nine participants were White and 13 were non-White. Participants ranged between the ages of 22 and 66 with an average age of 44.43. This sample had a high level of experience in football as over 85% indicated they had 10+ seasons of experience in football, with average experience of 21.61 years and a range of 3 to 45 years, and all participants currently work in football.

Design

This study used a 2 (target race) x 2 (perceived athleticism) experimental design. The outcome variable was quarterback evaluation. Race and perceived athleticism were manipulated by presenting participants with an identical quarterback profile with one of two player photos and one of two athletic testing profiles (see Appendix B).

Materials

Quarterback Profile Photos. Based on the responses from the pilot study described in Study 1, the two "athletic" headshots were selected (see Appendix C): a White player (M=5.65, SD=1.68) and a Black player (M=6.63, SD=0.98).

Athletic Testing Profiles. The athletic testing profiles were created to have the perceivably athletic player's Relative Athletic Score (RAS) greater than nine and to have the perceivably unathletic player's RAS less than one. RAS scores are a composite metric on a 0 to 10 scale that is compiled by comparing a player's athletic testing metrics to every player in their position group from 1987 through the current year's draft.

Football Commentary. The commentary from Study 1 was cut from nine minutes to five minutes to maximize the completion rate from participants. The commentary included two of the previous five drives cut and ended on a less negative play than the commentary from Study 1. Study 1's commentary ended with a game losing interception while this commentary ended with an inconsequential incompletion with a good pass from Johnson.

Quarterback Evaluation. The evaluation criteria were the same as in Study 1. The quarterback subjective evaluation criteria fell into two main categories, Black and White stereotypes. The Black stereotyped measures were physical ability and rushing performance ($\alpha = .66$). The White stereotyped measures were football ability, passing performance, football IQ, and grit ($\alpha = .80$). Participants were asked to rate Johnson's performance on these measures on a scale of one (poor) to nine (excellent) .

The quarterback objective evaluation criteria asked participants to estimate how many passing yards (range = 0 to 300) and rushing yards (range = 0 to 100) Johnson gained in his performance in the game and what his passer rating was (range = 0 to 158.3).

Procedure

All participants received a link to the survey and completed the survey on Qualtrics. Participants were presented with a consent form and asked if they agreed to participate. Once they agreed, the rest of the survey ensued. Participants were randomly assigned to one of the four quarterback profiles. Participants were introduced to their quarterback profile and presented with a 5-minute audio recording of commentary from a Week 16 2018 NFL game, featuring journeyman quarterback Josh Johnson who was referred to only as "Johnson" throughout the commentary. After listening to the recording, participants were asked to evaluate Johnson's performance. The final section included a brief assessment of demographics, including their gender, race, age, and experience in football. Upon completion of the evaluation, participants were thanked for their participation and presented with a debriefing form that told them about the manipulation that occurred and about the study's purpose.

Results

Preliminary inspection of the data revealed that participant age, gender and self-reports of

experience coaching football did not correlate significantly with the target ratings. As a result, the participant variables were dropped from any further analyses. Similar to study 1, the experimental data for study 2 was analyzed using a GLM method in which player race and player athleticism were predictor variables and measures stereotypically associated with White quarterbacks, measures stereotypically associated with Black quarterbacks, and statistical predictions were separate outcome variables.

A race (Black vs. White) x perceived athleticism (athletic vs. unathletic) two-way analysis of variance on the stereotype measures found a statistically significant relationship between athleticism and Black player stereotypes, as illustrated in Figure 5. There were no other statistically significant effects of athleticism or race (see Figure 4), or their interaction, on subjective measures of player performance (see Table 3).

Table 3 (Sample of White Participants who Passed Attention Check)

Factor	Measure	Mean Square	F	*p*-value	Partial eta squared
Athleticism	White player stereotype	.237	.298	0.587	.01
	Black player stereotype	11.966	9.151	0.004	.13
Race	White player stereotype	.000	.001	0.981	.00
	Black player stereotype	.001	.001	0.981	.00
Athleticism x Race	White player stereotype	.518	.651	0.423	.01

	Black player stereotype	.596	.456	0.502	.01

In addition to the GLM analysis for the subjective measures, a GLM analysis of race (Black vs. White) x perceived athleticism (athletic vs. unathletic) GLM on the statistical measures found that there was a trend for an effect of athleticism ($F(1, 65) = 3.114$, $p < 0.1$) indicating higher statistical predictions for rushing yards, which is a Black stereotyped measure.

There was also a statistically significant effect of race on passer rating ($F(1, 65) = 4.009$, $p = 0.05$), in which Black quarterbacks were predicted to have higher passer ratings (see Figure 5). There was a significant interaction of race and athleticism on estimates of passing yards ($F(1, 44) = 10.635$, $p < 0.01$), illustrated in Figure 6.

There was also a significant interaction of race and athleticism on passing yards. Among Black quarterbacks, unathletic quarterbacks were perceived to have thrown for more yards and among White quarterbacks, athletic quarterbacks were perceived to have thrown for more yards (see Figure 6).

Table 4 (Sample of Participants who Passed Attention Check)

Factor	Measure	Mean Square	F	*p*-value	Partial eta squared
Athleticism	Passing Yards	301.019	.169	.683	.01
	Passer Rating	25.658	.079	.779	.00
	Rushing Yards	1122.662	3.114	.083	.05

Race	Passing Yards	4621.646	2.589	.113	.02
	Passer Rating	1297.720	4.009	.050	.07
	Rushing Yards	201.663	.559	.457	.00
Athleticism x Race	Passing Yards	7171.548	4.018	.049	.04
	Passer Rating	248.391	.767	.384	.03
	Rushing Yards	977.075	2.710	.105	.01

General Discussion

While Study 1 offered evidence that fans are influenced by racialized stereotypes, there is no significant evidence to support the hypothesis that evaluations by people who work in football are guided by player stereotypes. There was no evidence that race affected coaches' ratings on Black stereotyped measures, but there was evidence that athleticism affects ratings of Black stereotyped measures. This makes sense because athleticism is the basis for many stereotypes of Black football players (Hughey & Goss, 2015).

This evidence is contrary to what has been found by Stone et al. (1999) and Thomas et al. (2015). Stone et al. found that race affects perceptions of Black players in basketball among casual viewers and Thomas et al. found that college coaches make racially biased decisions when evaluating players to recruit. Despite evidence that people are racially biased when evaluating athletes via game commentary and that coaches are biased when evaluating football players, we

did not find evidence of race affecting evaluations in the case of coaches evaluating quarterbacks via auditory stimuli.

A key distinction between this study and the one by Thomas et al. (2015) is the use of audio instead of video. Thomas et al. (2015) used the high school highlight tape of a biracial high school running back who could be perceivably White or perceivably Black, depending on the profile photo associated with him, and they cut his extraordinarily good or bad plays from the highlight tape. It is possible that the use of video provoked participants to think about race more during their analysis and this led to more racially biased perceptions of the player. The use of video is also a more accurate representation of how coaches evaluate players.

In contrast, it is possible that the current study's use of predominantly high school coaches could explain why no statistically significant results were found. Research by Rubinstein et al. (2018) found that when individuals were exposed to diagnostic individuating information, they were far less inclined to have racially biased perceptions. Since high school coaches tend to interact with their players off-the-field more often than D-1 FCS coaches, it is possible that they are less inclined to have racially biased perceptions because of their consistent interactions with their Black players as individuals.

One of the limitations of Study 1 and Study 2 was that the participant pools were both predominantly White. It is unclear how a sample of Black participants would respond to the studies. Although we might expect that Black participants would hold less stereotyped views than White participants, some research has shown that Black men have greater internalization of these racial stereotypes than White men. Sailes (1993) found that Black individuals were more likely to rate White college athletes as less athletic than their Black counterparts; Ferucci and Tandoc (2018) found that Black individuals stereotyped quarterback performance measures of

physical ability, intelligence and leadership more strongly than White individuals. They propose that because minority group members are used to being stereotyped, they internalize the stereotypes more strongly. This study may have found stronger effects if it had greater inclusion of Black participants in the sample, however it is still not clear whether the internalization of these stereotypes transfers to evaluation of players.

These findings provide a very insightful snapshot into the evaluation biases that fans and coaches have in 2022. In recent history, there has been a remarkable growth in the perceptions of the quarterback position. Black quarterbacks had to establish their ability to compete in the 1980s and then in the 2000s, Black quarterbacks began consistently entering the mainstream conversation of great quarterbacks and had a diversity of skill sets at the highest level. Now, in the last decade, we have seen an explosion in accomplishments by Black quarterbacks. After Cam Newton and RGIII, who are both dual-threat Black quarterbacks, won the Offensive Rookie of the Year award in consecutive years, Russell Wilson also won the Super Bowl in 2014 and became the first Black quarterback to do so since Doug Williams in 1988. This would be followed up by more great performances by other great Black quarterbacks. Patrick Mahomes won the MVP award in 2018, the Super Bowl in 2020 and then signed the NFL's biggest contract extension ever, valued at 500 million dollars. In 2019, Lamar Jackson unanimously broke the single season record for rushing yards by a quarterback and unanimously won the MVP award, showing that Black quarterbacks can run the football and still achieve outstanding success. In the last decade, Black quarterbacks have had more major accomplishments than they have had in the entire previous history of football. In accordance with this study's findings, we can see how great success from Black quarterbacks may have dispelled the stereotypes about superior performance by White quarterbacks. However, many successful Black quarterbacks still tend to be impressive

with their movement ability in addition to their passing abilities. This could result in quarterback evaluations continuing to be affected by stereotypes about Black players, but not about White players. Since athleticism is becoming recognized as an advantageous ability for quarterbacks, Black quarterbacks are more commonly able to succeed with their athleticism, possibly reinforcing the stereotype. However, White quarterbacks are fully capable of being athletic as well. In the coming years, we may begin to see the emergence of athletic White quarterbacks which can help further dispel racial biases in quarterback evaluations.

While persistent views of Black quarterbacks as "more athletic" may be true for fans, they are not necessarily true for coaches as well. Coaches were found to endorse greater Black stereotyped performance when a player was more perceivably athletic. This is a logical endorsement since athleticism guides Black stereotypes. There was also no effect of race on ratings of subjective measures of quarterback play. This finding is contradictory to findings by Stone et al. (1999) and Thomas et al. (2015) about stereotypes in sports, but is supported by research by Rubinstein et al. (2018) that says that exposure to diagnostic individuating information mitigates stereotyped perceptions. In the case of high school coaches, it would be plausible that, because of their greater role in off-the-field support for their players and high school football's greater emphasis on personal connection and team building (unlike Division 1 schools that are more often run like businesses), these coaches make less racially biased evaluations about their players. However, there is also a key distinction between this study and the study by Thomas et al. (2015). Thomas et al. used visual stimuli as the context for their evaluation while this study used auditory stimuli. It may be that by exposing coaches to visual stimuli, it better invokes the concept of race in coaches' evaluations and that may result in the results that indicate racial bias in evaluations from college coaches.

However, participants in the Black quarterback conditions rated the players as having greater passing ability than participants in the White quarterback conditions. They also perceived Black quarterbacks to have more passing yards, although this relationship was not statistically significant, and it's not clear what is causing this. Stereotype theory indicates that we expect greater passing performance from White quarterbacks, but all of the coaches in the sample worked at a college or high school. It could be plausible that these coaches were affected by a social desirability bias in which, when induced by statistical predictions of performance, they felt inclined to say that the Black quarterback performed better to stay away from what they know could be perceived as an undesirable and biased response (Andersen & Mayerl, 2017; Krupnikov et al., 2016; Snyder, 1974). It is puzzling, however, that we would see this response in the statistical measures, but not the subjective measures.

There was only one significant interaction effect of race and athleticism, but it was consistent between both the fans sample and the coaches sample. In both Study 1 and Study 2, there was a significant interaction of Race x Athleticism on passer rating. Among White quarterbacks, athletic quarterbacks were perceived to have higher passer ratings; among Black quarterbacks, unathletic quarterbacks were perceived to have higher passer ratings. This may be because when White quarterbacks are athletic, it is viewed as a positive and as an advantage to their play, thus they are overall better players and play better (pass more efficiently). On the other hand, when Black quarterbacks are athletic, it is perceived as unimpressive because it is the expectation people have of them, but when they are unathletic it is seen as a deficit. Thus, perhaps participants assume unathletic Black quarterbacks must compensate for their lack of athleticism by having better passing abilities. Further exploration into perceptions of athleticism as a deficit or asset for quarterbacks is needed.

Study 1 manipulated athleticism via photographs and Study 2 employed a manipulation method using athletic testing statistics. The benefit of the Study 1 method was that participants would associate both race and athleticism with the photo, while Study 2's manipulation method attempted to override perceived athleticism in the photographs with athletic testing information. The benefit to the athletic testing information is that it creates consistent athleticism perceptions between subjects, but it could be influenced by the still perceivably high athleticism levels in the photographs. Thus, perhaps the lack of significance in the findings from Study 2 is because of the lack of differentiation between the player profiles. Using the same faces may have provoked participants to perceive players more similarly in spite of the athleticism manipulation.

In the pilot study used to identify the athleticism levels of player photographs, both perceivably athletic and unathletic Black players were rated approximately one point higher (on a 9-point scale) than their White counterparts. Due to the significant relationship between athleticism and Black stereotyped measures found in the data analysis, it is possible that this slightly higher level of perceived athleticism in Black players influenced findings about the effect of race on Black stereotyped measures. Since the Black players were perceived as slightly more athletic, it is possible that they were perceived as performing in greater accordance with Black stereotypes because of their perceived athleticism and not because of their race. Study 2 attempted to address this issue by manipulating perceived athleticism with athletic testing statistics instead of different faces. Unfortunately, it is not clear whether the lack of effect of race in Study 2 was because of the new perceived athleticism manipulation or because of the different sample group.

This study's findings are very promising as it shows that Black quarterbacks aren't perceived to be inferior in White quarterback stereotyped abilities, but they are still being

associated with attributes that may not accurately reflect their performance. However, while this study's use of audio allows for insight into participants' perceptual confirmations, it does prevent us from making the ultimate causal connection in evaluation via visual stimuli. The audio stimulus provides great insight into how race can bias evaluations, but it prevents a causal claim in how football is ultimately evaluated, which is by watching on-field performance. Further exploration of the effect of race on quarterback evaluations would greatly benefit from the use of visual stimuli. Research about the effect of race in soccer has shown that reconstruction of gameplay as 2D models can help gain insight into how evaluations are affected when race is involved (Gregory, 2021). Gregory et al. used a World Cup soccer match between Senegal and Poland and created 2D rendering of the game with every player having the same ambiguous race. After presenting participants with either the 2D rendering or the match's actual broadcast footage, they found that Senegal was considered the more athletic team 38% of the time in the 2D renderings, but were considered the more athletic team 70% of the time in broadcast footage. In addition to looking at visual stimuli as well, future research would greatly benefit from exploring the potential perception of athleticism as a positive trait for White quarterbacks and as a standard trait for Black quarterbacks (or unathleticism as standard trait for White quarterbacks and as a deficit for Black quarterbacks).

This study also focused on high school coaches as the sample for people who work in football. Thus, this study's findings about people who work in football cannot be generalized to higher levels, such as Division 1 FBS college football and professional NFL football. Future research would greatly benefit from gaining further insight into how race influences individuals at higher level football institutions' perceptions of quarterback performance.

Overall, this study finds that race affects perceptions of Black quarterbacks in Black stereotyped measures among fans, but not among coaches. Also, there is no evidence to support the effect of race on White stereotyped measures. While this evidence doesn't fully support previous literature and findings about stereotypes' effects on evaluations, it is a very encouraging finding when one considers the context of the study. A significant amount of progress has been made in the last two decades in perceptions of Black quarterbacks. From the discrimination that Doug Williams and Warren Moon faced in the 1980s and 90s to the present day where Black quarterbacks are becoming the superstar faces of the league. It makes sense that in this snapshot in 2021 and 2022[9], we see that people are no longer inclined to believe that Black quarterbacks are mentally or strategically inferior to their White quarterbacks. This finding is indicative of great progress in perceptions of quarterback play in football. However, it is also clear that these stereotypes and misguided perceptions have not been completely overcome. Fans still think Black quarterbacks are better runners just because they are Black and high school coaches are still biased in their evaluations of objective ratings in a player's performance. We also don't know how college and NFL coaches view race's effect on evaluations. Further research is still needed to view the progression (or regression) of stereotyped perceptions over time. Future research would also greatly benefit from the use of visual stimuli and samples of coaches who work at other levels of football to increase the generalizability of these findings.

[9] Fans participated in the study in October, 2021 and coaches participated in March, 2022.

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Figure 1

Black Stereotype Ratings across Player Profile Conditions (Study 1)

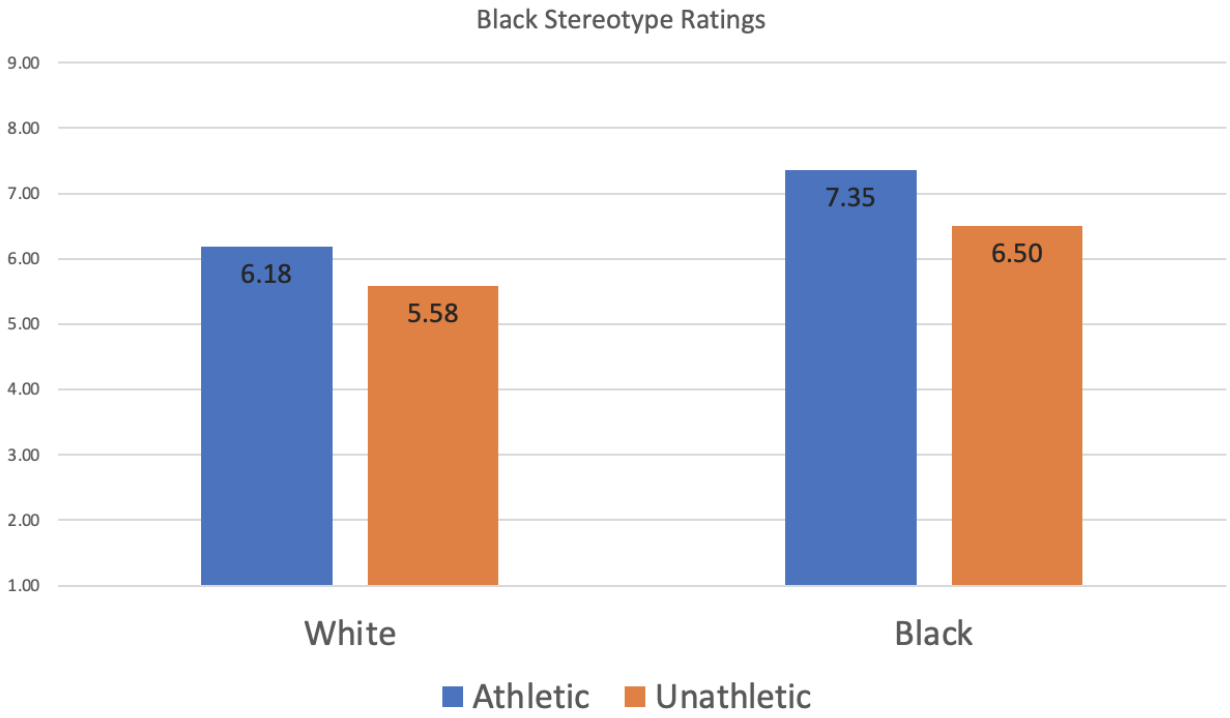

Figure 2

Estimated Rushing Yards across Player Profile Conditions (Study 1)

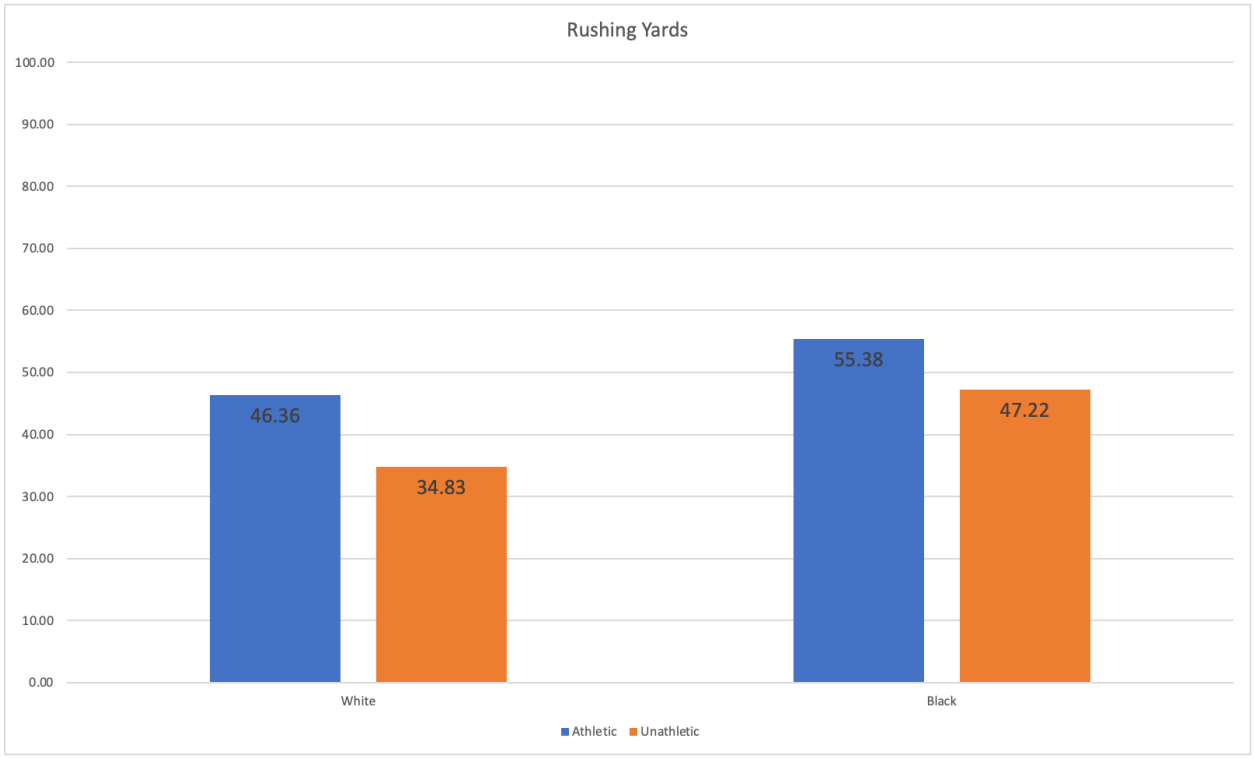

Figure 3

Estimated Passing Yards across Player Profile Conditions (Study 1)

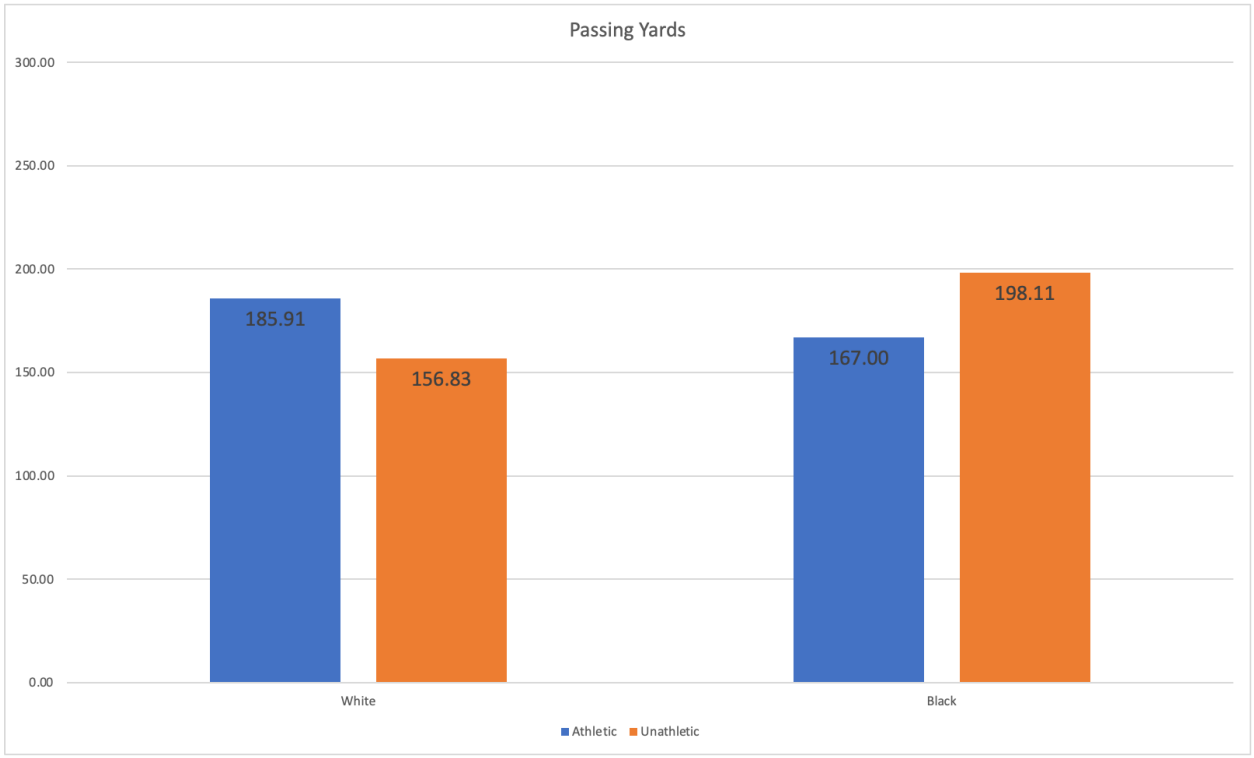

Figure 4

Black Stereotype Ratings across Player Profile Conditions (Study 2)

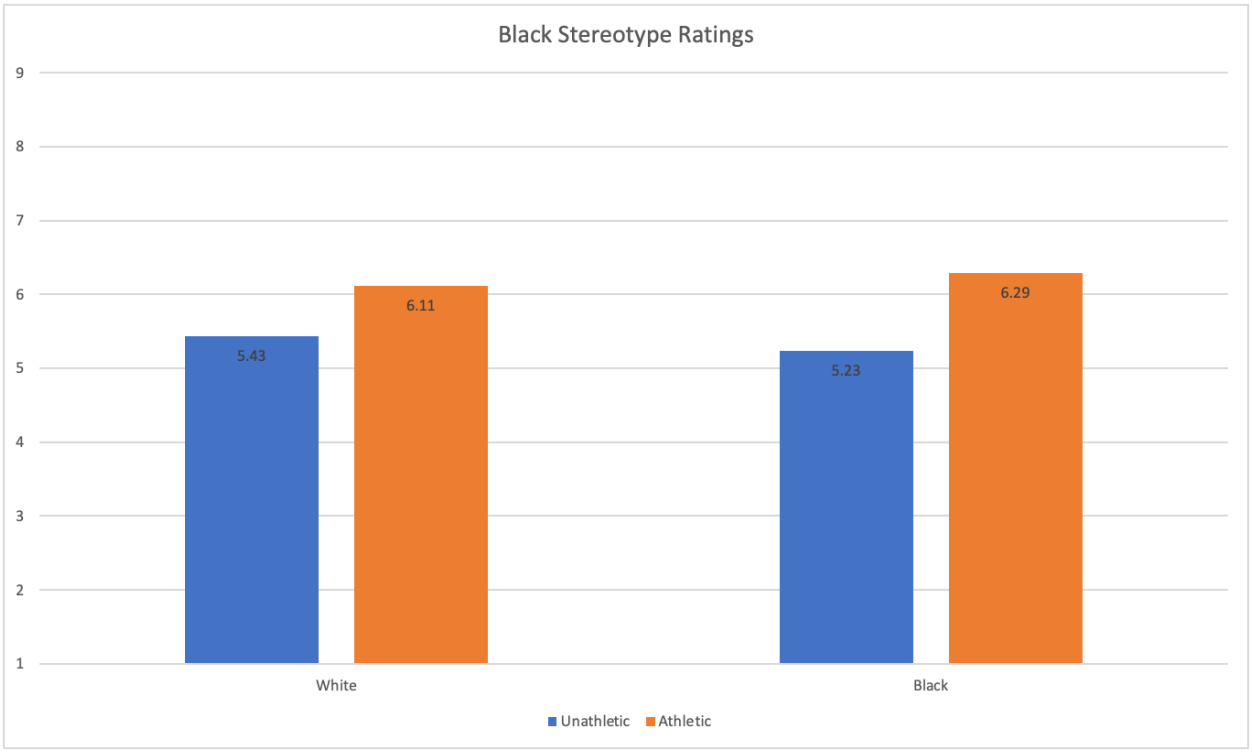

Figure 5

Estimated Passer Rating across Player Profile Conditions (Study 2)

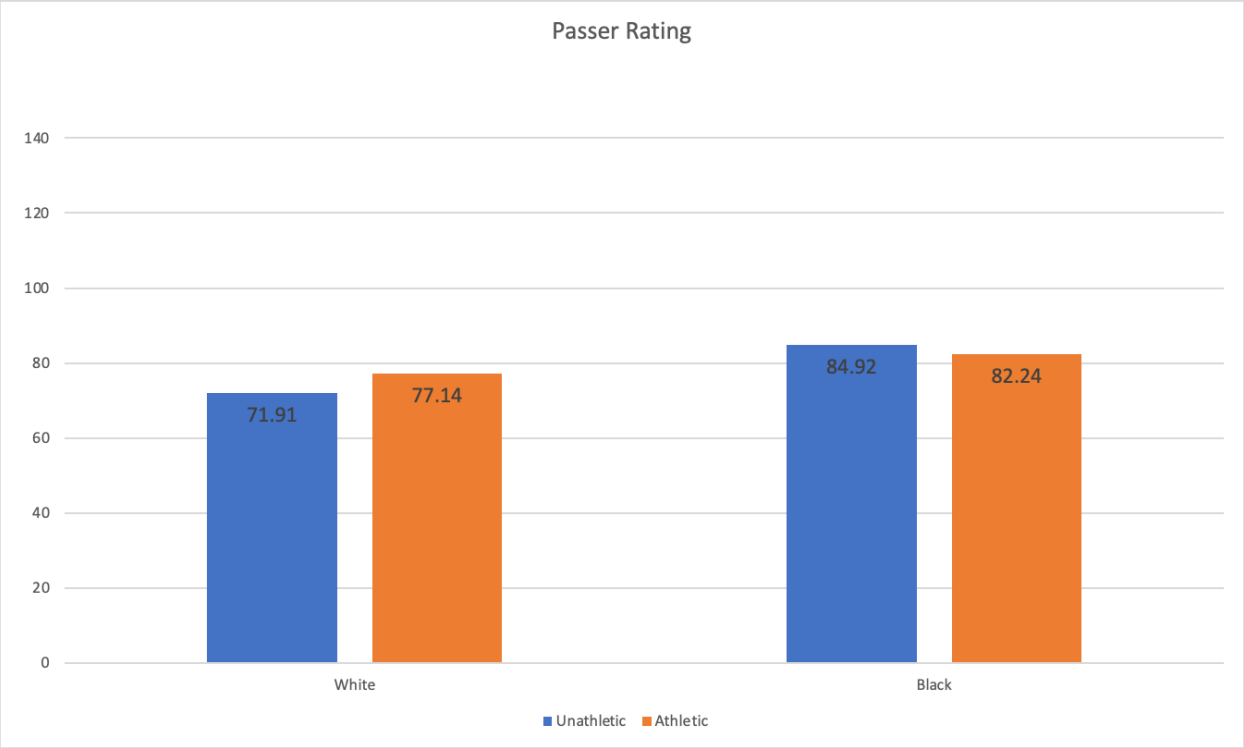

Figure 6

Estimated Passing Yards across Player Profile Conditions (Study 2)

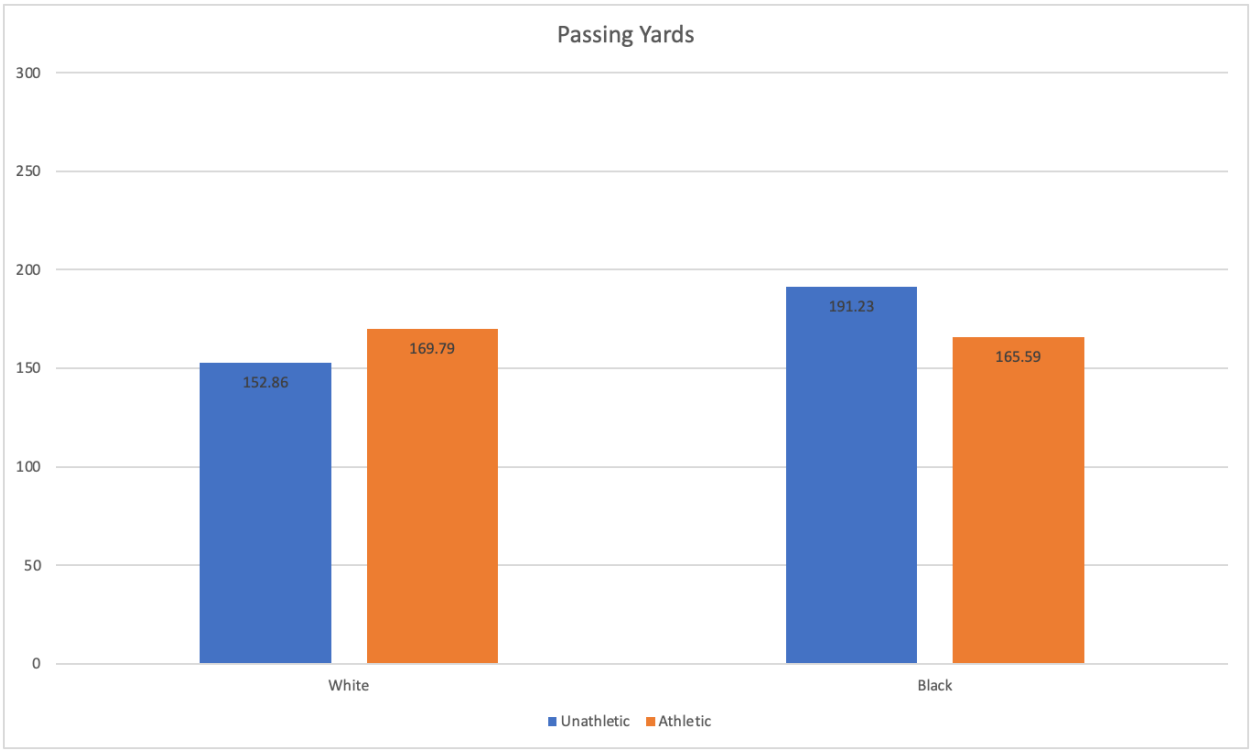

Figure 7
Relative Athletic Score for perceivably Athletic quarterback

Athletic QB	2021 RAS	9.94	@Mathbomb	QB |

Composite Size Grade :		Great	Composite Speed Grade :		Elite
Metric	**Mez**	**RAS**	**Metric**	**Mez**	**RAS**
Height	6040	8.3	40 yd dash	4.59	9.59
Weight	234	9.3	20 split	2.64	9.75
Bench	20	8.33	10 split	1.60	9.57
Composite Explosion Grade :		Great	Composite Agility Grade :		Great
Vertical	34	8.73	Shuttle	4.20	8.65
Broad	910	8.91	3-Cone	6.87	9.26

Figure 8
Relative Athletic Score for perceivably Unathletic quarterback

Unathletic QB	2021 RAS	0.82	@Mathbomb	QB |

Composite Size Grade :		Poor	Composite Speed Grade :		Very Poor
Metric	**Mez**	**RAS**	**Metric**	**Mez**	**RAS**
Height	6010	2.27	40 yd dash	5.09	1.31
Weight	216	4.79	20 split	2.87	3.3
Bench	7	1.67	10 split	1.75	2.44
Composite Explosion Grade :		Very	Composite Agility Grade :		Poor
Vertical	27	1.67	Shuttle	4.55	2
Broad	805	1.19	3-Cone	7.27	4.29