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Beyond Black and White: An Examination of Afrocentric Facial Features and Sex in Criminal Sentencing

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by

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Abstract

Research on race and sentencing is increasingly moving beyond racial category analyses to include more subtle attributes such as skin tone and facial features. In keeping with this progression, this research examines the extent to which convicted offenders' Afrocentric facial features interact with sex in order to create longer criminal sentences for stereotypically Black males and females. A random sample of Black and White males and females currently serving prison sentences in the state of Oregon were selected for inclusion in the study. A preliminary regression analysis was run in order to determine the effect of broad racial category on sentencing length when controlling for offense characteristics, offense history, and extralegal factors. Additionally, photographs of a sample of 110 Black males and 91 Black females were rated for strength of Afrocentric facial features by undergraduate students. These ratings were averaged to create an Afrocentric rating for each Black individual in the sample. Regression analyses were then conducted for Black individuals in order to determine the effect of Afrocentric facial features and sex on sentence length. Results suggested that although broad racial category is not a significant predictor of sentence length, Afrocentric facial features interact with sex to produce longer sentences for Black males, but not Black females, with stronger Afrocentric facial features. Individuals with the fewest Afrocentric facial features were excluded from the analysis in order to limit the potential misperception of racial category by judges. These findings are consistent with current understandings of feature-trait stereotyping, as well as the focal concerns perspective regarding judicial decision-making.

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Section 1: Introduction

The presence of racial disparity in criminal sentencing is an area of inquiry that is widely researched in the criminal justice literature. Research on racial disparity often utilizes racial categories such as Black, White, and Hispanic/Latino, and examines the ways in which legally relevant and extralegal factors impact sentencing outcomes. However, an accumulation of research suggests that when solely using these broad racial categories, race may not be as salient of a predictor as previously thought (Crutchfield, Fernandes, & Martinez, 2010; Spohn, 2000). Tonry (2010) goes so far as to say that based on his knowledge of the judiciary, overt bias based on racial category is no longer a factor in most sentencing decisions. However, Tonry goes on to say that unconscious bias undoubtedly has an effect on judicial decision making.

In order to more fully understand the effects that race may have on sentencing outcomes, many contemporary researchers have turned their attention toward more nuanced understandings of race. This line of inquiry manifests mostly in the study of interactive effects between race and other individual characteristics (e.g. sex, age, immigrant status), or in the study of more refined indicators of race (e.g. skin tone and facial features). Moving beyond broad racial category, these studies have advanced the criminal justice literature by further examining the intricacies of race. Given the ways that race has, and continues to, evolve as a complex social phenomenon that results in advantage for some and disadvantage for others, it is fitting that the social science literature recognize and reflect these complexities.

Of note, several research projects have sought to understand the role that Afrocentric facial feature bias plays in criminal sentencing. Afrocentric facial feature bias

is thought to operate at the implicit level – being unconsciously influenced by stereotypes associated with racial category – and disadvantages those who posses more stereotypically Afrocentric features, such as dark skin, wide nose, coarse hair, dark eyes, and full lips. Researchers examined Afrocentric facial features among male offenders in Florida and found that although racial category alone did not appear to have an effect on sentencing outcomes, Afrocentric facial features were associated with longer sentence length when controlling for legally relevant factors (Blair, Judd, & Chapleau, 2004). A second study in Pennsylvania found that Black male capital defendants with strong Afrocentric facial features were more likely to receive the death penalty when they had a White victim than a Black victim (Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006).

Together, these studies suggest that implicit facial feature bias has an effect on criminal sentencing, even while overt racial category bias seems to have been acknowledged and mitigated by judges. Still, collective understanding of how Afrocentric facial features influence sentencing outcomes is limited to these two studies, which focus only on males and are confined to specific state-level jurisdictions.

In an effort to create a more sophisticated understanding of racial bias in the criminal justice system, the purpose of this study is to expand the literature related to Afrocentric facial features and sentencing outcomes. Specifically, this study utilizes multivariate regression analyses to examine the influence of Afrocentric facial features and sex on sentence length in Oregon. By including females in the analysis, this study seeks to examine whether Afrocentric facial feature bias has a differential impact based on sex, when controlling for offense seriousness and offense history. Theoretically, because features can be directly linked to stereotypes (Blair, Judd, Sadler, & Jenkins,

2002), and different stereotypes are associated with males and females based on skin tone (Maddox & Gray, 2002), sentencing outcomes may also vary based on facial features and sex. These extralegal factors can assist in the development of "perceptual shorthand" which judges use to evaluate the dangerousness and blameworthiness of offenders (Steffensmeier, Ulmer, & Kramer, 1998).

Ultimately, research that integrates a nuanced perception of race has the potential for informing bias-free sentencing practices, as well as eliminating race-based bias at other stages in the criminal justice process. If Tonry is correct, that judges no longer consciously take racial category into consideration when making sentencing decisions, a similar potential exists for more subtle indicators of race. By understanding implicit biases, and making their negative outcomes known to criminal justice professionals, efforts related to education and awareness can be undertaken to produce fair sentencing outcomes that do not take stereotypes pertaining to race into account.

Section 2: Literature Review

The literature on race-differentiated outcomes in the criminal justice system is vast and spans over forty years of research. In 1987, Zatz observed that the question of whether or not racial discrimination existed in the legal system was among the most researched phenomenon in the 1970s and 80s. This area of study appears to have lost no momentum since the 1980s, as it continues to hold the interest of scholars of crime and justice. The ongoing body of research related to race and sentencing seeks to determine whether racism directly contributes to the disproportionate number of Black individuals in prisons in the United States, or if these disparities can be fully accounted for by legally relevant factors.

A brief review of studies of sentencing and race by Spohn (2000) complicates this question, with research showing a wide range of explanations. For example, findings have shown that racial minorities receive shorter sentences (Bernstein, Kelly, & Doyle, 1977; Gibson, 1977; Levin, 1972), longer sentences (Gruhl & Ulmer, 1996; Holmes, Hosch, Daudistel, Perez, & Graves, 1996; Petersilia, 1983; Spohn, Gruhl, & Welch, 1981; Marjorie S. Zatz, 1984), or similar sentences to White individuals (Klein, Petersilia, & Turner, 1990); that the racial disparity is indirectly influenced by bail status (LaFree, 1985b; Lizotte, 1978), attorney (Spohn et al., 1981), or mode of conviction (LaFree, 1985a; Spohn, 1992; Uhlman & Walker, 1980); or that race interacts with case (Barnett, 1984; Spohn & Cederblom, 1991) or individual characteristics (Chiricos & Bales, 1991; LaFree, 1989; Nobiling, Spohn, & DeLone, 1998; Peterson & Hagan, 1984; Spohn, 1994; Walsh, 1987) to produce disparity. All published studies that examined noncapital offenses during the 1980s and 1990s, reported association between

race/ethnicity and sentence severity, used logistics regression, probit analysis, or ordinary least squared regression, and controlled for crime seriousness and offense history, were selected by Spohn (2000) for a more thorough review. Results revealed that when accounting for appropriate legal factors, young, male, or unemployed Black and Hispanic individuals seem more likely to be sentenced to prison, and when so, to receive longer sentences than comparable White individuals. Additionally, the presence of certain other factors interacted with race, resulting in greater likelihood of incarceration and/or longer sentences for racial minorities: drug offenses, less serious offenses, White victims, more serious criminal record, conviction at trial rather than plea bargaining, pre-trial jail detention, or representation by a public defender. Together, these findings suggest that research on race and criminal sentencing benefits from moving beyond a "Black and White" analysis, and toward more nuanced inquiry. In the studies examined by Spohn, racial differences would not have been found had interacting factors not been considered. Fortunately, inclusion of other case or individual characteristics is the route that many scholars have taken in contemporary sentencing research.

The importance of incorporating nuance into studies of race and sentencing can be best understood in light of the historical progression of this area of research. Zatz (1987) categorized the existing research into four unique waves, ranging from the 1930s to the late 1980s. The first wave, ranging from the 1930s to the mid-1960s, was characterized by research that utilized limited data to demonstrate disparity through simple statistical techniques, such as cross-tabulation, and failed to incorporate important controls. Despite its flaws, this area of research demonstrated resiliency, and continued into a second wave (1960s-1970s), which saw improvements in statistical techniques. During this time,

studies emerged suggesting that the overrepresentation of racial minorities in the criminal justice system could be explained solely by disproportionate criminal involvement (e.g., Hindelang, 1978), though later critics have suggested that these studies also did not account for indirect and interacting factors. This limitation was addressed during the third wave of research (1970s-1980s), when researchers began to consider indirect effects such as bail status, which was affected by occupation and economic status. Researchers also began to look more closely at interactions such as gender or victim race, and cumulative disadvantage, whereby individuals experience statistically insignificant discrimination at multiple points in the criminal justice system, resulting overall in statistically significant disparities. The fourth wave (1980s), from which Zatz wrote, advanced the research literature by exploring the impact of sentencing reforms, often by way of sentencing guidelines, on racial disparities in sentencing.

Building upon Zatz's (1987) framework of the historical "waves" in race and sentencing research, Johnson and Lee (2013) suggest that we have entered a fifth wave that incorporates increased nuance and improved methodology. Among the various defining characteristics, such as emphasis on social contexts, court characteristics, and cumulative influences, the fifth wave demonstrates increasing evidence of subtle and indirect influences of racial disparities. Increased understanding of interacting factors has advanced the race and sentencing literature in terms of gender, victim race, and immigrant status, in addition to expanding notions of race to include under-studied individuals, such Asians and Native Americans. Similarly, research that takes an intersectional approach seeks to examine how multiple minority identities or statuses can reinforce one another to result in disparate sentencing outcomes. Johnson and Lee

propose that important advances emerging in the fifth wave will likely result from research that improves conceptualization of race and ethnicity, looking beyond broad racial categories. The authors cite research on Latino sub-populations, skin tone, and Afrocentric facial features as promising leads in understanding sentencing variation based on race.

Afrocentric Facial Features and Skin Tone

The research on Afrocentric facial features that Johnson and Lee reference is a small but growing body of literature that examines how the presence of stereotypically Black facial features results in varied perceptions and outcomes for Black individuals. This research is rooted in and intersects with that on colorism, or how Black individuals with dark skin tone are disadvantaged compared to those with light skin tone. A review of the colorism literature by Hunter (2007) reveals that light skin tone in Black Americans is associated with greater income, occupational prestige, and educational achievement, as well as partnership with higher status spouses (Hill, 2000; Hughes & Hertel, 1990; Hunter, 1998, 2002; Keith & Herring, 1991; Seltzer & Smith, 1991). Additionally, a literature review by Hochschild and Weaver demonstrates that dark-skinned individuals are more likely to grow up in segregated and low-income neighborhoods and less likely to marry (Edwards, Carter-Tellison, & Herring, 2004; Massey, Charles, Lundy, & Fischer, 2003). Examining the skin tone of all Blacks elected to United States Congress or as state governor, Hochschild and Weaver (2007) found that dark-skinned Black individuals were highly underrepresented in politics.

Although the reason for association between skin tone with certain perceptions and outcomes is still unclear, one viable theory is that individual features provide a direct

link to stereotypes. In examining stereotypes linked to Afrocentric facial features, Blair et al. (2002) hypothesize that because race-group categorizations are informed by features such as skin tone, hair, and lips, features can become directly associated with stereotypical traits. Once this occurs, feature-trait stereotypes are made without the necessity of linking features to race and race to traits. This dynamic allows for disparate stereotypes and outcomes based on traits, rather than broad racial category, while still maintaining broad stereotypes associated with race. Therefore, while a light-skinned Black individual may trigger trait stereotypes associated with Black individuals as well as White individuals, dark-skinned Black individuals will be mostly associated with stereotypes of Black individuals. In these cases, a range of traits can be associated with skin tone or facial features, much like a spectrum, rather than being limited to one racial category.

To further explore the dynamic of stereotyping based on Afrocentric facial features, Blair et al. (2002) asked participants to rate photographs of Black and White individuals based on strength of Afrocentric facial features. Results suggested that participants expressed strong agreement in perception of Afrocentric facial features, suggesting that ratings could be reliably scaled. This reliability in judgment across participants has also been found in several other studies (Blair, Judd, & Chapleau, 2004; Blair, Judd, & Fallman, 2004; Secord, Bevan, & Katz, 1956). Skin tone, like Afrocentric facial features, can be used as a tool for cognitive organization. In order to understand whether skin tone is used to categorize individuals, and to subsequently stereotype individuals based on skin tone, Maddox and Gray (2002) asked participants to observe conversations amongst light and dark-skinned Black individuals, and to then recall which

individuals made certain remarks during the conversation. The study found that errors made between skin tone groups (light and dark) were fewer than within skin tone group. Together, these findings suggest that facial features and skin tone are used to categorize individuals in a more intricate way than broad racial category allows.

Experimental research. A small body of experimental research exists regarding both skin tone and Afrocentric facial features, demonstrating that personal perceptions of individuals can be influenced by the presence of stereotypically Black facial features or dark skin. These stereotypes, presumably, inform the way that the perceiver interacts with others. Therefore, in establishing that negative stereotypes are associated with Afrocentric facial features and dark skin, empirical findings of life outcomes based on facial features and skin tone make increasing theoretical sense.

Early experimental research on Black facial features examined what, at the time, was referred to as "negroidness." The first study of the type asked participants to rate photographs of Black individuals for strength of a variety of facial features (e.g., dark complexion, full lips, wide nose, curly hair), as well as personality or attitude stereotypes associated with Black individuals (e.g., lazy, untidy, immoral) (Secord et al., 1956). Results suggested that Black personality stereotypes were assigned equally to those with more stereotypically Black facial features and those with less stereotypic features. Thus, personality stereotyping was based on broad racial category rather than specific facial features. A second study by Secord (1959) confirmed these results, finding that individuals perceived to be Black, regardless of facial features, were ascribed stereotypes associated with Black individuals. These studies only examined ten black-and-white photographs, and are now widely understood as limited in their inferential ability. Despite

such limitations, these studies set the stage for similar research that would occur in the future.

Unlike the findings of Secord and colleagues, other experimental research has found that skin tone and Afrocentric facial features do affect perception. For example, the Blair et al. (2002) study found that Black males with stronger Afrocentric facial features were more likely to be associated with stereotypes of Black individuals than those with fewer Afrocentric facial features. Results from Kleider, Cavrak, and Knuycky's (2012) research revealed that stereotypical Black faces were more frequently identified as being a drug dealer than a teacher or artist, and that criminal stereotypes applied to both males and females. Along these lines, a separate study (Blair, Chapleau, & Judd, 2005) found that when participants were asked to make predictions about the future behavior of Black males presented in photographs, that individuals with more Afrocentric facial features were predicted to behave aggressively.

Though research on negative stereotyping is often conducted with undergraduate students, the dynamic has also been seen with police officers, who were found to perceive more stereotypically Black faces as criminal more frequently than less stereotypically Black faces (Eberhardt, Goff, Purdie, & Davies, 2004). Additionally, the officers in the study tended to falsely identify faces that were more stereotypically Black as criminal when primed with words related with crime.

Dark skin tone, like Afrocentric facial features, also seems to elicit negative stereotyping. An additional task in the Maddox and Gray (2002) study asked participants to list the specific trait stereotypes of dark and light-skinned Black individuals. Results revealed a great number of negative traits than positive traits were associated with dark-

skinned individuals, while light-skinned individuals were more likely to be identified with positive than negative traits. Of note, significantly higher numbers of participants, both Black and White, listed stereotypes of dark-skinned males as being criminal and tough/aggressive, while dark-skinned females were more likely to be seen as unattractive, poor, and lazy. Dark-skinned females, however, were not stereotyped of as being significantly more criminal than light-skinned females, and only Whites, but not Blacks, listed tough/or aggressive as a stereotype associated with dark-skinned females. Light-skinned males were stereotyped as wealthy and light-skinned females as intelligent by both Black and White participants, Consistent with these findings regarding the perceived criminality of dark-skinned males, participants in another study expressed more emotional concern in news stories with a dark-skinned Black perpetrator compared to those with a White perpetrator (Dixon & Maddox, 2005).

Criminal justice system. A small but growing number of studies have examined skin tone and Afrocentric facial features for criminal sentencing outcomes. Unlike the experimental studies that examine the perceptions of individuals in the general population, the criminal justice research utilizes information about individuals who have been convicted of a crime and are processed through the courts in order to understand the effect of stereotyping and bias related to skin tone and facial features. These studies effectively demonstrate the feature-trait model of stereotyping (Blair et al., 2002), expressing that disparate outcomes can be based on facial features, but not necessarily broad racial category.

To date, two published research projects have analyzed sentencing outcomes and Afrocentric facial feature bias for justice-involved males. First, a study on young, adult

males incarcerated in the state of Florida sought to determine the effect of Afrocentric facial features on sentence length, when controlling for legally relevant factors such as crime seriousness and offense history (Blair, Judd, & Chapleau, 2004). Researchers found that although broad racial category did not predict sentence length, strength of Afrocentric facial features was associated with sentence length for both Black and White individuals, resulting in sentence lengths around eight months longer for those with the highest Afrocentric facial feature ratings than those with the lowest ratings. Interestingly, White individuals received longer sentences than Black individuals when controlling for legally relevant factors and Afrocentric facial features.

A second study on facial features and criminal sentencing looked at the influence of victim race and Afrocentric facial features in capital cases with Black male defendants in Pennsylvania (Eberhardt et al., 2006). While controlling for non-race related individual and case characteristics, the authors found that when a victim was White, Black individuals with more stereotypically Black facial features were more likely to receive the death penalty than those with less stereotypically Black features. However, Black individuals who murdered other Black individuals were as likely to receive the death penalty whether their features were more or less stereotypic.

Similar to the studies on facial features, two published studies have examined the influence of skin tone on sentence length. Both studies were conducted in states where skin tone was recorded by correctional officers at intake, enabling the researchers to create a variable based on skin tone without obtaining photographs. Using an economic model of a sample of individuals incarcerated in Mississippi, Gyimah-Brempong and Price (2006) found that when controlling for a variety of individual and case

characteristics, those with darker skin tone received longer prison sentences than those with lighter skin tone. Similarly, another study explored this dynamic specifically for Black females in North Carolina (Viglione, Hannon, & DeFina, 2011). When controlling for legally relevant case characteristics, results revealed that light-skinned females received 12% shorter sentences and served an actual sentence that was 11% shorter than dark-skinned females. Ideally, future research would utilize an alternative means of measuring skin tone in order to confirm that the categorization made by correctional officers at intake is a reliable measure.

Implicit Bias

Given that experimental research points toward negative stereotyping of individuals based on dark skin tone and Afrocentric facial features, results revealing discrimination based on these factors are not surprising. As Blair et al. (2002) note, judges and jurors are unlikely even aware that they are expressing preference or discrimination based on skin tone or facial features. Indeed, evidence suggests that stereotyping is an automatic process, which occurs efficiently, without awareness, and is difficult to control (Bargh, 1994; Blair, Judd, & Fallman, 2004; Blair, 2001). This automatic process is also referred to as implicit or unconscious bias. Scholars have proposed that these implicit biases may be formed based on early childhood experiences, affective/emotional experiences, culture, or by extending self-appraisals to similar persons (Rudman, 2004).

Based on experimental findings, Afrocentric facial feature bias appears to be an automatic process. A study by Blair, Judd, and Fallman (2004) asked participants to select the probability that an individual pictured in a photograph was the same person

introduced in a written description. Participants were either asked to suppress reliance on stereotypes (in general), racial category, or Afrocentric facial features, when making their judgments. Each type of suppression instruction resulted in participants reducing reliance on broad racial category. However, not one of the suppression instructions, including that which asked participants to avoid stereotyping based on Afrocentric facial features, was effective in reducing reliance on facial features when making judgments. The participants' lack of ability to suppress reliance on facial features held true even after participants were asked to rate photographs for strength of Afrocentric facial features, and as a group demonstrated reliability in their ratings. This task clarified any question as to whether or not participants understood the full meaning of Afrocentric facial features or were able to detect differences in facial features. These findings suggested that Afrocentric facial feature bias operates at the implicit level, which has clear consequences for actors in the criminal justice system.

The notion that dependence on racial bias can be suppressed is consistent with an argument put forth by Tonry (2010), that racial category biases do not affect sentencing decisions made by judges. Specifically, Tonry believes that the extensive education that judges receive, as well as their heightened awareness of issues related to racial discrimination in the criminal justice system, is able to effectively deter judges from taking racial category into account. However, Tonry suspects that unconscious stereotyping, or implicit bias, is inevitably a part of judicial decision making, which is also consistent with the aforementioned findings regarding the inability of individuals to suppress reliance on Afrocentric facial features.

Although research on implicit bias typically occurs with undergraduate student samples, Tonry's suspicions are validated even in an experimental study that examined the way that broad racial category affected the decision making in a sample of judges (Rachlinski, Johnson, Wistrich, & Guthrie, 2009). The judges who participated in the study first took an Implicit Association Test (IAT), a computer test that asks participants to quickly match words or pictures based on specific criteria (Greenwald, McGhee, & Schwartz, 1998). In the version of the test that measures implicit racial bias, participants are instructed to press one key when a Black person or "good" word appears and another key when a White person or "bad" word appears. The categories are then switched so that the participants use one key for a Black person or "good" word, and the other key for a White person or "bad" word. Over time, findings have suggested that based on the milliseconds spent making the categorization, participants broadly express greater ability to make White/good associations and Black/bad associations, even when they do not report explicit racial preference (Greenwald & Krieger, 2006; Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Nosek, Banaji, & Greenwald, 2002). Like the general population, the judges in Rachlinski et al. (2009) demonstrated implicit racial bias. Specifically, White judges tended to express strong "White preference" while the preferences of Black judges tended to express more diverse preference (i.e. Black, White, or neutral), yet still expressed bias.

Rachlinksi et al. (2009) also study examined how implicit biases influenced judges' sentencing decisions in response to hypothetical scenarios. In one task, the judges were subliminally primed with either Black-associated words or race-neutral words before making a sentencing decision in a hypothetical scenario. In this task, the judges

were not told the race of the defendant. The authors found that when the judges were primed with Black-associated words, those who expressed White-preference during the IAT gave longer sentences, and those who expressed Black-preference gave shorter sentences. However, in a separate task, when the judges were explicitly told the race of the defendant, there was no association between race-preference on the IAT and sentence length. This last finding suggests that, like the Blair, Judd, and Fallman (2004) study, the judges were able to suppress reliance on racial category bias when making their judgments, even without being asked to do so. Although this study did not measure skin tone or Afrocentric facial features, the results are promising – at least for broad racial category. However, as demonstrated in the results related to Afrocentric facial features and skin tone in criminal justice outcomes, judges may not be as aware or able to suppress reliance when it comes to more nuanced racial dynamics.

Focal Concerns Theory

The cumulative work of several sentencing scholars may help inform the discussion on implicit biases in criminal sentencing. Based on qualitative interviews with court actors, these scholars have developed the "focal concerns theory" as a way of explaining statistical findings of sentencing difference based on race, gender, and age (Kramer & Steffensmeir, 1993; Steffensmeier, Kramer, & Streifel, 1993; Steffensmeier et al., 1998). The theory posits that judges take three unique, yet interrelated, concerns into consideration when sentencing an offender – blameworthiness, protection of the community, and practical constraints and consequences. Although judges take legally relevant factors such as offense seriousness and offense history into consideration when assessing these concerns, they also use extralegal factors such as race, gender, and age.

Combined, these factors serve as “perceptual shorthand,” which assists in judging blameworthiness, dangerousness, risk of recidivism, and organizational concerns.

Stereotyping plays an important role in the development of judicial perceptual shorthand, as judges seek to assess their focal concerns with limited knowledge of the individual and their future behavior. However, a judge may use individual characteristics that are tied to stereotypes and biases, even implicitly, to fill in their gaps in knowledge. This use of extralegal factors can result in discrimination based on factors such as race, age, or sex. For example, Steffensmeier et al. (1998) concluded that the longer sentences received by young Black males may be due in part to stereotypes that identify young Black males as dangerous and dysfunctional.

This same logic can be applied to skin tone and Afrocentric facial features. In the aforementioned feature-trait model of stereotyping (Blair et al., 2002), facial features are implicitly linked to a spectrum of stereotypes. Given that stronger Afrocentric facial features are more likely to be associated with stereotypes of Black individuals, more Afrocentric individuals may be more likely to be perceived as dangerous and blameworthy. Individuals with fewer Afrocentric facial features, however, may not be as strongly associated with negative stereotypes of Black individuals. This may be especially true in light of stereotyping of dark-skinned Black males as criminal and aggressive (Maddox & Gray, 2002). Because dark-skinned Black females are stereotyped as unattractive, poor, and unintelligent, it may be predicted that skin-tone or facial features are not as salient of a predictor of sentence length for Black females. However, other research findings suggesting that dark-skinned Black females do receive longer sentences than light-skinned Black females (Viglione et al., 2011) or that Afrocentric

females are associated with criminal professions (Kleider et al., 2012) may suggest otherwise.

As Johnson and Lee (2013) discuss, the fifth wave of race and sentencing research is still underway, and more intersectional and nuanced perspectives on race are key in improving our understanding of race discrimination in criminal sentencing. Although the literature on Afrocentric facial features and skin tone is growing, still relatively little is understood about how these factors, and the stereotypes associated with them, affect criminal justice outcomes. Of note, both studies that examine the influence of Afrocentric facial feature on sentencing outcomes have been conducted with male populations. Therefore, it is unclear if the differences in sentences length are also relevant for females. Given that previous studies on racial category have found gender/sex interactions (Spohn, Gruhl, & Welch, 1987; Steffensmeier & Demuth, 2006; Steffensmeier et al., 1998), this dynamic is important to explore in relation to facial features. Additionally, previous research suggests that sentencing disparities based on race varies across jurisdiction (Crutchfield et al., 2010). Though sentencing discrimination based on Afrocentric facial features was seen at the state level in Florida and Pennsylvania, this dynamic may not be present in other states or at the county level. As the fifth wave progresses and researchers pay closer attention to the subtleties that constitute racial stereotyping, these will be important factors to consider.

In order to address gaps in the existing literature and to further advance the knowledge base in the subject area of racial disparity in the criminal justice system, this research seeks to address three primary research questions:

1. When accounting for legally relevant factors, do Black individuals receive longer

sentences than White individuals?

2. When accounting for legally relevant factors, do Black individuals with more Afrocentric facial features receive longer sentences than Black individuals with fewer Afrocentric features?
3. When accounting for legally relevant factors, does sex interact with strength of Afrocentric facial features?

Based on previous findings, it is expected that Afrocentric facial features plays a role in sentence length, though broad racial category does not exert influence (Blair, Judd, & Chapleau, 2004). Additionally, due to the stereotypes associated with dark-skinned or Afrocentric Black males (Blair et al., 2005, 2002; Dixon & Maddox, 2005; Kleider et al., 2012; Maddox & Gray, 2002), it is expected that strength of Afrocentric facial features will result in longer sentences for Black males. Hypothesizing the influence of Afrocentric facial features for females is more difficult task due to the variation in findings (Kleider et al., 2012; Maddox & Gray, 2002; Viglione et al., 2011). However, due to the non-threatening stereotypes associated with dark-skinned Black females in the Maddox and Gray (2002) study, it is predicted that Afrocentric facial features will not influence sentence length for Black females. Further, being male is perhaps the strongest correlate of offending (Carson & Golinelli, 2013). In particular, females commit violent crimes far less frequently than males. For this reason, females in general may be less likely to be perceived as dangerous, no matter one's facial features.

Section 3: Methodology

This project analyzes data on sentencing outcomes for Black and White individuals currently incarcerated in the state of Oregon in January 2014. Data were obtained in three stages: through the Oregon Department of Correction (ODOC), through the public, online Oregon Offender Search database (OOS), and through participants who rated photographs for strength of Afrocentric facial features.

Oregon Department of Corrections

A disproportionate stratified random sample was drawn by the ODOC Department of Research and Statistics. This technique was used because of the small number of Black females incarcerated in Oregon (N = 91 as of January 22, 2014), resulting in the need for all Black females to be included in the study. The other strata had significantly larger populations, requiring the need for sampling. This was particularly important for Black males, whose photos would be rated for Afrocentricity, limiting possible sample size. Samples were drawn as follows: 110 Black males, 200 White males, and 200 White females. One White male was excluded from the study because his offense seriousness rating was determined to be an outlier, which affected the integrity of the statistical models. Additionally, no offense history was listed for this individual on the OOS, so his offense could not be dummy coded (see below). This resulted in a sample of 199 White males. Post stratification weights were used in all analyses in order to accurately reflect the proportion of each stratum in the state correctional population, and therefore, all statistical models presented here are weighted. In addition to drawing the sample, the ODOC also provided a variety of information on the individuals who were selected for inclusion in the study, which were used as variables

in the study and are discussed below. This included basic demographic information, earliest possible release data, offense seriousness, and offense history.

Oregon Offender Search Database

ODOC maintains a publicly available online database of all individuals incarcerated in the state. This database, the OOS, includes a photograph of the individual, basic demographic information, information pertaining to the crime(s) that resulted in the current incarceration, and at times, information on past offenses. To supplement the data provided by ODOC, the database was used to collect additional information. The identification number for each individual selected for inclusion in the study was provided by ODOC, enabling identification of the individuals in the database. For all Black individuals, photographs were obtained (n = 201). Additionally, individuals of both races were located in OOS, and offenses were recorded in the form of dummy variables. Particular attention was paid to categorizing offenses that would be expected to greatly enhance sentence length, and are further discussed below.

Variables

Dependent variable. The dependent variable used in the analysis is sentence length, in months. In Oregon, sentence length is provided as "earliest possible release." This date, as the name suggests, is a possible release date that is contingent upon good behavior and successful involvement in programming by the individual. Therefore, an individual may be incarcerated beyond their possible release date, though this variation is a result of behavior in prison rather than judicial decision making. Thirteen individuals in the sample were not given earliest possible release dates due to the nature of their sentences – life without parole (n = 12) and death (n = 1). In order to express the severity

of these sentences, they were recoded as 99 years (1188 months) for life without parole, and 120 years (1440 months) for death.

Sentence length was positively skewed and leptokurtic (skewness = 3.63 and kurtosis = 13.08). In order to create a more normal curve that is suitable for regression, the dependent variable was log-transformed for use in analysis. Using a benchmark of -2 to 2, the skewness and kurtosis became normalized with this transformation (.58 and .09, respectively). Descriptive statistics for the dependent variable, sentence length, are provided in Table 1.

The dependent variable is limited by the nature of the sample – those who are currently incarcerated. Because sentencing is a two-step process that involves an initial decision of whether or not to incarcerate, and a second decision of sentence length, an ideal study examines both stages. Doing so gives a fuller picture of judicial decision-making and helps reduce the presence of selection bias, whereby the "worst" individuals in one segment (e.g. race) may be compared to a broader range of individuals in another segment. This dynamic sometimes occurs when White individuals have an increased likelihood of being sentenced to community supervision, and when Black individuals experience greater likelihood of being sentenced to prison (Crutchfield et al., 2010). Since these data do not have the potential to inform analysis on the first decision point in sentencing, results should be understood in light of this limitation.

Legally relevant variables. A variety of legally relevant variables are used in the following analyses in an attempt to take into account the primary factors that judges would consider when making sentencing decisions. Like other states that implemented sentencing reforms, Oregon judges use a sentencing guidelines grid for determining

sentence length, possible probation terms, and length of post prison supervision. This grid includes an axis for crime seriousness (felonies are categorized on a scale of 1 to 11) and an axis for offense history (combinations of adult person felonies and non-person felonies, misdemeanors, and juvenile adjudications that would be considered felonies if committed by an adult, ranging from A to I). The corresponding cell in the grid provides a time range from which the judge may provide a sentence. For example, an individual whose crime corresponds with cell 11A (the highest crime seriousness and offense history) would receive a sentence between 225 and 269 months. Given that crime seriousness and offense history are the only two legally relevant factors considered in the sentencing grid, the legally relevant variables in this study seek to be a close approximation to these factors.

Crime Seriousness. Although ODOC does not maintain a record of the sentencing grid rating for seriousness with which an individual's crime corresponds, the department does utilize its own seriousness rating. This rating, which is given in a scale of 100 (high) to 999 (low) rates the most serious offense committed by the individual. The rating is utilized as one representation on crime seriousness in this study. For ease of interpretation, ratings were reverse coded so that the least serious offenses were rated 100 and the most serious offenses were rated 999.

A second measure of offense severity is the total number of counts of all offenses for which the individual is currently serving prison time. Because an individual's sentence is not made up solely of their most serious offense, which is represented in the severity rating, this variable seeks to account for additional offenses.

Additionally, a variety of offenses were dummy coded based on offense records available through the OOS. These are crimes that would be predicted to influence sentence length and are as follows: murder, sex offense, weapons charge, person-to-person crime, property crime, or drug crime. All variables were coded as 1 for having committed at least one such offense.

***Offense History*.** Three variables were used to measure offense history, and were provided by ODOC. Like crime seriousness, ODOC does not record the offense history rating used in the sentencing grid, though they do keep track of a variety of alternative measures of offense history. Similar to the sentencing grid, the number of prior felonies that were committed before the current offense(s) was used in this study. This variable is limited in that it does not differentiate, like the sentencing grid, between person felonies and non-person felonies. Additionally, there is no measure of past misdemeanors.

Though not represented on the sentencing grid, two other variables were used to try to account for variation based on offense history. These are factors that judges may consider when assessing the ability of an individual to be rehabilitated, and result in a sentence in the higher or lower range recommended in the grid. First, the study included number of previous incarcerations, defined as previous admissions to the DOC for both new offenses and readmissions for parole violations. Second, a variable for number of probation violations was included. Neither of these variables are reflected in the sentencing grid, but they may be relevant legal factors that a judge considers when selecting the higher or lower sentence suggested by the grid, or when departing from the recommended sentence. For example, a judge may perceive an individual who has several prior incarcerations as more dangerous to the community because s/he has

expressed recidivist behavior. For this reason, the judge may enhance sentence length as a form of incapacitation or deterrence.

As demonstrated in Table 1, females in both racial categories have a higher number of prior felonies and probation violations than males. This is likely because the lesser severity of crimes committed by females results in community supervision or a jail sentence, rather than a prison sentence. This gives females greater opportunity to reoffend or to violate probation. Additionally, females may be more likely to commit a greater number of less severe offenses, such as theft, rather than a single more serious offense, like assault.

Extralegal variables. A number of extralegal variables are included in the models. Broad racial category (Black = 1 and White = 0), sex (male = 1 and female = 0), and – for Black individuals – Afrocentric facial feature rating (1 to 9), are included as variables of interest to the primary research questions. The study also controls for age at admission, height (in inches), and weight (in pounds). The latter two variables are of particular interest in their relationship to perceived Afrocentricity, where greater height and weight may exacerbate Black stereotypicality.

Log transformations. Like the dependent variable, a number of independent variables were positively skewed and leptokurtic, especially offense counts and previous incarcerations. To create easily interpretable log-log regression models, all non-dummy independent variables are log-transformed. For this reason, findings will be discussed in terms of percent changes. All descriptive statistics presented in Table 1 are unlogged.

Table 1
Descriptive statistics, weighted

		White		Black		All
		Males	Females	Males	Females	
Count	pre-weight	199	200	110	91	600
	weighted	479	54	62	5	600
				M (SD)		
Sentence length		147.19	66.31	98.76	70.16	134.29
		(266.83)	(129.91)	(143.79)	(195.8)	(247.77)
Offense seriousness		821.94	741.98	819.00	742.26	813.80
		(156.55)	(161.89)	(143.67)	(179.85)	(157.33)
Offense counts		4.25	3.85	3.24	3.08	4.10
		(6.02)	(5.71)	(2.92)	(4.59)	(5.74)
Prior felonies		1.62	1.70	1.68	1.80	1.63
		(1.02)	(.95)	(1.09)	(1.29)	(1.02)
Prior incarcerations		0.70	0.43	0.97	0.90	0.71
		(1.34)	(1.10)	(1.47)	(2.16)	(1.34)
Probation violations		0.53	0.70	0.55	0.68	0.55
		(.66)	(.76)	(.73)	(1.016)	(.68)
Age at admission		35.68	35.35	32.63	31.68	35.30
		(12.68)	(9.80)	(10.48)	(11.06)	(12.24)
Height (inches)		70.62	64.80	70.48	64.98	70.04
		(2.99)	(3.19)	(2.92)	(3.21)	(3.45)
Weight		187.24	161.42	193.25	181.45	185.48
		(35.08)	(34.93)	(33.95)	(54.94)	(35.88)
Afrocentric rating		-	-	6.16	5.98	6.15
				(1.67)	(1.88)	(1.69)
	range			1.85 - 8.82	2.00 - 8.64	
				f (%)		
Murder		19	1	1	0	21
		(4.0)	(1.5)	(1.8)	(2.2)[a]	(3.6)
Sex offense		128	3	10	0	141
		(26.6)	(5.5)	(16.4)	(3.3)[a]	(23.5)
Weapon		41	2	10	0	54
		(8.5)	(4.0)	(16.4)	(3.3)[a]	(8.9)
Person		205	20	34	2	261
		(42.7)	(37.5)	(54.5)	(45.1)	(43.5)
Property		147	25	20	2	194
		(30.7)	(46.5)	(31.8)	(51.6)	(32.4)
Drug		60	13	8	1	1 82
		(12.5)	(23.5)	(13.6)	(13.2)	(13.7)

[a] Due to use of post-stratification weight, percentage remains after frequency is rounded to zero

Afrocentric Facial Feature Rating

In order to develop Afrocentric facial feature ratings for each Black individual in the study, photographs were independently rated by undergraduate students for strength of Afrocentric facial features. Photographs were divided in half in order to create timed slideshows of approximately 100 faces. Two unique slideshows were created of each set, resulting in four randomly ordered slideshows. Each slideshow showed male and female faces – two showing female faces first and two showing male faces first. The slideshows were timed to show each face for three seconds, followed by a blank screen for two seconds. The speed at which the photographs were shown was done in attempt to measure implicit impressions as closely as possible, requiring that raters base their judgments on a quick first-impression.

Twenty-eight undergraduate students from criminology and criminal justice courses at Portland State University were recruited for participation as raters in the study. Raters were told that the study dealt with facial features and personal perceptions. Seated at a computer module, raters were given consent documents and asked to sign a "confidentiality agreement." This document acknowledged that there was a small chance that they may recognize someone pictured in the photographs that they would see. By signing, they agreed that in the case that they did recognize one of the faces, they would hold this information confidential. This step was taken at the request of the research committee at ODOC.

Raters were then told that once the slideshow on their computer started, they would see the faces of about 100 individuals, all of whom were categorized as Black. To obtain ratings, raters were told that,

> Some of the individuals would have features that are more typical of Black individuals than others in terms of skin color, hair, eyes, nose, cheeks, and lips, and that some of the individuals would have features that were less typical of Black individuals.

Raters were given a rating form, similar in style to a scantron, and asked to rate each photograph on a scale of 1 to 9, with 1 being not stereotypical of a Black individual, and 9 being very much stereotypical. The raters were told that they would see differences across individuals, so that some of the individuals would receive higher ratings and that some would receive lower ratings. Once the slideshow was complete, the raters were debriefed on the full nature of the study.

The rating forms were evaluated for accuracy. In three instances, the rater recorded more than one rating on one or more lines, resulting in several unused lines at the end of the form. Because it was impossible to determine the true intent of their ratings, these forms were not used in analysis. One other form was not used in analysis because the rater did not express variation in their ratings. Therefore, twenty-four forms were completed accurately, and responses were recorded (first half: n = 11, second half: n = 13). Cronbach's alpha reliability tests were conducted for each of the four slideshows (reliabilities ranging from .82 and .94), as well as for compiled ratings for each set (set 1: r = .93 and set 2: r = .94). For both sets of compiled ratings, reliabilities for females (.96 and .95) were higher than males (.89 and .93).

All ratings given for each photo were averaged to create an Afrocentric facial feature rating. A wide range of averages appeared from low, 1.85, to high, 8.82. The average for all female scores was slightly lower than for all male scores (5.98 and 6.16,

respectively). Further descriptive statistics related to Afrocentric facial features can be found in Table 1.

Section 4: Findings

Based on the research questions, bivariate correlations of all variables under study were conducted for the full sample, all Black individuals, Black males, and Black females (see Appendix). Correlations were examined for multicolinearity. No correlations are higher than 0.70, and very few are stronger than 0.50. The highest number of 0.50 or greater correlations are found for Black females, with five significant correlations ranging from 0.50 to 0.68 (Table A.4)

Consistent with the primary research questions, several multivariate regression analyses were conducted in order to examine the effect of legally relevant and extralegal factors – particularly racial category, Afrocentric facial features, and sex – in sentencing outcomes. These models are used to examine the influence of broad racial category (question 1), Afrocentric facial features (question 2), and the interaction of Afrocentric facial features and sex (question 3) on sentence length. In all models, the dependent variable (sentence length) and quantitative independent variables are log-transformed, while dummy-coded independent variables are not.

Broad Racial Category

The purpose of the first analysis, shown in Table 2, is to determine whether broad racial category influences sentence length. As predicted, when controlling for legally relevant factors, racial category does not predict sentence length, nor do any extralegal variables. Though being male is a significant predictor of sentence length in the extralegal model, this association diminishes when controlling for legally relevant factors.

In the full model, al legally relevant variables significantly predicted sentence length, with the exception of number of prior felonies and number of prior probation violations. Additionally, having at least one count of a weapon or drug crime does not influence sentence length. However, the offense seriousness, number of offense counts, and number prior incarcerations are significant. Committing murder, a sex offense, or a crime against another person is associated with a longer sentence, whereas committing a property crime is associated with a lesser sentence. The insignificant finding regarding prior felonies do not appear to be consistent with sentencing practices under Oregon sentencing guidelines, and will be discussed in greater detail in Section 5.

Table 2
Effect of legally relevant and extralegal factors on logged sentence length, weighted

	Legally Relevant		Extralegal		Full	
	B	SE	B	SE	B	SE
Offense seriousness[a]	2.43***	0.17			2.47***	0.17
Offense counts[a]	0.36***	0.04			0.36***	0.04
Prior felonies[a]	-0.12	0.09			-0.11	0.10
Prior incarcerations[a]	0.32***	0.06			0.30***	0.06
Probation violations[a]	-0.14	0.08			-0.15	0.08
Murder	2.48***	0.15			2.44***	0.15
Sex offense	0.69***	0.10			0.69***	0.10
Weapon	-0.12	0.10			-0.01	0.10
Person	0.23**	0.08			0.22**	0.08
Property	-0.15	0.08			-0.16*	0.08
Drug	0.17*	0.09			0.16	0.09
Black			-0.18	0.15	-0.07	0.08
Male			0.59***	0.19	-0.15	0.10
Age at admission[a]			0.42**	0.14	0.00	0.09
Height[a]			-0.85	1.25	1.23	0.69
Weight[a]			0.23	0.30	0.24	0.16
n	600		600		600	
Adjusted r^2	0.715***		0.029***		0.718***	

*p < .05. **p < .01. ***p < .001

[a]variable is log-transformed

Afrocentric Facial Features

Table 3 shows four models that examine the influence of legally relevant and extralegal factors on sentence length for Black individuals. In addition to the extralegal variables presented in Table 1, these models contain Afrocentric facial feature rating, which is specific to the Black individuals in the sample.

With the exception of prior felonies, weapons charged, and property crimes, all legally relevant factors are significant in the full model. Though Afrocentric facial feature rating is significant in the extralegal model, it becomes insignificant when controlling for

Table 3
Effect of legally relevant and extralegal factors on logged sentence length, all Black individuals, weighted

	Legally Relevant		Extralegal		Full		Afrocentric ≥ 3	
	B	SE	B	SE	B	SE	B	SE
Offense seriousness[a]	2.60***	0.31			2.33***	0.32	2.92***	0.32
Offense counts[a]	0.34***	0.07			0.32***	0.07	0.41***	0.06
Prior felonies[a]	0.27	0.14			0.24	0.15	0.27	0.14
Prior incarcerations[a]	0.36***	0.08			0.39***	0.08	0.44***	0.08
Probation violations[a]	-0.43***	0.11			-0.46***	0.11	-0.38***	0.10
Murder	2.74***	0.34			2.74***	0.34	2.72***	0.31
Sex offense	0.74***	0.17			0.86***	0.17	0.85***	0.16
Weapon	0.18	0.13			0.24	0.13	0.2	0.12
Person	0.37**	0.12			0.43***	0.13	0.23	0.12
Property	0.19	0.12			0.23	0.12	0.21	0.11
Drug	0.29	0.15			0.32*	0.15	0.45***	0.14
Male			0.78*	0.32	0.10	0.18	-0.10	0.18
Age at admission[a]			-0.15	0.24	0.11	0.16	0.02	0.15
Height[a]			-3.97*	1.92	-0.79	1.14	0.89	1.09
Weight[a]			-0.25	0.48	-0.58*	0.27	-0.71**	0.26
Afrocentric rating[a]			0.78***	0.22	0.24	0.13	0.45**	0.17
n	201		201		201		186	
Adjusted r^2	0.712***		0.093***		0.720***		0.771***	

*p < .05. **p < .01. ***p < .001

[a]variable is log-transformed

legally relevant factors. This is also true for being male, which becomes insignificant when controls are introduced. Though the extralegal model contains several significant predictors of sentence length, it is important to note that the overall variation explained by the model is relatively small (adjust R-squared = 0.093). Therefore, when extralegal factors and combined with legally relevant factors in the full model, there is little change in the adjusted R-squared from the legally relevant model (0.712 in the legally relevant model to 0.720 in the full model).

An additional model was constructed in order to account for perceived racial category. As research has long demonstrated, some individuals who are categorically identified as Black are perceived as White (e.g. Secord et al., 1956). Although the participants in the current study were informed that all the photographs they would view would be of Black individuals, it is possible, and even likely, that some of the individuals in the photographs are not perceived of as Black in their day-to-day life. Conceivably, a judge may also not perceive of the individual as Black, thereby associating the individual with stereotypes affiliated with an alternate racial category. To account for the possibility that not all individuals in the sample are commonly categorized as Black, the fourth model excludes Black individuals with the lowest Afrocentric facial feature ratings from the analysis. All individuals with ratings greater than or equal to three were selected for inclusion in the model (n = 186). A test-model was run in order to determine the “tipping point” at which Afrocentric facial features became a significant predictor, and results revealed that selecting out individuals with ratings less than two was not a sufficient limit.

As can be seen in Table 3, excluding individuals with the least stereotypically Afrocentric features (less than three) makes the Afrocentric facial feature rating a significant predictor of sentence length. This finding lends credence to the theoretical and empirical question of whether those with the fewest Afrocentric facial features are sometimes perceived of as a racial category other than Black, and if so, may be exempt from association with Black stereotypes.

Afrocentric Facial Features by Sex

In order to determine the effect of Afrocentric facial features by sex, data were disaggregated and examined separately for Black males and Black females. Like the

Table 4
Effect of legally relevant and extralegal factors on logged sentence length, Black males

	Legally Relevant		Extralegal		Full		Afrocentric ≥ 3	
	B	SE	B	SE	B	SE	B	SE
Offense seriousness[a]	2.71***	0.42			2.39***	0.45	3.05***	0.43
Offense counts[a]	0.32***	0.10			0.30**	0.10	0.41***	0.09
Prior felonies[a]	0.30	0.20			0.28	0.21	0.29	0.19
Prior incarcerations[a]	0.37**	0.11			0.41***	0.12	0.46***	0.11
Probation violations[a]	-0.43**	0.15			-0.47**	0.15	-0.37**	0.14
Murder	2.76***	0.47			2.74***	0.48	2.73***	0.43
Sex offense	0.75***	0.23			0.88***	0.24	0.86***	0.22
Weapon	0.21	0.18			0.26	0.18	0.20	0.16
Person	0.37*	0.17			0.42*	0.42	0.21	0.16
Property	0.23	0.16			0.26	0.16	0.23	0.15
Drug	0.29	0.21			0.31	0.20	0.45*	0.19
Age at admission[a]			-0.15	0.32	0.13	0.22	0.03	0.20
Height[a]			-4.12	2.66	-0.52	1.62	1.48	1.53
Weight[a]			-0.26	0.69	-0.74	0.39	-0.94**	0.38
Afrocentric rating[a]			0.84**	0.30	0.24	0.19	0.47*	0.23
n	110		110		110		103	
Adjusted r^2	0.705***		0.081*		0.712***		0.772***	

*p < .05. **p < .01. ***p < .001

[a]variable is log-transformed

analysis for all Black offenders, these analyses contain legally relevant, extralegal, full, and greater-than-or-equal-to-three models.

Results for Black males are displayed in Table 4. As was seen in Table 3, Afrocentric facial feature rating appears as a significant factor in the extralegal model, but not in the full model. However, when selecting out individuals with an Afrocentric facial feature rating less than three, the rating once again becomes significant. This suggests that even when controlling for legally relevant factors, Afrocentric facial features have an effect upon sentence length amongst those who are most likely perceived of as Black. Although not the focus of this study, it is important to note that the presence of at least one drug offense is not significant in the full model, but becomes so in the greater-than-or-equal-to-three model.

Like the models in Table 3 that include all Black individuals, the extralegal model for Black males explains minimal variation in sentence length (adjusted R-squared = .081). While Afrocentric facial features are a significant predictor or sentence length, they are not nearly as important as the legally relevant factors that would be expected to influence sentence. This dynamic is also expressed by examining standardized coefficients. In the greater-than-or-equal-to-three model, the standardized coefficient for Afrocentric rating is 0.11, but 0.52 for offense seriousness and .27 for offense counts. The influence of Afrocentric facial features on sentence length should be understood in light of this difference.

Because the continuous variables in the study, including Afrocentric facial feature rating, are logged, results are interpreted as an elasticity. That is, a 1% increase in the independent variable leads to a $1.01^{\beta 1}$ change in the dependent variable. In the case of the

Afrocentric facial feature rating in the greater-than-or-equal-to-three model for males, a 1% increase in Afrocentric rating corresponds with a 0.47% increase in sentence length. Table 5 shows percentage changes in sentence length from one Afrocentric facial feature rating to another. For example, a Black male with an Afrocentric rating of nine would receive a 5.69% longer sentence than a Black male with a rating of eight. Ratings expressed in Table 5, from three to nine, are reflective of the exclusion of individuals with ratings of less than three from the models.

Table 5
Effect of Afrocentric facial feature rating on sentence length, net of controls, Black males with Afrocentric facial feature ratings ≥ 3

	Afrocentric facial feature rating					
	8	7	6	5	4	3
9	5.69%	12.53%	20.99%	31.82%	46.39%	67.59%
8		6.48%	14.48%	24.72%	38.51%	58.56%
7			7.51%	17.13%	30.09%	48.92%
6				8.95%	20.99%	38.51%
5					11.06%	27.13%
4						14.48%

The findings in the greater-than-or-equal-to-three model are consistent with the prediction that negative stereotypes associated with stereotypical Black males lead to longer sentences for Black males with stronger Afrocentric facial features. In line with the theoretical connection between stereotyping and criminal justice outcomes, Black females do not appear to receive longer sentences based on their Black stereotypicality.

Table 6 displays the results for Black females. Unlike males, Afrocentric facial features are not significant in the extralegal, full, or greater-than-or-equal-to-three model. Additional “tipping point” models were conducted in order to determine if perceived racial category shifted as a later point than for Black males, but at no point did

Afrocentric rating become significant. Fewer legally relevant factors predict sentence length for females; unlike males, prior incarcerations, sex offenses, and drug offenses, are not significant in any of the models. Together, these findings suggest that judges take different factors into account, likely implicitly, when sentencing Black males and females.

Table 6
Effect of legally relevant and extralegal factors on logged sentence length, Black females

	Legally Relevant		Extralegal		Full		Afrocentric ≥ 3	
	B	SE	B	SE	B	SE	B	SE
Offense seriousness[a]	1.51**	0.50			1.48**	0.51	1.43*	0.55
Offense counts[a]	0.48***	0.10			0.45***	0.10	0.45***	0.10
Prior felonies[a]	0.07	0.22			-0.05	0.26	0.08	0.28
Prior incarcerations[a]	0.27*	0.13			0.22	0.14	0.14	0.16
Probation violations[a]	-0.44**	0.16			-0.40*	0.16	-0.38*	0.17
Murder	2.33***	0.47			2.50***	0.47	2.57***	0.49
Sex offense	0.28	0.48			0.17	0.49	0.23	0.51
Weapon	-0.25	0.25			0.00	0.26	0.1	0.28
Person	0.42	0.27			0.40	0.28	0.42	0.29
Property	-0.27	0.21			-0.29	0.22	-0.25	0.23
Drug	0.27	0.23			0.25	0.23	0.22	0.25
Age at admission[a]			-0.21	0.36	0.21	0.30	0.23	0.35
Height[a]			-1.98	2.49	-2.92	1.57	-2.92	1.68
Weight[a]			-0.15	0.44	0.05	0.29	0.05	0.31
Afrocentric rating[a]			0.16	0.28	0.02	0.18	0.14	0.28
n	91		91		91		83	
Adjusted r^2	0.621***		-0.026		0.624***		0.625***	

*p < .05. **p < .01. ***p < .001

[a]variable is log-transformed

As previously noted, several variables are moderately correlated for Black females (up to 0.68) (Appendix, Table A.4). This limitation may make the Black females models less stable, and should be taken into account when assessing the results. However, given the null findings in the Black female models, this limitation is of less concern than

if the results were to demonstrate that Afrocentric facial features do predict sentence length for Black females.

Section 5: Discussion

The main purpose of this study has been to determine whether Afrocentric facial features influence sentence length for Black individuals sentenced to prison in the state of Oregon. Unlike previous studies, this analysis has examined the intersection of sex and Afrocentric facial features, seeking to determine whether Black stereotypicality differentially affects males and females. In order to situate such findings in a broader context, this research posed a preliminary question of whether broad racial category influenced sentence length. Based on previous research, results were expected to reveal no differences in sentence length for categorically Black and White individuals, but significant differences would emerge based on Afrocentric facial features. Specifically, due to stereotypes associated with dark and light-skinned Black males and females, Afrocentric facial features were expected to be associated with sentence length for males, but not for females.

Overall, the findings supported these hypotheses, However, findings suggest that perception of racial category may play a role in the stereotypes associated with individuals rated the lowest for Afrocentric facial features. Taking into account legally relevant factors, as well as other extralegal factors:

1. Broad racial category does not influence sentence; Black individuals do not receive longer sentences than White individuals.
2. For Black males, Afrocentric facial features influence sentence length, but only when removing individuals with the least Afrocentric facial features.

3. Afrocentric facial features do not influence sentence length for Black females, even when removing individuals with the least Afrocentric facial features.

As demonstrated in these findings, Afrocentric facial features matter, as does sex, but only when situated within a broader context of race-based discrimination. As was seen in the study of Afrocentric facial features and sentencing in Florida (Blair, Judd, & Chapleau, 2004), broad racial category does not play a role in sentencing outcomes in Oregon. This may be because judges have become increasingly aware of discrimination associated with racial category and have sought to suppress their reliance on category when determining sentence length. If so, this would be consistent with research suggesting that people can effectively and efficiently suppress reliance on racial category when making judgments (Blair, Judd, & Fallman, 2004). Additionally, the structure associated with the sentencing guidelines grid may effectively reduce the ability of judges to make sentencing decisions that discriminate based on race. However, given the impact of more nuanced conceptualizations of race, such as facial features, on sentence length, this perspective can be easily challenged. Clearly, sentencing guidelines may be capable of reducing the potential for bias, but not eliminating it completely.

The present research takes into account racial nuance and demonstrates that although pre-determined broad racial category does not predict length of prison sentences in Oregon, that a more implicit racial dynamic may be occurring. When introducing Afrocentric facial features into the analysis, the effect of more subtle perceptions of race becomes apparent. Specifically, Black males who were most likely to be judged as fitting into the Black racial category and having greater Afrocentric facial features experience significantly longer sentences, net of controls, than Black males with fewer Afrocentric

facial features. However, Black females do not experience longer sentences based on their Afrocentric facial features. Though sex is sometimes used a control variable in analyses of race and sentencing outcomes, it was demonstrated here to be an essential factor in understanding race-based discrimination. The inclusion of Black females into the study offers a unique contribution to the literature, as previous studies on Afrocentric facial features have focused solely on males. This proved to be an important element of the research, providing valuable insight into the interaction between race and sex.

Additionally, these findings demonstrate the importance of examining race as a complex phenomenon with layered perceptions, stereotypes, and outcomes. Understanding race as a categorization based on features, such as facial features and skin tone, is reinforced by these analyses. However, this finding also highlights the complexity of racial categorization. Though an individual may be categorized as a particular race "on paper," this categorization may not be consistent with how others perceive the individual. Significant differences in sentence length would not have been discovered without the inclusion of the facial feature variable, sex, and the consideration of misperceived racial category. Further research that examines skin tone, facial features, and other subtleties that contribute to the construction of race will be essential to understanding race and sentencing as the fifth wave progresses. Just as race, as a social phenomenon, does not exist as static and straightforward, neither should the research techniques that are used to study race-based outcomes.

Although the intent of these analyses was to focus primarily on the effect of racial category, Afrocentric facial features, and sex on sentence length, several secondary findings are worth mentioning. First, the insignificance of prior felonies across all models

was unexpected. As discussed earlier, the Oregon sentencing guidelines grid takes two main variables into account: offense seriousness and offense history. Offense seriousness is a robust predictor of sentence length in all models. Based on the guidelines grid, it could be expected that the prior felonies variable would act similarly. The insignificance of the variable may be attributable to two possible explanations.

First, the total number of prior felonies may not provide enough information to distinguish impact. The sentencing grid categorizes offense history from A to I based on various combinations of person felonies and non-person felonies. For example, a judge sentencing an individual who commits a felony with a seriousness rating of 11 and has one prior person felony, but no prior non-person felonies, bases the sentence on a guidelines recommendation of 164 to 177 months (box 11D). However, an individual who commits the same crime, but has one prior non-person felony, and no prior person felonies, is likely to be sentenced between 129 and 134 months (box 11G). This could result in a difference of up to 48 months, and may explain why a combined count of prior person and non-person felonies does not express significance in predicting sentence length.

A second reason that the prior felony variable may not be a sufficient predictor is due to the presence of mandatory minimum sentences in Oregon. When an individual is convicted of a crime that has a mandatory minimum sentence, they receive either the mandatory sentence or the sentence recommended in the guidelines grid – whichever is longer. Because statutorily mandated sentences do not take into account prior felonies, except in the case of a judicial departure, number of prior felonies becomes less relevant, especially when considering those with no prior felonies. As an example, the crime of

Kidnapping I comes with a mandatory minimum sentence of 90 months. Kidnapping I is categorized as a 10 on the guidelines grid crime seriousness scale, and depending on offense history, could correspond with a sentence between 60 and 121 months. Therefore, an individual with no prior felonies could receive the same sentence, 90 months, as an individual with four prior non-person felonies.

A secondary finding that is also notable is the significance of drug offenses in the sentencing outcomes of Black males. In the full model, having a drug offense was not significant, nor was it in any of the Black female models. However, when only examining Black males who are most likely to be categorized as Black, the drug offense variable becomes significant. This result suggests that for Black males, but not for Black females, having a drug offense matters in predicting sentence length. In this regard, perceptions of blameworthiness and dangerousness of Black individuals may be likely to manifest differently for males and females when it comes to drug crimes.

Understanding perceptions, and the stereotypes that inform them, is key to understanding the findings of this research, as well as other research projects oriented around disparity and discrimination. The theoretical model proposed by Blair et al. (2002) based on direct association between features and stereotypical traits seems to supported by the Oregon findings. In this model, racial category matters in two ways. First, it provides the framework for the development of stereotypical traits. Second, category provides a route through which people associate features with stereotypes. However, features also seem to have the potential of linking to traits without first being categorized into a broad racial group. As Blair et al. note, both routes (feature-category-trait or feature-trait) have a similar result: the attribution of traits to individuals who

possess certain facial features. However, the feature-trait model may provide for a fuller spectrum of stereotypes than those associated with racial category.

In the present study, because broad racial category does not significantly predict sentence length, features appear to be directly linked to stereotypical traits – at least for Black males. The variation in sentencing outcomes based on a broad range of Afrocentric facial features possessed by the individuals in the sample suggests that stereotypes may exist on a spectrum. In this case, a Black male with fewer Afrocentric facial features may elicit some stereotypes associated with Black racial category as well as other racial categories, or stereotypes that are more associated with light-skinned Black males, such as wealthy (Maddox & Gray, 2002). Meanwhile, a black male with strong Afrocentric facial features is associated mostly with Black stereotypes, which tend to be neutral (e.g. athletic, ostentatious) or negative (e.g. criminal, aggressive).

The sex differential can also be understood in light of stereotypes. The Maddox and Gray (2002) study found that while dark-skinned Black males were commonly stereotyped as criminal and tough/aggressive, dark-skinned Black females were distinguished as being unattractive, poor, and lazy. While most people would not consider the latter traits desirable, they do not pose the same threat as the former traits. A literature review does not reveal any research, like the Maddox and Gray study, that asks participants to list stereotypes associated with stereotypical Black features. However, it is logical to speculate that similar stereotypes are associated with Afrocentric facial features as skin tone, since skin tone is one aspect of Afrocentricity. If this line of reasoning holds true, the findings regarding sex are predictable. Whereas an Afrocentric Black male is viewed by those around him as an unpredictable threat, an Afrocentric Black female may

yield a sense of pity or disgust. The female stereotypes certainly are not exempt from engendering negative criminal justice outcomes, like initial police contact or arrest, but may not necessarily lead to longer sentences.

The focal concerns theory as put forth by Steffensmeier et al. (1998) is also supported, at least partially, but this study. Predicting that age, race, and gender would interact to produce disparate sentencing outcomes, the authors relied on conceptualizations of blameworthiness, dangerousness, and practical constraints and consequences as the primary concerns that judges take into consideration when making their sentencing decisions. This current analysis did not take court or county context variables into consideration, which would inform the third focal concern. Therefore, the analysis is limited in its ability to validate that portion of the theory. However, legally relevant and extralegal factors were considered which would likely inform a judge's perception of blameworthiness and dangerousness. Specifically, results showed that offense seriousness and offense counts exerted strong influence across all models, as did, to varying degrees, other legally relevant factors such as prior incarcerations or specific offense types. Additionally, Afrocentric facial features mattered for Black males who were most likely to be perceived of as being Black, but did not matter for Black females.

The interaction between sex and Afrocentric facial features seems to inform the "perceptual shorthand" used by judges in assessing blameworthiness and dangerousness. This shorthand makes sense when considering a theoretical framework of feature-trait stereotyping based on Black stereotypicality. That is, stereotypes associated with dark-skinned or Afrocentric Black males as criminal and aggressive may make their way, implicitly, into sentencing decisions. If the focal concerns of blameworthiness and

dangerousness are indeed commonly used by judges, subconscious input regarding future offender risk and culpability no doubt inform this process, even as judges suppress reliance on racial category in making their decisions. However, what is not clear is whether a direct link can be made between Afrocentric facial features and perceived blameworthiness or dangerousness. The focal concern perspective's lack of testable hypotheses and interrelated concepts is one main critique of the theory (Hartley, Maddan, & Spohn, 2007), and is demonstrated in these results. Still, given the feature-trait theory, as well as an accumulation of research revealing negative stereotyping based on racial category, skin-tone, and facial features, it is conceivable that Afrocentric facial features do play some role in judicial decision-making based on the focal concerns perspective.

Though this study expands on the current literature by examining the effect of Afrocentric facial features in a new jurisdiction – a north-western state – and incorporates the interaction of sex, there are still a number of limitations for generalizability and directions for future research. Unlike previous studies, this analysis did not examine the effect of Afrocentric facial features possessed by White individuals, which yielded important findings in Florida (Blair, Judd, & Chapleau, 2004). Additionally, no study thus far has examined this dynamic for Hispanic/Latino individuals, who possess a broad range of stereotypical facial features and skin tones. An ideal research project, though extensive, would compare male and female offenders across many racial categories, and not only examine stereotypical Black features, but facial features and skin tones that are stereotypical of other racial groups.

A further limitation of this study is that skin tone was not differentiated from Afrocentric facial features. Though the concept of Afrocentric facial features was

explained to participants who rated the photographs, it is unclear the extent to which skin tone informed their ratings. Future research projects may consider either using a scaled variable based on ratings of separate features (e.g. skin tone, lips, nose), or measure cumulative facial features and skin tone separately in order to effectively distinguish the driving factor. The Afrocentric facial feature rating is also limited in its ability to capture Afrocentricity that extends beyond facial features. For example, in judging Afrocentricity, an individual may implicitly take other factors such as neighborhood, education or employment status, dress, family structure, speech pattern, or posture, into consideration. When making a sentencing decision, a judge would have knowledge of factors such as these, which may further influence their perception of Afrocentricity. The raters in this study, however, only saw a photograph of the individual and did not have access to such information. Future research projects should consider examining other factors that may inform perception of Afrocentricity, either in the lab or in criminal justice outcomes.

While consistent with findings from other states that reveal sentencing outcomes based on Afrocentric facial features, Oregon provides a unique context for study and discretion should be used in generalizing findings. The population of Oregon is predominantly White (88.3%) and has small population of Black individuals (2.0%) (U.S. Census Bureau, 2012). Therefore, racial dynamics may differ compared to states with larger racial minority populations. Further, Oregon utilizes a combination of guidelines and mandatory minimum sentencing, which may inform sentencing decisions in a different manner than non-guidelines or guidelines-only states.

A final, yet highly important, limitation of the research is a methodological issue that likely also affects other research on race and sentencing. As the findings suggest, perception of racial category may matter in determining the effect of Afrocentric facial features on sentence length. Extrapolated, one may also imagine that perception of racial category matters in examining broad racial category bias. Because sentencing data are usually secondary, and broad racial category is defined prior to reaching the hands of the researcher, a substantial amount of error may be introduced into the model. That is, certain individuals categorized as White may not be commonly perceived of as White by judges or other criminal justice professional, just as other racial categories may also be perceived of incorrectly. Assuming that decision-making by the judge, or other actor, is implicitly influenced by stereotypes associated with racial category or other race-associated features, individuals who have been "miscategorized" may be weakening the strength of the statistical model. In the case of this study, for example, individuals who are commonly perceived of as White, Asian, or any other racial category, may be included in the sample of Black individuals. This could dilute any effects regarding Black and White differences, and create the appearance of non-discrimination. Such a limitation may be, to some extent, responsible for the varying outcomes in sentencing literature. As research regarding race and criminal justice moves forward, this limitation will need to be addressed.

Section 6: Conclusion

Advancing the body of research that deals with racial nuances and sentencing has an evident and meaningful implication for the criminal justice system – increasing the potential for awareness and education around implicit bias. In the same way that Tonry (2010) argues that judges can be educated toward the suppression of explicit bias, so too may awareness and education provide the potential for acknowledging and suppressing implicit bias. If implicit biases cannot be easily controlled, as research and theory suggest, this may prove to be a difficult task (Bargh, 1994; Blair, Judd, & Fallman, 2004). However, a number of strategies that work to control bias appear promising. What is unknown is whether increased awareness and education can shift biases from the implicit to the explicit level, resulting in greater ease of control. If so, there is reason to be optimist about reducing race-based discrimination in criminal sentencing.

While much is still unknown regarding the ability to control or eliminate biases, particularly related to Afrocentric facial feature bias, research surrounding bias control offers promise. Monteith and Voils (2001) argue that there is adequate theoretical and empirical support to believe that automatic stereotyping can be undone, and describe several avenues through with prejudiced responses can be controlled: consciously generating egalitarian beliefs, correcting behaviors that are informed by stereotypes, and removing stereotypic thoughts from one's mind. However, Monteith and Voils clearly state that these controls will not work unless the individual is willing to recognize their biases, is desirous of change, and has the time and cognitive ability to implement a control strategy.

Similarly, Blair (2001) argues that automatic bias operates as a disease, rather than a monster, and therefore, can likely be controlled. She presents three possible approaches to mitigating implicit bias. Like Monteith and Voils (2001), Blair points out that suppression, or the attempt to consciously remove stereotypes from one's mind may be one effective strategy. She also presents two other approaches: changing the focus of one's attention away from the category clues that lead to stereotypes, and the promotion of counterstereotypes. Together with Monteith and Voils suggested control strategies, an encouraging list is created that can direct future research on bias control. However, not all strategies may be equally practical and useful for eliminating biased decision-making of judges in the criminal courts. Likely, strategies such as the development of egalitarian beliefs or consciously removing stereotypes from one's mind – those that have a long-term impact on the perception of judges – will be most effective.

As Monteith and Voils (2001) noted, any individual, including a judge, would need to be motivated to correct prejudicial thinking in order to reduce bias. This argument is supported by a body of research that examines personal motivation to eliminate bias. Based on this research, Butz and Plant (2009) developed a conceptualization of motivation to respond to personal bias, involving four categories of individuals based on internal motivation, or a personal desire to reduce prejudice, and external motivation, or the feeling of societal pressure to reduce prejudice. Of interest to this analysis, the authors classify those high in internal motivation and low in external motivation as "the effective" and those high in internal motivation and high in external motivation as "the determined." The labels for each group are based on research findings

suggesting that “effective” individuals express the least bias, at both the implicit and explicit levels.

For example, Devine, Plant, Amodio, Harmon-Jones, & Vance (2002) examined how internal or external motivation affected implicit and explicit biases. Findings suggested that “effective” individuals responded with lower levels of both explicit and implicit biases. However, “determined” individuals demonstrated lower level of explicit, but not implicit, bias. This suggests that motivation interacts with a sense of self-determination in reducing bias. Similar findings regarding “effective” and “determined” individuals has been found elsewhere (Amodio, Devine, & Harmon-Jones, 2008; Amodio, Harmon-Jones, & Devine, 2003; Hausmann & Ryan, 2004; Schlauch, Lang, Plant, Christensen, & Donohue, 2009). This may be because individuals with high external motivation work strategically to appear non-prejudice, but this strategy ironically backfires (Hausmann & Ryan, 2004).

For these reasons, efforts to reduce implicit bias amongst judges ought to work toward increasing internal motivation while limiting external, or societal, pressure. Although not yet researched, it is possible that for those already high in internal motivation to eliminate bias, as one might expect a judge to be, simple awareness and education may be sufficient in promoting bias control. This would encourage “effective” rather than “determined” decision-making, and reduce the risk of an ironic backfire associated with external pressure.

An additional, and still relatively subtle strategy, would be to encourage judges to participate in tasks that demonstrate that they have low levels of bias, or to reduce bias if it is present. Butz and Plant (2009) recommend that increasing confidence in one’s ability

to reduce bias, for those who are motivated to do so, may lead one more toward the "effective" category. These individuals will be less concerned with their ability to regulate prejudice given that they know control is something they are capable of. Such a strategy also promotes self-determination. This also frees individuals from the fear of social punishment, or high external motivation. This technique would involve continued practice with tasks that work toward effectively controlling prejudice to the point that it is eliminated.

For example, Plant, Peruche, and Butz (2005) conducted several experiments in order to determine whether removing race as a beneficial tool for categorization would decrease implicit bias. Pretending to be police officers, participants were shown photos of Black and White males and either a gun or neutral object. Participants then had to quickly decide whether or not to "shoot" based on the object. Initial results indicated that participants expressed bias by the types of errors that they made. Participants made more errors when Black people had neutral objects than when they had guns. Oppositely, they made more errors when White people had guns than when they had neutral objects. However, after practicing the task, in which it was equally likely that a Black of White individual would possess a gun, biases were eliminated. This remained true even after repeating the task 24 hours later.

For a judge who is aware of Afrocentric facial feature bias and is internally motivated to make decisions that are free of such bias, completing a task similar to the Plant et al. (2005) study could be key to fair sentencing outcomes. The task could bring awareness to this form of bias, give judges practice controlling prejudice, and build confidence in their ability to eliminate difficult-to-control implicit biases. However, it

may also be true that awareness efforts alone are sufficient to control judicial bias related to Afrocentric facial features or other racial cues, especially if judges are the self-determined, or "effective," type. To date, no published research has sought to examine the motivation types (e.g. effective, determined) of judges pertaining to bias control, nor has any research sought to evaluate efforts to control bias in judges or other criminal justice professionals. It is unclear whether judges, in general, would even be open to such efforts. As the fifth wave of race and sentencing research continues to unfold, researches may consider including applied projects, such as these, in their research.

This research has demonstrated that moving the focus of race and sentencing literature toward more nuanced conceptualizations of race is instrumental in understanding bias in the criminal justice system. Additionally, the accumulation of research pertaining to Afrocentric facial feature and skin tone bias, as well as other forms of implicit bias, suggest that efforts must be taken to correct the use of stereotypes in judicial decision-making. Sentencing guidelines, while perhaps reducing some forms of discrimination, are not a sufficient tool in eliminating bias completely. Shifting some focus of the race and sentencing literature toward the purposive implementation of strategies that eliminate bias will play an important role in encouraging fair sentencing practices into the future.

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Appendix

Table A.1
Bivariate correlations, full sample, weighted, n = 600

	Sentence length	Offense seriousness	Offense counts	Prior felonies	Prior incarcerations	Probation violations	Murder	Sex offense
Offense seriousness	0.69***							
Offense counts	0.40***	0.20***						
Prior felonies	-0.15***	-0.18***	-0.05					
Prior incarcerations	-0.06	-0.15***	-0.05	0.43***				
Probation violations	-0.36***	-0.38***	-0.14***	0.25***	0.31***			
Murder	0.46***	0.20***	0.05	-0.07	-0.13**	-0.13**		
Sex offense	0.40***	0.35***	0.24***	-0.12**	-0.19***	-0.31***	-0.11**	
Weapon	0.11**	0.12**	0.10*	-0.03	0.17***	-0.02	0.09*	-0.14***
Person	0.17***	0.34***	-0.12**	-0.11**	0.07	-0.11**	0.06	-0.37***
Property	-0.24***	-0.27***	0.25***	0.16***	0.13***	0.28***	-0.04	-0.35***
Drug	-0.22***	-0.40***	-0.02	0.09*	0.07	0.17***	-0.08	-0.19***
Race	-0.03	0.01	-0.02	0.02	0.08	0.00	-0.03	-0.07
Sex	0.14***	0.15***	0.02	-0.03	0.07	-0.07	0.04	0.14***
Age at admission	0.13**	0.04	0.07	0.36***	0.20***	-0.16**	0.08	0.17***
Height	0.05	-0.03	-0.02	-0.02	0.13***	0.07	0.01	-0.03
Weight	0.06	-0.05	-0.01	0.03	0.11***	0.00	0.09*	-0.04

	Weapon	Person	Property	Drug	Race	Sex	Age at admission	Height
Person	0.06							
Property	-0.04	-0.26***						
Drug	0.07	-0.12**	-0.05					
Race	0.09*	0.07	0.01	0.00				
Sex	0.05	0.04	-0.10*	-0.09*	0.03			
Age at admission	0.11**	-0.15***	-0.10*	0.02	-0.08	-0.01		
Height	0.00	0.06	0.02	0.02	0.01	0.51***	-0.03	
Weight	0.05	-0.03	0.01	0.05	0.07	0.24***	0.12***	0.50***

*p < .05. **p < .01. ***p < .001

Table A.2
Bivariate correlations, all Black individuals, weighted, n = 201

	Sentence length	Offense seriousness	Offense counts	Prior felonies	Prior incarcerations	Probation violations	Murder	Sex offense
Offense seriousness	0.70***							
Offense counts	0.42***	0.23***						
Prior felonies	0.04	-0.13	0.06					
Prior incarcerations	0.12	-0.13	0.15*	0.44***				
Probation violations	-0.29***	-0.27***	-0.01	0.27***	0.26***			
Murder	0.32***	0.15*	-0.15*	-0.10	-0.11	-0.11		
Sex offense	0.36***	0.34***	0.23***	0.06	-0.12	-0.13	-0.06	
Weapon	0.07	0.07	0.08	-0.04	0.21**	0.06	-0.06	-0.18**
Person	0.25***	0.39***	0.12	-0.11	-0.01	-0.06	-0.13	-0.23***
Property	-0.08	-0.08	0.16*	-0.07	-0.05	-0.02	-0.10	-0.20**
Drug	-0.22**	-0.47***	0.00	0.18**	0.21**	0.20**	-0.05	-0.17**
Sex	0.11	0.14	0.06	-0.03	0.03	-0.04	-0.01	0.09
Age at admission	-0.05	-0.21**	0.00	0.49***	0.35***	0.15*	-0.11	0.08
Height	-0.13	-0.09	-0.11	-0.04	0.09	-0.05	-0.17*	0.028
Weight	-0.09	-0.11	0.03	0.14*	0.15*	-0.09	-0.11	0.10
Afrocentric rating	0.27***	0.34***	0.08	-0.05	-0.14*	-0.19**	0.03	0.03

	Weapon	Person	Property	Drug	Sex	Age at admission	Height	Weight
Person	0.02							
Property	-0.19**	-0.23***						
Drug	0.03	-0.22**	-0.21**					
Sex	0.06	0.05	-0.11	0.00				
Age at admission	0.01	-0.27***	-0.10	0.22**	0.02			
Height	0.10	0.06	-0.03	0.014	0.45***	0.05		
Weight	0.06	-0.09	-0.08	0.11	0.12	0.31***	0.40***	
Afrocentric rating	0.00	0.13	0.01	-0.21**	0.03	0.07	-0.11	0.04

*p < .05. **p < .01. ***p < .001

Table A.3
Bivariate correlations, Black males, n = 110

	Sentence length	Offense seriousness	Offense counts	Prior felonies	Prior incarcerations	Probation violations	Murder	Sex offense
Offense seriousness	0.71***							
Offense counts	0.43***	0.25**						
Prior felonies	0.07	-0.12	0.07					
Prior incarcerations	0.14	-0.13	0.18	0.44***				
Probation violations	-0.28**	-0.26**	-0.01	0.26**	0.25**			
Murder	0.31***	0.15	-0.18	-0.10	-0.11	-0.11		
Sex offense	0.37***	0.34***	0.24**	0.08	-0.13	-0.13	-0.06	
Weapon	0.06	0.05	0.08	-0.04	0.23**	0.07	-0.06	-0.20*
Person	0.23*	0.36***	0.15	-0.10	0.00	-0.04	-0.15	-0.24*
Property	-0.05	-0.04	0.15	-0.11	-0.05	-0.04	-0.09	-0.20*
Drug	-0.23*	-0.48***	0.00	0.20*	0.22*	0.21*	-0.05	-0.18
Age at admission	-0.05	-0.21*	0.00	0.49***	0.34***	0.15	-0.11	0.09
Height	-0.22*	-0.18	-0.16	-0.03	0.09	-0.04	-0.21*	-0.01
Weight	-0.11	-0.12	0.03	0.17	0.16	-0.08	-0.12	0.10
Afrocentric rating	0.28**	0.37***	0.08	-0.04	-0.15	-0.19*	0.04	0.03

	Weapon	Person	Property	Drug	Age at admission	Height	Weight
Person	0.01						
Property	-0.20*	-0.20*					
Drug	0.04	-0.22*	-0.21*				
Age at admission	0.01	-0.27**	-0.12	0.24*			
Height	0.08	0.05	0.03	0.02	0.06		
Weight	0.07	-0.10	-0.08	0.11	0.33***	0.41***	
Afrocentric rating	0.00	0.13	0.02	-0.22*	0.08	-0.14	0.03

*p < .05. **p < .01. ***p < .001

Table A.4
Bivariate correlations, Black females, n = 91

	Sentence length	Offense seriousness	Offense counts	Prior felonies	Prior incarcerations	Probation violations	Murder	Sex offense
Offense seriousness	0.54***							
Offense counts	0.25**	-0.14						
Prior felonies	-0.24*	-0.26*	-0.09					
Prior incarcerations	-0.13	-0.26*	-0.18	0.50***				
Probation violations	-0.36***	-0.29**	-0.01	0.37***	0.41***			
Murder	0.55***	0.22*	0.16	-0.11	-0.10	-0.13		
Sex offense	0.06	0.17	-0.06	-0.26*	-0.12	-0.16	-0.03	
Weapon	0.12	0.27**	0.09	-0.08	-0.10	-0.07	-0.04	-0.05
Person	0.48***	0.68***	-0.29**	-0.24*	-0.13	-0.26*	0.17	-0.17
Property	-0.34***	-0.36***	0.39***	0.28**	0.03	0.16	-0.15	-0.19
Drug	-0.08	-0.41***	0.05	-0.04	0.06	0.06	-0.06	-0.07
Age at admission	-0.07	-0.21*	-0.01	0.59***	0.51***	0.19	-0.12	-0.05
Height	-0.10	0.00	-0.10	-0.09	-0.04	0.03	0.13	-0.04
Weight	-0.07	-0.19	-0.02	-0.04	-0.01	-0.10	-0.02	0.08
Afrocentric rating	0.07	0.00	0.08	-0.18	-0.06	-0.19	-0.05	0.14

	Weapon	Person	Property	Drug	Age at admission	Height	Weight
Person	0.15						
Property	-0.05	-0.63***					
Drug	-0.11	-0.22*	-0.14				
Age at admission	-0.04	-0.18	0.09	-0.03			
Height	0.02	0.08	-0.15	-0.01	-0.12		
Weight	-0.17	-0.08	0.02	0.17	0.19	0.22*	
Afrocentric rating	-0.07	0.08	-0.04	-0.09	-0.09	-0.10	0.07

*p < .05. **p < .01. ***p < .001