

UNLEARNING THE NARRATIVE: INTEGRATING RELATIONSHIP SCIENCE
AND MACHINE LEARNING TO IDENTIFY THE DETERMINANTS OF AFRICAN
AMERICAN ADULTS' ROMANTIC RELATIONSHIP SATISFACTION

A Dissertation
presented to
the Faculty of the Graduate School
at the University of Missouri-Columbia

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

ALAYSIA MARIE BROWN

Dr. Antoinette M. Landor, Dissertation Supervisor

DECEMBER 2022

© Copyright by Alaysia Brown 2022
All Rights Reserved

The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

UNLEARNING THE NARRATIVE: INTEGRATING RELATIONSHIP SCIENCE
AND MACHINE LEARNING TO IDENTIFY THE DETERMINANTS OF AFRICAN
AMERICAN ADULTS' ROMANTIC RELATIONSHIP SATISFACTION

presented by Alaysia Marie Brown,

a candidate for the degree of doctor of philosophy,

and hereby certify that, in their opinion, it is worthy of acceptance.

Professor Antoinette M. Landor

Professor Duane Rudy

Professor Tashel Bordere

Professor Douglas Steinley

Professor Katharine H. Zeiders

DEDICATION

I write this dedication from a place of remembrance and appreciation...and as an ode to where I have been and have yet to go. Earning my doctoral degree was one of the hardest things I have ever done and is my greatest accomplishment. This dissertation is a testament to this journey and is the physical embodiment of the hard work and sacrifices I've made over the last six years. Its lines are the product of teary eyes and sleepless nights, but also intellectual curiosity and burning passion. I write this dedication as a way to honor these efforts and to give thanks to the people who have supported me along the way. First, I would like to thank my parents: Freda Fowler, Kasey Brown, Steve Lynch, and Diane Brown. Your efforts laid the foundation for many of the qualities that helped me achieve this milestone. I would also like to thank my USD family, and specifically, Jennifer Petrie and the USD athletic administration, Shelly, Ramiro, and the McNair Scholars program, and my undergraduate advisor Dr. Nadav Goldschmied. Without their efforts I would not have had the knowledge, resources, and direction necessary to enter a PhD program. I would also like to thank my professors at the University of Missouri for continually filling me with knowledge and inspiring me to think differently about human development and social equity. Lastly, I would like to thank the individuals who were there for me throughout this journey and will undoubtedly be there for many more milestones: Sophia, Sophie, Larissa, Ken, Joel, Frank, Jen, Chris, David, Preston, and Diana. I love you all more than you know.

ACKNOWLEDGEMENTS

I would like to express my gratitude and appreciation to the generations of families who dedicated their time and effort to participate in the Family and Community Health Study. I would also like to thank the FACHS principal investigators who worked tirelessly to make this study possible and graciously allowed me to access this data. I would also like to thank my mentors Drs. Antoinette Landor and Katharine Zeiders. Words cannot express how influential you both have been throughout this journey...because of you two I speak with the utmost confidence, have the courage to take up space, and believe wholeheartedly in my abilities. I would also like to thank my committee members, Drs. Tashel Bordere, Duane Rudy, and Douglas Steinley. Each of you provided a level of subject matter expertise, support, and understanding that was integral to the completion of this project. Lastly, I would like to thank the University of Missouri Department of Human Development and Family Science for affording the resources and opportunities necessary to carry out this project and successfully defend my dissertation.

TABLE OF CONTENTS

1. INTRODUCTION.....	1
Goals of the Study	
2. LITERATURE REVIEW	
The Historical and Contemporary Significance of Race and Racism in the United States.....	5
Addressing the White Standard: Moving Towards the Development of an Integrative Framework for the Study of African American Relationships.....	6
General and Socioculturally Relevant Determinants of Relationship Satisfaction.....	8
Integrating Machine Learning and Relationship Science.....	35
The Current Study.....	41
3. METHODS.....	44
4. RESULTS.....	53
5. DISCUSSION.....	56
Strengths and Limitations	
Conclusion	
APPENDIX	
1. PLOTS OF RECURSIVE FEATURE ELIMINATION RESULTS.....	73
2. PLOT OF VARIABLE IMPORTANCE SCORES FROM RECURSIVE FEATURE ELIMINATION.....	75
3. TABLES OF STUDY MEASURES.....	76
4. TABLES OF CROSS-VALIDATION METRICS FOR FULL AND REDUCED DATASET.....	99
5. TABLE OF REGRESSION RESULTS PREDICTING RELATIONSHIP SATISFACTION.....	102
REFERENCES.....	103
VITA.....	123

LIST OF FIGURES

FIGURE

1. Recursive Feature Elimination – Cross-Validation RMSE for Each Subset of Features.....73
2. Recursive Feature Elimination – Coefficient of Determination for Each Subset of Features.....74
3. Plot of Variable Importance Scores for Selected Features (N = 23).....75

LIST OF TABLES

TABLE

1. Study Measures by Predictor Domain – Individual Experiences and Intrapersonal Characteristics.....	76
2. Study Measures by Predictor Domain – Relationship-Specific Experiences.....	84
3. Study Measures by Predictor Domain – Family of Origin and Childhood Environment.....	90
4. Study Measures by Predictor Domain – Contextual Factors and Sociocultural Stressors.....	95
5. Cross-Validation Metrics for Full (N = 139) and Reduced (N = 23) Set of Features.....	99
6. Cross-Validation Metrics for General and Socioculturally Relevant Features (n = 23).....	100
7. Cross-Validation Metrics for Individual, Relational, Familial, and Contextual and Sociocultural Features (n = 23).....	101
8. Results of Linear Regression Predicting Relationship Satisfaction.....	102

UNLEARNING THE NARRATIVE: INTEGRATING RELATIONSHIP SCIENCE
AND MACHINE LEARNING TO IDENTIFY THE DETERMINANTS OF AFRICAN
AMERICAN ADULTS' ROMANTIC RELATIONSHIP SATISFACTION

Alaysia Marie Brown

Dr. Antoinette M. Landor, Dissertation Supervisor

ABSTRACT

Foundational theories in relationship science offer generalized explanations of relationship processes and outcomes that do not acknowledge the central role that race and racism may play in structuring intimate partnerships. This omission is particularly consequential given the salience of racial and ethnic stratification for U.S. social systems and disparities in relationship outcomes. For example, scholars argue that the weight of historical and contemporary racial oppression may be reflected more deeply in African American partnerships relative to groups of similar economic and social status and have used terms like residual effects of slavery and post-traumatic slave syndrome to draw attention to the enduring impact that these practices have had on the interpersonal outcomes of African Americans. These findings suggest that although there may be determinants of relationship quality and adjustment that are germane to most relationships, there may be contextual and sociocultural factors there may be considerations that harbor unique significance for the relationship outcomes of certain groups. The current study aimed to test this assertion using data from the Family and Community Health study (N = 306) and employed random forest analyses to identify a comprehensive set of individual, relational, familial, and contextual and sociocultural

predictors that demonstrated high utility in predicting relationship satisfaction for African Americans.

A total of 23 features were identified as the most proximal predictors of relationship satisfaction for African American couples and were able to predict 48% of the variation in this outcome. Constructs that were most useful for predicting relationship satisfaction were general and relationship-specific and have been highlighted in several relationship process theories, including the VSA model, attachment theory, social exchange theory, social exchange theory, marital paradigm theory, interpersonal process models of intimacy, and ecological perspectives of romantic relationship quality and adjustment. Findings from this dissertation broaden understanding of the utility of foundational theories in predicting relationship satisfaction for African American couples and suggest that traditional paradigms and constructs in relationship science are an important starting point for understanding the correlates of relationship satisfaction for African American couples. In tandem, results also suggests that existing frameworks can be augmented by the inclusion of socioculturally relevant predictors.

Keywords: romantic relationships, race, Black couples, relationship satisfaction, machine learning

“In general, everything the imagined traditional family ideal is thought to be, African American families are not.” (Collins, 1990, pg. 43).

Chapter 1

Extant literature has demonstrated a robust association between romantic relationship quality and physical and psychological well-being. For example, metaanalysis on the benefits of romantic relationships indicate that individuals who are involved in satisfying romantic partnerships tend to experience greater life satisfaction, fewer physical health problems, and report better psychological adjustment (Barr, Culatta, & Simons, 2013; Hawkins & Booth, 2005; Rhoades et al., 2011; Robles et al., 2014). An individual’s relationship quality and adjustment also harbor multigenerational implications. Children who grow up in households with happy and satisfied parental marriages experience higher quality parenting, better mental and physical health outcomes, increased academic engagement and performance, and exhibit greater social competence (James et al., 2021; Moore, Kinghorn, & Bandy, 2011). Given the salience of romantic relationship quality for health and well-being, one of the primary goals of relationship science has been to identify the determinants of relationship quality and adjustment (Joel et al., 2020).

Scholars from a wide-range of disciplines—including family science, sociology, psychology, communication, demography, public policy, history, and neuroscience—have proposed numerous constructs, processes, and theories that have come to guide our understanding of intimate partnerships. For example, the vulnerability-stress-adaptation model developed by Karney and Bradbury (1995) is a foundational framework in relationship science that proposes a set of factors that are universally important to all

couples. The VSA model asserts that the quality and longevity of romantic partnerships is influenced by the interplay between preexisting vulnerabilities partners bring to the relationship, stressful events or circumstances couples experience, and adaptive processes that characterize the couple relationship.

Although universal frameworks are fundamental to any scientific discipline, their utility hinges on the demographic characteristics of the samples used to construct these models. Frameworks that characterize relationship science tend to originate from research on majority group members (Bryant, 2010) and purport a model of intimate relationships that places White middle-class understandings of romantic relationships at the center. The true danger arises when scholars conceptualize these models as exemplary of basic relational processes (Dion & Dion, 1996) and standards and conceptualizations for intimate partnership functioning and outcomes are applied to all couples without considering the impact of cultural and systemic factors. Unquestioningly applying these conceptualizations to other racial and ethnic groups prioritizes a single standard for intimate partnerships and may inadvertently pathologize the diverse ways that individuals of color interpret and experience their relationships. To truly understand relationship processes and outcomes, scholars must make a concerted effort to redefine what is considered normal, standard, and ideal. This requires deepening our understanding of how racial and ethnic stratification may influence intimate partnerships and recentering our knowledge to better reflect this impact.

One barrier to the development of contextually and culturally-informed relational frameworks is the lack of integration among literature on relationship quality and adjustment (Karney & Bradbury, 1995). As mentioned previously, relationship science is

a rich and interdisciplinary field characterized by numerous paradigms and theories, and although its transdisciplinary nature is a major strength, it also presents an obstacle to synthesizing findings into a cohesive body of work. Finkel and colleagues (2017) take a step in this direction and identify 14 core principles that characterize the literature on intimate partnership outcomes. Authors assert that research on the correlates of relationship quality and adjustment generally reflect the following categorizations: 1) the experiences, traits, and cognitions individuals bring into their relationship, 2) experiences and interactions that occur within the partnership, 3) and external stressors and contextual factors. Although these efforts are an essential step towards organizing the vast literature on the determinants of relationship quality and adjustment, findings do not clarify the most important determinants of intimate partnership outcomes. Core principles were selected based on how often they appeared in extant literature and a construct's inclusion in this study may or may not reflect its utility in predicting relationship quality and adjustment.

Despite evidencing features that are well-suited for theory development, machine learning has rarely been applied to the study of romantic relationships. Machine learning techniques have been used to statistically synthesize findings from a large body of literature (e.g., Joel et al., 2020) and offer a way to empirically assess the utility of foundational assumptions and beliefs that govern relationship science. These algorithms are equipped to handle a large number of predictors simultaneously (Brieman, 2001) and can help quantify the predictive power of the wide array of constructs in the literature on relationship quality and adjustment. Non-parametric machine learning algorithms also permit the discovery of non-linear relations and interactions between variables (Brieman,

2001), which allows researchers to better reflect the complexity of relationship processes and outcomes. From these findings, researchers can develop theoretical frameworks that more effectively model racial and ethnic diversity in relationship processes and outcomes.

Chapter 2

The Historical and Contemporary Significance of Race and Racism in the United States

Critical race theorists underscore the salience of racial and ethnic hierarchies for U.S. social structures and systems and argue that we cannot fully understand individuals' processes and outcomes without considering how these sociocultural forces shape one's choices, experiences, and life chances. Race and ethnicity have long-functioned as axes of social positioning that influence the conferral of power, privilege, and material disadvantage (Williams & Sternthal, 2010). U.S. citizenship laws and Jim Crow segregation are a poignant example of the power of Whiteness as an organizing force and its role in creating the structures and ideologies used to justify racial inequity (Bonilla Silva, 2006). From the outset, U.S. laws restricted the privileges of citizenship to Whites only; and given the abstract and socially-constructed nature of race and ethnicity, these policies effectively granted majority group members the power to decide *who* belonged and *why* (e.g., skin color, physical characteristics, intellect, cultural practices; Lopez, 1997).

Although all minoritized groups experience systemic racism, U.S. racial and ethnic hierarchies are rooted in anti-Blackness (The National Scientific Council on Adolescence, 2021) and exert a profound impact on the life chances and interpersonal outcomes of African Americans. Scholars have used terms like residual effects of slavery and post-traumatic slave syndrome to draw attention to the enduring impact that these practices have had on the individual and interpersonal outcomes of African Americans (Wilkins et al., 2013) and argue that African Americans have felt the weight of systemic

oppression more deeply compared to groups of similar economic and social status (Bryant et al., 2010). Contemporary demographic data indicates that African Americans report lower household income and experience disproportionate rates of unemployment, poverty, and incarceration compared to other racial and ethnic minority groups (Bureau of Labor Statistics, 2021; Creamer, 2020; Gramlich, 2020). Research has also indicated that African Americans tend to report lower marital happiness, quality, and satisfaction as well as greater relationship conflict, instability, and dissolution (Amato, 2011; Bulanda & Brown, 2007). Historical, contextual, sociocultural factors undoubtedly play a role in influencing observed outcomes and failure to incorporate these considerations into foundational relationship frameworks inhibits our ability to gain a full understanding of intimate partnerships, particularly as it relates to African American couples.

Addressing the White Standard: Moving Towards the Development of an Integrative Framework for the Study of African American Relationships

Black scholars have pioneered efforts to explicate the constructs and processes central to African American relationships and have laid the foundation for developing a contextually and socioculturally-informed framework for understanding African American relationship functioning. Chambers' (2019) outlines the core elements of these frameworks in her work on employing integrative systemic therapy and asserts that, "The complexity of issues germane to African Americans accentuates the need for integrative models that factor in the historical legacy of slavery while also accounting for progress and resiliency through a strength-based approach" (Chambers, 2019, p. 607). Bryant and colleagues (2010) take a pivotal step in this direction and introduce a conceptual model

that explicates the determinants of marital outcomes for African American couples. This framework makes a concerted effort to explicate the stressors that are highly relevant to African American couples and identifies racial discrimination, minority stress, financial strain, and community adversity as sociocultural stressors that may influence African Americans' marital quality and stability. Black scholars have also worked diligently to identify the ways that African American couples may exude resilience or demonstrate "good outcomes in spite of serious threats to adaptation or development" (Masten, 2001, p. 228). For example, researchers have highlighted culturally-rooted values such as collectivism, spirituality, religiosity, and extended family as important individual and couple-level resources (McAdoo, 2002) and have articulated the ways that Black marriages have been empowering and pioneering in their undoing of traditional gender roles (Johnson & Loscocco, 2015).

Although this literature offers valuable insight into the variables that may be socioculturally relevant for African American couples, many of the proposed constructs have not been empirically tested and a theoretical framework that articulates the most robust determinants of relationship outcomes for African Americans has yet to be developed (Bryant et al., 2010). This dissertation aimed to fulfil pertinent gaps in extant literature by empirically evaluating the utility of general and socioculturally relevant constructs in predicting relationship satisfaction for African American couples. For the purposes of this study, general predictors are constructs that have been conceptualized as central to all relationships, irrespective of race or ethnicity. In contrast, socioculturally relevant constructs are predictors that may harbor unique importance for specific racial or ethnic groups.

This dissertation focused on relationship satisfaction as the outcome of interest due to its significance in relationship science and importance in predicting intimate partnership outcomes. Relationship satisfaction is defined as individual's affective sentiments or feelings about their relationship (Fincham & Beach, 2006) and is one of the most studied constructs in relationship science. To assess one's satisfaction with their relationship, an individual must integrate a series of individual experiences and judgements about their partner and relationship into one global evaluation of their partnership (Neff & Karney, 2004; Neff & Karney, 2009). Conclusions derived from this process are consequential for relationship quality and longevity; and relationship dissatisfaction is one of the final precursors to relationship dissolution (Fincham & Beach, 2006).

General and Socioculturally Relevant Determinants of Relationship Satisfaction

The following sections outline the individual, relational, familial, and contextual predictors that are generally associated with relationship satisfaction and draw attention to the constructs within each domain that may be uniquely relevant to African American couples. Each section begins with a synthesis of major findings from systematic reviews (e.g., Bradbury, Fincham, & Beach, 2000; Fincham & Beach, 2006; Finkel, Simpson, & Eastwick, 2017; Karney & Bradbury, 1995) and ends with an articulation of the constructs within each domain that may be socioculturally relevant for African American couples (e.g., Bryant et al., 2010, Chambers & Lebow, 2008; Pinderhughes, 2002, Wheeler, 2013). Factors outlined in each section are not an exhaustive list of all constructs and processes that are associated with relationship satisfaction. Instead, these

sections highlight constructs that have strong empirical and theoretical support for their influence on relationship satisfaction.

Individual Experiences and Intrapersonal Characteristics

The vulnerability, stress, adaptation model draws attention to factors that predate relationship formation and assert that the individual resources and vulnerabilities partners bring to their relationship influence its quality and longevity (Karney & Bradbury, 1995). Scholarship on the individual factors associated with relationship satisfaction indicates personality traits, emotional and psychological functioning, relationship-related cognitions, and attachment style harbors important implications for an individual's ability to manage relationship stressors and sustain their partnership. In addition, sociodemographic factors such as gender, skin tone, educational attainment, and parenting status have also been noted as key determinants of intimate partnership outcomes (Cutrona et al., 2011; Jackson et al., 2014; Landor & Barr, 2018).

Personality, Affect, and Psychological Well-Being

Personality encompasses the relatively stable ways individuals think, feel, and behave and may be a source of strength or vulnerability in interpersonal relationships (Malouff et al., 2010). Certain traits may make an individual more prone to experiencing negative mood states and emotional reactivity, which may increase their likelihood of engaging in angry or irritable behavior. For example, research linking the Big Five personality factors to relationship quality and adjustment indicates that individuals who report high levels of neuroticism—or who frequently experience negative emotions such as anxiety, anger, sadness, self-consciousness, and impulsivity—tend to experience more troubled and dissatisfactory romantic relationships (Karney & Bradbury, 1995; Malouff

et al., 2010). Individuals who frequently experience negative emotions also tend to exhibit greater sensitivity to relational stressors and may find it difficult to separate these sentiments from perceptions of their partner and relationship satisfaction. When confronting relationship challenges, they are more likely to interpret their partner's actions as hostile or aggressive and to behave in ways that exacerbate conflict and relationship distress (Finn, Mitte, & Neyer, 2013; McNulty, 2008). Alternatively, individuals who exhibit a high level of agreeableness (e.g., altruistic, trusting), conscientiousness (e.g., self-disciplined, organized, impulse control), and/or extraversion (e.g., sociable, active, assertive, positive emotionality) tend to experience more satisfactory relationships (Malouff et al., 2010).

Psychological well-being functions similarly in intimate partnerships and facilitates engagement in more positive relationship behaviors and adaptive responses to relational challenges. Scholars have linked increased anxiety and depressive symptoms to lower actor and partner reports of marital satisfaction (Rehman et al., 2015; Renshaw, Blais, & Smith, 2010). Scholarship exploring these trends using African American samples evidences a similar pattern and indicates that poorer psychosocial adjustment is associated with lower actor and partner relationship satisfaction over time (Jenkins et al., 2020). Empirical work that examines the mechanisms underlying this association suggest that psychosocial risk may gradually erode relationship satisfaction by negatively biasing perceptions of one's partner and increasing engagement in maladaptive relationship behaviors (Bryant et al., 2016; O'Neal et al., 2015).

Self-Concept and Self-Esteem

Self-concept clarity is an intrapersonal and interpersonal asset and involves developing a distinct, clearly defined, and consistent sense of self (Lewandowski et al., 2010). Individuals who possess self-concept clarity are less likely to endorse conflicting views of the self or to change their self-perceptions over time, which has positive implications for psychosocial adjustment and relationship satisfaction (Lewandowski et al., 2010). Symbolic interactionists argue that we come to understand ourselves through interpersonal interactions (Smith et al., 2009) and integrating this principle with social identity theory (Tajfel, 2010)—which emphasizes the importance of group membership in shaping self-construal—would suggest that the process of identity development for individuals of color may be complicated by the larger sociocultural context.

DuBois (1903) draws attention to the salience of racial and ethnic hierarchies in shaping how African Americans view themselves through the term double consciousness, which he defines as a “sense of always looking at oneself through the revelation of the other world” (p. 2). For African Americans, identity development involves a dual focus on the self and racial and ethnic group membership (Guillory, 2021); and awareness of denigrating stereotypes and assumptions relating to one’s racial or ethnic group may indirectly influence interpersonal outcomes through its impact on self-concept. For example, Doyle and Molix (2014a) found that individuals of color who encounter greater every day and lifetime exposure to discrimination are likely to experience poorer relationship quality. Lower self-acceptance partially mediated this pathway, suggesting that chronic exposure to race-related stressors may engender interpersonal vulnerability by making it more difficult for individuals of color to develop self-concept clarity or to reconcile with negative aspects of themselves.

Self-esteem is distinct from self-concept and is an individual's assessment of their value or worthiness. Individuals who view themselves positively tend to experience fewer depressive symptoms and negative affect, more positive emotionality, and greater relationship satisfaction (Orth, Robins, & Widaman, 2012). Self-esteem is also associated with partner relationship satisfaction (Erol & Orth, 2014) and is positively associated with the trajectory of an individual's relationship satisfaction across the life course (Orth, Robins, & Widaman, 2012). Self-esteem may impact actor and partner relationship satisfaction by influencing an individual's cognitions and relationship behavior. Individuals with low self-esteem are more likely to worry about perceived relational threats (e.g., rejection, abandonment, etc.) and whether their partner is responsive and available (Erol & Orth, 2013). This in turn, may cause individuals to act in ways that are self-protective, yet maladaptive for their partnership, such as seeking constant reassurance, engaging in distancing behaviors, and exhibiting lower levels of commitment (Erol & Orth, 2013; Robinson & Cameron, 2012).

Relationship Cognitions, Attachment Style, and Interpersonal Behaviors

Marital paradigm theory asserts that our fundamental beliefs about relationships and marriage influence how we develop and maintain our partnerships (Willoughby, Hall, & Luczak, 2015). Individuals who possess more favorable views about relationships and marriage are more likely to get married (Hurt et al., 2014) and to engage in behaviors that support the stability of their partnership (Willoughby, 2015). For example, individuals who believe that marriage is a permanent institution and central life goal tend to exhibit greater relationship commitment, which in turn, is associated with increased

relationship effort and satisfaction as well as decreased relationship instability (Willoughby, 2015). Endorsing positive beliefs about the benefits of marriage is also an adaptive individual resource in relationships (Hurt, 2014). Using prospective analyses, Masarik and colleagues (2013) found that individuals who internalized the belief that marriage leads to a happier and more fulfilling life reported more positive interactions in their partnerships and increased relationship satisfaction. Alternatively, individuals who possessed unrealistic or hostile relationship beliefs were more likely to experience dissatisfaction and were less inclined to persist through relationship difficulties.

Developmental perspectives of relationship quality and adjustment extend marital paradigm theory by identifying the family of origin as a formative developmental context that shapes an individual's relationship cognitions. This includes general beliefs about the self, world, and relationships, thoughts about marriage and divorce, and explanations for partner behavior (Bryant & Conger, 2002). An individual's working model of relationships informs how they interpret and assign meaning to interpersonal experiences. For example, Simons et al. (2014) found that African American emerging adults who exhibited hostile attribution bias were more likely to perceive their partner as inconsiderate and untrustworthy, to ascribe negative motives to their behavior, and to engage in coercive or controlling actions. The tendency to generate maladaptive attributions for relationship events, or a partner's behavior, increases an individual's likelihood of engaging in actions that are detrimental to marital satisfaction, such as hostility and ineffective conflict resolution.

Attachment theorists also assert that an individual's patterned responses in interpersonal relationships are a direct reflection of their relational schemas. Adult attachment styles are categorized by two dimensions: 1) the desire for intimacy and closeness and 2) fear of being abandoned (Miller, 2018). Securely attached individuals are comfortable with intimacy and behave in ways that are conducive to positive relationship outcomes (Erol & Orth, 2013). Alternatively, insecurely attached individuals tend to possess maladaptive relationship cognitions and interact in ways that decrease relationship satisfaction (Candel & Turliuc, 2019; Li & Chan, 2012). Individuals who are preoccupied or anxiously attached behave in ways that are similar to individuals with low self-esteem and are likely to experience low feelings of self-worth and to seek constant reassurance. Alternatively, individuals with dismissive attachment styles often distrust their partner's ability to be there for them and are likely to opt for independence and self-reliance.

Sociodemographic Characteristics and Experiential Factors

Skin tone may also constrain the dating and marriage market for darker skin African American women and limit available choices in partners (Landor & Barr, 2018). Educational attainment functions as an important individual and couple-level resources in that it typically affords greater financial resources, which reduces a couple's likelihood of experiencing financial strain and residing in economically disadvantaged neighborhoods that offer limited relational and parenting supports (Cutrona et al., 2011). Parenthood status and particularly, children from a previous relationship, may also influence relationship quality and adjustment by reducing the time African American couples are

able to spend with one another and by increasing the propensity to experience co-parenting strain (Cutrona et al., 2011; Marks et al., 2008).

Socioculturally Relevant Attributes: Racial Identity, Black Pride, Cool Pose, Black Superwoman Schema, Religiosity, and Spirituality

To develop a positive racial identity, an individual must cultivate an understanding of how their racial or ethnic group is perceived by society, while simultaneously maintaining a positive view of oneself as a member of said group (Neville & Cross, 2017). Individuals who exhibit positive racial identity maintain a connection to their racial and ethnic group and integrate this affiliation into their self-definition. Positively evaluating oneself and one's racial or ethnic group are two aspects of racial identity development that are associated with greater psychological adjustment (Hughes et al., 2015). Racial identity may also have indirect implications for African American couples' relationship satisfaction due to its influence on psychological functioning and intradyadic processes (Kelly & Floyd, 2001, 2006; Parsons et al., 2021). Racial centrality may enhance an individual's ability to provide racism-specific by increasing their capacity to understand their partner's emotions and thoughts following these incidents, to respond empathetically and validate their partner's experiences, and to give practical advice for navigating these encounters (Kelly & Floyd, 2006). These behaviors are adaptive individual-level resources that are positively associated with relationship satisfaction (Falconier et al., 2015).

African Americans may also internalize negative cultural stereotypes and assumptions that devalue in-group members, which is associated with poorer individual well-being and decreased relationship satisfaction. Internalizing negative messages about

one's racial or ethnic group challenges an individual's working model of the self and increases their likelihood of experiencing low self-worth and psychosocial risk (Gale et al., 2020; Mouzon & McLean, 2017). Individuals may also project these stereotypes onto their partners, which evokes greater distrust and miscommunication (Fisher & Coleman, 2017; Pinderhughes, 2002). For example, using a sample of heterosexual African American couples, Fisher and Coleman (2017) found that women and men who endorsed the Jezebel stereotype (i.e., African American women as sexually promiscuous) were likely to experience decreased relationship satisfaction.

An individual's propensity to engage in culturally-specific coping mechanisms like cool pose or to endorse the Superwoman schema may undermine the development of relational processes that are integral to positive relationship outcomes (Miller, 2018). Although these coping mechanisms may be adaptive in some contexts and to survive in a context that communicates that Black emotions are dangerous and should be repressed, African Americans may develop patterns of emotional expression and regulation to protect themselves from harm. For example, Elijah Anderson (1999) describes street code as a rejection of mainstream values in favor of an oppositional culture that is organized around retaliation, respect, and protecting one's reputation. As part of this role, individuals engage in a form of emotion work that allows for active anger expression, while prohibiting emotional vulnerability. Barr and colleagues (2013) found that individuals who internalized these values were likely to report decreased relationship satisfaction and commitment; and for African American men, greater relationship hostility and conflict mediated this association.

Cool pose is also an emotion and impression management strategy that may be enacted by African American men to subvert hegemonic notions of masculinity. Cool pose differs from the emotion work that characterizes street code and involves suppressing emotions like fear, anger, and frustration in lieu of appearing calm, composed, confident, and self-assured (Majors & Billson, 1993). These behaviors may be psychologically adaptive and help African American men maintain a sense of dignity and control; however, successfully enacting this role requires a degree of emotional avoidance and detachment that could undermine the development of intimacy in romantic relationships.

Due to economic constraints, African American women have had to take on multiple roles in the family system, and attributes of the Black Superwoman role, such as exuding strength and perseverance despite having limited resources, may have been adaptive for navigating these circumstances (Giscombé, 2010). However, enacting this role requires suppressing one's needs and emotions, avoiding vulnerability, and resisting asking for help, which may hinder romantic relationship development. For example, when asked about the interpersonal implications of adopting the Black Superwoman role, African American women reported that internalizing this stereotype prevented them from being able to love fully and express their feelings, and that their romantic partners often felt frustrated, unneeded, and less compelled to provide emotional support as a result (Giscombé, 2010). African American men also identified African American women's self-sufficiency and independence as a factor that may contribute to their disproportionately low marriage rates (Hurt et al., 2014).

Religion has been a central feature in the lives of African Americans, and values such as spirituality, ancestral connection, faith, and prayer are key values that African Americans have historically relied upon to survive. For example, negro spirituals and hymns provided an outlet for slaves to express their trials and tribulations, reaffirm their faith, and voice their hope for better days to come (Bordere, 2019). Similar messages have permeated the Black church; and individuals with a strong faith background or spiritual orientation are likely to turn to God for strength, support, and guidance, during challenging circumstances, which is positively associated with individual adjustment (Giscombé, 2010).

Placing greater importance on religion is associated with an array of positive relationship outcomes, including increased marital love, happiness, satisfaction, and quality (Fincham et al., 2011; Jenkins et al., 2021), especially when individuals participate in religious activities with their partner (Amato, 2011; Marks et al., 2008; Perry, 2016). Exhibiting high levels of religiosity may indirectly benefit African American couples by improving psychosocial functioning, increasing access to emotional and instrumental support, and by promoting attitudes and behaviors that are conducive to positive romantic relationship outcomes, such as greater commitment, investment, and effort (Bryant-Davis & Wong, 2013; Fincham & Beach, 2014; Russell et al., 2021).

Relationship-Specific Experiences

Transactional paradigms of relationship functioning underscore the idiosyncratic nature of romantic relationships and posit that relationship processes are shaped by the unique combination of characteristics and experiences both individuals bring to the partnership (Finkel, Simpson, & Eastwick, 2017; Karney & Bradbury, 1995).

Consequently, scholars often use the term relationship-specific experiences to acknowledge couples' unique interpersonal context and the interactions and experiences that are distinct to one's partnership. This verbiage also encapsulates the sociodemographic characteristics of a partnership and includes variables such as relationship length and status, whether a couple is same-race or interracial, and if the relationship takes place in a step- or blended family.

Love, Passion, Commitment, Intimacy, and Trust

Love is a defining feature of westernized marriages; and over 90% of U.S. adults report that love was their primary reason for marrying their partner (Coontz, 2005). Sternberg's triangular theory of love asserts that the type of love an individual experiences is influenced by the degree of passion, intimacy, and commitment felt towards one's partner and the relationship (Sternberg, 1986). Passion refers to the degree of arousal or physical attraction felt toward one's partner, commitment encompasses an individual's desire for the relationship to persist, and intimacy is an individual's sense of closeness or connectedness to the relationship. These elements are distinguishing characteristics of romantic relationships and are fundamental to healthy relationship development (Miller, 2018; Yoo et al., 2014). These factors are also correlates of relationship satisfaction for African American couples (e.g., Chaney, 2014; Stanik & Bryant 2012b; Vaterlaus et al., 2017).

Characteristics that define a couple's friendship, including feelings of emotional safety, affirmation, and support are also adaptive resources in intimate partnerships (Munday et al., 2017; Vaterlaus et al., 2017). For example, African American couples in long-standing relationships often describe their partner as a source of strength and

someone to turn to during difficult times (Marks et al., 2008). African American couples also report similar definitions of commitment and identify mutual-engagement in these behaviors as a key factor that contributes to relationship stability. For example, in Chaney's (2014) qualitative study on perceptions of commitment among African American couples, respondents defined commitment as engaging in behaviors that prioritize their partner's well-being and described their willingness to sacrifice as a protective factor that helped them persist through relationship difficulties. These behaviors reduce uncertainty and clarify a couple's joint identity (Allen & Mitchell, 2015), which contributes to increased relationship stability and longevity (Willoughby, 2015).

Trust is also an indicator of relationship functioning (e.g., Fletcher, Simpson, & Thomas, 2000) and may be an obstacle for African American couples (Chambers, 2019; Chambers & Kravitz, 2011). African American couples routinely list trust, jealousy, and infidelity as their primary relationship issues and are more likely to cite these concerns as marital problems compared to Whites (Amato, 2011; Phillips, Wilmoth, & Marks, 2012). Scholars argue that social mistrust stemming from historical exposure to racial trauma may spillover into African American partnerships and create a climate of distrust. Distrust may manifest itself in a variety of ways and can include, routinely questioning a partner's motives and intentions (Perry et al., 2018; Wilkinson et al., 2013) or needing to maintain control in one's partnership (Wheeler, 2013). For example, African American women may find it difficult to believe that they can depend on their significant other (Chambers, 2019; Giscombé, 2010). For these women, messages from older female family members about the importance of self-sufficiency and the dangers of accepting

support from men, coupled with being let down by paternal figures and romantic partners, may contribute to their distrust of men's dependability (Giscombé, 2010). For example, in Giscombé's (2010) study on the correlates and consequences of the Black woman superman schema, one participant lamented,

“Control, yeah. Because I've been taking care of myself since I was 16. I bought my own cars. I never had Daddy do anything. I mean, I have to help Daddy sometimes. So, I've never had that man to depend on. And I'm like, even if I do ever get married, I'm not going to close any of my accounts! [laughter] Oh no! I have trouble with that. I'm going to pay the bills. Like you can give me your pay-check, but I'm the one controlling the bills . . . 'cause that's what I do, and I'm not going to trust you to do it. 'Cause I've been doing it, and I can't give up that control” (p. 673).

Perceived Partner Characteristics

We generally expect our partners to meet our most pressing psychological and social needs (Finkel, Simpson, & Eastwick, 2017) and being in a warm and supportive relationship may be an adaptive resource that can help individuals cope with stress. African Americans are increasingly likely to turn to their partner for emotional support when encountering racism (Clavél et al., 2017). Using a sample of African American couples, Smith and colleagues (2019) found that individuals who believed that talking to their partner about a racist incident they encountered would make them feel better tended to report better psychological well-being. Receiving high levels of racism-specific support also attenuated the association between discrimination and mental health for these individuals. Turning towards one's partner when experiencing discrimination facilitates opportunities to receive emotional support and to collaborate with one's partner to generate solutions for managing these stressors, which is positively associated with relationship satisfaction (Clavél, Cutrona, & Russell, 2017; Falconier et al., 2015).

Managing individual difference is a central task in romantic relationships, and couples who can adaptively resolve conflict experience greater relationship satisfaction (Finkel, Simpson, & Eastwick, 2017). Effective conflict management requires flexibility, vulnerability, and a strong degree of interpersonal trust (Chambers, 2019). In line with these findings, satisfied African American couples often identify open, honest, and frequent communication as a behavior that contributed to the longevity of their relationship (Vaterlaus et al., 2017). Alternatively, poor communication can undermine relationship stability and may be a precursor to relationship dissatisfaction (Perry et al., 2018). Dissatisfied couples are more likely to engage in negative communication behaviors such as negative affect reciprocity (i.e., escalation of negativity during conflict) and demand-withdraw patterns (i.e., one partner demands change, and the other disengages in response; Fincham & Beach, 2006). Dissatisfied couples are also less likely to engage in active listening when communicating with their partner (Fincham & Beach, 2006) and tend to engage in criticism, defensiveness, contempt, and withdrawal more frequently during conflicts (Gottman et al., 1999).

Relationship-Specific Costs and Benefits

The principle of instrumentality asserts that we are attracted to individuals whose presence is rewarding and who can help us achieve our goals (Miller, 2018). For example, being in a relationship with someone who is responsive, supportive, and attentive would offer a number of benefits that fuel our attraction and increase our likelihood of viewing the relationship as rewarding (Finkel, Simpson, & Eastwick, 2017). Social exchange theory extends this supposition and argues that we are motivated to maximize our rewards in interpersonal exchanges and to minimize associated costs,

which makes us highly attuned to the balance of these elements in our partnerships (Smith et al., 2009). Theorists assert that relationship satisfaction is the result of comparing one's outcomes in a relationship (i.e., rewards - costs) to a comparison level, or expectations of what one should receive in a relationship.

Dissonance between an individual's expectations for marriage and one's lived experiences may make African American women and men less satisfied in their partnerships. Societal messaging tends to emphasize the familial, economic, health, and social benefits of marriage along with its ability to provide lifelong companionship, romance, social support, and sexual fulfillment (Fincham & Beach, 2006). In actuality, only select groups may be able to actualize the traditional marriage contract and when these relationships do not provide the benefits an individual has longed and hoped for, discrepancy between one's outcome and comparison level may be a catalyst for relationship dissatisfaction.

The intersection of race and gender may make African American women and men's experiences in marriage uniquely different; and socioeconomic constraints combined with dynamics of power and control may raise relationship costs for both parties. Although marriage may provide Black women with the appearance of respectable citizenship, it may not offer the same health, social, and financial benefits that it traditionally gives to women with more privileged social and economic backgrounds (Landor & Barr, 2018). Shortages in the amount of economically stable African American men, due to mass incarceration and labor market disadvantage, decreases the likelihood that financial stability will be a salient reward of marriage for African American women. African American women may relinquish their power in relationships

to counter cultural stereotypes (e.g., portrayals of Black women as aggressive, emasculating, and demeaning; Collins, 2004) and preserve their partner's masculinity (Johnson & Loscocco, 2015; Smith & Landor, 2018), which may increase perceived relational costs. For African American men, perceived loss of freedom, conflict, interpersonal mistrust, and the inability to fulfil traditional gender roles as the provider, may raise relationship costs (McCutcheon et al., 2021). For example, the ability to provide financially for the household is central to African American men's conceptualization of masculinity and power in intimate partnerships (Senn et al., 2009). As such, the inability to command this perception in a relationship may make the partnership less rewarding.

Sociocultural Adaptations: Family Role Flexibility and Egalitarian Practices

Family role flexibility is often cited as a key strength of African American families (Hill, 1971; McAdoo, 2007) that positively influences their romantic relationships. Research indicates that African American women contribute a larger percentage of their income to the household (Amato, 2011) and are more likely to work compared to White women (Bureau of Labor Statistics, 2021). African American husbands also engage in more household labor, which is positively associated with both partners' marital stability (Orbuch et al., 2002). At face value, these findings suggest that adopting malleable gender roles may be an adaptive strategy for Black couples; however, the meaning ascribed to the performance of these roles may influence whether these behaviors are protective for relationship quality and adjustment.

The inability to enact preferred gender roles in one's partnership may be one factor that adversely impacts African Americans' relationship satisfaction. Despite engaging in more egalitarian behaviors, African Americans tend to report more conventional gender role expectations. Endorsing traditional gender roles is generally associated with poorer quality marriages; however, this association is more robust for African American couples (Amato, 2011). African American couples tend to experience lower marital quality when husbands adopt traditional gender role attitudes and divisions of labor (Stanik & Bryant, 2012a). Similarly, Furdyna et al. (2008) found that highly religious African American women—a proxy for traditional values—were likely to experience lower relationship satisfaction as income disparities widened (i.e., the ratio of women's earnings relative to their partner). These findings illustrate the interpersonal ramifications of dissonance between a couple's preferred gender roles and how these roles are enacted in their partnership.

Family Characteristics and Experiences

Family of Origin and Childhood Environment.

Several developmental theories have been proposed to explain the links between family of origin experiences, childhood environmental context, and adult relationship outcomes. Life course theory argues that development occurs within the broader context of the life course and asserts that events experienced in one time period have implications for future developmental stages (Elder, 1998). Similarly, proponents of the intergenerational transmission of relationship quality argue that the family of origin is a developmental context where children acquire relationship promoting or inhibiting competencies that influence relationship outcomes in adulthood (Bryant & Conger,

2002). Ultimately, experiences within the family of origin may impact the quality of adult romantic relationships by influencing an individual's cognitions about relationships and behaviors within intimate partnerships (Simons et al., 2012).

Family Structure and Childhood Community Characteristics.

Family demographic characteristics have important implications for future relationship success. African American children are more likely to grow up in a single-parent household and to experience parental divorce compared to children from other racial and ethnic groups (Hemez & Washington, 2021). Scholarship on the impact of parental divorce indicates that individuals from divorced families hold different cognitions about relationships and marriage compared to those from non-divorced families, which may partially explain why parental marital dissolution is associated with more negative romantic relationship outcomes in adulthood. For example, individuals from divorced families tend to harbor more pessimistic evaluations of marriage and greater acceptance of divorce (Cui & Fincham, 2010). Parental divorce is also associated with greater reluctance towards developing intimacy, decreased commitment and relationship confidence, and lower relationship satisfaction (Cui & Fincham, 2010; Perry, 2013; Roper, Fife, & Seedall, 2020). A participant in Perry's (2013) study on African American men's perceptions of marriage underscores the link between parental divorce and adult relationship confidence when he states,

“People of color often don't see marriage modeled well. My mother has been divorced 3 times. So . . . there is a part of me that is like . . . [uncomfortable laugh] I don't know about getting married. I look at it like, if she can't do it and she is the one who raised me, then . . . then it's clear that whatever needed to be poured in me wasn't done by her so how am I going to be successful at this?” (p. 192).

Community structural characteristics may also influence adult romantic relationships through their impact on primary caregiver's psychosocial functioning, parenting, and youths' social and economic circumstances. African American families are more likely to reside in economically disadvantaged neighborhoods that offer fewer resources to support primary caregivers. Contending with the effects of community adversity and economic pressure may overwhelm primary caregiver's psychosocial resources (Meyer, Castro, & Aguilar, 2014) and increase reactivity to daily stressors (Scott et al., 2018), which may negatively impact processes within the home (Wickrama, Bryant, Wickrama 2010). For example, researchers have linked poorer psychosocial functioning among African American parents to more negative marital interactions, and in turn, more hostile and ineffective parenting (i.e., lower parental monitoring; Sutton et al., 2017). Experiencing rejecting and uninvolved parenting from a primary caregiver is a risk factor for African American adolescents that when coupled with greater community stressors—such as racial discrimination, financial strain, neighborhood adversity, and crime—increases youths' likelihood of developing negative relationship cognitions and insecure attachment, which in turn, is related to poorer relationship health in emerging adulthood (Kogan et al., 2013).

The absence of these resources may reduce community cohesion and inhibit the development of shared community norms and values, which help regulate residents' behavior and reduce the prevalence of community disorder. The absence of community resources may engender greater residential instability, undermine the development of community trust, impair the development of community cohesion and residential social networks (Wickrama, Bryant, & Wickrama, 2010; Wickrama & Noh, 2010).

Disconnection between community members also inhibits the formation of shared social norms and values, which help regulate adolescents' behavior and reduce community social disorder. In the absence of parental support and positive role models, youth may be more likely to engage in risky and deviant behaviors (Schofield et al., 2012). These experiences may also engender cascading risk through their influence on African American youths' psychosocial resources and coping responses. Findings from Umberson et al.'s (2016) research which links early childhood adversity to African Americans' romantic relationships in adulthood indicates that these experiences may diminish youths' sense of mastery, engender hypervigilance, and increase perceived isolation. To manage these feelings, individuals may self-medicate, withdraw, and initiate early entry into romantic relationships and parenthood, which leads to more strained and unstable romantic relationships in adulthood. Coping strategies developed in early adolescence and emerging adulthood may show continuity in adulthood and manifest in ways that are not conducive to healthy relationship development.

Parent-Child Relationship Quality and Family Processes.

Parents fulfill an essential role as direct teachers of relationship competencies during childhood and adolescence and influence whether children learn—or fail to learn—the interpersonal skills necessary for future relationship success (Bryant & Conger, 2002). Bryant (2006) coined the term 'relationship promoting behavior' to describe experiences within the family of origin that lead to positive relationship outcomes. For example, parents may engage in relationship promoting behaviors by validating their children's emotions, teaching them how to recognize and label their feelings, and by discussing appropriate ways to express and manage negative emotions (Dunbar et al.,

2017). They may also engage in relationship inhibiting behaviors that contribute to their children's emotional dysregulation in adulthood by ignoring, dismissing, or penalizing their children's affective expressions. For example, in Giscombé's (2010) study on the implications of the Black Superwoman role, participants frequently recounted how the absence of emotional support and guidance within their family of origin contributed to their present-day emotional difficulties, with one respondent stating, "Nobody was there for me. And because nobody was there to tell me, 'It's okay to be afraid,' and everything . . . I just keep it right in my heart. I don't think I really express it" (p. 676).

Research on the link between parent-child interactions and adult relationship quality and adjustment also provides strong support for the importance of parental socialization in influencing future relationship outcomes. Experiencing hostile, disengaged, or inconsistent parenting from a primary caregiver in childhood is consequential for adults' romantic relationships (e.g., Kogan et al., 2013; Masarik et al., 2013; Surjadi et al., 2013). For example, Simons et al. (2014) found that hostile parenting and exposure to a general climate of hostility within the family of origin was a salient predictor of African American young adults' attachment style, self-control, and attributional style, all of which contributed to poorer emotional regulation and more aggression and hostility towards a romantic partner in adulthood. Warm and supportive parenting behaviors promotes trust, intimacy, and self-control; and children who grow up in families characterized by more positive interactions are more likely to develop a secure attachment style (Simons et al., 2014) and tend to report more warmth, support, and satisfaction with their partnership and fewer hostile interactions in their adult marriages (Ackerman et al., 2013).

Primary caregivers also influence their children's social development indirectly through their interpersonal interactions (Bryant & Conger, 2002). Social learning perspectives of the intergenerational transmission of relationship quality posit that children's observations of interactions within the family of origin, especially behaviors between parents, informs how they perceive, develop, and maintain their romantic relationships as adults. For example, findings from Masarik and colleagues' (2013) study indicated that children whose parents demonstrated more positive interactions towards one another when they were in mid-adolescence, displayed more positive relationship behaviors in early adulthood. Alternatively, youth who observe more negative behaviors between parents may be more susceptible to repeating these patterns in their own relationships. For example, Cui & Fincham (2010) found a positive association between parental engagement in negative marital conflict behaviors and young adults' negative conflict behaviors in their own partnerships, which in turn, was associated with decreased relationship satisfaction.

Observing positive interactions between parents during childhood is also associated with more adaptive relationship cognitions and behaviors among African American adults. These interactions provide a template for how to sustain one's partnership by demonstrating how to engage in shared decision-making and conflict management in the context of a romantic relationship (DeLoach et al., 2021). For example, for African American men, having healthy relationship models in childhood increased relationship confidence and cultivated greater interest in marriage (Perry, 2013).

Socioculturally Relevant Family Attributes: Racial Socialization.

Primary caregivers' engagement in racial socialization may promote social and emotional competencies among youth that are conducive to positive relationship outcomes in adulthood. The most salient goal for African American parents is to raise children that are able to contend with the realities of living in a racialized society (James et al., 2018); and for many parents, racial socialization is a "must do" (Coard et al., 2004). Racial socialization may involve educating offspring about what it means to be Black, the nature of intergroup and intragroup relations, and the possibility of encountering racial discrimination (Coard et al., 2004). These efforts help children maintain self-dignity, self-esteem, and positive self-concept and attenuates psychological risk (Coard et al., 2007). During these conversations, parents may advise their children on how to manage their emotions when encountering race-related stressors, which can help youth develop the skills to recognize and regulate their emotions and to determine the appropriate mode of affective expression given the surrounding context (Dunbar et al., 2017). Engaging in this type of discussion and emotion work when experiencing racial discrimination may foster competencies that facilitate greater romantic relationship satisfaction in adulthood.

Contextual Factors and Sociocultural Stressors

Romantic relationships are embedded within a broader historical, political, social, and cultural context that influences the formation, maintenance, and stability of one's partnership (Bryant et al., 2010; Landor & Barr, 2018). Empirical work on stress and relationship functioning indicates that external stressors may negatively impact romantic relationships by biasing evaluations of one's relationship and altering intradyadic processes (Finkel, Simpson, & Eastwick, 2017; Neff & Karney, 2004). These events may

also impact intimate partnerships by redirecting a couple's attention from their relationship to the external stressor (Finkel, Simpson, & Eastwick, 2017; Perry, Archuleta, & Teasley, 2018).

Unemployment and Financial Strain

Economic stability is one of the primary considerations for entry into marriage (Barnet, Cherlin, & Burton, 2011; Davis, Edin, & McLanahan, 2005) and historical and contemporary labor market exclusion—coupled with disproportionately higher incarceration rates—has drastically reduced the amount of employed and financially stable African American men (Western & Wildeman, 2009). Providing for the household is central to African American men's conceptualizations of husbandry and fatherhood, and financial constraints may engender role provider anxiety, or fear around the ability to successfully fulfill this role (Pinderhughes, 2002). These concerns may make African American men more reluctant to marry; and as a result, many choose to delay marriage until they achieve certain career, educational, and financial milestones (Hurt, 2014).

Prolonged exposure to financial strain is highly burdensome for romantic partnerships and is associated with more negative interactions between partners, decreased relationship satisfaction, and greater relationship instability (Falconier & Jackson, 2020). Among African American couples, greater financial strain has been linked to less warm and supportive spousal behaviors, decreased satisfaction with a partner's household contributions, and lower relationship satisfaction (Barton & Bryant, 2016; Clavél, Cutrona, & Russell, 2017; Cutrona et al., 2011). Scholars postulate that increased financial strain may bias an individual's perception of their partner over time (Barton & Bryant, 2016) and cause couples to focus their energy on resolving financial

stressors, which leaves less time, energy, and psychosocial resources to devote to their partnership (Perry, Archuleta, & Teasley, 2018).

Neighborhood Disadvantage and Community Disorder

African Americans experience disproportionately high poverty rates (Creamer, 2020), which increases their likelihood of living in economically disadvantaged neighborhoods (Wickrama, Bryant, & Wickrama, 2010). These communities are marked by a high concentration of poverty, which may deprive couples of important community resources that can support their relationship. Chronic exposure to community disorder may also impair couples' ability to engage positively with one another and is often linked to greater hostility and decreased relationship warmth. For example, African American husbands' perceptions of community disorder (e.g., violence, noise, alcohol use, etc.) have been linked to both partner's hostile behaviors, such as swearing, shouting, and yelling (Wickrama, Bryant, & Wickrama, 2010). These actions exerted a transactional effect in the relationship and were related to both spouses' depressive symptoms.

Socioculturally Relevant Constructs: Racial Discrimination, Social Support and Extended Family Obligation.

Burgeoning literature on the links between exposure to racial discrimination and relationship satisfaction underscore the relational implications of encountering discrimination. Using a sample of African American respondents, scholars found that chronic exposure to racial discrimination may overwhelm an individual's existing coping mechanisms and increase the likelihood of perceiving one's circumstances as uncontrollable, unpredictable, and overwhelming (Doyle & Molix, 2014b; Kerr et al., 2018). Perceiving one's circumstances in this manner is associated with greater emotional

and physiological dysregulation, more strained interpersonal relationships, and lower romantic relationship satisfaction (Doyle & Molix, 2014b; Kerr et al., 2018). Chronic exposure to racial discrimination may also impair relationship functioning by engendering more negative relationship behaviors. For example, Lavner and colleagues (2018) found that for African American males, increased exposure to racial discrimination undermined relationship stability by increasing their likelihood of engaging in psychologically aggressive behaviors. African American men's exposure to racial discrimination was also associated with greater psychological aggression from their female partners.

Notable strengths of African American families include their strong ties to extended family and support networks and communalist orientation (Bryant, 2010). These values may buffer the impact of socioeconomic stressors by cultivating reciprocal obligation among family members to share economic resources and assist with childcare (Munday et al., 2017). Providing financial support to one's family may be psychologically beneficial and engender a sense of personal pride and fulfillment (Giscombé, 2010). In addition, endorsing communal values affords African American couples the opportunity to receive a diverse array of social support (Kelly & Hudson, 2017).

African Americans' values around family obligation may be a double-edged sword that can add additional burden to their relationships, particularly for middle-class couples (Johnson & Loscocco, 2015). These couples routinely receive "knocks of need", or requests for financial and instrumental support from family, friends, and acquaintances (Marks et al., 2008). Cultural norms around support provision may make individuals feel

compelled to provide resources to others at the expense of their personal and family needs; and discrepancies in the extent to which partners feel obligated to provide these types of support—as well as disagreement around the appropriate amount support provision—may be cause for relationship conflict.

High degrees of communalism may also increase African American couples' susceptibility to social network influences. Although maintaining close ties with extended family may provide more opportunities to receive emotional support—which is associated with increased relationship satisfaction for African American couples—negative functional dynamics within these networks may undermine these benefits (Taylor et al., 2012). For example, family intrusion may be a poignant stressor for African American couples that undermines healthy relationship progression. Developing a shared couple identity is a critical milestone in intimate partnerships that engenders greater relationship satisfaction (Miller, 2018) and happily married African American couples often emphasize the importance of protecting their relationship by prioritizing their partner and immediate family, drawing marital boundaries, and minimizing discussion of marital conflict with individuals outside of the relationship (Marks et al., 2008; Wheeler, 2013; Vaterlaus et al., 2017).

Integrating Machine Learning and Relationship Science

A Scholarly Debate: Prediction vs. Explanation

Machine learning counters traditional hypothesis-testing methods by employing a data-driven approach to research that uses statistical algorithms to discover patterns in the data and relations between variables. These techniques approach research from an inductive standpoint and through a process of exploratory quantitative discovery

(Grimmer et al., 2021). Alternatively, traditional quantitative methods employ a deductive and hypothesis-driven approach to research (Gliner, Morgan, & Leech, 2009); and theory informs much, if not all stages of the research process. This approach prioritizes inference, or the ability to explain relations between variables, and generates models that are simple and highly interpretable.

Key criticisms around using machine learning in social science focus on its atheoretical and exploratory approach to research and inability to explain how predictors are related to an outcome of interest (Molina & Garip, 2019). Scholars argue that although machine learning can be used to predict an outcome with high accuracy, if researchers are unable to explain how variables are related, or in other cases, why an individual received a score or classification, then the utility of these methods is drastically reduced. Alternatively, proponents of machine learning emphasize the conceptual limitations of theory and the low predictive utility of many hypothesis-driven models. They assert that although a model may have a theoretically sound explanation for the relation between variables, when put to the test it may not adequately predict the outcome of interest (Yarkoni & Westfall, 2017). This is because theoretical frameworks are simplistic, contain few constructs, and are designed to be easily interpretable, which may limit their ability to reflect the true complexity of human behavior (Molina & Garip, 2019).

Machine learning presents a paradigmatic shift in quantitative research that aligns with qualitative inductive approaches such as grounded theory. Scholars reason that approaching research from a place of discovery, rather than confirmation, creates opportunities to generate new questions and hypotheses that might be missed when

engaging in deductive approaches (Grimmer, Roberts, & Stewart, 2021). These techniques also allow for the construction of more complex models than traditional approaches would permit and may generate findings that more closely represent the complexity of real-world phenomena. Researchers argue that machine learning is a critical starting point for advancing our understanding of social processes and that a short-term focus on prediction may enhance our ability to explain human behavior and generate more effective theory (Yarkoni & Westfall, 2017).

Supervised Machine Learning: Random Forest Algorithms

Machine learning algorithms can be supervised or unsupervised; and supervised learning occurs when predictors (i.e., features) are mapped onto a pre-determined outcome (i.e., outputs; Ayodele, 2010). Decision tree and random forest algorithms are also a form of supervised learning that involves a series of decision-based rules, or if-then statements, that when followed predict an outcome or classification (Sun et al., 2020). As the tree progresses from root node to sub-node through decision-based rules, a terminal node is eventually encountered, which contains a predicted outcome or classification for a given set of observations.

Random forest algorithms are an ensemble method that extends single decision trees (Brieman, 2001). These algorithms randomly select a subset of predictors and observations that are then used to construct a single decision tree. This process is repeated until a large set of single decision trees are generated. Estimates from single decision trees are aggregated to produce a final decision tree that provides information on the amount of variance predicted in the outcome and variable importance scores, which indicate each predictor's contribution to the model's performance. Ultimately, random

forest approaches are an improvement over single decision trees because estimates are derived from a diverse set of single decision trees, which in turn, helps reduce the variability of model parameters and leads to more fine-grain predictions.

Using Machine Learning to Predict Relationship Quality and Adjustment

Random forest algorithms are a robust methodological approach that offers several advantages in terms of theory development. First, random forest algorithms are equipped to handle a large number of predictors simultaneously. Due to methodological constraints, previous studies that have examined the determinants of relationship quality and adjustment tend to assess a few variables (i.e., a dimension of a construct or a few predictors across domains) at a time, which limits understanding of how predictors may work in concert to influence intimate partnership outcomes. Alternatively, random forest algorithms use a bootstrapped design that gives researchers the opportunity to test all predictors relevant to an outcome of interest in a single analysis. One advantage of this approach is that every variable has a chance to contribute to the model's predictive performance, which leads to more fine-grained estimates. For example, using ADD health data, Sun and colleagues (2020) were able to use a random forest design to predict college enrollment with 73%-79% accuracy.

Second, the goal of these techniques is to construct a model that can accurately predict outcomes in a new set of observations, which increases the generalizability and utility of results. Model performance is evaluated through a cross-validation process, which mirrors independent replication efforts in the social sciences (Molina & Garip, 2019). Predictions are generated using the training data and are evaluated based on their ability to predict outcomes in the testing dataset. The testing dataset is not used to

compute model parameters and reflects how a model would perform if it were ‘out-of-sample’, or if it were tested on an entirely new set of observations. After cross-validation is employed, testing error, which is the difference between a model’s predictions and observed scores is used to evaluate model performance (Yarkoni & Westfall, 2017). Ultimately, using cross-validation metrics as an evaluation tool helps researchers choose models that will perform well in future studies (Brieman, 2001).

Third, feature selection methods can be employed using machine learning to determine the most salient predictors of an outcome. Random forest algorithms can be used to compute variable importance scores for each predictor, which indicate how central or important a feature is to the prediction of an outcome of interest. Feature selection techniques, such as recursive feature elimination, can also be employed to identify the most proximal predictors of an outcome. Recursive feature elimination is a model reduction technique that aims to reduce the number of predictors in a model, while retaining predictive performance (Brick et al., 2017). Through this process the most important predictors of an outcome can be identified. For example, using recursive feature elimination, Sun and colleagues (2020) were able to identify model with 17 variables that predicted an individual’s likelihood of graduating from college as accurately as a complete model with 53 variables.

Lastly, non-parametric machine learning algorithms can be used to identify non-linear associations and interactions between variables that warrant further exploration (Sun, Ram, & McHale, 2020). Traditional regression techniques have distributional assumptions and require researchers to specify the functional form between independent and dependent variables (Molina & Garip, 2019). Conversely, non-parametric machine

learning algorithms do not impose a distributional or functional form on the data and on relations between variables. These techniques allow scholars to deviate from linear modeling and detect complex associations that meaningfully contribute to a model's predictive performance without the need for a priori specification. Ultimately, these approaches may help uncover complex associations that are not represented in existing empirical work and can inform future hypothesis testing and theory development (Grimmer, Roberts, & Stewart, 2021).

Although machine learning has been used to predict infidelity (Vowels, Vowels, & Mark, 2022) and initial attraction (Joel, Eastwick, & Finkel, 2017); to my knowledge, only two studies have used machine learning to predict relationship quality and adjustment (Großmann, Hottung, & Grimberghe, 2019; Joel et al., 2020). Joel et al. (2020) used a random forest algorithm to identify the key predictors of relationship satisfaction from across 43 dyadic longitudinal studies. Authors were able to predict 43% of the variance in baseline romantic relationship satisfaction and variables that assessed an individual's perception of their partner and relationship (i.e., actor reports of relationship-specific constructs) were the strongest predictors of this outcome. Specifically, an individual's appreciation of their partner, sexual satisfaction, evaluation of their relationship conflict, and perception of their partner's commitment and relationship satisfaction were the five most important predictors of this outcome. Großmann and colleagues (2019) conducted a more focused analysis by examining whether actor and partner reports of general and relationship-specific personality traits could predict future romantic relationship quality. Personality traits predicted 37% of the variance in relationship quality 4 years after the baseline assessment, and similar to Joel

et al.'s (2020) study, actor reports of relationship-related personality traits (i.e., attributes that are strongly associated with relationship processes, such as agreeableness, emotional stability, etc.) were the most important predictors of future relationship quality. These studies underscore the critical role that an individual's perception of themselves, and their relationship experiences, play in predicting current and future relationship quality and adjustment and underscore how amendable relationship science can be to machine learning.

The Current Study

Although meaningful, foundational theories in relationship science offer generalized explanations of the determinants of relationship quality and adjustment that do not acknowledge the central role that race and racism plays in structuring intimate partnerships. Attempts to reframe existing theories on the determinants of relationship quality and adjustment remain scarce and little empirical research has been done to elucidate what does and does not work for African American couples in relation to these theories. As a discipline, relationship science may benefit from reworking foundational theoretical frameworks to more adequately reflect considerations of race and ethnicity (Buehler & Few-Demo, 2018). This requires reframing existing theories to better explicate the determinants of relationship quality and adjustment that are germane to all relationships, irrespective of race or ethnicity, as well as the factors that may be uniquely associated with intimate partnership outcomes for specific racial or ethnic groups.

Developing socioculturally-informed theories of relationship processes is especially important for research involving African American couples. African Americans occupy a unique sociohistorical space in the U.S. and historical racial trauma

may exert a profound impact on their partnerships. Scholars argue that the weight of systemic racial oppression is reflected more deeply in African American partnerships relative to groups with similar economic and social status (Bryant et al., 2010).

Consequently, developing socioculturally informed frameworks that explicate the determinants of relationship quality and adjustment common to all couples as well as the stressors, relational processes, adaptive resources that are uniquely relevant to African American partnerships may foster more critically conscious research involving these couples.

Using machine learning, the current study aimed to situate African American partnerships in cross-cultural perspective (Dion & Dion, 1996) by evaluating the importance of general (i.e., constructs conceptualized as universal determinants of relationship outcomes) and socioculturally relevant predictors (i.e., considerations unique to African American partnerships) of relationship satisfaction for African American couples. Machine learning techniques have seldom been used in relationship science; despite posing several advantages such as the ability to examine a large number of predictors simultaneously and increased generalizability of findings, that may help address the limitations that characterize relationship science. Findings from this analysis can offer insight into the predictive utility of foundational theoretical constructs and the importance of contextual and socioculturally relevant constructs in predicting relationship satisfaction for African American partnerships. This work can advance understanding of the extent to which African American partnerships are *similar to*, yet *different from* the relationships of majority group members and enhance our ability to generate

comprehensive theoretical frameworks that effectively model the relational processes and outcomes of this group.

Consequently, this dissertation is guided by the following aims:

Aim 1 – To quantify the extent to which general and socioculturally relevant individual, relational, familial, and contextual variables can be used to predict relationship satisfaction for African American couples.

Aim 2 – To identify the most salient predictors of relationship satisfaction for African American couples.

Aim 3 – To employ regression-based modeling to confirm and interpret machine learning results. More specifically, to use regression-based modeling to assess the direction and magnitude of the association between predictors and relationship satisfaction.

Chapter 3

Methods

Participants and Procedures

This dissertation used data from the Family and Community Health Study, which is a longitudinal multigenerational survey of 889 African American families living in Iowa and Georgia. Principal investigators used US Census data to identify target communities and only neighborhoods that had a significant proportion of African American residents were included in the sampling frame. After selecting a set of target communities, researchers used public school system records to identify African American families who lived in these neighborhoods and had a child in the 5th grade. Eligible families were randomly selected to be recruited to participate in the study by telephone. Families who consented to participate were surveyed in their homes from 1997-1998 by trained interviewers and were surveyed every 2-3 years following. Data was collected from the focal respondent (i.e., 5th grade child), primary caregiver, and secondary caregiver, if present. Seven waves of data have been collected and these efforts are ongoing.

889 focal respondents completed W1 (1997-1998) of the FACHS, 714 respondents completed W4 (2005-2007), and 556 respondents completed W7 (2015-2016). W4 and W7 contained 80% and 63% of the original sample, respectively. Only respondents who indicated that they were in a committed heterosexual romantic relationship at W7 were included in the current study. To be considered in a committed romantic relationship, respondents must have indicated that they were in a steady and committed relationship, engaged, or married when asked to describe to their relationship

status (i.e., “What best describes your current relationship status?”). Responses were recoded into a binary variable (0 = *not in a relationship*, 1 = *in a relationship*). After excluding respondents who were not in a relationship, or who were in a non-heterosexual relationship, at W7 the final analytic sample for the current study was 306. Respondents’ ages ranged from 27-31 ($M = 28.80$, $SD = .87$), with a median age of 29 years old. Approximately 60% of the sample identified as female (59.8%; $N = 183$), and 40% identified as male (40.2%; $N = 123$). In regard to respondents’ relationship status, 56.21% ($N = 172$) were in a dating relationship, 13.07% ($N = 40$) were engaged, and 30.72% ($N = 94$) were married. Respondents’ relationship length ranged from less than one year to 17 years ($M = 5.02$, $SD = 4.26$).

Measures

Dependent Variable.

Relationship Satisfaction (W7)

Four items from the Dyadic Adjustment Satisfaction Subscale (Kurdek, 1992) were used to assess respondents’ relationship satisfaction (i.e., “How happy are you, all things considered, with your relationship?”, “Thinking back about the entire time you have been with [Romantic partner name] how supportive and satisfying has your relationship been?”, “How often do you discuss, or have you considered terminating your relationship?”, “Do you ever regret that you got involved in this relationship?”).

Response options for the first item ranged from 1 (*extremely unhappy*) to 6 (*extremely happy*). Response options for the second item ranged from 1 (*Almost never supportive and satisfying*) to 6 (*Almost always supportive and satisfying*). Response options for the latter two items ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). These last two

items were reversed coded and scores for all items were standardized, then averaged to create a measure of respondents' relationship satisfaction ($\alpha = .70$).

Independent Variables.

Feature selection refers to the process of selecting predictors to be included in the model. Machine learning typically employs an exploratory approach to feature selection and identifies relevant predictors through statistical means (Grimmer et al., 2021). However, because the primary goal of the current study was to assess the utility of general and socioculturally relevant constructs in predicting relationship satisfaction for African American couples, a two-step approach was used for feature selection. Feature selection for the current study used a combination of a manual theory-informed approach and traditional machine learning approach to select a set of predictors for the random forest analysis that mirrored steps outlined by Joel et al.'s (2017) study. First, I reviewed systematic reviews on the determinants of relationship satisfaction and scholarship on socioculturally relevant predictors of relationship quality and adjustment for African American couples. Then I selected constructs from W1, W4, and W7 of the FACHS that were theoretically or empirically-relevant to this outcome based on this body of literature. Only variables that had clearly delineated links to relationship satisfaction were included in the current study. Following, recursive feature analysis was used as a model reduction technique to reduce the initial set of predictors without diminishing the model's predictive performance (see the Analytic Approach Section for more information on recursive feature elimination).

The following sections briefly describe the full set of features ($N = 139$) that were used in the initial random forest analysis. A more detailed description of these measures can be found in the Appendix.

Individual Experiences and Interpersonal Characteristics (W7)

Measures that assessed respondents' individual experiences and intrapersonal characteristics were self-reported and derived from W7. Demographic items assessed participants' age, gender identity, skin tone, educational attainment, and parenting status (i.e., presence of biological children). Items also assessed respondents' personality traits, emotional and psychological functioning, physical health, social ability, self-awareness, attachment style, personal values and beliefs, marriage and relationship cognitions, cohabitation history, perception of their past relationships, religiosity, racial identity, and tendency to engage in criminal behavior.

Relationship-Specific Experiences (W7)

Actor-reported measures of participants' relationship-specific experiences were derived from W7. Items assessed demographic aspects respondents' partnerships, including relationship length, relationship status (i.e., married, engaged, dating), the presence of shared biological children, and whether participants were in an interracial partnership. Additional measures of respondents' relationship-specific experiences assessed their dedication and commitment to their relationship, relationship primacy, warmth and hostility exhibited towards their partner, affective sentiments towards their partner, tendency to forgive their partner, and aspects of their coparenting relationship with their partner. Items also assessed respondents' evaluation of partner's characteristics and attributes, including their warmth and hostility, truthfulness, fidelity, religiosity,

alcohol use and substance-related problems, criminal behavior, and aspects of their physical health. Respondents also answered items about extended family relationships, participation in prosocial behaviors and shared religious activities, social network integration (i.e., shared friends), engagement in partner-focused petitionary prayer (i.e., praying for their partner's health and well-being), and perceived social support as a couple.

Family of Origin Experiences and Childhood Environment (W1, W4, W7)

Items that assessed respondents' family of origin experiences and childhood environment were prospective and were primarily derived from W1. Respondents' childhood family structure was assessed using primary caregivers' responses to the following items: 1) if they were the biological or adoptive parent of the focal respondent, 2) if they were married to the secondary caregiver of the focal respondent, and 3) if the secondary caregiver was the focal respondent's biological or adoptive parent. If a primary caregiver indicated that they were married to the secondary caregiver and that both caregivers were the biological or adoptive parents of the focal respondent, then the focal respondent was categorized as residing in a married, two-parent household (0 = *other*, 1 = *married, two parent household*) during childhood. Primary caregivers who were in a committed romantic relationship at W1 also completed measures related to their relationship-specific experiences. Items measured primary caregivers' relationship satisfaction and instability, perceived partner warmth and hostility, social support, and financial-related conflicts with their partner. Primary caregivers also answered items about household financial strain.

Data on participants' family of origin experiences were collected at W1 and included items focal respondents' evaluation of their relationship with their primary caregiver and assessment of their primary caregiver's parenting style (i.e., warmth, hostility, inductive reasoning, etc.). Information about participants' childhood environmental context was also collected prospectively and included items that assessed respondents' social support, close relationships with adults and teachers, and exposure to community social disorder, racial discrimination, violent crime victimization, and the deaths of a family member or friend. Lastly, two measures taken at W7 were used to assess respondents' childhood environment and included their retrospective accounts of the exposure to racial discrimination and childhood trauma before age 10.

Contextual Factors and Sociocultural Stressors (W7)

Information on focal respondents' social support network, exposure to sociocultural stressors, and community context was derived from W7. Items assessed participants' work conditions, close friendships, job happiness, financial strain, unemployment, and recent and lifetime exposure to racial discrimination. Measures also assessed aspects of participants' community context and included items about neighborhood disorder, violent crime victimization, and the attributes of community members.

Analytic Approach

This dissertation used a random forest design to identify the most robust predictors of relationship satisfaction for African American couples. After selecting an initial set of features to be included in the analysis, continuous predictors were pre-processed using the caret package (Kuhn, 2008). First, missing data for these features was

imputed using a bagged decision tree estimation technique. Following, variables were standardized, and scales were created for the appropriate variables. Categorical features were preprocessed using the vtreat package (Mount & Zumel, 2021). These features were dummy-coded, and an additional variable was created for each feature to denote whether a participant had missing data on the item.

Analyses for this study were divided into three stages: 1) model estimation and evaluation 2) recursive feature selection and 3) model confirmation and interpretation. Due to the exploratory nature of machine learning, this study did not make hypotheses about study findings.

Stage 1 – Model Estimation and Evaluation.

First, a model with the full set of predictors was computed using the random forest package (Liaw & Wiener, 2002). Default hyperparameter specifications were used for all analyses, except for the number of single decision trees to construct. This number was increased from the default setting of 500 to 5,000 to increase the stability of model estimates. Model performance was evaluated using metrics derived from 5-fold cross-validation. K-fold cross-validation is one of the more frequently used cross-validation approaches and is an iterative process where a dataset is randomly split into K number of folds or subsets. K-1 subsets are used for training, or to teach the model how to estimate an outcome, and the remaining fold is used for testing. This process continues until each fold has been used as a testing dataset. During this process, data from the testing set is not used to compute model estimates. As such, RMSE derived from this process reflects how a model would perform if it were ‘out-of-sample’, or if it were tested on an entirely new set of observations. The average RMSE across all five testing datasets was used to

evaluate model performance. A coefficient of determination (R^2) is also computed for the final model and is the result of averaging the R^2 estimates across each of the testing datasets.

Stage 2 – Feature Selection.

Recursive feature elimination was conducted using a random forest algorithm to assess whether the initial model could be reduced to a smaller set of features, while maintaining the model's predictive power. First, 1000 decision trees were constructed, and variable importance scores were estimated for each feature in the full model based on their contribution to the model's prediction accuracy. Following, an iterative process took place using backwards feature selection that began by computing the out-of-sample error (i.e., RMSE) and R^2 for a 1-predictor model that contained the feature with the highest variable importance score. Afterwards, the feature with the second highest variable importance score was added to the model and cross-validation metrics were computed again. This process continued until all features were included in the model. The set of features that resulted in the highest coefficient of determination were retained for subsequent analyses.

Stage 3 - Model Confirmation and Interpretation.

Regression models were used to confirm and interpret machine learning results (Grimmer et al., 2021); and specifically, to assess the direction and magnitude of the association between predictors and relationship satisfaction. Random forest algorithms do not compute regression coefficients or estimates that can be evaluated using traditional significance testing approaches. Replicating these models using regression-based approaches can increase the interpretability of findings derived from these algorithms

(Molina & Garip, 2019) by illustrating the direction and magnitude of the association between predictors and relationship satisfaction.

Chapter 4

Results

Model Estimation and Evaluation

First, a random forest model was computed using the full set of predictors and performance was evaluated using cross-validation metrics. The model yielded a RMSE of 0.59 and predicted 44% of the variance in African American couples' relationship satisfaction (see Table 1). Conceptually, this means that if we know the information captured by the model's features—or detail on the focal respondent's individual experiences and intrapersonal characteristics, relationship-specific experiences, family of origin experiences and childhood environment, and sociocultural stressors and environmental context—then we can predict or anticipate some degree (i.e., 44%) of their relationship satisfaction.

Feature Selection

Following, recursive feature elimination was performed to assess whether the number of features in the full model could be reduced, without diminishing predictive power. Features retained during this stage make the most significant contribution to the model's performance and findings indicated that the initial set of predictors could be reduced to 23 features (see Figures 1 and 2). The model with the reduced set of features yielded a RMSE of 0.56 and predicted 48% of the variance in relationship satisfaction (see Table 1). The reduced set of features included general ($n = 21$) and socioculturally relevant ($n = 2$) predictors (see Table 2). These items were related to respondents' intrapersonal characteristics and experiences ($n = 4$), relationship-specific experiences ($n = 15$), family of origin and childhood environment ($n = 1$), and contextual factors and

sociocultural stressors ($n = 3$; see Table 3). Recursive feature elimination indicated that variables that assessed respondents' family of origin experiences and childhood environment were not central to predicting relationship satisfaction.

Variable importance scores were also computed for each feature (see Figure 3) and provide an indication of each feature's contribution to model performance. Features with the highest variable importance scores included respondents' hostility towards their partner, tendency to forgive their partner, perceptions of their partner's warmth and tendency to engage in criminal behavior, and whether participants exhibited characteristics consistent with a preoccupied attachment style.

Model Confirmation and Interpretation

Regression models were computed to assess how the features identified through recursive feature elimination were related to relationship satisfaction (see Table 4). To account for non-normality in variable distributions, maximum likelihood robust estimation was used to compute standard errors and chi-square fit statistics. Although recursive feature elimination identified 23 features that were important to predicting relationship satisfaction for African American couples; only 8 of these variables were significant predictors of this outcome using regression. Further, the reduced set of features predicted 48% of the variance in relationship satisfaction in the random forest analysis. However, in the regression analysis, these features predicted 59% of the variance in relationship satisfaction.

Intrapersonal characteristics that were a significant predictor of relationship satisfaction included respondents' attachment style and perceptions of their previous relationships. Specifically, participants who exhibited characteristics that were consistent

with a preoccupied attachment style were likely to report greater relationship satisfaction. Further, respondents who had more negative perceptions of their previous relationships were likely to report greater relationship satisfaction.

Relationship-specific features that were significant predictors of relationship satisfaction included respondents' relationship commitment, relationship primacy, and perceptions of their partner's warmth, hostility, infidelity, and engagement in criminal behavior. Specifically, respondents who were committed to their partnership, placed greater importance on their relationship, and reported higher levels of partner warmth were likely to report greater relationship satisfaction. Conversely, respondents who reported that their partner engaged in higher levels of hostility, infidelity, and criminal behavior were likely to experience lower relationship satisfaction.

Constructs related to respondents' family of origin experiences and childhood environment that were important predictors of relationship satisfaction in the recursive feature elimination analyses were not associated with this outcome in the regression analysis. In addition, features related to contextual factors and sociocultural stressors were not associated with relationship satisfaction.

Chapter 5

Discussion

Despite the importance that racial and ethnic stratification harbors for individual and interpersonal outcomes (Williams & Mohammed, 2009; Williams & Sternthal, 2010), foundational frameworks in relationship science offer little insight into the role that race and racism may play in influencing intimate partnership outcomes. Failure to incorporate these considerations into traditional relationship process theories implicitly communicates that individuals should have the same relationship competencies, functioning, and outcomes, irrespective of their racial or ethnic background and may inadvertently pathologize how certain groups may experience their romantic relationships. The absence of this information also inhibits our ability to gain a full understanding of intimate partnerships, particularly as it relates to African American couples.

Scholars argue that the weight of historical and contemporary racial oppression is reflected more deeply in African American partnerships (Bryant et al., 2010) and have used terms like residual effects of slavery and post-traumatic slave syndrome to accentuate the profound impact that racial stratification has on the interpersonal outcomes of group members (Wilkins et al., 2013). As a discipline, relationship science may benefit from developing new and more equitable frameworks that explicate the general determinants of relationship quality and adjustment that are common to all relationships, irrespective of race or ethnicity, and the socioculturally relevant factors that may harbor unique significance for specific racial or ethnic groups. This work is critical due to the

saliency of romantic relationships for health and well-being (e.g., Robles et al., 2014) and its ability to foster critically conscious research on intimate partnerships.

This dissertation takes a critical step in this direction by integrating machine learning with relationship science to identify the most critical determinants of relationship satisfaction for African American couples. Random forest analyses were used to evaluate the importance of general and socioculturally relevant constructs in predicting relationship satisfaction for African American couples. Findings sheds light on how African American partnerships may be *similar* to, yet *different* from the relationships of majority group members and offer insight into the utility of foundational theoretical frameworks in predicting relationship satisfaction for African American couples.

Aim 1 – To quantify the predictive utility of general and socioculturally relevant individual, relational, familial, and contextual variables in predicting relationship satisfaction for African American couples.

This dissertation used random forest analyses to evaluate the predictive power of 139 variables that were theoretically and/or empirically associated with relationship satisfaction. Constructs were categorized as 1) general or socioculturally relevant and 2) as an individual, relational, familial, or contextual predictor. The full set of features were able to predict 44% of the variance in relationship satisfaction. Conceptually, this means that if we know the information captured by the model's features—or detail on the focal respondent's individual experiences and intrapersonal characteristics, relationship-specific experiences, family of origin experiences and childhood environment, and

sociocultural stressors and environmental context—then we can predict or anticipate some degree (i.e., 44%) of their relationship satisfaction.

Aim 2 – To identify the most salient predictors of relationship satisfaction for African American couples.

A total of 23 features were identified as the most proximal predictors of relationship satisfaction for African American couples. These variables were able to predict 48% of the variance in relationship satisfaction and have been highlighted in several relationship process theories, including the VSA model, attachment theory, social exchange theory, marital paradigm theory, interpersonal process models of intimacy, and ecological perspectives of romantic relationship quality and adjustment. Of these predictors, variables that were general and relationship-specific were the most robust predictors of relationship satisfaction for African American couples.

General constructs refer to correlates of relationship quality and adjustment that are significant for all couples, irrespective of demographic factors, and relationship-specific constructs assess an individual's perception of their partner and relationship. General constructs were able to predict 48% of the variance in relationship satisfaction and socioculturally relevant constructs did not predict additional variance in this outcome. Relationship-specific constructs also predicted most of the variance in relationship satisfaction (i.e., 46%). These results suggest that traditional paradigms and constructs in relationship science are an important starting point for understanding the determinants of relationship satisfaction for African American couples and underscores the critical role that evaluation of one's partner and relationship processes play in influencing intimate partnership outcomes.

Although socioculturally relevant factors demonstrated less predictive power compared to general constructs, incorporating these variables into relationship process theories may still advance understanding of the determinants of intimate partnership outcomes. Previous empirical work has evidenced findings that are similar to the current study and identify relationship-specific predictors as the most robust determinants of relationship satisfaction (Großmann, Hottung, & Grimberghe, 2019; Le et al., 2010). For example, using machine learning, Joel and colleagues (2017) found that individual traits and characteristics did not predict additional variance in relationship satisfaction beyond the information provided by relationship-specific constructs. Authors reasoned that relationship-specific experiences may mediate the association between individual characteristics and relationship satisfaction. This supposition can also be used to explain findings from the current study, and individual experiences and intrapersonal characteristics, family of origin experiences and childhood environment, and contextual factors and sociocultural stressors may indirectly influence relationship satisfaction through their impact on relationship-specific experiences.

The following sections provide detail on the features that were identified as key determinants of relationship satisfaction for African American couples.

Individual Experiences and Intrapersonal Characteristics.

Theoretical explanations of the determinants of relationship quality and adjustment posit that relationship quality and adjustment is influenced by the individual strengths or vulnerabilities partners bring to their relationship (Karney & Bradbury, 1995), and suggest that intrapersonal factors such as an individual's emotional and psychological well-being, attachment style, and relationship-specific cognitions harbor

important implications for how individuals experience their partnerships (Finkel, Simpson, & Eastwick, 2017). Findings from this dissertation evidenced similar results and indicated that respondents' attachment style, perceptions about their previous partnerships, and propensity to experience negative affect were salient predictors of relationship satisfaction for African Americans. These attributes are interrelated and help facilitate engagement in relationship maintenance behaviors, or actions that are protective for relationship quality and adjustment.

Findings from the current study illustrate the relevance of attachment theory for African American couples and indicate that exhibiting attributes that are consistent with dismissive and preoccupied attachment styles are consequential for relationship outcomes. An individual's attachment style, or general cognitive and behavioral orientations in interpersonal relationships, are a representation of their fundamental beliefs about relationships and inform how an individual experiences their partnership. Individuals with an insecure attachment style possess more maladaptive relationship cognitions and are more likely to ascribe negative motivations to their partner's behavior, (Candel & Turliuc, 2019; Li & Chan, 2012). An individual's attachment style may also moderate their ability to effectively respond to relationship challenges. For example, research suggests that securely attached individuals recover more quickly from conflict, experience more daily positive affect, and are more adept at conflict resolution and collaboration (Simpson et al., 2007; Simpson, Collins, & Salvatore, 2011).

Emotional and psychological well-being is also a valuable intrapersonal resource in romantic relationships that influences intimate partnership outcomes in similar ways. Individuals who experience negative emotionality more frequently may be more sensitive

to relationship stressors and find it more difficult to separate these feelings from how they perceive their partner and relationship. For example, anger and hostility is associated with more negative interactions between partners, greater intimate partner violence, and lower actor and partner reports of relationship satisfaction (Renshaw, Blais, & Smith, 2010; Sanford, 2007; Sutton et al., 2020). Findings from longitudinal research on the implications of anger illustrate the long-term impact of negative affect for intimate partnerships and suggest that anger may have consequences for future relationship functioning (Baron et al., 2007).

Respondents' assessment of their previous relationships; and more specifically, whether they characterized their previous partnerships as supportive and satisfying, was a salient predictor of relationship satisfaction. Social exchange theory offers insight into the determinants of relationship satisfaction and can be used to explain why this construct may be relevant for relationship satisfaction. Theorists posit that when evaluating one's partnership, an individual may compare their outcome (i.e., ratio of rewards to costs) to their comparison level or the outcome they expect to receive in their partnership (Miller, 2018). An individual's comparison level is heavily influenced by their personal beliefs and previous experiences, and if an individual's outcome exceeds their comparison level, then social exchange theory predicts that an individual will be satisfied with their relationship (Miller, 2018). In accordance with these assertions, how individuals interpret their previous relationship experiences may harbor important implications for relationship satisfaction.

Relationship-Specific Experiences.

We generally expect our partners to meet our most pressing psychological and social needs, and interpersonal process models of intimacy suggest that the degree to which individuals perceive their partner as responsive, supportive, and attentive to their needs and values is a key determinant of relationship satisfaction (Reis & Shaver, 1998). In the current study, respondents' dedication and commitment to their relationship, degree of warmth and hostility exhibited towards their partner, affective sentiments towards their partner, and tendency to forgive were important predictors of relationship satisfaction. Respondents' perception of their partners' hostility and ability to engage in collaborative parenting decisions as a couple were robust predictors of relationship satisfaction.

Similar findings have been evidenced in qualitative research that examines perceptions of commitment among African American couples and the determinants of relationship stability and longevity for these partnerships. In Chaney's (2014) study, participants identified mutual engagement in commitment behaviors that prioritized their partner's well-being as key factors that contributed to the permanence and stability of their partnership. Other studies have highlighted open communication and efforts to create a shared family vision as factors that contribute to enduring Black marriages (Mark et al., 2016; Vaterlaus et al., 2017). Results from this dissertation echo these findings and suggest that being involved in a relationship characterized by deep commitment, mutual engagement in relationship-promoting behaviors, and shared decision-making is consequential for relationship satisfaction.

Respondents' perception of their partner's intrapersonal attributes was also an important predictor of relationship satisfaction. Specifically, respondents' perceptions of

their partners' physical health, infidelity, alcohol misuse, and engagement in criminal behavior were important predictors of relationship satisfaction for African American couples. These behaviors may create additional relationship strain and undermine the development of relational closeness. For example, poorer physical health may limit couples' ability to engage in shared activities (Wickrama & Bryant, 2012), which is a key indicator of relational closeness and an important predictor of relationship satisfaction (Amato, 2011). Similarly, engaging in infidelity may erode closeness between partners and engender relationship distress. Together, these interactions may raise the cost associated with one's partnership, which may reduce relationship satisfaction.

A salient socioculturally relevant construct within this domain was respondents' engagement in shared religious activities with their partner. Participating in religious activities with one's partner has been identified as an adaptive process in African American partnerships (Amato, 2011; Marks et al., 2008). For example, Perry (2016) found that when African American couples report high levels of perceived spousal religiosity, they are likely to report greater marital quality compared to Whites. Exhibiting high levels of religiosity may indirectly benefit African American couples by improving psychosocial adjustment, increasing access to emotional and instrumental support, and by promoting attitudes and behaviors that are conducive to positive romantic relationship outcomes (Bryant-Davis & Wong, 2013; Fincham & Beach, 2014; Russell et al., 2021).

Family of Origin Experiences and Childhood Environment.

Developmental perspectives of intimate partnership outcomes identify the family of origin as a formative context that may serve as a training ground for future

relationships. In line with these findings, respondents' exposure to hostile parenting from primary caregivers in childhood was a significant predictor of relationship satisfaction. Primary caregivers are the primary socialization agents for young children and their parenting practices may promote the acquisition of important relationship competencies that can be modeled in adult romantic relationships (Bryant & Conger, 2002). For example, warm and supportive parenting may foster the development of foundational relationship skills such as trust, intimacy, and self-control that are paramount to healthy romantic relationship development (Simons et al., 2014). In addition, children who have primary caregivers that engage in warm and supportive parenting, provide emotional support, and engage in bidirectional communication report a more positive sense of self, exhibit better mental health outcomes, and experience more warmth, support, and relationship satisfaction in their adult marriages (Ackerman et al., 2013).

Alternatively, exposure to hostile parenting may be a relationship-inhibiting experience that contributes to poorer relationship functioning in adulthood. For example, using a sample of African American emerging adults, Simons et al. (2014) found that hostile parenting and exposure to a general climate of hostility in adolescence was indirectly associated with lower warmth and greater hostility exhibited towards one's partner in adulthood. Respondents' attachment style and relationship-relevant cognitions mediated this association and were also salient predictors of relationship satisfaction in the current study.

Contextual Factors and Sociocultural Stressors.

Aspects of respondents' work and community context were important sociocultural and contextual predictors of relationship satisfaction. These variables

included respondents' work conditions, exposure to community social disorder, and assessment of whether members of their community endorsed the belief that violence can be a legitimate problem-solving strategy in certain instances. These findings help facilitate understanding of African American partnerships in their full-context and identify external stressors as factors that may exert an undue influence on intimate partnership outcomes for these couples.

African Americans are disproportionately likely to be employed in "blue-collar" jobs (O'Neal, Wickrama, & Bryant, 2014) and to reside in neighborhoods with a high concentration of poverty and fewer community resources. In line with stress process theories, increased exposure to work and community-related stressors may diminish individuals' cognitive and emotional resources, which in turn, is associated with more negative intimate partnership outcomes. For example, research suggests that employment in jobs characterized by low levels of work control is associated with decreased self-esteem and mastery, and these sentiments may reduce behavioral closeness between partners (O'Neal, Wickrama, & Bryant, 2014). Community social disorder may also have negative implications for emotional and psychological functioning and may exacerbate reactivity to existing stressors. For example, using a sample of 540 African American couples, Wickrama and colleagues (2010) found that African American husbands' perception of community disorder (e.g., violence, noise, alcohol use) demonstrated actor and partner effects and was associated with more hostile behavior exhibited by both partners. Husband's experiences of community social disorder were also linked to deficits in their own as well as their spouses' physical and mental well-being.

A socioculturally relevant contextual variable that was a significant predictor of relationship satisfaction was respondents' assessment of whether individuals in their neighborhood endorsed the belief that violence can be a legitimate problem-solving strategy in certain circumstances. This construct originates from literature on street code (Anderson, 1999), and scholars assert that African Americans may adopt this strategy as a protective coping mechanism. Street code presents a set of informal rules for governing oneself in interpersonal interactions that are defined by retaliation, garnering and/or maintaining respect, and protecting one's reputation (Anderson, 1999). Street code encourages active anger expression and prohibits displays of emotional vulnerability, and individuals who internalize these values are likely to exhibit greater aggression, hostility, and conflict in interpersonal interactions (Barr, Culatta, & Simons, 2013). Individuals who endorse street code judge themselves and others by these standards and widespread adoption of these values among neighboring residents may be associated with greater incidence of community violence and victimization. Collectively, these findings illustrate the importance of contextualizing research on African American couples and underscore the need to acknowledge the role that broader social, political, economic, and historical forces may play in influencing relationship outcomes among this population.

Aim 3 – To employ regression-based modeling to confirm and interpret random forest results.

Random forest models do not use traditional significance-based testing approaches (Grimmer et al., 2021); therefore, a regression model was computed to confirm machine learning results and clarify how features were associated with relationship satisfaction. Although machine learning results identified 23 features as

salient predictors of relationship satisfaction, only 8 features were significantly associated with relationship satisfaction in the regression analyses. However, these findings generally supported patterns evidenced in the random forest analyses and suggest that an individual's evaluation of their partner and relationship are the most proximal predictors of relationship satisfaction.

Variables that were significantly associated with relationship satisfaction in the regression analyses included respondents' attachment style, evaluation of their previous partnerships, relationship commitment, and relationship primacy. Respondents who were more committed to their relationship, placed more importance on their partnership, and who evaluated their previous relationships more negatively tended to report greater relationship satisfaction. Alternatively, individuals who exhibited characteristics that were consistent with a preoccupied attachment style were likely to report lower relationship satisfaction.

Participants' assessment of their partner's warmth, hostility, physical health, infidelity, and engagement in criminal behavior were also associated with relationship satisfaction. Specifically, respondents who reported higher levels of partner warmth and more positive perceptions of their partner's physical health were likely to experience greater relationship satisfaction. Conversely, participants who reported that their partner engaged in higher levels of hostility, infidelity, and criminal behavior were likely to experience lower relationship satisfaction.

Divergence between machine learning and regression analyses may be due to differences in how model estimates are computed in both approaches. Traditional regression models evaluate the explanatory power of all predictors simultaneously, while

random forest algorithms sample a random subset of variables and participants to construct each decision tree (Breiman, 2001). This gives every variable in the dataset an equal opportunity to contribute to the model's predictive performance, which leads to more fine-grained estimates that more effectively predict outcomes in unique cases. Accordingly, variables that may have been deemed as important due to their ability to predict outcomes in certain decision trees, may have been overshadowed in the regression analysis by variables that demonstrate higher levels of predictive performance more generally.

Divergence between machine learning and regression results may also be due to overfitting, which occurs when model estimates fit the observed data too closely and do not generalize to other datasets (Yarkoni & Westfall, 2017). Regression-based models are more prone to overfitting because the goal of these techniques is to minimize the sum of squared residuals, which generates estimates that best explain the observed data. In contrast, the goal of machine learning techniques is to construct a model that can accurately predict outcomes in a new set of observations. Model parameters are derived from a diverse set of single decision trees, which helps reduce the variability of estimates and generates more fine-grained predictions. Further, a training dataset is used to compute model estimates and a testing dataset is used to evaluate these parameters. As such, estimates reflect how a model would perform if it were 'out-of-sample', or if it were tested on an entirely new set of observations.

Strengths

The current study advances relationship science in critical ways. First, findings identify the most robust determinants of relationship satisfaction for African American

couples. A notable limitation of scholarship on the correlates of relationship quality and adjustment is the limited empirical work that's been devoted to elucidating the factors that may be uniquely relevant to specific racial or ethnic groups (Bryant, 2010). Black scholars have worked diligently to address these limitations and have constructed conceptual models that explicate the factors that are relevant to African Americans' relationship functioning (Bryant et al., 2010; Pinderhughes, 2002); however, the utility of many of the constructs proposed by these models have yet to be tested empirically. This dissertation builds on the work of these scholars and represents one of the first attempts to empirically evaluate the utility of general and socioculturally relevant constructs that are theorized to have important links to relationship outcomes. This work provides an important starting point for understanding the factors that may be germane to all relationships as well as the factors that may be a function of couples' sociocultural context.

Second, this dissertation advances understanding of the degree to which core theoretical principles in relationship science apply to African American partnerships and can be used to inform the development of socioculturally relevant theories on the determinants of relationship quality and adjustment. Findings broaden understanding of the utility of foundational theories in predicting relationship satisfaction for African American couples and suggest that traditional paradigms and constructs in relationship science are an important starting point for understanding the correlates of relationship satisfaction for African American couples. In tandem, results also suggests that existing frameworks can be augmented by the inclusion of socioculturally relevant predictors. More specifically, these frameworks may benefit from distinguishing between general

and socioculturally relevant stressors and adaptive processes that may be relevant to certain racial/ethnic groups.

Third, the current demonstrates the theoretical utility of employing machine learning in relationship science and illustrates how machine learning and traditional hypothesis testing approaches can be used to complement one another. As evidenced from the current study, machine learning can be used to quantify the predictive power of constructs purported in research on relationship quality and adjustment and may help scholars better understand the generalizability of foundational assumptions and beliefs. Machine learning techniques may also help generate new avenues for hypothesis testing. For example, future research may benefit from exploring whether relationship-specific experiences fully mediate the link between individual, familial, contextual, sociocultural factors, and relationship outcomes and from investigating whether the predictors identified as important for predicting African Americans' relationship satisfaction are salient for other racial and ethnic minority groups. Ultimately, bridging both approaches may enhance our ability to explain human behavior and to generate comprehensive theoretical frameworks that effectively model racial and ethnic diversity in relationship processes and outcomes.

Limitations

Although the current study possesses several notable strengths, it is not without limitations. This study used a random forest algorithm to conduct analyses and did not evaluate the efficacy of other machine learning approaches in predicting relationship satisfaction. Despite the advantages of this approach and its popularity in previous machine learning studies in relationship science (Großmann, Hottung, & Grimberghe,

2019; Joel et al., 2020), it is possible that other techniques may have exhibited better predictive performance.

The current study was also limited predictors to actor-reported measures given findings from previous studies. Prior research that has used machine learning to predict relationship quality and adjustment found that actor-reports of relationship-specific experiences (i.e., how an individual perceives their partner and aspects of their relationship) were the most important predictors of relationship satisfaction (Großmann, Hottung, & Grimberghe, 2019; Joel et al., 2020). In contrast, partner-reports of relationship-specific experiences did not contribute to model performance beyond the information provided by actor-reported variables. It is possible that partner reports of relationship-specific constructs may exert a stronger influence on relationship satisfaction for African American couples. In addition, certain variables in the current study evidence low reliability and were not able to be included in the study. Future research should be conducted using a wider array of constructs and with partner-reported measures to assess whether these predictors contribute to model performance beyond actor-reported variables.

The current study also focused exclusively on heterosexual African American couples and results may not generalize to individuals with varying sexual orientations. The sample was also relatively young and identified predictors may not represent the key determinants of relationship satisfaction individuals in middle and late adulthood. Lastly, analyses were also relegated to individuals who identified as monoracial African Americans.

Conclusion

The current study used random forest analyses to evaluate the predictive utility of general and socioculturally relevant constructs in predicting relationship satisfaction for African American couples. Findings advance understanding of the efficacy of existing paradigms and theories in relationship science in predicting relationship satisfaction for African American couples and underscore the importance of identifying the core assumptions that apply to African American couples and which foundational concepts must be expanded to better explicate relationship processes and outcomes among these couples. This work advances progress towards socioculturally-informed theory development in relationship science by providing insight into the correlates of relationship quality and adjustment that may be germane to all couples and the considerations that harbor unique significance for certain racial and ethnic groups.

Clarifying the factors that promote relationship satisfaction among African American couples also supports the aims of national initiatives such as the African American Healthy Marriage Initiative and intervention programs that aim to increase the stability of these partnerships. Findings from this dissertation support this goal by identifying several modifiable correlates of relationship satisfaction for African American couples that if targeted may improve relationship satisfaction. Accordingly, exploring the significance of these factors when conducting clinical work and providing education on how these variables may be associated with relationship satisfaction may better position clinicians and interventionists to meet the needs of African American couples.

Appendix

Figure 1

Recursive Feature Elimination – Cross-Validation RMSE for Each Subset of Features

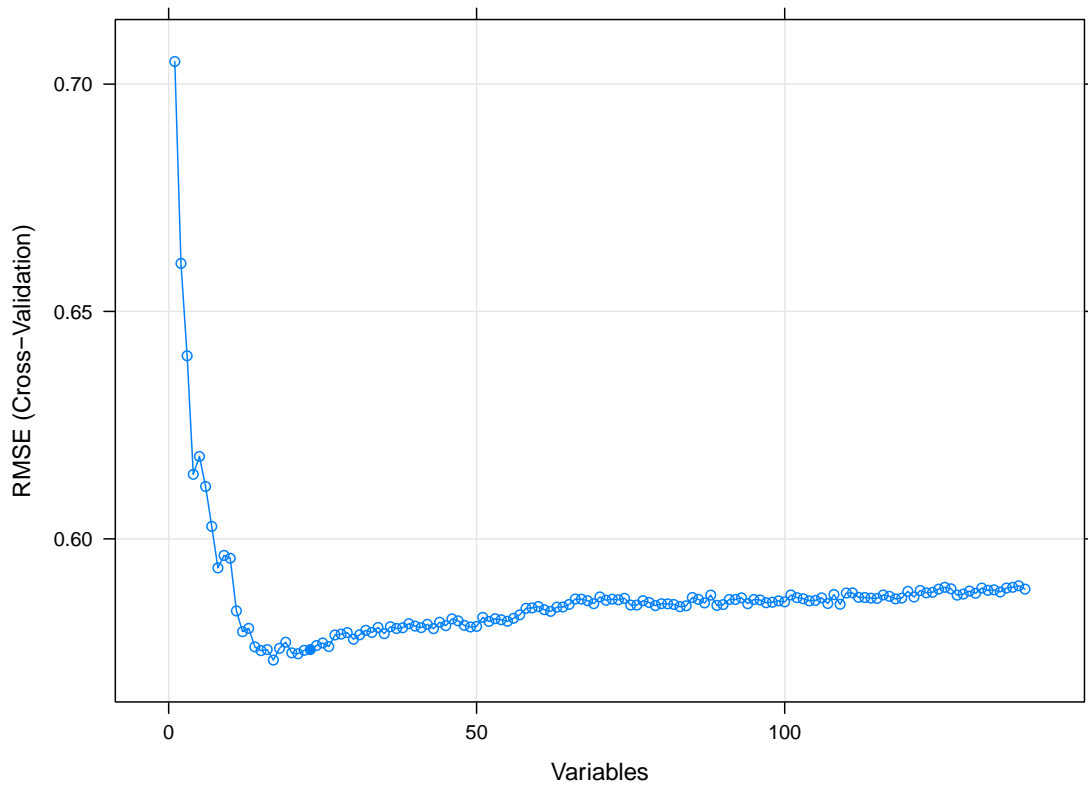


Figure 2

Recursive Feature Elimination – Coefficient of Determination for Each Subset of Features

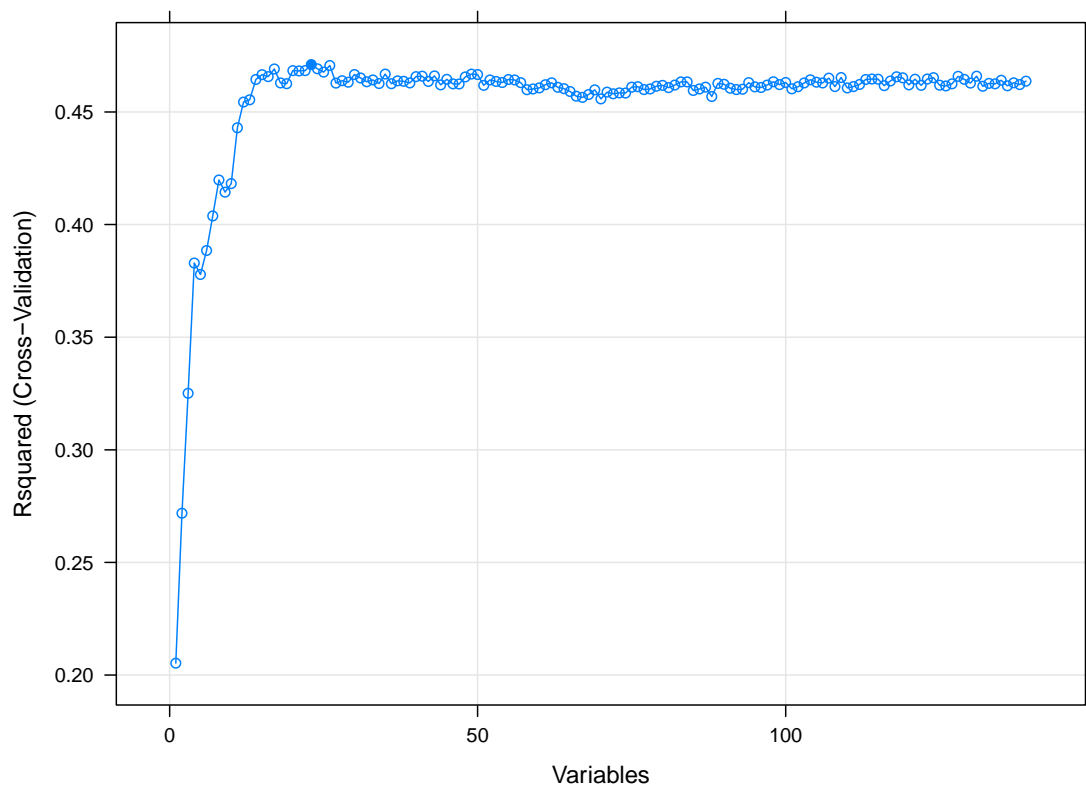


Figure 3

Plot of Variable Importance Scores for Selected Features (n = 23)

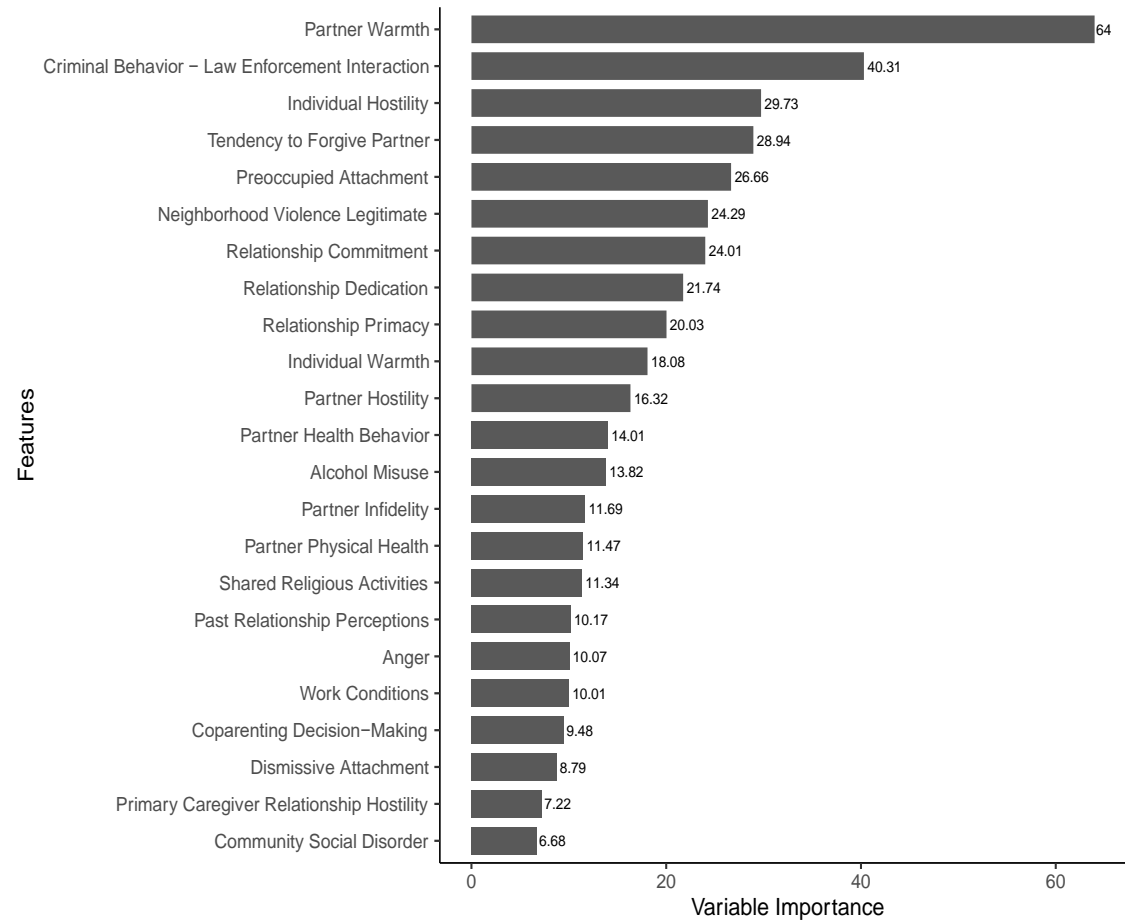


Table 1*Study Measures by Predictor Domain – Individual Experiences and Intrapersonal Characteristics*

Measure	Citation	Item Number(s)	Sample Item(s)	Response Options	Alpha
Gender Identity	N/A	1	N/A	0 (Male) to 1 (Female)	N/A
Age	N/A	1	“How old are you? Even if your birthday is tomorrow or next week, what is your age today?”	Numeric	N/A
Skin Tone	TBD	2	Mother report; Father report	1 (Very light) to 5 (Very dark)	0.82
Biological Children	N/A	1	“Do you currently have any biological children?”	0 (No) 1 (Yes)	N/A
Parenting Stress	N/A	1	“During the past 12 months, being a parent to your child or children has been a stressful experience.”	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Self-Esteem	Rosenberg, M. (1965). <i>Society and the Adolescent Self-Image</i> . Princeton University Press.	5	“I feel I do not have much to be proud of”, “On the whole, I am satisfied with myself (reverse code)”	1 (Strongly agree) to 5 (Strongly disagree)	0.73
Depression	Kessler, R. C., McGonagle, K. A., Shanyang, Z., Nelson, C. B., Hughes, M., et al. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Study. <i>Archives of General Psychiatry</i> , 51,8-19.	9	“In the past year, was there ever a two-week period when you felt sad, empty, or depressed most of the day?”, “In the past year, was there ever a two-week period when you felt worthless nearly every day?”	0 (No), 1 (Yes)	0.85

Anger I	Spielberger, C.D. (1988). Professional manual for the state-trait anger expression inventory (STAXI). Psychological Assessment Resources.	4	"I fly off the handle", "When I get frustrated, I feel like hitting someone"	1 (Almost never) to 4 (Almost always)	0.74
Anger II	Shaffer, D., Fisher, P., Piacentini, J., Conners, C. K., Schwab-Stone, M., Cohen, P., . . . Reigier, D. (1993). The Diagnostic Interview Schedule for Children-revised version (DISC-R). Preparation, field testing, inter-rater reliability, and acceptability. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 32, 643-650.	4	"How often do you feel grouchy or easily annoyed?", "How often do you feel frustrated and lose your temper?"	1 (Less than once a week) to 4 (Nearly every day)	0.85
Optimism	Scheir, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. <i>Health Psychology</i> , 4, 219-247.	2	"You always look on the bright side of things", "You are always optimistic about your future"	1 (Not at all true) to 4 (Very true)	0.75
Pessimism	Scheir, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. <i>Health Psychology</i> , 4, 219-247.	2	"You hardly ever expect things to go your way", "Things never work out the way you want them to"	1 (Not at all true) to 4 (Very true)	.78
Emotional Reactivity (Negative Affect)	Scheir, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. <i>Health Psychology</i> , 4, 219-247.	1	"You don't get upset too easily"	1 (Not at all true) to 4 (Very true)	N/A
Peaceful	N/A	1	"How peaceful and easy-going are you?"	1 (Not at all) to 4 (Very)	N/A

Kind/Generous	N/A	1	"How kind and generous are you?"	1 (Not at all) to 4 (Very)	N/A
Physical Health	N/A	1	"How would you describe your health right now?"	1 (Not very good) to 5 (Excellent)	N/A
Self-Efficacy for Prosocial Behavior	N/A	2	"You watch for signs that you are under stress", "You know specific things you can do when you are stressed to help yourself feel better"	1 (Never) to 5 (Always true)	0.79
Good Self-Control	Kendall, P., and Wilcox, L. (1979). Self-control in children: Development of a rating scale. <i>Journal of Consulting & Clinical Psychology, 47(6)</i> , 1020-1029.	4	"When you promise to do something, people can count on you to do it", "You usually think before you act"	1 (Not at all true) to 3 (Very true)	0.73
Impulsivity	Eysenck, S. B., & Eysenck, H. J. (1978). Impulsiveness and venturesomeness: Their position in a dimensional system of personality description. <i>Psychological Reports, 43(3-suppl)</i> , 1247-1255.	3	"You sometimes get into a jam because you do things without thinking", "You often do things on the "spur of the moment"	1 (Not at all true) to 5 (Very true)	0.71
Social Ability	N/A	1	"I find it hard to make friends."	1 (Not at all) to 4 (Always)	N/A
Religious Importance	N/A	1	"In general, how important are religious or spiritual beliefs in your day-to-day life?"	1 (Not at all important) to 4 (Very important)	N/A
Religious Involvement	N/A	1	"How often in the past month did you attend religious services?"	1 (Never) to 5 (Daily)	N/A

Racial Centrality I	Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. <i>Journal of Personality and Social Psychology, 73</i> , 805-815.	1	"In general, being Black is an important part of my self-image."	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Racial Centrality II	Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. <i>Journal of Personality and Social Psychology, 73</i> , 805-815.	1	I have a strong sense of belonging to Black people "	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Private Regard	Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. <i>Journal of Personality and Social Psychology, 73</i> , 805-815.	1	"I am happy that I am Black"	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Public Regard	Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. <i>Journal of Personality and Social Psychology, 73</i> , 805-815.	1	"Blacks are not respected by the broader society (reverse coded)"	1 (Strongly disagree) to 5 (Strongly agree)	N/A

Collective Self-Esteem I	Luhtanen, & Crocker, J. (1992). A Collective Self-Esteem Scale: Self-Evaluation of One's Social Identity. <i>Personality & Social Psychology Bulletin</i> , 18(3), 302–318.	1	“Most people (who aren't Black) have a lot of respect for Black people”	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Collective Self-Esteem II	Luhtanen, & Crocker, J. (1992). A Collective Self-Esteem Scale: Self-Evaluation of One's Social Identity. <i>Personality & Social Psychology Bulletin</i> , 18(3), 302–318.	1	"Blacks are looked down upon in our society (reverse coded)"	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Cynical View of Relationships	N/A	2	“When people are friendly, they usually want something from you”	1 (Strongly disagree) or 4 (Strongly agree)	0.71
Violence as a Legitimate Problem-Solving Strategy	Simons, R. L., et al (1995) Developed for FACHS	5	“Sometimes you need to threaten people in order to get them to treat you fairly”, “It is important to show other people that you cannot be intimidated”	1 (Strongly disagree) to 4 (Strongly agree)	0.83
Street Code	Described by Anderson (1997, 1999); Anderson, E. (1997). Violence and the inner-city street code. In J. McCord (Ed.), <i>Violence and Childhood in the Inner City</i> . Cambridge University Press.; Anderson, E. (1998). The social ecology of youth violence. <i>Crime and Justice</i> , 24, 65-104.	1	“It is important not to back down from a fight or challenge because people will not respect you”	1 (Strongly disagree) to 4 (Strongly agree)	N/A
Deviant Values	Elliot et al., 1966 (Unable to locate source)	9	"How wrong do you think it is for someone to hit someone with the idea of hurting them?", "How wrong do you think it is for someone to hit a romantic partner?"	1 (Very wrong) to 4 (Not at all wrong)	0.77

Conventional Goals	Rokeach, M. (1973). <i>The Nature of Human Values</i> . Free Press.	4	"How important is it to you. To have a secure income and stable job?", "How important is it to you. To have a good marriage?"	1 (Not at all important) to 5 (Extremely Important)	0.85
Marriage Rewards	Simons, R. L., et al (1995) Developed for FACHS	1	"Marriage leads to a happier life"	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Marriage Costs	Simons, R. L., et al (1995) Developed for FACHS	2	"A person who marries loses a lot of his or her freedom", "A person's sex life tends to get worse after marriage"	1 (Strongly disagree) to 5 (Strongly agree)	0.74
Dismissive Attachment	Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. <i>Journal of Personality and Social Psychology</i> , 61(2), 226-244. Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. <i>Journal of Personality and Social Psychology</i> , 67(3), 430-445.	2	"Thinking about romantic partners in general, I don't like people getting too close to me"	1 (Strongly disagree) to 7 (Strongly agree)	0.80
Preoccupied Attachment	Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. <i>Journal of Personality and Social Psychology</i> , 61(2), 226-244. Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions	3	"Thinking about romantic partners in general, others often are reluctant to get as close as I would like", "Thinking about romantic partners in general, I often worry that my partner(s) doesn't really love me"	1 (Strongly disagree) to 7 (Strongly agree)	0.65

	underlying measures of adult attachment. <i>Journal of Personality and Social Psychology</i> , 67(3), 430-445.				
Perception of Past Relationships	N/A	1	“Overall, how would you describe your past relationships with romantic partners?”	1 (Almost never supportive and satisfying) to 4 (Almost always supportive and satisfying)	N/A
Cohabitation History – Binary	N/A	1	“Not including your current romantic partner, if you have one, have you lived with a romantic partner without marriage?”	0 (No) to 1 (Yes)	N/A
Cohabitation – Number of Partners	N/A	1	“How many romantic partners have you lived with without marriage?” (Not including current partner).	0 (0 Romantic partners) to 10 (10 Romantic partners)	N/A
Willingness to be Unfaithful (Someone Other Than Partner - Sexual Relations Willingness)	N/A	1	“Now, suppose you were married or had a steady romantic partner and someone else started coming on to you. How willing would you be to have sex with that person?”	1 (Not at all) to 3 (Very)	N/A

Criminal Behavior	Elliott, D.S., Huizinga, D., & Ageton, S. (1985). <i>Delinquency and drug use</i> . Sage. Elliott, D.S., Huizinga, D., & Menard, S. (1989). <i>Multiple problem youth: delinquency, substance use, and mental health problems</i> . Springer-Verlag	14	"How many times in the past year did you break into a building or house?", "How many times in the past year did you shoot or stab someone?"	Numeric	N/A
-------------------	--	----	---	---------	-----

Table 2*Study Measures by Predictor Domain – Relationship-Specific Experiences*

Measure	Citation	Item Number(s)	Sample Item(s)	Response Options	Alpha
Relationship Status	N/A	1	"What best describes your current relationship status?"	1 (Dating), 2 (Engaged), 3 (Married)	N/A
Romantic Partner Gender Identity	N/A	1	"Is ____ a male or female?"	0 (Male), 1 (Female)	N/A
Relationship Length	N/A	1	"How many years have you been in a relationship with ____?"	0 (0 Year) to 20 (20 years); 1 (1 month) to 11(11 months)	N/A
Interracial Relationship	N/A	1	"Are you the same race as ____?"	0 (No), 1 (Yes)	N/A
Cohabitation	N/A	1	"Do you live with a romantic partner?"	0 (No), 1 (Yes)	N/A
Children with Current Partner	N/A	1	"How many biological children do you share with ____?"	0 (None) to 7 (Seven)	N/A
Coparenting Shared Decision-Making	N/A	1	"Thinking about the children who live with you, how often do you and ____ make major decisions together about the child(ren)'s life?"	1 (Almost never) to 4 (Almost always)	N/A

Coparenting Conflict	N/A	1	"How often do you and _____ have big differences of opinion about how to raise your child or children?"	1 (Almost never) to 4 (Almost always)	N/A
Relationship Commitment	N/A	1	"How committed are you to your relationship with your romantic partner?"	1 (Not at all committed) to 5 (Extremely committed)	N/A
Love	N/A	1	"Which of the following statements best describes your feelings about _____?"	1 (I don't like this person all that much) to 4 (I am in love with this person)	N/A
Warmth Towards Partner	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	3	"During the past month, how often did you let your romantic partner know that you appreciate his/her ideas or the things he/she does?", "During the past month, how often did you help your romantic partner do something that was important to him/her?"	1 (Never) to 4 (Always)	0.83
Hostility Towards Partner	N/A	5	"During the past month, how often did you insult or swear at your romantic partner?", "During the past month, how often did you throw things at your romantic partner?"	1 (Never) to 4 (Always)	0.69

Partner Warmth	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	3	"During the past month, how often did your romantic partner let you know that he/she appreciates you, your ideas or the things you do?", "During the past month, how often did your romantic partner... help you do something that was important to you?"	1 (Never) to 4 (Always)	0.82
Partner Hostility	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	5	"During the past month, how often did your romantic partner shout or yell at you because they were mad at you?", "During the past month when you and your romantic partner have spent time talking or doing things together how often did your romantic partner insult or swear at you?"	1 (Never) to 4 (Always)	0.73
Partner Alcohol Misuse	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	1	"During the past 12 months, your Romantic Partner: Has drunk too much alcohol"	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Partner Substance Abuse-Related Problems	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	1	"Has had problems with other people or on the job because of his/her drinking or drug use"	1 (Strongly disagree) to 5 (Strongly agree)	N/A

Partner Criminal Behavior (Legal Trouble)	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	1	"During the past 12 months, your romantic partner... Has had problems with the police for something other than traffic violations"	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Couple Social Support	Stanley, S. M., & Markman, H. J. (2007). Couple social integration measure. Unpublished measure. PREP, Inc.	1	"If we were to need help getting by or encountered a crisis, we would have friends or family to rely on"	1 (Strongly disagree) to 7 (Strongly agree)	N/A
Shared Social Network	Stanley, S. M., & Markman, H. J. (2007). Couple social integration measure. Unpublished measure. PREP, Inc.	1	"Many of our friends are friends of both of us"	1 (Strongly disagree) to 7 (Strongly agree)	N/A
Couple Extended Family Relationships	N/A	1	"We get along well with both our extended families"	1 (Strongly disagree) to 7 (Strongly agree)	N/A
Couple Prosocial Behavior	Stanley, S. M., & Markman, H. J. (2007). Couple social integration measure. Unpublished measure. PREP, Inc.	1	"As a couple, we try to help others in need"	1 (Strongly disagree) to 7 (Strongly agree)	N/A

Relationship Importance (Primacy)	Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships. <i>Journal of Marriage and the Family</i> , 54, 595– 608.	1	“My relationship with my romantic partner is more important to me than almost anything else in my life”	1 (Strongly disagree) to 7 (Strongly agree)	N/A
Relationship Dedication (Agenda)	Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships. <i>Journal of Marriage and the Family</i> , 54, 595– 608.	2	“I want this relationship to stay strong no matter what rough times we may encounter”, “My relationship with my partner is clearly part of my future life plans”	1 (Strongly disagree) to 7 (Strongly agree)	.90
Tendency to Forgive	Brown, R. P. (2003). Measuring individual differences in the tendency to forgive: Construct validity and links with depression. <i>Personality and Social Psychology Bulletin</i> , 29(6), 759-771. doi:10.1177/0146167203029006008	4	“I have a tendency to harbor grudges against my romantic partner.”, “I tend to get over it quickly when my romantic partner hurts my feelings (reverse coded)”	1 (Strongly disagree) to 7 (Strongly agree)	0.61
Partner Honesty	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992</i> . [Dataset]. ICPSR.	1	“During the past 12 months, your Romantic Partner: Doesn’t always tell me the truth about things”	1 (Strongly disagree) to 5 (Strongly agree)	N/A
Partner Infidelity	N/A	1	“While you have been together has your romantic partner cheated on you?”	1 (Never) to 4 (Regularly)	N/A
Partner Religiosity	N/A	1	"How much do you think that your romantic partner goes to church or church activities?"	1 (Never) to 4 (Regularly)	N/A

Partner-Focused Petitionary Prayer	Fincham, F. D., Lambert, N. M., & Beach, S. R. H. (2010). Faith and unfaithfulness: Can praying for your partner reduce infidelity? <i>Journal of Personality and Social Psychology</i> , 99, 649–659. doi:10.1037/a0019628	3	“I pray for the well-being of my romantic partner”, “I ask God to watch over my romantic partner”	1 (Never) to 4 (Often)	0.86
Shared Religious Activities with Partner	N/A	2	“How often in the past month did you attend church services with your romantic partner?”	1 (Never) to 4 (Frequently)	0.82
Partner Health	N/A	1	“How would you describe [Romantic Partner name] health right now?”	1 (Not very good) to 5 (Excellent)	N/A
Partner Health Behaviors (Management)	N/A	1	“Do you think [Romantic Partner name] takes good care of his/her health?”	1 (No, not at all) to 4 (Yes, definitely)	N/A

Table 3*Study Measures by Predictor Domain – Family of Origin and Childhood Environment*

Measure	Citation	Item Number(s)	Sample Item(s)	Response Options	Alpha
Primary Caregiver-Gender	N/A	1	N/A	0 (Male), 1 (Female)	N/A
Primary Caregiver-Romantic Relationship Satisfaction	Modified from Huston, T., McHale, S., & Crouter, A. (1986). When the honeymoon's over. Changes in the marriage relationship over the first year. In R. Gilmour & Duck (Eds.). <i>The emerging field of personal relationships</i> (pp. 109-132). Erlbaum.	2	"How happy are you, all things considered, with your relationship?", "All in all, how satisfied are you with your relationship?"	1 (Extremely unhappy) to 6 (Extremely happy); 1 (Not at all satisfied) to 5 (Completely satisfied)	0.86
Primary Caregiver-Relationship Instability	Booth, A., Johnson, D., & Edward, J. N. (1983). Measuring marital instability. <i>Journal of Marriage and the Family</i> , 48, 381-387.	5	"Has the thought of [separation/divorce/breaking up] crossed your mind?", "Have you or _____ seriously suggested the idea of [separation/divorce/breaking up]?"	1 (Not in the last year) to 4 (Yes, within the last 3 months)	0.86
Primary Caregiver-Perceived Partner Warmth	Conger, R. D., & Elder, G. H., Jr. (1994). <i>Families in troubled times</i> . Aldine De Gruyter.	9	"During the past 12 months, how often did _____ act supportive and understanding toward you?"	1 (Never) to 4 (Always)	0.91
Primary Caregiver-Perceived Partner Hostility	Conger, R. D., & Elder, G. H., Jr. (1994). <i>Families in troubled times</i> . Aldine De Gruyter.	12	"During the past 12 months, how often did _____ criticize you or your ideas?", "During the past 12 months, how often did _____ insult or swear at you?"	1 (Never) to 4 (Always)	0.85

Primary Caregiver-Social Provisions	Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), <i>Advances in Personal Relationships</i> . (Vol. 1, pp 37-67). JAI Press.	10	"You feel your competence and skills are recognized by _____", "Your relationship with _____ provides you with a sense of emotional security and well-being"	1 (Strongly disagree) to 4 (Strongly agree)	0.85
Primary Caregiver-Money Conflict with Partner	Conger, R. D., & Elder, G. H., Jr. (1994). <i>Families in troubled times</i> . Aldine De Gruyter.	3	"[He/She] often yells or gets mad at you over financial issues", "[He/She] is often upset or angry because [He/She] feels we don't have enough money"	1 (Strongly disagree), 4 (Strongly agree)	0.85
Primary Caregiver-Unmet Material Needs	Conger, R. D., & Elder, G. H., Jr. (1994). <i>Families in troubled times</i> . Aldine De Gruyter.	4	"We have enough money to afford the kind of food we need", "We have enough money to afford the kind of medical care we need"	1 (Strongly disagree) to 4 (Strongly agree)	0.79
Primary Caregiver-Financial Difficulty	Conger, R. D., & Elder, G. H., Jr. (1994). <i>Families in troubled times</i> . Aldine De Gruyter	1	"During the past 12 months, how much difficulty have you had paying your bills?"	1 (No difficulty at all) to 5 (A great deal of difficulty)	N/A
Primary Caregiver-Financial Adjustments	Conger, R. D., & Elder, G. H., Jr. (1994). <i>Families in troubled times</i> . Aldine De Gruyter.	11	"In the past 12 months...has your family postponed medical or dental care to save money?", "In the past 12 months...has your family taken bankruptcy?"	1 (No), 2 (Yes)	0.73
Focal Respondent - Interparental Coparenting Conflict	N/A	1	"How often does your _____ disagree with your _____ about how and when to discipline you?"	1 (Never) to 4 (Always)	N/A
Focal Respondent - Satisfaction with Primary Caregiver Relationship	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa</i>	1	"How satisfied are you with your relationship with your _____?"	1 (Very dissatisfied) to 4 (Very satisfied)	N/A

	<i>Youth and Families Project, 1989-1992. [Dataset]. ICPSR.</i>				
Focal Respondent - Primary Caregiver Warmth	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992. [Dataset]. ICPSR.</i>	9	"During the past 12 months, how often did your _____ let you know [he/she] really cares about you? ", "During the past 12 months, how often did your _____ act loving and affectionate toward you? "	1 (Never) to 4 (Always)	0.81
Focal Respondent - Primary Caregiver Hostility	Conger, R., Lasley, P., Lorenz, F. O., Simons, Ronald., Whitbeck, L. B., Elder Jr., G. H., & Norem, R. (2011). <i>Iowa Youth and Families Project, 1989-1992. [Dataset]. ICPSR.</i>	14	"During the past 12 months, how often did your _____ get angry at you?", "During the past 12 months, how often did your _____ shout or yell at you because _____ was mad at you? "	1 (Never) to 4 (Always)	0.85
Focal Respondent - Primary Caregiver Inductive Reasoning	Thornberry, T., Huzinga, D., & Loeber R. (1989). Thornberry personal communication adapted from measures developed for multisite study on causes and correlates of delinquency sponsored by the Office of Juvenile Justice and Delinquency Prevention.	5	"How often does your _____ ask you what you think before making a decision about you?", "When you don't understand why your _____ makes a rule for you to follow, how often does [he/she] explain the reason?"	1 (Never) to 4 (Always)	0.74
Focal Respondent - Primary Caregiver Reinforcement of Conformity	N/A	9	"If you worked hard to get good grades in school, would your _____...", "If you took part in sports at school, would your _____..."	1 (Tell you to stop), 2 (Do nothing), 3 (Encourage you to do it again)	0.74
Focal Respondent - Primary Caregiver Perceived Reinforcement of Deviance	N/A	11	"If you stole something that did not belong to you, would your _____...", "If you drank beer, wine, wine coolers, or	1 (Tell you to stop), 2 (Do nothing), 3 (Encourage you to do it again)	0.72

			hard liquor, would your _____."		
Focal Respondent – Close Relationship with Teachers	N/A	1	"You feel very close to at least one of your teachers"	1 (Strongly disagree) to 4 (Strongly agree)	N/A
Focal Respondent - Childhood Exposure to Racial Discrimination	N/A	1	"When you were growing up (before age 10) how often did the following happen? Someone said something insulting to you just because of your race or ethnic background?"	1 (Never) to 4 (Frequently)	N/A
Focal Respondent - Racial Socialization	Hughes, D., & Johnson, D. (2001). Correlates in children's experiences of parents' racial socialization behaviors. <i>Journal of Marriage & the Family</i> , 63, 981-995.	18	"How often within the past year have the adults in your family indicated that some people might treat you badly or unfairly because of your race?", "How often within the past year have the adults in your family talked to you about important people or events in the history of your racial group?"	1 (Never) to 5 (10 or more times)	0.92
Focal Respondent - Victimization of Self or Member of Household	N/A	1	"While you have lived in this neighborhood, has anyone ever used violence, such as in a mugging, fight, or sexual assault, against you or any member for your household anywhere in your neighborhood?"	0 (No), 1 (Yes)	N/A
Focal Respondent - Community Social Disorder	Adapted from Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel	6	"During the past six months, how often was there a fight in your neighborhood in which a weapon like a gun or knife was used?", "During the past six	1 (Never) to 3 (Often)	0.75

	study of collective efficacy. <i>Science</i> , 277, 918-924.		months, how often was there a violent argument between neighbors?"		
Focal Respondent - Social Support	Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), <i>Advances in personal relationships</i> . (Vol. 1, pp 37-67). Greenwich, CT: JAI Press.	5	"I can depend on this adult to help me if I really need it", "My relationship with this adult provides me with a sense of emotional security and well-being"	1 (Strongly disagree) to 5 (Strongly agree)	0.81
Focal Respondent - Close Relationship with Adult	N/A	1	"Other than the adults who raised you, is the older adult you feel closest to..."	0 (No), 1 (Yes)	N/A
Focal Respondent - Death of Family Member	N/A	1	"In the past 12 months did a friend die?"	0 (No) or 1 (Yes)	N/A
Focal Respondent - Death of Friend	N/A	1	"In the past 12 months did a parent, brother or sister die? "	0 (No) or 1 (Yes)	N/A
Focal Respondent - Childhood Discrimination	N/A	1	"When you were growing up (before age 10) how often did the following happen? Someone said something insulting to you just because of your race or ethnic background?"	1 (Never) to 4 (Frequently)	N/A
Focal Respondent - Childhood Trauma	N/A	21	"Prior to age 10, would you say...My parents were too drunk or high to take care of the family", "Prior to age 10, would you say...There was no one to take me to the doctor when I needed it."	0 (No), 1 (Yes)	.70

Table 4*Study Measures by Predictor Domain – Contextual Factors and Sociocultural Stressors*

Measure	Citation	Item Number(s)	Sample Item(s)	Response Options	Alpha
Employment Status	N/A	1	"What is your present work situation?"	0 (Unemployed/Laid off) 1 (Employed [Part-time and Full-time]) 2 (Student/Trainee)	N/A
Educational Attainment	N/A	1	"What is the highest level of education you have completed?"	1 (Did not graduate HS), 2 (HS grad/GED), 3 (Some college, vocational, or technical training), 4 (BS, BA, or above)	N/A
Perceived Racial Discrimination	N/A	11	"In the last year how often have the police hassled you just because of your race or ethnic background?", "In the last year how often has someone yelled a racial slur or racial insult at you just because of your race or background?"	1 (Never) to 4 (Frequently)	0.94
Lifetime Racial Discrimination	N/A	1	"I have experienced a lot of racial discrimination in my life."	1 (Strongly disagree) to 5 (Strongly agree)	N/A

Neighborhood Violence as a Legitimate Strategy	N/A	6	"Now, based on what you've seen and heard in the neighborhood surrounding where you lived for most of the past 12 months, how strongly do you feel people in your neighborhood would agree or disagree with the following statements? It is sometimes necessary to use physical force or violence to defend one's rights."	1 (Strongly disagree) to 4 (Strongly agree)	0.86
Victimization - Self	N/A	1	"In the past 12 months were you a victim of a violent crime? "	0 (No), 1 (Yes)	N/A
Victimization - Close Family Member	N/A	1	"In the past 12 months was a close family member a victim of a violent crime?"	0 (No), 1 (Yes)	N/A
Neighborhood Victimization - Self	Simons, R. L., et al (1995) Developed for FACHS	1	"Has anyone in the neighborhood surrounding where you lived for most of the past 12 months ever used violence, such as in a mugging, fight, or sexual assault, against you?"	0 (No), 1 (Yes)	N/A
Neighborhood Victimization - Friend	Simons, R. L., et al (1995) Developed for FACHS	1		0 (No) or 1 (Yes)	N/A
Neighborhood Substance Availability	Developed by F. X. Gibbons & M. Gerrard for FACHS	1	"How easy is it for you to get drugs like cocaine or crack in your neighborhood?"	1 (Very difficult) to 4 (Very easy)	N/A
Death - Family Member	N/A	1	"In the past 12 months did a parent, brother or sister die? "	0 (No), 1 (Yes)	N/A
Death - Friend	N/A	1	"In the past 12 months did a friend die?"	0 (No), 1 (Yes)	N/A

Recent Unemployment	N/A	1	"During the past 12 months, were you unemployed at any time when you wanted a job?"	0 (No), 1 (Yes)	N/A
Recent Serious Money Problems	N/A	1	"In the past 12 months, did you have serious money problems or not enough money?"	1 (No, I have had no problems) to 3 (Yes, I have had serious problems)	N/A
Unmet Material Needs	Conger, R. D., & Elder, G. H., Jr. (1994). Families in troubled times: Adopting to change in rural America. <i>Aldine De Gruyter</i> Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. <i>Developmental Psychology</i> , 38(2), 179–193.	4	"We have enough money to afford the kind of food we need", "We have enough money to afford the kind of medical care we need"	1 (Strongly agree), 4 (Strongly disagree)	0.89
Close Friends	N/A	1	"How many of the people you know, male or female, do you consider to be your close friends?"	0 (None) to 6 (Nine or more)	N/A
Job Happiness	N/A	1	"How happy are you with your job(s)?"	1 (Very unhappy) to 5 (Very happy)	N/A
Work Conditions	N/A	6	"I feel that my job is negatively affecting my physical or emotional wellbeing", "I find it difficult to express my opinions or feelings about my job conditions to my superiors"	1 (Never), 5 (Very Often)	0.79
Community Disorder	Adapted from Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel	4	"In the neighborhood surrounding where you lived for most of the past 12 months the adults in the area	1 (Not at all true) to 3 (Very true)	0.83

	study of collective efficacy. <i>Science</i> , 277, 918-924.		would not tolerate public intoxication or drug use"		
Community Social Disorder	Adapted from Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. <i>Science</i> , 277, 918-924.	6	"During the past year in the neighborhood surrounding where you lived for most of the past 12 months how often was there a fight in which a weapon like a gun or knife was used?"	1 (Never) to 3 (Often)	0.82
Community Environment Perception - Young Men in School	N/A	1	"In the community where you lived for most of the past 12 months, what proportion of young men were working or attending college/vocational school full time?"	1 (Almost none) to 5 (Nearly all)	N/A
Community Environment Perception - Young Men in Jail	N/A	1	"In the community where you lived for most of the past 12 months, what proportion of young men spent time in jail or prison (reverse coded)?"	1 (Almost none) to 5 (Nearly all)	N/A

Table 5

Cross-Validation Metrics for Full (N = 139) and Reduced (N = 23) Set of Features

	N	RMSE	R ²
Full Model	139	0.59(.02)	0.44(.06)
Reduced Model	23	0.56(.02)	0.48(.05)

Table 6

*Cross-Validation Metrics for General and Socioculturally Relevant Features
(n = 23)*

	N	RMSE	R ²
<i>Domain</i>			
General	21	0.56(.02)	0.48(.05)
Socioculturally Relevant	2	0.79(.02)	.06(.04)

Table 7

Cross-Validation Metrics for Individual, Relational, Familial, and Contextual Factors (n = 23)

	N	RMSE	R ²
<i>Predictor Domain</i>			
Individual Experiences and Intrapersonal Characteristics	5	0.74(.03)	0.10(.03)
Relationship-Specific Experiences	15	0.57(.02)	0.46(.05)
Family of Origin Experiences and Childhood Environment	1	0.86(0.03)	0.01(.003)
Contextual Factors and Sociocultural Stressors	2	0.80(.03)	0.04(.02)

Table 8*Results of Linear Regression Predicting Relationship Satisfaction*

	<i>Est.</i>	Model <i>SE</i>	<i>P</i>
<i>Individual Experiences and Intrapersonal Characteristics</i>			
Preoccupied Attachment	-0.20*	0.09	0.03
Dismissive Attachment	-0.08	0.1	0.43
Anger	0.01	0.03	0.86
Perception of Previous Relationships	-0.12**	0.03	0.00
<i>Relationship-Specific Experiences</i>			
Partner Warmth	0.20**	0.05	0.00
Criminal Behavior	-0.13**	0.05	0.01
Tendency to Forgive Partner	0.13	0.09	0.15
Individual Hostility	-0.01	0.02	0.44
Relationship Commitment	0.13**	0.04	0.00
Relationship Dedication	-0.01	0.06	0.84
Individual Warmth	0.04	0.05	0.40
Relationship Importance (Primacy)	0.17**	0.07	0.01
Partner Hostility	-0.06**	0.02	0.00
Partner Physical Health	0.04	0.03	0.11
Partner Health Behavior	0.05	0.03	0.10
Alcohol Misuse	-0.01	0.03	0.78
Partner Infidelity	-0.07**	0.02	0.00
Shared Religious Activities	0.05	0.03	0.14
Coparenting Decision-Making	0.06	0.03	0.10
<i>Family of Origin Experiences and Childhood Environment</i>			
Primary Caregiver Hostility	-0.03	0.02	0.16
<i>Contextual Factors and Sociocultural Stressors</i>			
Neighborhood Violence as Legitimate Strategy	-0.07	0.04	0.06
Community Social Disorder	-0.01	0.02	0.62
Work Conditions	-0.05	0.05	0.29

Note. Standardized coefficients are represented. *SE* indicates standard error.

* $p < .05$. ** $p < .01$, *** $p < .001$

References

- Ackerman, R. A., Kashy, D. A., Donnellan, M. B., Neppl, T., Lorenz, F. O., & Conger, R. D. (2013). The interpersonal legacy of a positive family climate in adolescence. *Psychological Science, 24*(3), 243-250.
- Amato, P. R. (2011). Marital quality in African American marriages. *National Healthy Marriage Resource Center*. <https://www.healthymarriageinfo.org/wp-content/uploads/2613.pdf>
- Baron, K. G., Smith, T. W., Butner, J., Nealey-Moore, J., Hawkins, M. W., & Uchino, B. N. (2007). Hostility, anger, and marital adjustment: Concurrent and prospective associations with psychosocial vulnerability. *Journal of behavioral medicine, 30*(1), 1-10.
- Barr, A. B., Culatta, E., & Simons, R. L. (2013). Romantic relationships and health among African American young adults: Linking patterns of relationship quality over time to changes in physical and mental health. *Journal of Health and Social Behavior, 54*(3), 369-385.
- Barr, A. B., Simons, R. L., & Stewart, E. A. (2013). The code of the street and romantic relationships: A dyadic analysis. *Personal Relationships, 20*(1), 84-106.
- Baron, K. G., Smith, T. W., Butner, J., Nealey-Moore, J., Hawkins, M. W., & Uchino, B. N. (2007). Hostility, anger, and marital adjustment: Concurrent and prospective associations with psychosocial vulnerability. *Journal of behavioral medicine, 30*(1), 1-10.

- Barton, A. W., & Bryant, C. M. (2016). Financial strain, trajectories of marital processes, and African American newlyweds' marital instability. *Journal of Family Psychology, 30*, 657-664.
- Birditt, K. S., Hope, S., Brown, E., & Orbuch, T. (2012). Developmental trajectories of marital happiness over 16 years. *Research in Human Development, 9*(2), 126-144.
- Bonilla Silva, E. (2006). *Racism without racists: Color-blind racism and the persistence of racial inequality in the United States*. Rowman & Littlefield Publishers.
- Bordere, T. C. (2019). Suffocated grief, resilience and survival among African American families. In M. H. Jacobsen & A. Petersen (Eds.), *Exploring grief: Towards a sociology of sorrow* (pp 188-204). Taylor & Francis.
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and Family, 62*(4), 964-980.
- Breiman, L. (2001). Random forests. *Machine Learning, 45*, 5-32.
- Brick, T. R., Koffer, R. E., Gerstorff, D., & Ram, N. (2017). Feature selection methods for optimal design of studies for developmental inquiry. *The Journals of Gerontology: Series B, 73*, 113-123.
- Bryant, C. M. (2010). Understanding the intersection of race and marriage: Does one model fit all. *Psychological Science Agenda*.
- Bryant, C. M., & Conger, R. D. (2002). An intergenerational model of romantic relationship development. In A. L. Vangelisti, H. T. Reis, & M. A. Fitzpatrick (Eds.), *Stability and Change Relationships* (pp. 57-82). Cambridge University Press.

- Bryant, C. M., Wickrama, K. A. S., Bolland, J., Bryant, B. M., Cutrona, C. E., & Stanik, C. E. (2010). Race matters, even in marriage: Identifying factors linked to marital outcomes for African Americans. *Journal of Family Theory & Review*, 2(3), 157-174.
- Bryant Davis, T., & Wong, E. C. (2013). Faith to move mountains: Religious coping, spirituality, and interpersonal trauma recovery. *American Psychologist*, 68(8), 675-684.
- Buck, A. A., & Neff, L. A. (2012). Stress spillover in early marriage: The role of self-regulatory depletion. *Journal of Family Psychology*, 26(5), 698-708.
- Buehler, C., & Few-Demo, A. L. (2018). Introduction to the special issue. *Journal of Family Theory & Review*, 10(2), 327-329.
- Bulanda, J. R., & Brown, S. L. (2007). Race-ethnic differences in marital quality and divorce. *Social Science Research*, 36(3), 945-967.
- Bureau of Labor Statistics. (2021, November). *Labor force characteristics by race and ethnicity, 2020*. <https://www.bls.gov/opub/reports/race-and-ethnicity/2020/pdf/home.pdf>
- Candel, O. S., & Turliuc, M. N. (2019). Insecure attachment and relationship satisfaction: A meta-analysis of actor and partner associations. *Personality and Individual Differences*, 147, 190-199.
- Chambers, A. L. (2019). African American couples in the 21st century: Using Integrative Systemic Therapy (IST) to translate science into practice. *Family Process*, 58(3), 595-609.

- Chambers, A. L., & Lebow, J. (2008). Common and unique factors in assessing African American couples. In L. L'Abate (Ed.), *Toward a Science of Clinical Psychology: Laboratory Evaluations and Interventions* (pp. 263–281). Nova Science Publishers.
- Chambers, A. L., & Kravitz, A. (2011). Understanding the disproportionately low marriage rate among African Americans: An amalgam of sociological and psychological constraints. *Family Relations*, *60*(5), 648-660.
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist*, *54*(10), 805-816.
- Clavél, F. D., Cutrona, C. E., & Russell, D. W. (2017). United and divided by stress: How stressors differentially influence social support in African American couples over time. *Personality and Social Psychology Bulletin*, *43*(7), 1050-1064.
- Coard, S. I. (2021). Race, discrimination, and racism as “growing points” for consideration: attachment theory and research with African American families. *Attachment & Human Development*, 1-11.
- Coard, S. I., Foy Watson, S., Zimmer, C., & Wallace, A. (2007). Considering culturally relevant parenting practices in intervention development and adaptation: A randomized controlled trial of the Black Parenting Strengths and Strategies (BPSS) Program. *The Counseling Psychologist*, *35*(6), 797-820.
- Coard, S. I., Wallace, S. A., Stevenson, H. C., & Brotman, L. M. (2004). Towards culturally relevant preventive interventions: The consideration of racial

socialization in parent training with African American families. *Journal of Child and Family Studies*, 13(3), 277-293.

Collins, P. H. (2004). *Black sexual politics: African Americans, gender, and the new racism*. Routledge.

Coontz, S. (2005). *Marriage, a history: From obedience to intimacy or how love conquered marriage*. Viking.

Creamer, J. (2020). *Inequalities persist despite decline in poverty for all major race and Hispanic origin groups*. U.S. Census Bureau.

<https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html>

Cui, M., & Fincham, F. D. (2010). The differential effects of parental divorce and marital conflict on young adult romantic relationships. *Personal Relationships*, 17(3), 331-343.

Cutrona, C. E., Russell, D. W., Burzette, R. G., Wesner, K. A., & Bryant, C. M. (2011). Predicting relationship stability among midlife African American couples. *Journal of consulting and clinical psychology*, 79(6), 814-825.

DeLoach McCutcheon, K. P., Watkins, K. Y., Burton, E. V., & Harris, A. C. (2021). African American women's marital attitudes: A qualitative study on never married women. *Journal of Family Issues*, 0(0), 1-20.

Dion, K. K., & Dion, K. L. (1996). Cultural perspectives on romantic love. *Personal Relationships*, 3(1), 5-17.

- Doyle, D. M., & Molix, L. (2014a). How does stigma spoil relationships? Evidence that perceived discrimination harms romantic relationship quality through impaired self-image. *Journal of Applied Social Psychology, 44*(9), 600-610.
- Doyle, D. M., & Molix, L. (2014b). Perceived discrimination as a stressor for close relationships: identifying psychological and physiological pathways. *Journal of Behavioral Medicine, 37*(6), 1134-1144.
- Dubois, W. E. B. (1903). *The souls of Black folk: Essays and sketches*. Harvard University.
- Elder Jr, G. H. (1998). The life course as developmental theory. *Child Development, 69*(1), 1-12.
- Erol, R. Y., & Orth, U. (2013). Actor and partner effects of self-esteem on relationship satisfaction and the mediating role of secure attachment between the partners. *Journal of Research in Personality, 47*(1), 26-35.
- Erol, R. Y., & Orth, U. (2014). Development of self-esteem and relationship satisfaction in couples: Two longitudinal studies. *Developmental Psychology, 50*, 2291–2303.
- Falconier, M. K., & Jackson, J. B. (2020). Economic strain and couple relationship functioning: A meta-analysis. *International Journal of Stress Management, 27*(4), 311-325.
- Falconier, M. K., Jackson, J. B., Hilpert, P., & Bodenmann, G. (2015). Dyadic coping and relationship satisfaction: A meta-analysis. *Clinical psychology review, 42*, 28-46.

- Fincham, F. D., Ajayi, C., & Beach, S. R. (2011). Spirituality and marital satisfaction in African American couples. *Psychology of Religion and Spirituality*, 3(4), 259-268.
- Fincham, F. D., & Beach, S. R. (2006). Relationship satisfaction. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge Handbook of Personal Relationships* (pp. 579-594). Cambridge University Press.
- Fincham, F. D., & Beach, S. R. (2014). I say a little prayer for you: Praying for partner increases commitment in romantic relationships. *Journal of Family Psychology*, 28(5), 587-593.
- Finkel, E. J., Simpson, J. A., & Eastwick, P. W. (2017). The psychology of close relationships: Fourteen core principles. *Annual Review of Psychology*, 68, 383-411.
- Fisher, F. D., & Coleman, M. N. (2017). Gendered-racial stereotypic beliefs about African American women and relationship quality. *Journal of Black Sexuality and Relationships*, 3(3), 91-104.
- Fletcher, G. J., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26(3), 340-354.
- Furdyna, H. E., Tucker, M. B., & James, A. D. (2008). Relative spousal earnings and marital happiness among African American and White women. *Journal of Marriage and Family*, 70(2), 332-344.

- Gale, M. M., Pieterse, A. L., Lee, D. L., Huynh, K., Powell, S., & Kirkinis, K. (2020). A meta-analysis of the relationship between internalized racial oppression and health-related outcomes. *The Counseling Psychologist, 48*(4), 498-525.
- Gliner, J. A., Morgan, G. A., & Leech, N. L. (2009). *Research methods in applied settings: An integrated approach to design and analysis*. Routledge.
- Gillum, T. L. (2007). "How do I view my sister?" Stereotypic views of African American women and their potential to impact intimate partnerships. *Journal of Human Behavior in the Social Environment, 15*(2-3), 347-366.
- Gramlich, J. (2020). *Black imprisonment rate in the U.S. has fallen by a third since 2006*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/05/06/share-of-black-white-hispanic-americans-in-prison-2018-vs-2006/>
- Grimmer, J., Roberts, M. E., & Stewart, B. M. (2021). Machine learning for social science: An agnostic approach. *Annual Review of Political Science, 24*, 395-419.
- Großmann, I., Hottung, A., & Krohn-Grimberghe, A. (2019). Machine learning meets partner matching: Predicting the future relationship quality based on personality traits. *PloS ONE, 14*(3), e0213569.
- Guillory, P. (2021). Stress and threats to African American romantic relationships. In P. Guillory (Ed.), *Emotionally focused therapy with African American couples: Love heals*. Routledge.
- Hawkins, D. N., & Booth, A. (2005). Unhappily ever after: Effects of long-term, low-quality marriages on well-being. *Social Forces, 84*(1), 451-471.
- Hemez, P., & Washington, C. (2021, April). *Percentage and number of children living with two parents has dropped since 1968*. U.S. Census Bureau.

<https://www.census.gov/library/stories/2021/04/number-of-children-living-only-with-their-mothers-has-doubled-in-past-50-years.html>

- Hill, R. B. (1971). *The strengths of Black Families*. Emerson Hall, Publishers.
- Hurt, T. R. (2014). Black men and the decision to marry. *Marriage & Family Review, 50*(6), 447-479.
- Hurt, T. R., McElroy, S. E., Sheats, K. J., Landor, A. M., & Bryant, C. M. (2014). Married Black men's opinions as to why Black women are disproportionately single: A qualitative study. *Personal Relationships, 21*(1), 88-109.
- James, A. G., Coard, S. I., Fine, M. A., & Rudy, D. (2018). The central roles of race and racism in reframing family systems theory: A consideration of choice and time. *Journal of Family Theory & Review, 10*(2), 419-433.
- James, S. L., Nelson, D. A., Jorgensen-Wells, M. A., & Calder, D. (2021). Marital quality over the life course and child well-being from childhood to early adolescence. *Development and Psychopathology, 1-14*.
- Jenkins, A. I., Fredman, S. J., Le, Y., Sun, X., Brick, T. R., Skinner, O. D., & McHale, S. M. (2020). Prospective associations between depressive symptoms and marital satisfaction in Black couples. *Journal of Family Psychology, 34*(1), 12-23.
- Joel, S., Eastwick, P. W., Allison, C. J., Arriaga, X. B., Baker, Z. G., Bar-Kalifa, E., ... & Wolf, S. (2020). Machine learning uncovers the most robust self-report predictors of relationship quality across 43 longitudinal couples studies. *Proceedings of the National Academy of Sciences, 117*(32), 19061-19071.

- Joel, S., Eastwick, P. W., & Finkel, E. J. (2017). Is romantic desire predictable? Machine learning applied to initial romantic attraction. *Psychological Science, 28*(10), 1478-1489.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118*(1), 3-34.
- Kerr, J., Schafer, P., Perry, A., Orkin, J., Vance, M., & O'Campo, P. (2018). The impact of racial discrimination on African American fathers' intimate relationships. *Race and Social Problems, 10*(2), 134-144.
- Kelly, S., & Floyd, F. J. (2001). The effects of negative racial stereotypes and Afrocentricity on Black couple relationships. *Journal of Family Psychology, 15*(1), 110-123.
- Kelly, S., & Floyd, F. J. (2006). Impact of racial perspectives and contextual variables on marital trust and adjustment for African American couples. *Journal of Family Psychology, 20*(1), 79-87.
- Kelly, S., & Hudson, B. N. (2017). African American couples and families and the context of structural oppression. In S. Kelly (Ed.), *Diversity in Couple and Family therapy: Ethnicities, Sexualities, and Socioeconomics* (pp. 3-32). Praeger.
- Kogan, S. M., Lei, M. K., Grange, C. R., Simons, R. L., Brody, G. H., Gibbons, F. X., & Chen, Y. F. (2013). The contribution of community and family contexts to African American young adults' romantic relationship health: A prospective analysis. *Journal of Youth and Adolescence, 42*(6), 878-890.

- Kuhn, M. (2008). Building predictive models in R using the caret package. *Journal of Statistical Software*, 28, 1-26.
- Kumar, S. A., & Mattanah, J. F. (2016). Parental attachment, romantic competence, relationship satisfaction, and psychosocial adjustment in emerging adulthood. *Personal Relationships*, 23(4), 801-817.
- Ladson Billings, G., & Tate, W. F. (1995). Toward a critical race theory of education. *Teachers College Record*, 97(1), 47-68.
- Landor, A. M., & Barr, A. (2018). Politics of respectability, colorism, and the terms of social exchange in family research. *Journal of Family Theory & Review*, 10(2), 330-347.
- Lavner, J. A., Barton, A. W., Bryant, C. M., & Beach, S. R. H. (2018). Racial discrimination and relationship functioning among African American couples. *Journal of Family Psychology*, 32(5), 686-691.
- Le, B., Dove, N. L., Agnew, C. R., Korn, M. S., & Mutso, A. A. (2010). Predicting nonmarital romantic relationship dissolution: A meta-analytic synthesis. *Personal Relationships*, 17(3), 377-390
- Lewandowski Jr, G. W., Nardone, N., & Raines, A. J. (2010). The role of self-concept clarity in relationship quality. *Self and Identity*, 9(4), 416-433.
- Li, T., & Chan, D. K. S. (2012). How anxious and avoidant attachment affect romantic relationship quality differently: A meta-analytic review. *European Journal of Social Psychology*, 42(4), 406-419.
- Liaw, A., Wiener, M. (2002). *Classification and regression by randomForest*. R News, 2(3), 18-22. <https://CRAN.R-project.org/doc/Rnews/>.

- Lopez, I. H. (1997). *White by law: The legal construction of race* (Vol. 21). NYU Press.
- MacKenzie, J., Smith, T. W., Uchino, B., White, P. H., Light, K. C., & Grewen, K. M. (2014). Depressive symptoms, anger/hostility, and relationship quality in young couples. *Journal of Social and Clinical Psychology, 33*(4), 380-396.
- Malouff, J. M., Thorsteinsson, E. B., Schutte, N. S., Bhullar, N., & Rooke, S. E. (2010). The Five-Factor Model of personality and relationship satisfaction of intimate partners: A meta-analysis. *Journal of Research in Personality, 44*(1), 124–127.
- Majors, R., & Mancini Billson, J. (1992). *Cool pose: The dilemmas of Black manhood in America*. Touchstone.
- Marks, L. D., Hopkins, K., Chaney, C., Monroe, P. A., Nesteruk, O., & Sasser, D. D. (2008). “Together, we are strong”: A qualitative study of happy, enduring African American marriages. *Family Relations, 57*(2), 172-185.
- Masarik, A. S., Conger, R. D., Martin, M. J., Donnellan, M. B., Masyn, K. E., & Lorenz, F. O. (2013). Romantic relationships in early adulthood: Influences of family, personality, and relationship cognitions. *Personal Relationships, 20*(2), 356-373.
- Masten A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227–238.
- McAdoo, H. P. (2002). African American parenting. In M. H. Bornstein (Ed.), *Handbook of Parenting* (pp. 47-58) Lawrence Erlbaum Associates.
- McAdoo, H. P. (2007). *Black Families*, 4th Edition. Sage Publications.
- McNeil Smith, S., & Landor, A. M. (2018). Toward a better understanding of African American families: Development of the sociocultural family stress model. *Journal of Family Theory & Review, 10*(2), 434-450.

- McNeil Smith, S., Williamson, L. D., Branch, H., & Fincham, F. D. (2020). Racial discrimination, racism-specific support, and self-reported health among African American couples. *Journal of Social and Personal Relationships, 37*(3), 779-799.
- McNulty, J. K. (2008). Neuroticism and interpersonal negativity: The independent contributions of perceptions and behaviors. *Personality and Social Psychology Bulletin, 34*, 1439–1450.
- Meyer, O. L., Castro-Schilo, L., & Aguilar-Gaxiola, S. (2014). Determinants of mental health and self-rated health: a model of socioeconomic status, neighborhood safety, and physical activity. *American Journal of Public Health, 104*(9), 1734-1741.
- Miller, R. (2018). *Intimate relationships*. McGraw Hill.
- Molina, M., & Garip, F. (2019). Machine learning for sociology. *Annual Review of Sociology, 45*, 27-45.
- Moore, K. A., Kinghorn, A., Bandy, T. (2011). *Parental relationship quality and child outcomes across subgroups*. Child Trends. https://www.childtrends.org/wp-content/uploads/2011/04/Child_Trends-2011_04_04_RB_MaritalHappiness.pdf
- Mount, J., & Zumel, N. (2021). *Vtreat: A statistically sound 'data.frame' processor/conditioner*. <https://github.com/WinVector/vtreat/>.
- Mouzon, D. M., & McLean, J. S. (2017). Internalized racism and mental health among African-Americans, US-born Caribbean Blacks, and foreign-born Caribbean Blacks. *Ethnicity & Health, 22*(1), 36-48.
- Munday, C. C., Mims, K. R., Zaman, A., & Howard, B. (2017). African American married couples. In C. C. Weisfeld, G. Weisfeld, & L. Dillon (Eds.), *The*

Psychology of Marriage: An Evolutionary and Cross-Cultural View (pp. 181-194). Lexington Books.

- Neff, L. A., & Karney, B. R. (2009). Stress and reactivity to daily relationship experiences: How stress hinders adaptive processes in marriage. *Journal of Personality and Social Psychology, 97*(3), 435-450.
- Neff, L. A., & Karney, B. R. (2004). How does context affect intimate relationships? Linking external stress and cognitive processes within marriage. *Personality and Social Psychology Bulletin, 30*(2), 134-148.
- Neville, H. A., & Cross Jr, W. E. (2017). Racial awakening: Epiphanies and encounters in Black racial identity. *Cultural Diversity and Ethnic Minority Psychology, 23*(1), 102-108.
- O'Neal, C. W., Arnold, A. L., Lucier Greer, M., Wickrama, K. A. S., & Bryant, C. M. (2015). Economic pressure and health and weight management behaviors in African American couples: A family stress perspective. *Journal of Health Psychology, 20*(5), 625-637.
- Orbuch, T. L., Veroff, J., Hassan, H., & Horrocks, J. (2002). Who will divorce: A 14-year longitudinal study of black couples and white couples. *Journal of Social and Personal Relationships, 19*(2), 179-202.
- Orth, U., Robins, R. W., & Widaman, K. F. (2012). Life-span development of self-esteem and its effects on important life outcomes. *Journal of Personality and Social Psychology, 102*(6), 1271-1288.
- Perry, A. R. (2013). African American men's attitudes toward marriage. *Journal of Black Studies, 44*(2), 182-202.

- Perry, A. R., Archuleta, A. J., & Teasley, M. (2018). African American men on the dissolution of marriages and romantic relationships. *Journal of Black Sexuality and Relationships, 4*(3), 25-48.
- Perry, S. L. (2016). Perceived spousal religiosity and marital quality across racial and ethnic groups. *Family Relations, 65*(2), 327-341.
- Phillips, T. M., Wilmoth, J. D., & Marks, L. D. (2012). Challenges and conflicts... strengths and supports: a study of enduring African American marriages. *Journal of Black Studies, 43*(8), 936-952.
- Rehman, U. S., Evraire, L. E., Karimiha, G., & Goodnight, J. A. (2015). Actor-partner effects and the differential roles of depression and anxiety in intimate relationships: A cross-sectional and longitudinal analysis. *Journal of Clinical Psychology, 71*(7), 715-724.
- Renshaw, K. D., Blais, R. K., & Smith, T. W. (2010). Components of negative affectivity and marital satisfaction: The importance of actor and partner anger. *Journal of Research in Personality, 44*(3), 328-334.
- Rhoades, G. K., Kamp Dush, C. M., Atkins, D. C., Stanley, S. M., & Markman, H. J. (2011). Breaking up is hard to do: The impact of unmarried relationship dissolution on mental health and life satisfaction. *Journal of Family Psychology, 25*(3), 366-374.
- Robinson, K. J., & Cameron, J. J. (2012). Self-esteem is a shared relationship resource: Additive effects of dating partners' self-esteem levels predict relationship quality. *Journal of Research in Personality, 46*(2), 227-230.

- Robles, T. F., Slatcher, R. B., Trombello, J. M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological Bulletin, 140*(1), 140-187.
- Roper, S. W., Fife, S. T., & Seedall, R. B. (2020). The intergenerational effects of parental divorce on young adult relationships. *Journal of Divorce & Remarriage, 61*(4), 249-266.
- Russell, J. A., Skipper, A. D., Rose, A. H., & Kennedy, J. (2021). Sanctification of couple relationships and communal coping in married and cohabiting African American couples. *Journal of Family Psychology, 35*(8), 1128–1137.
- Sanford, K. (2007). Hard and soft emotion during conflict: Investigating married couples and other relationships. *Personal Relationships, 14*(1), 65-90.
- Schofield, T. J., Conger, R. D., Conger, K. J., Martin, M. J., Brody, G., Simons, R., & Cutrona, C. (2012). Neighborhood disorder and children's antisocial behavior: The protective effect of family support among Mexican American and African American families. *American Journal of Community Psychology, 50*(1-2), 101-113.
- Scott, S. B., Munoz, E., Mogle, J. A., Gamaldo, A. A., Smyth, J. M., Almeida, D. M., & Sliwinski, M. J. (2018). Perceived neighborhood characteristics predict severity and emotional response to daily stressors. *Social Science & Medicine, 200*, 262-270.
- Shelton Wheeler, F. (2013). African American male–female romantic relationships. In K. H. Helm & J. Carlson (Eds.), *Love, intimacy, and the African American couple* (pp. 85-106). Routledge.

- Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, 73, 805-815.
- Senn, T. E., Carey, M. P., Vanable, P. A., & Seward, D. X. (2009). African American men's perceptions of power in intimate relationships. *American Journal of Men's Health*, 3(4), 310-318.
- Simons, L. G., Simons, R. L., Landor, A. M., Bryant, C. M., & Beach, S. R. (2014). Factors linking childhood experiences to adult romantic relationships among African Americans. *Journal of Family Psychology*, 28(3), 368–379.
doi:10.1037/a0036393
- Smith, S. R., Hamon, R. R., Ingoldsby, B. B., & Miller, J. E. (2009). *Exploring family theories*. Oxford University Press.
- Stanik, C. E., & Bryant, C. M. (2012a). Marital quality of newlywed African American couples: Implications of egalitarian gender role dynamics. *Sex roles*, 66(3), 256-267.
- Stanik, C. E., & Bryant, C. M. (2012b). Sexual satisfaction, perceived availability of alternative partners, and marital quality in newlywed African American couples. *Journal of Sex Research*, 49(4), 400-407.
- Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review*, 93(2), 119-135.

- Sun, X., Ram, N., & McHale, S. M. (2020). Adolescent family experiences predict young adult educational attainment: A data-based cross-study synthesis with machine learning. *Journal of Child and Family Studies, 29*(10), 2770-2785.
- Surjadi, F. F., Lorenz, F. O., Conger, R. D., & Wickrama, K. A. S. (2013). Harsh, inconsistent parental discipline and romantic relationships: Mediating processes of behavioral problems and ambivalence. *Journal of Family Psychology, 27*(5), 762–772.
- Sutton, T. E., Gordon Simons, L., Martin, B. T., Klopach, E. T., Gibbons, F. X., Beach, S. R., & Simons, R. L. (2020). Racial discrimination as a risk factor for African American men's physical partner violence: A longitudinal test of mediators and moderators. *Violence Against Women, 26*(2), 164-190.
- Sutton, T. E., Simons, L. G., Simons, R. L., & Cutrona, C. (2017). Psychological distress, couple interactions, and parenting: A dyadic analysis of African American couples. *Journal of Marriage and Family, 79*(3), 850-864.
- Tajfel, H. (Ed.). (2010). *Social identity and intergroup relations* (Vol. 7). Cambridge University Press.
- Taylor, R. J., Brown, E., Chatters, L. M., & Lincoln, K. D. (2012). Extended family support and relationship satisfaction among married, cohabiting, and romantically involved African Americans and Black Caribbeans. *Journal of African American Studies, 16*(3), 373-389.
- The National Scientific Council on Adolescence. (2021). *The intersection of adolescent development and anti-Black racism* (Council Report No. 1).
<https://developingadolescent.org/>

- Umberson, D., Thomeer, M. B., Williams, K., Thomas, P. A., & Liu, H. (2016). Childhood adversity and men's relationships in adulthood: Life course processes and racial disadvantage. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(5), 902-913.
- Vaterlaus, J. M., Skogrand, L., Chaney, C., & Gahagan, K. (2017). Marital expectations in strong African American marriages. *Family Process*, *56*(4), 883-899.
- Western, B., & Wildeman, C. (2009). The black family and mass incarceration. *The ANNALS of the American Academy of Political and Social Science*, *621*(1), 221-242.
- Wickrama, T., & Bryant, C. M. (2012). Association between body mass index and depressive symptoms of African American married couples: Mediating and moderating roles of couples' behavioral closeness. *Journal of Family Issues*, *33*(5), 613-638.
- Wickrama, K. A. S., Bryant, C. M., & Wickrama, T. K. (2010). Perceived community disorder, hostile marital interactions, and self-reported health of African American couples: An interdyadic process. *Personal Relationships*, *17*(4), 515-531.
- Wickrama, K. A. S., & Noh, S. (2010). The long arm of community: The influence of childhood community contexts across the early life course. *Journal of Youth and Adolescence*, *39*(8), 894-910.
- Wilkins, E. J., Whiting, J. B., Watson, M. F., Russon, J. M., & Moncrief, A. M. (2013). Residual effects of slavery: What clinicians need to know. *Contemporary Family Therapy*, *35*(1), 14-28.

- Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of Behavioral Medicine*, 32(1), 20-47.
- Williams, D. R., & Sternthal, M. (2010). Understanding racial-ethnic disparities in health: sociological contributions. *Journal of health and social behavior*, 51(S), S15-S27.
- Willoughby, B. J. (2015). The role of marital beliefs as a component of positive relationship functioning. *Journal of Adult Development*, 22(2), 76-89.
- Willoughby, B. J., Hall, S. S., & Luczak, H. P. (2015). Marital paradigms: A conceptual framework for marital attitudes, values, and beliefs. *Journal of Family Issues*, 36(2), 188-211.
- Yarkoni, T., & Westfall, J. (2017). Choosing prediction over explanation in psychology: Lessons from machine learning. *Perspectives on Psychological Science*, 12(6), 1100-112.

VITA

Alaysia Brown was raised in Fresno, California. She received her Bachelor of Arts in Psychology from the University of San Diego and her Master of Science in Human Development and Family Science from the University of Missouri. Alaysia will receive her Ph.D. in Human Development and Family Science—with a concentration in social inequality and statistics—and will continue her work as a postdoctoral research fellow for the Inequality in America Initiative at Harvard University. The overall goal of Alaysia's research is to improve the lives of individuals of color and her research can be divided into three themes. Her first line of research investigates the *correlates* and *health-related consequences* of exposure to racial, ethnic, and phenotypic discrimination (e.g., colorism). Her second line of research explores the role that family, contextual, and sociocultural factors play in influencing the formation, quality, and stability of adult romantic relationships. Her third line of research involves advanced quantitative methods and community-based program design, implementation, and evaluation. Alaysia has also collaborated with non-profit and private corporations, such as Microsoft Corporation, The Recording Academy, and Educational Testing Services, to advance social equity.