Black American College Students Report Higher Memory of Love for Mothers in Childhood

than White Students

Lawrence Patihis, Corai E. Jackson, Jonathan C. Diaz, Elena V. Stepanova, and Mario E. Herrera

University of Southern Mississippi

Address correspondence to: Lawrence Patihis, Department of Psychology, University of

Southern Mississippi, 118 College Drive #5025, Hattiesburg, MS, 39406, USA.

E-mail: L.Patihis@usm.edu

Abstract

Cultural differences between Black and White individuals in the South are connected to the inequitable history of the United States. We wondered if these cultural differences would translate to a particularly precious aspect of life: memories of love felt in childhood toward one's parents. Some past studies have shown that Whites score higher on parental attachment measures to parents than Blacks, while other studies show no significant differences. However, no previous study has ever measured memory of feelings of love in relation to differences between ethnicities. In this study, Black ($n = 124$) and White ($n = 125$) undergraduates self-reported the strength and frequency of their past feelings of love toward their mother and father in first, sixth, and ninth grade, as well as their current feelings of love. Results suggested that Black students reported feeling more love for their mothers in first, sixth, and ninth grades, compared to White students. These findings were not explained when we statistically adjusted for age, gender, socio-economic status, education levels, income, number of years spent living with mother or father, stress, or personality. Therefore, this relationship may be explained by unmeasured or unmeasurable cultural differences. The direction of this effect was in the opposite direction from what we expected based on past attachment research. Given the inequities in U.S. history and the current discussions around ethnicity and race in the U.S., the finding that Blacks reported higher remembered feelings of love for their mothers in childhood is intriguing and worthy of dissemination and discussion.

Keywords: Love, emotion, memory, black, white, ethnicity

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The history of the South of the United States is marred with the inequalities between

Black or African American (hereafter "Black') individuals and White American (hereafter

"White") individuals. First slavery and then the Jim Crow era have had a lingering effect on the

respective cultures of Black and White individuals, and that may be especially true in the South

of the United States. These effects may have transferred to cultural differences in childhood

experiences, strategies in raising offspring, and as a result differing bonds and feelings between

parents and offspring. In particular, we wondered if this cultural diversity has resulted in

differences in an especially precious aspect of our lives: feelings of love and memories of love

towards parents during our childhoods. To our knowledge, no past research has measured this

with regards to race or ethnicity. Nevertheless, we know that some measures of attachment

correlate with the subscales of the Memory of Love towards Parents Questionnaire (MLPQ;

Patihis, Herrera, & Arnau, 2018), so we will review previous research that has investigated

differences in parental attachment in Black versus White individuals (e.g., Bakermans-

Kranenburg, Ijzendoorn, & Kroonenberg, 2004; Giordano, Cernkovich, & DeMaris, 1993;

Haggerty, Skinner, McGlynn-Wright, Catalano, & Crutchfield, 2013). In this study, we set out to

investigate whether there are differences between Black and White individuals in their memory

of feelings of love towards parents, while collecting a number of possible covariate measures

that may explain any differences between White and Black individuals.

Race and Parental Attachment

Although we found no past research on race and ethnicity and memory of feelings of love

in childhood, we found research on parental attachment in Black and White individuals which

could help form hypotheses. Although there is a wider literature on attachment among other ethnic and racial categories (e.g., Emmen et al., 2013; Mesman, IJzendoorn, & Bakermans-Kranenburg, 2012), in the review below we focus on research on Black and White individuals. We found mixed results: first we discuss the literature in which Blacks scored lower on parental attachment scales, then results showing no significant differences, and then discuss research indicating Black individuals scored higher on secure attachment.

   Lower scores on parental attachment scales in Blacks. Some research has shown that young Black children are less securely attached than White children (e.g., Bakermans-Kranenburg et al., 2004). Bakermans-Kranenburg et al. (2004) observed families from ten different locations in the United States (142 Black, 1002 White). Attachment between the children and mothers was measured with the Attachment Q-sort which is a description of 90 behaviors in the natural home setting (AQS; Waters, 1995). The researchers found Black mothers showed less sensitivity responding to their infant during the child's first two years, and Black children's attachment security at two years of age was significantly lower than White children. Bakermans-Kranenburg et al. (2004) suggest that the socio-economic status differences between the two groups account for this: specifically that poverty may hamper maternal sensitivity to young children, and that maternal insensitivity in turn leads to lower rates of secure attachment.

   Rice, Cunningham, and Young (1997) found that Black college students in the South of the United States scored lower on a care from father subscale of the Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) compared to the White students—but found no significant differences among Black and White adolescents in other comparisons (i.e., PBI subscales for care of mothers, and protection of mother or father). Rice et al. (1997) offered

explanations for these differences between Black and White individuals by discussing the factor of differing percentages of mother-only households. The researchers found that attachment to fathers was important because it was related to the subsequent development of social competences in the child.

Utilizing a sample of college students in the Midwest of the United States, Wei, Russell, Mallinckrodt, and Zakalik (2004) did not measure parental attachment directly, but found that attachment avoidance in romantic relationships was higher in Black compared to White college students. However Black and White participants scored similarly on attachment anxiety (Wei et al., 2004; Experiences in Close Relationship Scale: Brennan, Clark, & Shaver, 1998). Wei et al. (2004) suggest that one interpretation of these results are differences (and similarities) in the acculturation process of Black and White Americans. They also posit that adjustment issues and cultural mistrust might mitigate adult attachments to peers for Black students in a predominantly White Midwestern university.

Comparable attachment in Black and White individuals. Other research has found similar attachment scores in Black and White individuals. For example, Dexter, Wong, Stacks, Beeghly, and Barnett (2013) utilized the strange situation (Ainsworth, Blehar, Waters, & Wall, 1978) and laboratory observation with Black and White preschool children from the Midwest of the United States. Dexter et al. (2013) found that race was not a strong determinant of attachment in low income preschoolers, although they noted a "non-significant trend" ($p = .093$) whereby 41% of White preschoolers were securely attached, while 32% of Black preschoolers were. In Haggerty et al. (2013), Black and White adolescents scored similarly on parent attachment.

Higher scores on parental attachment scales in Black Individuals. Nevertheless, Cernkovich and Giordano (1987) found that Black adolescents in the Midwest of the United

States scored higher on one measure related to attachment: self-reported perceptions caring and

trust in their relationship with their parents, but showed no differences on intimacy

communication. Apparently utilizing the same sample, Giordano et al. (1993) found that Black

adolescents reported higher levels of self-reported intimacy within the family, compared to

White adolescents (adjusting for age and SES). The researchers discuss how their findings depart

from previous deficit-oriented cultural research that suggested lower parental attachment in

Black youths.

Present Study

The previous research on attachment and race that we reviewed has shown mixed results

with a tentative trend toward Black individuals scoring lower on some parental attachment

measures. We did find one exception (Giordano et al., 1993), but that dataset was not collected in

the South of the United States (unlike the present study). The article that did find lower

attachment in Black young children (Bakermans-Kranenburg et al., 2004) sampled from the

multiple regions of the United States. When pairing this trend with our own findings (Patihis et

al., 2018) the memory of love measure (MLPQ) correlates positively with some parental

attachment measures, we would expect that Black college students may report lower scores on

the MLPQ compared to White students. While making that prediction, we also measure possible

variables that vary across cultures and may explain differences between the Black and White

groups. These possible explanatory variables include self-reported socioeconomic status, income,

stress, childhood trauma, differences in the number of years of parental contact in childhood, and

years of education. We also include measures to control for other factors such as socioeconomic,

biological, affective, clinical, and memory-bias factors. If we do find differences in the memory

of love experienced in childhood in White and Black individuals, we posit that these differences

will be due predominantly to cultural factors.

Method

Participants

For the present study, 280 undergraduates in the South of the United States participated

for course credit (M_{age} = 21.5 years, SD = 5.58; range 18–52). Of these participants, 125 self-

identified as White; 124 as African American or Black (referred to as "Black" hereafter for

brevity), 16 Asian, 8 Hispanic or Latino, 1 American Indian or Native Alaskan, 1 Native

Hawaiian or Pacific Islander, and 6 as "other please specify". Here, we compared Black and

White participants only in this article (N = 249). Of these 249 students, 208 (83.5%) were female

(106 Black; 102 White females). The study was approved for human subjects (IRB #16011902;

USM).

Measures

Self-reported demographic measures were taken, including gender, age, race/ethnicity,

ACT scores, mother and father's educational and income levels, and socioeconomic status. In

addition, in-depth parental background questions asking about the participants' mother and father

were presented (e.g., the number of years spent living with each parent during childhood,

whether each parent is the biological parent or not, whether the parents are separated).

PANAS. Participants completed the Positive and Negative Affect Schedule 20-item short

form (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS consists of two 10-item scales

representing negative and positive current mood/affect. Each 10-item subscale has high internal

reliability (Cronbach's αs > .84) and the two subscales are not highly correlated (rs < .23 in

magnitude; Watson et al., 1988). In our dataset the negative PANAS subscale items had high

internal reliability (α = .93), as did the positive subscale items (α = .91). The two subscales,

positive and negative) correlated with a low effect size in our dataset (r = .17, p = .012).

Memory of Love for Parents Questionnaire (MLPQ). To assess the participant's

memory of love for each parent during childhood, we utilized the MLPQ (for development and

psychometrics, see Patihis et al., 2017). In the MLPQ, participants are asked to recall their love

for both their mother and father (separately) during the first, sixth, and ninth grades (K-12

schooling grades), and to also rate their current feelings of love. There are 28-items used in each

of the eight subscales of the long-form MLPQ. Of the 28-items, half ask participants about the

frequency of their feelings of love, affection etc., while the other half of the items inquire about

the *strength* of the feeling. For instance, one frequency-item reads, "During the whole year when

you were **in first grade**, *how often on average* did you feel **warmth** toward your **mother**?" As

an example of a strength-item, one question read, "During the whole year when you were **in first**

grade, *how strong on average* was your **affection** toward your **Father**?" (bold and italics as in

the original). In Patihis et al. (2018), we found good test-retest reliability of each subscale (rs >

.85), and an expected pattern of correlation with corresponding related attachment measures

(range r = .10 to .77), and little evidence of order effects. Factor analyses (see Patihis et al.,

2018) revealed a distinct and single factor within each MLPQ subscale, and that these factors

were all distinct from any factors loading on a variety of parental attachment measures. Within

each subscale of the MLPQ, we found good internal reliability (Cronbach's αs > .95) in the

dataset of the current study.

Traumatic Experiences Checklist (TEC). We utilized the TEC (Nijenhuis, Spinhoven,

Van Dyck, Van dar hart, & Vanderlinden, 1998; Nijenhuis, Van der Hart, & Kruger, 2002)

because it provides a good measure of overall trauma. The self-report questions contained short

statements of a traumatic event and the participants were asked whether they had experienced

that traumatic event, and how it affected them. One example of a statement is: "Sexual abuse

(unwanted sexual acts involving physical contact) by your parents, brothers, or sisters." After

each statement, the participants are asked "Did this happen to you?", how old they were when

the trauma happened, and "How much impact did this have on you?" on a scale from 1 to 5 (*1 =*

none, 2 = a little bit, 3 = a moderate amount, 4 = quite a bit, 5 = an extreme amount). These

items are scored to count trauma from childhood (ages 0–18) and to take into account high self-

reported impact (for TEC scoring see Nijenhuis et al., 1998; European Society for Trauma and

Dissociation, 2016). Specific subscales of the TEC include the participants' total trauma score

and subscales calculated from the sum of items asking about emotional neglect, emotional abuse,

bodily threat, sexual harassment, and sexual abuse.

Perceived Stress Scale. The short-form four-item Perceived Stress Scale (Cohen,

Kamarck, & Mermelstein, 1983) was used in our study. In Cohen et al. (1983), they found the

four-item scale had good internal reliability ($\alpha = .72$), and test-retest reliability was .55. The

researchers found the four –item short form scale to be valid with respect to its correlation with

stress-relieving activity (e.g., cigarette use). The scale demonstrated good reliability and validity

(with relevant correlates such as life-events, social anxiety, and depressive symptoms). In the

current dataset, we found the internal reliability to be good within the four items ($\alpha = .75$).

Beck Depression Inventory (BDI). The BDI is a 21-item self-report inventory used to

measure depressive symptoms in adolescents and adults (Beck, Ward, Mendelson, Mock, &

Erbaugh, 1961). Some items on the inventory measure depressive feelings (e.g., deep and

prolonged sadness) and various symptoms of depression (e.g., loss of pleasure). Participants rate

themselves on a scale of 0 (not experiencing the symptom) to 3 (experiencing to a great degree).

The scores are summed and can range from 0 to 63, with higher numbers suggesting more depressive symptoms. The BDI has shown evidence for convergent validity: correlating with the Zung Self-reported Depression Scale (range .62–.83, Beck, Steer, & Carbin, 1988; Zung, 1965). The BDI also has a high reliability rating with an average Cronbach's alpha of .87, as well as a test-retest reliability ranging from .60 to .90 (Beck et al., 1988). In the current dataset, we found the 21 items of the BDI had high internal reliability (α = .88).

State–Trait Inventory for Cognitive and Somatic Anxiety (STICSA). The STICSA (Ree, French, MacLeod, & Locke, 2008; Grös, Antony, Simms, & McCabe, 2007) was created to measure mental (cognitive) and physical (somatic) anxiety in the moment (state) as well as a persistent trait anxiety. It consists of four subscales: trait-cognitive, trait-somatic, state-cognitive, and trait-somatic. Ree et al., (2008) found undergraduate students scored means ranging from 13 to 19 (their Table 4). In clinical populations with disorders related to anxiety, the subscale means ranged from 20 to 29 (Grös et al., 2007, their Table 5). The STICSA was found to have high internal consistency, with Cronbach alphas of subscales ranging from of .75 to .92 (clinical sample range .87 to .92, Grös et al., 2007; undergraduate range .75 to .84). Test-retest reliability (taken several weeks apart; Ree et al., 2008, Study 3) was found to be higher in the trait anxiety subscales (cognitive r = .66, somatic r = .60) compared to the state anxiety scales (cognitive r = .49; somatic r = .31). These researchers also established the validity of the STICSA in both undergraduates and clinical samples. For example, the STISCA trait subscales correlate more with the trait subscale of the State-Trait Anxiety Inventory (STAI: Spielberger, 1983), compared to the state subscale, and vice versa (undergraduates, Ree et al., 2008; clinical sample, Grös et al., 2007). In the current dataset, the internal consistency of each subscale was as follows: State, α = .91; Trait: α = .92.

Big Five Inventory (BFI-10). The BFI-10 (Rammstedt & John, 2007) is a short 10-item abbreviated version of the BFI-44 (John, Donahue, & Kentle, 1991). The BFI-10 retains good internal consistency (correlations with BFI-44 factors ranging from .74–.89), test-retest reliability (.72), and convergent validity with the NEO-PI-R (Costa & McCrae, 1992) with an average $r = .71$ across the five factors.

Single Item Narcissism Scale (SINS). Using just a single item: "To what extent do you agree with this statement: "I am a narcissist." (Note: the word "narcissist" means egotistical, self-focused, and vain.)", Konrath, Meier, & Bushman (2014) established acceptable psychometric properties. The seven-point Likert-type scale ranges from *1 = not very true of me* to *7 = very true of me*. Konrath et al. (2014) found high test-retest reliability of .78, correlates with several existing narcissism measures (range $r = .28–.50$), is predictive of related outcomes such as risk taking ($r = .19$), hostility ($r = .34$), short-term mating orientation ($r = .34$), and less prosocial behavior.

Procedure

Participants were recruited online using SONA Research Systems, an online management and participation recruitment tool. Of the 249 students, 165 (88 Black; 77 White) participated in the laboratory, while 84 (36 Black; 48 White) participated online at a place of their choosing (most at home). We found lab-based versus online participation had no effect on MLPQ scores (Patihis et al., 2018).

Both online and in-laboratory participants participated for two sessions. For both sessions, online participants were encouraged to set aside at least an hour of their time and find a quiet location free from any distractions. In the laboratory setting, a computer was used for the participants to complete the study on. When participants entered the laboratory, a research

assistant informed the participant about the study and that the survey would take no longer than an hour to complete. Soon after this brief introduction, the participant was seated and could begin. Once participants began the study they first read a study information sheet, demographic questions, background questions about parents and the 28 MLPQ items. At the conclusion of the study, the participants read a debriefing sheet. Following each participant's completion of the study, they were compensated for their time with class credit on the SONA Research Systems. The session had a median duration of 44 minutes.

The majority of the data presented in this study was collected in the first session detailed above. However, a few variables were collected one week later in the second session (e.g., variables such as BDI, BFI-10, and SINS). The MLPQ subscales were also again filled out for psychometric purposes during this session (results reported in Patihis, et al., 2018). This second session had a medium duration of 39 minutes.

Results

Black participants had significantly higher scores on the MLPQ subscales for their mothers in the first, sixth, and ninth grades, compared to White participants. Figure 1 illustrates the pattern of results. Specifically, Black college students reported higher scores on memory of love for their mothers in the first grade ($M = 5.37$, $SD = 0.86$) than White students ($M = 4.98$, $SD = 1.16$), $t(242) = -3.07$, $p = .002$, Cohen's $d = .38$. Black students also reported higher memory of love for their mothers in the sixth grade ($M = 4.99$, $SD = 1.22$) than White students ($M = 4.44$, $SD = 1.40$), $t(242) = -3.26$, $p = .001$, $d = .41$. In addition, Black participants reported higher memory of love scores for their mothers in the ninth grade ($M = 4.65$, $SD = 1.42$) than White students ($M = 4.17$, $SD = 1.56$), $t(242) = -2.50$, $p = .013$, $d = .32$. There were no significant differences between Black and White participants on the father MLPQ subscales.

We conducted a hierarchical linear regression to examine these relationships further, statistically adjusting for numerous theoretically and empirically relevant factors. See Table 1 for our analysis of possible covariates of the relationship between race and memory of love for one's mother during first grade. Controlling for demographics, socioeconomic status, years of shared residence with mother during childhood (and father), biological, and a number variables of possible memory biases. When statistically adjusted for in the regression analysis, none of these variables eliminated the statistically significant relationship between race and memory of love toward mothers during first grade. Age, childhood household income, years of shared residence with mother during childhood, current appraisals of mother, and depressive symptoms were all significant predictors of MLPQ for mothers at first grade. But none of these significant predictors reduced the β regression coefficient for race. In fact, controlling for socioeconomic factors lead to an increase from $\beta = .19$ to .24, and then controlling for potential memory biases (such as depression and current appraisals) reduced it back down to $\beta = .19$. See also Table S1 in the Supplemental Materials that establishes that additional variables also do not explain the relationship between race and memory of love for mothers: such as a measure of academic achievement (ACT scores), recent successes and failures, big five personality traits, perceived stress, and exposure to traumatic experiences in childhood.

Similar patterns were found in Table S2 and S3, for memory of love for mothers during sixth grade. As shown in Table S2, the relationship between race and memory of love remained significant and of similar effect size ($\beta \sim .2$) when controlling for all the aforementioned variables in the model. One difference, when compared to the MLPQ first grade regression, is that household income during childhood was a significant predictor, but when adjusting for household income it did not eliminate the significant relationship between race and memory of

love. As shown in Table S3, when statistically adjusting for academic achievement, recent successes and failures, personality traits, stress, and exposure to traumatic experiences, the relationship between race and memory of love during sixth grade remained statistically significant.

Tables S4 and S5 demonstrate that the relationship between race and memory of love toward mothers during ninth grade is also not rendered non-significant when statistically adjusting for the covariates in those models. Statistically adjusting for demographics, socioeconomic status, difference in parental contact, academic achievement, biological factors, factors that might bias memory, and stress did not render the relationship between race and the MLPQ ninth grade subscale for mothers non-significant. Age was a significant negative predictor in all the regression models for memory of love during ninth grade: meaning as age increased, ratings of remembered feelings of love during ninth grade decreased.

Table 2 (and Table S6 in more detail) documents the descriptive statistics within Black and White groupings on measures that we investigated as covariates in this study: including socioeconomic, academic achievement, biological/health, appraisals, mood, personality, and clinical measures. We found that Black participants scored higher on several variables, such as the proportion growing up in a house for the most part without a father present (31% vs. 14% in White participants), on negative mood, and on agreeableness. White participants reported higher scores on SES, income, years living in same house as their father, ACT scores, hours of sleep last night, caffeine consumption, self-reported health, satisfaction with life, and life successes in the last year. Despite all these differences, statistically adjusting for these variables did not eliminate the significant relationship between race and memory of love towards mothers. Most of those regression models are shown in Tables 1 and Tables S1–S5, and other models that

interchanged covariates in the regression to avoid multicollinearity (e.g., depression substituted with anxiety; or participant's SES with father's SES, available from corresponding author on request) yielded the same result of not eliminate the statistically significant relationship between race and memory of love towards mothers.

Discussion

This study investigated memory of love towards parents among Black and White college students. Our goal was to explore whether White young adults remembered their love for their parents more or less than Black young adults, and if so, why. Based on past research that had shown a slight trend towards less secure parental attachment among Black individuals, we expected Black individuals to score similarly lower on memory of love towards parents. However, we found Black students reported higher scores of their memory of love for their mother during childhood more than White students. This relationship was not explained statistically by socioeconomic factors, number of years spent living in the house with each parent, nor by a large number of other relevant variables. The higher reported memory of love in Blacks is an intriguing finding in the context of the cultural differences that may have resulted from the different origins of each culture—in the context of Black and White history in the South of the United States. Even more interesting is that the factors often used to explain cultural differences between Black and White individuals in the United States—factors commonly mentioned in prior research on race, and often linked to stereotypical views of each group—do not explain these differences in memories of affection towards mothers.

These findings were somewhat unexpected based on some previous findings where Black children were found to be less securely attached to their mothers compared to White children (e.g., Bakermans-Kranenburg et al., 2004). In combination with this finding, we had found a

moderate correlation between attachment measures and our MLPQ corresponding subscales

(Patihis et al., 2018). However, our results can be considered somewhat consistent with some

rarer studies that have shown Black individuals scoring higher on items related to attachment,

such as caring, trust and intimacy in the family (Cernkovich & Giordano, 1987; Giordano et al.,

1993). We propose that these and our results highlight something different to the typical deficit-

narrative that pervades research that compares Black and White individuals. Our research may

illustrate that there may be an affective advantage, aside from research showing deficits, to

African-American culture that may not have been fully realized until this article.

The task, then, is to explain the higher memory of love towards mothers in Black

individuals. Unlike some past research demographics and socioeconomic differences did not

explain it. When we controlled for age and gender, the difference remained. Gender of the

participant had no significant effect on the relationship between race/ethnicity and memory of

love towards their mother. Age was a low-effect-size and negative predictor of memory of love

towards the mother during childhood in several models—as age increased memory of love

decreased—but when statistically adjusted for, this did not eliminate the significant relationship

between of race and memory of love towards mothers. Importantly, self-reported socioeconomic

status (of participants or of parents), levels of education of the parents, and income of the parents

also did not explain the difference between White and Black individuals on memory of love for

the mother. This held true in additional regressions not illustrated in the article, whereby we

would substitute in one correlated variable for another to avoid collinearity (e.g., replacing

participant's SES for mother's or father's SES; or replacing childhood income with the

participant's, mother's, or father's, current income). We also found that the number of years

living with the mother, or father, during childhood did not explain the difference on memory of

love between Black and White participants. This finding held when we substituted these

variables with a single-mother dummy variable (dichotomously coded: 0, 1; calculated from

these variables) as a covariate: the effect-size and statistical significance of the race variable

remained. When examining another aspect of socioeconomic status, educational achievement,

we also found that academic achievement (on the ACT) did not explain the race differences on

memory of love towards mothers. This suggests that lower scores on memory of love towards

mothers in White individuals is not adequately explained by the idea that their culture in

childhood focused on academic performance at the expense of affection.

 Cultural differences may also affect personality development, and in turn effect

differences in adult appraisal of one's parents. Indeed, we found Black individuals self-reporting

higher agreeableness than White participants, though no other personality measures yielded

significantly different means. We found that personality differences did not explain the

differences in memories of affection for one's mother between Black and White participants. In

other words, whatever differences that culture might affect, in such measures as

conscientiousness, agreeableness, neuroticism, openness, and narcissism (all of which could

theoretically affect memory of love towards a parent), such factors did not explain why Black

individuals report more memory of love. We cannot say, for example, that Black individuals

remember more love towards mothers because they are less narcissistic or neurotic, nor because

they are more open, extroverted, agreeable, or conscientious. Any differences in Southern culture

in Black and White individuals does not affect personality development to such a degree that it

would explain our main findings.

 It is important to take into account that we are measuring retrospective measures of

feelings of love that are not taken at the time during childhood. This retrospective reporting can

create systematic memory biases—these can be caused by factors such as changing appraisals, feelings, mood, and sleep (see Patihis & Herrera, 2018; see also Frenda, Patihis, Lewis, Loftus, & Fenn, 2014). Some of these factors that could create a memory bias in recalling emotions, such as current appraisals of participants' mother, perceived stress, depression, anxiety, and recent losses in the last year showed no differences in Black and White participants. Other factors, such as negative mood, sleep, satisfaction with life, successes in the last year, were different in Black and White participants (negative mood was higher while the other variables were lower in Black participants). However, when statistically adjusted for, none of these variables explained the relationship between race and memory of love for mothers.

Our variables did not explain the differences on memory of childhood feelings of love between Black and White participants, and our independent variables and covariates only accounted for half of the variance in the MLPQ mother subscales. What, then, could explain the differences in memory of love for one's mother in Black and White participants? We posit that there are unmeasured, and perhaps unmeasurable, cultural differences between Black and White individuals in the South that may explain it. We found that socioeconomic and some family dynamic factors (e.g., growing up with a single mother) are not statistically valid explanations. Other factors, such as perceived racism or differences in feelings of belongingness may in turn cause a retrospective need to emotionally connect with one's mother. Black students may feel a relatively lower amount of emotional comfort and support from their White peers and faculty in college (e.g., Ancis, Sedlacek, & Mohr, 2000). This may in turn increase a need to bond with someone who offered them emotional comfort in the past. However, we might expect these feelings to correlate with negative mood. However, statistically adjusting for negative mood did

not explain the difference between Black and White students on their memory of love of

mothers.

Another explanation may be cultural differences in individualism and collectivism

between Black and White Americans. In fact, Coon and Kemmelmeir (2001) found that Black

individuals scored higher on collectivism and Gaines et al. (1997) also found that they scored

higher on familism (orientation towards the welfare of the family), compared to White

individuals. Coon and Kemmelmeir (2001) believe that minority groups who are excluded from

the majority seek collectivism and connectedness among other members of their ethnic group.

The more collectivistic culture in the Black community may in turn lead to higher reporting in

remembering affection for important female figures in that community. Another possible

explanation is the internalization in Black participants of the important role of Black women in

African-American culture: perhaps influenced by stereotypes such as the nurturing Black woman

(e.g., see Bobo, 1995) or the strong Black woman/superwoman who is devoted to and taking care

of immediate and extended families (Beauboeuf-Lafontant, 2005, 2007; Nelson, Cardemil, &

Adeoye, 2016). However, these explanations must be tentative, and may be further assessed in

future research.

There are some limitations to our study. It should be stressed that we measured *memory*

of love towards parents in childhood—we did not measure love that participants felt for their

parents *at the time* during those years. Thus, the results are likely biased by current appraisals of

the parents (Patihis & Herrera, 2018), though when we controlled for such possible biases the

main findings held. In addition, this study was limited to one geographic area, and generalization

may be limited to the Deep South of the United States. Black and White individuals from other

locations in the world will have differing histories and cultures and thus may differ from our

sample on their memories towards their parents. In addition, the participants were exclusively

university students, and the majority were women, so results may not generalize to adults who

are not college students with this particular set of demographics. Future research could

investigate samples in other parts of the United States and in other countries.

      In summary, a few studies found that Black children were less securely attached to their

mothers compared to White children. No past research was previously conducted on memory of

love and race, and our study addressed this gap in the literature. Unexpectedly, we found Black

students reported higher memory of love for their mothers in first, sixth, and ninth grade. This

relationship was not diminished by statistically adjusting for socioeconomic factors or whether

the father was present in the home. We conclude that individuals who identify as Black may

have been exposed to different cultural factors that led them to report remember more love

towards their mothers in childhood. However, these factors were not socioeconomic or any of the

other variables we measured. It is an important finding because the findings are in the opposite

direction to some previous studies on attachment, and it illuminates potentially positive aspects

of the Black experience, which is in contrast to the majority of past research that has been

deficit-focused.

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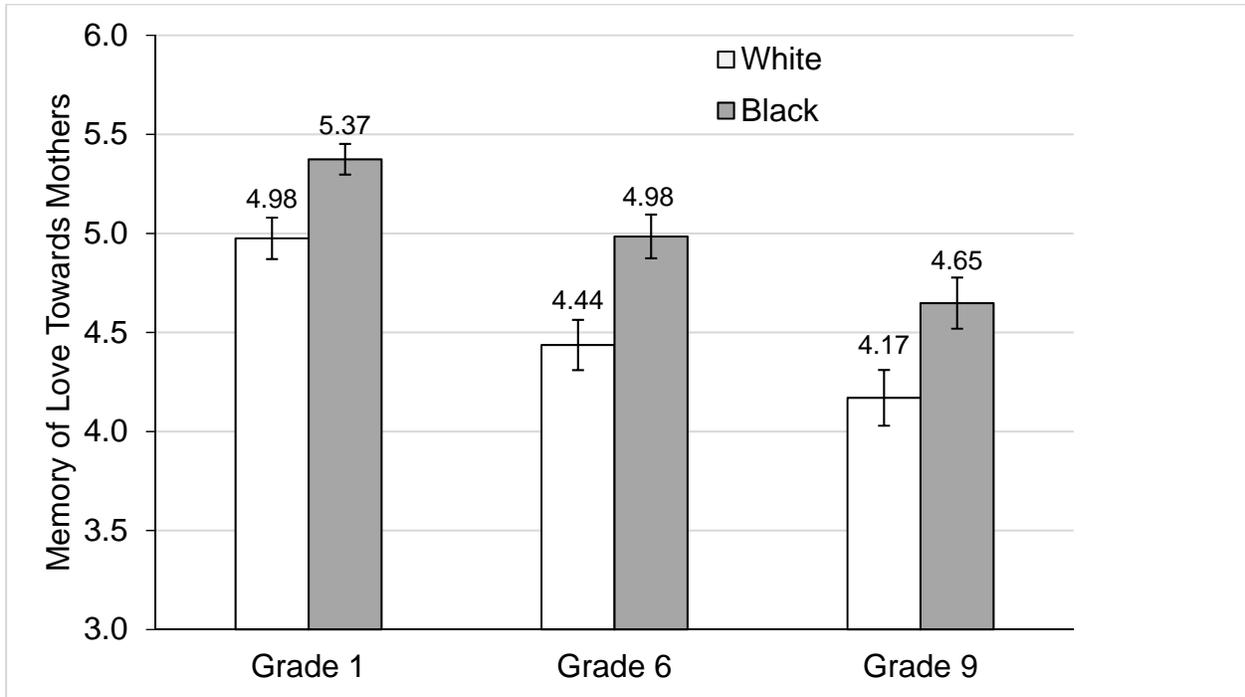
Figure 1. Memory of love towards mother means scores for White and Black college students for various points in childhood (MLPQ subscales). Mean scores are given above each bar. The differences between Black and White participants were statistically significant in each subscale shown. Error bars represent standard error of the mean.

Table 1

Hierarchical Regression on Memory of Love for Mothers during First Grade: Race (Black, White) Remains a Significant Predictor When Adjusting for Demographics, SES, Familial Differences, and Covariates

Predictors	β	p	VIF	R^2	Adjusted R^2	Change R^2
Model 1: Demographics				.056	.044	.056**
Black or White	**.188**	**.003**	**1.003**			
Age	**-.139**	**.026**	**1.002**			
Gender	-.011	.862	1.004			
Model 2: + SES Factors				.227	.201	.171***
Black or White	**.242**	**<.001**	**1.193**			
Age	-.068	.252	1.091			
Gender	-.024	.675	1.026			
Socioeconomic Status	.007	.914	1.129			
Mother's level of education	.012	.851	1.230			
Household income childhood	**.196**	**.004**	**1.436**			
0–18, years with mother	**.382**	**<.001**	**1.094**			
0–18, years with father	-.096	.128	1.231			
Model 3: + Bio & Memory Biases[-la]				.478	.442	.251***
Black or White	**.189**	**.001**	**1.408**			
Age	-.034	.520	1.218			
Gender	-.002	.965	1.102			
Socioeconomic Status	-.055	.304	1.262			
Mother's level of education	.002	.975	1.254			
Household income childhood	.085	.153	1.553			
0–18, years with mother	**.284**	**<.001**	**1.181**			
0–18, years with father	-.064	.233	1.272			
Biological						
Hours of sleep last night	.009	.866	1.148			
Caffeine in last 24 hours	.031	.551	1.214			
Alcohol in last 24 hours	-.079	.109	1.081			
Self-reported health	-.056	.279	1.199			
Memory Biases						
Current Appraisal of Mother	**.464**	**<.001**	**1.289**			
Positive Mood (PANAS)	.006	.920	1.336			
Negative Mood (PANAS)	.036	.524	1.382			
Depression (BDI)	**-.151**	**.007**	**1.355**			

Note. Dependent Variable: Memory of Love MLPQ Mother First Grade 28 items. Missing values replaced by means. VIF = Variance Inflation Factor. Durbin Watson = 2.064. Boldface = statistically significant predictor. Change in F significant: **$p < .01$, ***$p < .001$. See also Table S1.

Table 2
Means, SD, and t-test Statistics Comparing Black and White Individuals on Demographic, SES, Familial, Achievement, Biological, Personality, and Clinical Measures.

	Group	n	M	SD	t	p
Age	Black	124	21.54	5.03	-0.40	.689
	White	124	21.83	6.32		
Gender	Black	124	0.85	0.35	0.82	.411
	White	125	0.82	0.39		
Your Socioeconomic Status	Black	124	4.80	1.68	-1.12	.264
	White	125	5.02	1.50		
Your Mother's Socioeconomic Status	Black	120	5.69	1.86	-0.02	.984
	White	122	5.70	2.07		
Your Father's Socioeconomic Status	**Black**	**108**	**5.47**	**2.40**	**-2.32**	**.021**
	White	**115**	**6.18**	**2.17**		
Total household income growing up.	**Black**	**91**	**3.36**	**1.90**	**-6.30**	**<.001**
	White	**107**	**5.09**	**1.96**		
Your mother's current annual salary	**Black**	**89**	**2.94**	**1.59**	**-2.12**	**.035**
	White	**106**	**3.49**	**1.95**		
Your father's current annual salary	**Black**	**71**	**3.63**	**1.99**	**-2.77**	**.006**
	White	**98**	**4.52**	**2.10**		
0–18, how many years live in same house as your mother?	Black	124	16.52	3.83	-0.14	.891
	White	125	16.58	3.95		
0–18, how many years live in same house as your father?	**Black**	**124**	**9.19**	**7.96**	**-4.19**	**<.001**
	White	**125**	**13.10**	**6.75**		
Lived with Single Mother for most of childhood (1,0)	**Black**	**124**	**0.31**	**0.46**	**3.30**	**.001**
	White	**125**	**0.14**	**0.34**		
Hours of sleep did you get last night?	**Black**	**124**	**6.32**	**1.82**	**-2.58**	**.011**
	White	**125**	**7.00**	**2.28**		
Caffeine in the last 24 hours?	**Black**	**124**	**0.63**	**0.93**	**-5.16**	**<.001**
	White	**125**	**1.47**	**1.56**		
In general, how you rate your health today?	**Black**	**124**	**3.90**	**0.74**	**-2.30**	**.023**
	White	**125**	**4.10**	**0.69**		
Current Appraisal Mother	Black	124	4.16	1.09	0.82	.411
	White	123	4.04	1.08		
Satisfaction with Life Scale	**Black**	**124**	**22.35**	**6.68**	**-3.14**	**.002**
	White	**125**	**24.90**	**6.18**		
Successes in your life in the last year?	**Black**	**124**	**0.76**	**0.43**	**-2.33**	**.020**
	White	**125**	**0.87**	**0.34**		
Negative PANAS	**Black**	**124**	**31.91**	**1.87**	**2.07**	**.039**
	White	**125**	**29.27**	**9.18**		
Big Five Agreeableness	**Black**	**95**	**8.13**	**1.55**	**2.40**	**.017**
	White	**100**	**7.59**	**1.56**		
Depressive Symptoms (BDI)	Black	96	7.91	7.62	0.70	.483
	White	102	7.18	6.99		
Total Exposure Traumatic Experiences (TEC) ages 0–18	Black	95	10.33	12.55	0.22	.828
	White	99	9.97	10.23		
Perceived Stress Scale	Black	124	6.48	3.15	1.15	.251
	White	125	6.04	2.82		

Note. BDI = Beck's Depression Inventory. TEC = Traumatic Experiences Checklist. PANAS = Positive and Negative Affect Schedule. Boldface indicates a significant difference at *p* < .05. See also Table S6.