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Parenting and Attachment among Low-Income African-American and Caucasian Preschoolers

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Abstract Despite a plethora of research on parenting and infant attachment, much less is known about the contributions of parenting to preschool attachment, particularly within different racial groups. This study seeks to build on the extant literature by evaluating whether similar associations between parenting and attachment can be observed in African American and Caucasian families, and whether race moderates them. Seventy-four primary caregivers and their preschool children (51% African American, 49% Caucasian, 46% male) from similar urban, low income backgrounds participated in two visits four weeks apart when children were between four and five years of age. Attachment was scored from videotapes of the Strange Situation paradigm using the preschool classification system developed by Cassidy, Marvin, and the MacArthur Working Group. Parenting was assessed using a multi-method, multi-context approach: in the child's home, in the laboratory, and via parent-report. Seventy-three percent of the children were classified as securely attached. Warm, responsive parenting behavior (but not race) predicted attachment. Although parents of African American and Caucasian children demonstrated some significant differences in parenting behaviors, race did not moderate the relationship between parenting and child attachment. These findings highlight the direct role that parenting plays over and above race in determining attachment security during the preschool period.

Keywords Attachment; parenting; low-income; parental responsiveness; parental warmth

Previous literature has examined how parenting impacts child development and psychosocial outcomes such as behavior problems (Pardini, Fite, & Burke, 2008; McLoyd & Smith, 2002) and attachment (Barnett, Kidwell, & Lueng, 1998). A growing literature has identified racial differences in parenting style (Burchinal, Skinner, & Reznick, 2010), discipline practices, including spanking (Berlin et al., 2009; Deater-Deckard, Dodge, Bates, & Pettit, 1996; Straus & Stewart, 1999), and the quality of the caregiving environment. These racial differences have been examined through multiple lenses, however, and until recently, the majority has focused on differences between African American and Caucasian parents.

Generally, African-American parents have been described in the literature as more likely to engage in "no-nonsense" (Brody & Flor, 1998)

or authoritarian ("harsh" or "strict") (Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000) parenting, compared to Caucasian parents. Specific examples of this type of parenting include greater use of physical discipline such as spanking, more punitive attitudes toward children's disobedience, and more restrictive parenting practices. However, less is known regarding whether different parenting styles are associated with similar child outcomes in different racial groups, or whether ethnic and cultural factors moderate those relations. For example, some studies suggest that a more restrictive and physical parenting style is associated with negative social emotional outcomes among Caucasian children, but not among African American children (Bhandari & Barnett, 2007; Deater-Deckard et al., 1996; Stacks, Oshio, Gerard, & Roe, 2009). Bhandari and Barnett (2007) found

that high parental demandingness and discipline may be important for promoting child success and safety in high-risk, low-income environments, such as those characterized by a high level of neighborhood danger and community violence (Ceballo & McLoyd, 2003), or when accompanied with parental warmth (Brody & Flor, 1998).

One issue that makes the race-comparative literature difficult to interpret is that ethnicity (non-White race) is often confounded with low-income status (Huston, McLoyd, & Garcia Coll, 1994). As a result, the differing parenting styles and child outcomes reported between African American and Caucasian families may actually reflect differences in financial resources and exposure to stressors associated with poverty, rather than racial differences per se. Further, studies attempting to assess differences in parenting and discipline have generally measured parenting using a single measure, usually via the parent's report or through short laboratory observations of parent-child interaction.

Findings in the broader parenting literature, including cross-cultural studies, support the notion that sensitive and responsive parenting promotes children's social-emotional outcomes (Bornstein & Tamis-Lemonda, 1989; Landry, Smith, & Swank, 2006). Sensitive parenting also promotes a secure attachment (De Wolff & van IJzendoorn, 1997; Nievar & Becker, 2008), which in turn is associated with positive psychosocial outcomes throughout childhood (for review see Thompson, 2008). Attachment research also identified parenting practices that can undermine children's social emotional development. For instance, research on attachment disorganization describes "frightened and frightening" parental behavior that contributes to attachment disorganization and problematic socioemotional adjustment (DeKlyen & Greenberg, 2008; Hesse & Main, 2006; Lyons-Ruth, Bronfman, & Parsons, 1999; Main & Solomon, 1990).

Although attachment security is not necessarily stable over time, especially during early childhood, many researchers have shown that it is an important contributor to and marker of healthy social and emotional development be-

yond infancy (Bar-Haim, Sutton, Fox, & Marvin, 2000; Vondra, Shaw, Swearingen, Cohen, & Owens, 2001). During the preschool years, children's social emotional skills continue to develop rapidly; these skills include an understanding of self and other, emotion knowledge, empathy, cooperation, fairness, and emerging emotional self-control (Cicchetti, Cummings, Greenberg, & Marvin, 1990; Crittenden, 1992). Many parenting behaviors, especially those reliant upon language and subtle meanings, may play a growing role as children develop increasingly complex meaning-making about a variety of motivational systems (Tronick & Beeghly, 2011). These outcomes include greater sociability (Clarke-Stewart, 1973), self-regulatory skills (Davidov & Grusec, 2006), prosocial behavior (Eisenberg & Valiente, 2002), and overall emotional and social competence (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair 1997). For this reason, a growing focus of research has been on investigating the relations between parenting practices and attachment, particularly during the preschool years (Anan & Barnett, 1999; Barnett et al., 1998).

In addition to providing a framework for the relationship between parenting and child outcomes, attachment theory also has been a useful lens for examining variations in child attachment among cultural groups and related parenting behaviors. In their review of cross-cultural attachment research, van IJzendoorn and Sagi-Schwartz (2008) concluded that the three basic attachment patterns identified by Mary Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) can be observed in every culture studied to date. Moreover, across cultures, secure attachment is the most commonly preferred and prevalent pattern of attachment.

Other researchers (e.g., Jackson, 1993) have raised questions about the validity of attachment as a construct for understanding the development of African-American families due to cultural differences in family-level processes such as shared-caregiving when compared to Caucasian families. This prompted a handful of researchers to assess the validity of attachment in African American families using the Strange Situation

paradigm (Anan & Barnett, 1999; Barnett et al., 1998; Candelaria, Teti, & Black, 2011) or Attachment Q-sort in comparative studies with African American and Caucasian children (Bakermans-Kranenberg, van IJzendoorn, & Kroonenberg, 2004). The results of these studies supported the validity of attachment theory and measures in this racial group. Although Bakermans-Kranenberg and colleagues (2004) reported significantly higher parental sensitivity and child attachment security scores for Caucasian families, socioeconomic status (not race), predicted parental sensitivity and attachment.

Present Study

Our goal was to build upon findings in the literature by examining racial differences in parenting and discipline practices in two demographically similar racial groups (African American and Caucasian families from urban, low-income backgrounds) using a multi modal cross-sectional design. The validity of attachment as a construct among African American and Caucasian preschoolers, as assessed using the Strange Situation paradigm, was also investigated. Parenting was investigated using multi-method, multi-context methodology (i.e., parenting practices were observed in the laboratory, the child's home, and via parental self-report), and the relation of each parenting measure to children's attachment status was evaluated. First, we hypothesized that demographically similar samples of African American and Caucasian preschoolers would not differ significantly in the distribution of secure versus insecure attachment classifications. Secondly, we hypothesized that attachment (but not race) would account for variations in observed and self-reported parenting practices, and race would not moderate the relationship between parenting behavior and attachment security. As is the case for infants (e.g. Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003; Crockenberg, 1981; Kochanska & Coy, 2002), we hypothesized that parental warmth and responsive availability would be important in differentiating between secure and insecure attachment patterns in preschool-age children (hypothesis #3). Our fourth

hypothesis is that parenting behaviors would be predictive of attachment status and the contribution of race to the predictive model would not significantly increase the predictive value. Finally, our fifth hypothesis is that parental self-reports of the likelihood of spanking their child would differ by attachment status but not by race.

METHOD

Participants

The sample included 74 African American and Caucasian preschool-aged children and their primary caregivers (94% were biological mothers, 2% aunts, 2% biological fathers, & 2% adoptive mothers). The participants were recruited from preschool programs located in low-income neighborhoods in a large urban Midwestern city. The sample included 40 girls and 34 boys who ranged in age from 48 to 60 months ($M = 4.40$ years, $SD = .42$). As presented in Table 1, the groups of African American and Caucasian children were generally equivalent on key demographic indicators, including their primary caregiver's amount of education, employment, and the average number of months the family received welfare. Parents' highest level of completed education varied greatly. One parent reported having an 8th grade education or less (1%), 21 parents (28%) reported having attended some high school, 28 reported having graduated from high school (38%), and 24 attended some college or post-high school technical schooling (32%).

In order to demonstrate that race and income were in fact disentangled from one another in the present study, it was necessary to create a variable that was representative of the socioeconomic conditions of the study families. A standardized composite variable of socioeconomic resources available to the study families was created to aid in the demonstration of economic similarity of the two racial groups represented in the sample. This summed standardized composite variable was comprised of the following information: respondent employment status (yes/no), current relationship status (yes/no), partner employment

status (yes/no), whether respondent is receiving any form of public assistance (yes/no), monthly income (\$400 or less, \$401-\$800, \$801-\$1200, \$1201-\$1600, \$1600-\$2000, \$2001+), and education. Coding for the items comprising the economic resources composite variable was binary (0 or 1), all coding was done so that higher scores on the individual items as well as the overall economic resources composite suggested better economic well-being. A score of 0 was given in situations where the respondent was not employed full time, had less than a high school education (12th grade), was on public assistance at the time of the interview, was a single parent without a partner and not living in an extended family environment, or if the respondent was involved but the respondents partner was unemployed, and if the household family income was less than \$1200/month. Higher scores on this standardized composite variable are indicative of greater socioeconomic resources. Internal consistency for the economic resources composite variable was acceptable overall ($\alpha = .70$). Non-significant group differences among the composite variable provide support for the assertion that within the current sample, race and income are not confounded with one another.

Study Design and Procedures

Data in this cross-sectional study were gathered in two sessions approximately one month apart. The first session took place in the child's home, and the second session was conducted in a child development laboratory located at a Midwestern urban university. Variations in parenting behavior were assessed during the home visit and a semi-structured ring toss game at the lab visit. Children's attachment status was assessed during the Strange Situation, which took place at the start of the lab visit. All caregivers provided written informed consent at the first visit, before data collection began. At the end of the study, caregivers received \$25 to thank them for their participation, and children received a small prize and snack.

Measures

Attachment Status. At the laboratory visit, the preschoolers and their primary caregivers were videotaped during Ainsworth's Strange Situation paradigm (Ainsworth et al., 1978) a 21-minute videotaped laboratory observation of children's attachment behavior which took place at the laboratory visit. Trained, reliable graduate research assistants scored children's attachment status from the videotapes using Cassidy and Marvin's (1992) classification system for preschoolers, which was adapted from traditional infancy scoring systems (Ainsworth et al., 1978; Main & Solomon, 1990) and a system developed for 6- year-olds (Main & Cassidy, 1988). The preschool system classifies children as either Secure (Type B) or as one of four patterns of insecure attachment: Avoidant (Type A), Dependent (Type C), Disorganized/Controlling (Type D), or Insecure-Other (Type I). Prior to scoring, graduate research assistants were trained to reliability on the preschool attachment scoring system by the last author, who was trained by Bob Marvin and successfully demonstrated reliability using a standardized set of practice and reliability tapes developed by Cassidy and Marvin. To determine inter-coder reliability in the present study, coders independently scored 54 of the protocols (73%) for attachment classification. Exact agreement was .85, $\kappa = .65$, $p < .0001$. Following the establishment of inter-coder reliability, all disagreements were resolved via conferencing with the last author. Coders were masked to family background variables and the hypotheses of the study.

Parenting Measures. Multiple methods were utilized to capture variations in parenting behaviors in this study. Data collection of the parenting measures began with a home visit, during which The Early Childhood Home Observational Measure of the Environment Inventory (HOME; Caldwell & Bradley, 1984) was administered. The HOME is 54-item inventory that assesses the degree to which a family provides a stimulating environment for their preschool-aged child using eight subscales: Learning Materials, Language Stimulation, Physical Environment, Warmth, Academic Stimulation, Modeling, Variety, and Acceptance. All items are scored "yes/no" based

on the information derived from the researcher's observations and parental interviews. Because the focus of this investigation was on parenting as a predictor of attachment security, only the two HOME subscales reflecting the social emotional quality of parenting were evaluated: Warmth (e.g. "Parent holds child close for 10-15 minutes per day") and Acceptance (e.g. "Parent does not scold or yell at or derogate child more than once"). Scores on these two subscales were summed to create a single index of warm, accepting parenting.

Parental behaviors were also assessed during a semi-structured interactive ring toss game at the lab visit, which took place following the administration of the Strange Situation. The ring toss game is a brief (approximately 7 minutes), semi-structured social interaction task in which dyads were provided with a set of materials and invited to play ring toss together. The materials included two red rings, one red post, two blue rings, one blue post, a roll of masking tape, a pad of paper, and a pencil. No specific rules or instructions were offered regarding how to play, leaving the situation open for parents to structure as they deemed appropriate.

Two independent sets of coders subsequently rated the videotapes of the ring toss game on four dimensions of parenting behaviors using 5-point Likert scales ranging from 1 = no evidence of the behavior to 5 = extreme or pervasive evidence of the behavior. Ratings for each dimension were made in successive 30-second intervals then summed. The coders who scored the ring toss game were independent from those who classified attachment status and were masked both to children's attachment status and the parenting measures assessed in other contexts. To establish inter-coder reliability, coders rated approximately 25% of the ring toss game protocols to establish inter-coder reliability. Final ratings were then standardized and summed across the time intervals to yield total scores for the four parenting behaviors. The four parenting behaviors included *Positive Affect* ($\alpha = .84$), *Responsiveness* ($\alpha = .88$), *Control* ($\alpha = .84$), and *Teasing* ($\alpha = .75$). Parents rated high on Positive Affect expressed warmth and affection toward their

child, such as offering empathetic encouragement and demonstrating excitement at the child's success. Highly responsive parent's demonstrated openness to their child's input, as reflected in visually checking in with their child or listening and responding to their child's questions and signals. The Control subscale measures the amount of direction (commands and physical interventions) provided by the parent. Parents rated high on Control used more adult direction and commands in a rigid, inflexible manner. The Teasing scale included joking, sarcastic remarks, teasing, taunting, harassing, and jesting about the child or the child's performance. None of these comments included overt hostility. For example, common instances of Teasing included statements from the parent such as "you're cheating," "I'm winning," "I'm better than you." and "you're losing." These appeared to be efforts on the parent's part to get the child more emotionally engaged with the task and inspire effort and competition.

Variations in parenting style were also evaluated via parental self-report. Parents rated multiple dimensions of their parenting behavior using the Parenting Dimensions Inventory (PDI, Power, 1983). The PDI is a 44-item self-report instrument of parenting attitudes and behavior consisting of nine subscales. Five of these subscales (Consistency, Control, Nurturance, Reasoning, and Openness to Child Input) consist of items rated on a 6-point Likert scale, higher scores on each indicate greater tendency for parents to engage in those parenting behaviors. The remaining PDI subscales were based on parents responses to structured queries of how likely it would be for them to use particular disciplinary strategies if their child were to demonstrate five vignettes of hypothetical behavior (e.g. "After arguing over toys, your child strikes a playmate"). Parents responded on 4 point scales ranging from "very unlikely" to "very likely", indicating the likelihood that they would use the following four disciplinary strategies in response to each vignette: *Spanking* included five items reflecting the likelihood that parents would use spanking or hitting in response to child misbehavior. *Material/Social Consequences* measured the likelihood

that caregivers would punish their child by taking away privileges or isolating him/her. *Scolding* indicated the likelihood that parents would verbally reprimand their child. *Reminding* measured parents' tendency to repeat the rules to their child. In all disciplining subscales, higher scores indicate a greater likelihood that caregivers would use the strategy in question. Due to controversy in the literature regarding racial differences in spanking, this was of greatest interest in the current study. More specifically, we were interested in whether or not spanking impacts the development of African American and Caucasian children differently. In addition to the PDI subscales, a composite variable of *parental inconsistency* was also evaluated (higher scores indicative of greater inconsistency). The Inconsistency composite was created as the result of a factor analysis that yielded a three item scale measuring the stability and regularity of a parent's discipline ($\alpha = .68$). This variable was constructed by summing and standardizing the sum of three PDI items indicative of inconsistent parenting (e.g. "Child makes parent change mind after refusing request", "Child talks parent into letting him/her off easy", and "Parent does not have the energy to make the child behave").

Analytic Methods

H₁: A Chi-Square test was used to compare the distributions of attachment (secure vs. insecure) and race. H₂: A series of one-way ANOVA's and MANOVA's were conducted to determine if attachment (but not race) accounts for differences in parenting behaviors; a 2 (attachment) X 2 (race) MANOVA tested whether race moderated the relationship between attachment and parenting. The aforementioned analyses also tested whether parental warmth and responsive availability differentiate between secure vs. insecure attachment classifications (H₃). H₄: Logistic regression tested a model using parenting behaviors to predict child attachment, and whether the addition of race improves the predictive value of the model. H₅: A 2 (race) X 2 (attachment)

ANOVA tested whether spanking differs by attachment and not by race.

RESULTS

Preliminary Analyses

Study variables were examined for accuracy of input, missing data, univariate and multivariate outliers, and assumptions of normality. All variables were found to have an appropriate range of values, missing data was not substantial (<5%), and significant outliers were not detected. The Acceptance subscale of the HOME was found to be significantly, negatively skewed. Consequently, this subscale was transformed using a logarithmic transformation, which successfully eliminated the skew. The transformed values were used in analyses. However, due to a need for interpretability, untransformed descriptive statistics were reported in the text and tables.

Descriptive Findings

Attachment Status. Fifty-four (73%) of the preschoolers were classified as having a Secure (Type B) attachment, and 20 (27%) were classified as having an Insecure attachment. Among the 20 insecure children, 11 (14.9%) were judged to have an Avoidant (Type A) attachment, 5 (6.8%) were classified as having a Dependent (Type C) attachment, and 4 (5.4%) were classified as Disorganized/Controlling (Type D) attachment. Table 1 provides a breakdown of attachment classifications by child race. Because very few children were classified as having Type C or D patterns of attachment, there was insufficient statistical power to examine distributional differences between preschoolers in all four attachment groups. Consequently, children classified as Avoidant, Dependent, or Controlling were collapsed into a single Insecure classification, and all subsequent analyses were conducted using a dichotomous Secure versus Insecure attachment variable. After collapsing, categories consisted of 54 (73%) preschoolers with secure attachment and 20 (27%) with insecure attachment classifications.

Table 1. Preschool Children’s Attachment Status by Child Race

	<u>Attachment Classification</u>			
	Type A Avoidant	Type B Secure	Type C Dependent	Type D Controlling
Race				
African American	9 (12%)	24 (32%)	2 (3%)	3 (4%)
Caucasian	2 (3%)	30 (41%)	3 (4%)	1 (1%)
Totals	11 (15%)	54 (73%)	5 (7%)	4 (5%)

Associations of Attachment Status with Race, Child Gender, and SES. Boys and girls did not differ significantly in attachment status, $\chi^2(1) = .018, p = .894$. Additionally, Caucasian children were not significantly more likely than African-American children to form a secure attachment relationship with their primary caregiver, although there was a non-significant trend $\chi^2(1) = 2.82, p = .093$ for the Caucasian preschoolers to be classified as secure. To test for a potential gender by race interactive effect on attachment status, logistic regression was used. Results were not significant ($\chi^2 = .14, p = .704$). Results of preliminary *t*-tests and chi square analyses indicated that the African American and Caucasian groups of children did not differ significantly on key demographic variables such as parental education known to be associated with parenting style; however, there were two exceptions. Despite efforts to recruit demographically similar low-income African American and Caucasian samples, a higher proportion of parents of African-American children were receiving welfare and had lower monthly income when compared to parents of Caucasian children. Parents of African-American and Caucasian children did not differ significantly on the amount of socioeconomic resources available to them, as assessed using this variable, see Table 2. Similarly, parents of securely ($M = .41, SD = 1.05$) and insecurely ($M = .12, SD = .75$) attached children were not found to differ on the amount of socio-

economic resources available to them, $t(72) = -1.15, p = .253$.

Racial Differences in Parenting Behaviors

Home Visit. Racial group differences in parenting behavior observed in the home setting (warmth and acceptance) were evaluated. Results of a one-way ANOVA indicated that African American and Caucasian parents did not differ significantly in the level of warmth and acceptance directed toward their children, as assessed with the HOME Inventory. See Table 3.

Ring Toss Game. A one-way MANOVA was used to evaluate whether parenting behaviors observed during the dyadic ring-toss (Positive Affect, Responsiveness, Control, and Teasing) differed by race. Results revealed a significant overall group difference $F(4,69) = 7.65, p < .001$. Results of follow-up univariate ANOVAs revealed that parents of Caucasian children engaged in significantly more behaviors indicative of Positive Affect ($F(1,72) = 12.32, p = .001$) and Responsivity ($F(1,72) = 26.44, p < .001$) during the semi-structured ring toss game, whereas parents of African American children were more likely to engage in behaviors indicative of teasing, $F(1,72) = 16.20, p < .001$. See Table 3.

Table 2. Sample Demographics by Child Race

	African American (N=38)	Caucasian (N=36)	Significance Test
	M (SD) or n (%)	M (SD) or n (%)	
Child Age	4.37 (.45)	4.25 (.38)	ns
% Girls	55.3%	50.0%	ns
Bio-Mom is Primary Caregiver	89.5%	97.1%	ns
Household with Male Partner	42.1%	58.3%	ns
Caregiver Completed High School	65.8%	72.2%	ns
Caregiver Working	47.4%	55.6%	ns
Receiving Welfare	81.6%	55.6%	$\chi^2(1) = 5.85, p < .05$
Average # Months On Welfare	60.19 (50.19)	58.35 (59.82)	ns
Monthly Income	\$1.3K (0.80)	\$1.7K (1.08)	$t(72) = 2.07, p < .05$
SES Resources	.20 (1.00)	.50 (.94)	$t(72) = -1.29, p = .201$

Table 3. Means and Standard Deviations by Race of Parent Behavior Ratings

Means and Standard Deviations by Race of Parent Behavior Ratings

	Race						Group Differences		
	African American (n = 38)		Caucasian (n = 36)		Overall Sample				
Parent Behavior During Ring Toss	Min	Max	Min	Max	Min	Max			
Positive Regard	23.29 (6.16)	14	36	27.31 (3.10)	21	36	25.25 (5.28)	14	36 $F(1,72) = 12.32, p = .001$
Sensitive Responsiveness	26.67 (6.99)	13	43	34.09 (5.25)	20	46	30.28 (7.21)	13	46 $F(1,72) = 26.44, p < .001$
Control	24.43 (7.22)	14	46	23.45 (5.95)	16	43	23.95 (6.60)	14	46 $F(1,72) = .40, p = .529$
Teasing	14.38 (2.76)	12	22	12.45 (.81)	12	15	13.44 (2.26)	12	22 $F(1,72) = 16.20, p < .001$
Parenting Behavior Observed in the Home									
HOME Responsibility/Acceptance	7.56 (2.43)	1	11	7.50 (1.33)	5	9	7.54 (2.05)	1	11 $F(1,72) = .015, p = .903$
Self-Report of Parenting Behavior									
Parental Inconsistency	8.74 (3.16)	3	15	7.79 (2.19)	5	14	8.32 (2.8)	3	15 $F(1,72) = 2.16, p = .146$
Spanking	7.98 (5.96)	0	17	4.79 (3.07)	0	12	6.57 (4.56)	0	17 $F(1,72) = 10.14, p < .001$

Note: "HOME" refers to to The Early Childhood Home Observational Measure of the Environment Inventory

Table 4.

Correlation Matrix of Parenting Variables

Variable	1	2	3	4	5	6
1. Positive Affect (Ring-Toss)						
2. Responsiveness (Ring-Toss)	.720**					
3. Control (Ring Toss)	.190	.013				
4. Teasing (Ring Toss)	-.403**	-.516**	.017			
5. Responsiveness/Acceptance (HOME)	.205	.170	-.001	.009		
6. Parental Inconsistency (PDI)	-.428**	-.309**	-.110	.366**	-.205	
7. Spanking (PDI)	-.276*	-.340**	.051	.206	-.109	.075

Note: * $p < .05$, ** $p < .01$, “HOME” refers to The Early Childhood Home Observational Measure of the Environment Inventory; “PDI” refers to Parenting Dimensions Inventory

Self Report. Racial differences on self-report measures of parenting behavior were also evaluated. A one-way ANOVA revealed that parents of African-American and Caucasian children did not differ in level of parental inconsistency, see Table 3. See Table 4 for correlations between measures of parenting observed in the home, in the lab, and via self-report.

Differences in Parenting Behaviors by Child Attachment

Home Visit. A one-way ANOVA was performed to examine whether children’s attachment status was associated with parenting measures assessed using the HOME. Parents of secure children ($M = 7.89, SD = 2.05$) were significantly more responsive and accepting of their children than parents of insecure children ($M = 6.68, SD = 2.50$), $F(1,63) = 4.99, p = .029$.

A 2 (attachment) X 2 (race) MANOVA also was conducted to examine possible interactive effects of attachment and race on parenting behaviors in both the laboratory and in the home. No significant attachment X race interactions were found, indicating that race is not a significant moderator of child attachment status, which suggests that the relationship between attachment classification and parenting behaviors does not appear to be affected by the racial status of the child.

Ring Toss Game. A one-way MANOVA was conducted to determine whether parents of securely and insecurely attached children differ in the types of parenting behaviors they most frequently engaged in during the ring toss game in the laboratory. Results revealed significant group differences, $F(4,69) = 2.57, p = .045$. Results of follow-up univariate ANOVAs revealed that parents of secure children engaged in significantly more behaviors indicative of positive affect ($F(1,72) = 6.22, p = .01$) and responsivity ($F(1,72) = 5.77, p = .019$) during the ring toss game. Additionally, parents of insecure children were more likely to engage in behaviors indicative of teasing, $F(1,72) = 7.25, p = .009$.

Self-Report. Results of a one-way ANOVA revealed that parents of insecure children ($M = 9.45, SD = 3.43$) reported being significantly more inconsistent in their parenting behaviors when compared to parents of secure children ($M = 7.91, SD = 2.44$), $F(1,72) = 4.66, p = .034$. Additionally, a 2 (attachment) X 2 (race) ANOVA tested possible interactions of race with attachment in predicting self-reported parental inconsistency. Consistent with findings from the laboratory task, no significant attachment X race interaction was found.

Differences in Parenting Behaviors: The Importance of Attachment

To further extend the significance of the findings, it is necessary to demonstrate the importance of parenting with race in the model as well. In order to test the hypothesis that parenting behaviors would be predictive of child attachment status, and that the contribution of race would not provide a significant improvement in predictive ability, a sequential logistic regression was conducted with significant parenting variables as identified in previous analyses entered in the first step and race entered in the second step. Parental Positive Affect, Responsivity, Teasing, Responsiveness and Acceptance, and Inconsistency were entered in step one as predictors of child attachment. The regression was significant as a model ($\chi^2 = 10.95, p = .05$) correctly predicting 71.7% of the cases. The addition of race as a predictor in step two did not contribute significant additional variance to the prediction of attachment beyond that of the parenting variables.

Parental Report of Spanking by Child Race and Attachment

A 2 (race) X 2 (attachment status) ANOVA was conducted to determine if parent report of spanking in a hypothetical situation differed by child race or attachment status. Parents of African-American children ($M = 7.98, SD = 5.06$) were more likely to report that they would spank their child than parents of Caucasian children ($M = 4.79, SD = 3.07$), $F(1,71) = 4.93, p = .03$. There were, however, no significant differences in parental report of likelihood of spanking by child attachment status; furthermore, the interaction term was not significant.

DISCUSSION

New data are presented that support the generalizability of attachment theory to African American preschoolers and their primary caregivers from low income, urban backgrounds. Regardless of race and across assessment types, parenting behaviors were found to significantly differ by child attachment status. African American and Caucasian children did not differ in the distribution of attachment, these findings support

hypothesis #1. Caregivers of securely attached preschool children when compared to caregivers of insecurely attached children were observed to display higher levels of positive affect and responsiveness toward their children, supporting hypothesis #3. Additionally, parents of insecurely attached children were found to engage in more teasing than parents of securely attached children and report being more inconsistent in their parenting. These findings echo those of others that have concluded that while children of African American and Caucasian families in the United States may be exposed to culturally specific experiences, these experiences do not alter the relation between attachment security and pertinent predictor variables (Bakermens-Kranenberg et al., 2004).

Contrary to our expectation, parents of secure and insecure children did not differ in the amount of control that they exerted when interacting with their child. Given the importance of supporting children's initiative during this period of development, it was expected that this would be reflected in the parent-child attachment relationship as previous studies have demonstrated (Barnett et al., 1998). Although one must be extremely cautious in interpreting null findings, it is worth noting that this null finding might raise questions about the meaning of parental control, or limit setting in the preschool years, particularly within a low-income sample. For instance, what is the optimal amount of parental control in this context? Does the level of parental control vary by sociodemographic factors, and ultimately what is the best method for accurately capturing parental control at this period of development?

Within the attachment literature, parental teasing behavior is a relatively novel and understudied topic. The findings of the current study provide an interesting perspective with regard to parents who engaged in higher levels of teasing during a semi-structured dyadic ring-toss game. These parents were more likely to be rated as intrusive and insensitive with their children, and were more likely to have children classified as insecure in Ainsworth's Strange Situation. This finding is consistent with prior findings reported in attachment research using samples unselected

for race. Such studies show that higher levels of parental intrusiveness and insensitivity during parent-child social interactions are robust predictors of insecure attachment (Belsky, Rovine, & Taylor, 1984). While research suggests that family members may use teasing to promote positive interactions suggesting that it may have some constructive functions (see Mills & Carwile, 2009), our findings may suggest that young children might perceive the teasing as intrusive and insensitive, both of which are types of behaviors that also have been linked with insecure attachment (Belsky et al., 1984). In fact, Mills and Carwile (2009) report that most of the young children in their study label teasing as a negative act. It should be noted, however, that the meaning of teasing for preschool-aged children may be too complex to apprehend accurately. Doing so requires that the person being teased is able to interpret not only the meaning of the teaser's verbal statement, but also their nonverbal behaviors, affective displays, and the intentions underlying them (Harwood, 2010). Preschool-aged children may not have mastered this advanced social cognitive skill as similar skills (e.g. theory of mind, emotional intelligence) emerge gradually during the preschool period and are not fully attained until later childhood (Wellman, Cross, & Watson, 2001). Given the young age of the children in this study, it may have been difficult for them to understand the subtle nuances behind their parents' teasing. Although our data are correlational and cannot clarify the direction of effects, we hope our findings promote further research on the prevalence and consequences of parental teasing during early childhood, a topic on which our understanding to date is limited.

Another surprising finding was the lack of differences by child attachment status in parental self-reports of the likelihood of using spanking or some form of corporal punishment in response to hypothetical child behaviors; this finding was not in support of hypothesis #5. Again, in the present study we interpreted null findings and a lack of statistical power may be responsible for the null findings, but several investigators have demonstrated the negative effects of coercive and punitive parenting behav-

iors on healthy child development (e.g. Deater-Deckard et al., 1996; Gershoff, 2002). A potential explanation for the lack of findings in this particular sample may be due to the low-income and relative high-risk nature of the families participating in the study. As suggested by Bhandari & Barnett (2007), under particularly stressful conditions it may be that children's safety and security can be reassured by a parent that is relatively controlling and demanding, while also maintaining a healthy balance by being consistently involved and sensitive to their child's needs (Stacks et al., 2009; Ceballo & McLoyd, 2003). It may be that the high-risk nature of the families participating in the study led to restriction of range in terms of the amount of spanking and this lack of variance may be responsible for the null findings as well.

Racial differences in parenting behaviors were not hypothesized, however, parents of Caucasian children were found to demonstrate higher levels of positive affect and responsiveness, and lower levels of teasing when observed in the lab. However, in-home observations and parent reports did not reveal significant racial differences in parental warmth and acceptance or in the consistency of reported parenting. This finding is in partial support of hypothesis # 2. These seemingly contradictory findings may reflect the sensitivity of the laboratory assessment in detecting what prior investigations have identified as "non-sense" parenting which is thought to characterize African-American parents, especially those of low-income backgrounds (Brody & Flor, 1998). Despite these significant main effect differences in parenting due to race as measured in the laboratory, when including both parenting and race in the model, parenting behaviors assessed in this sample across all three measurement methods utilized were significant predictors of child attachment status, and the addition of race did not aid in prediction; these findings are in support of hypothesis #4. When thinking of how child attachment develops in different racial groups, this finding may demonstrate the importance of parenting behaviors above and beyond the effects due to race. Coupled with the initial finding that child attachment and race

were not related to one another, these findings illustrate and support the notion put forth by others that while there may be cultural differences in the pervasiveness of certain parenting behaviors, attachment as classified by the Strange Situation Procedure in the preschool years, is a valid construct for both African-American and Caucasian children (Bakermans-Kranenberg et al., 2004; Barnett et al., 1998). Additionally, these findings support previous work suggesting that both African-American and Caucasian parents promote healthy development for their children in a similar manner (McCabe, Clark, & Barnett, 1999; Rowe, Vazsonyi, & Flannery, 1994).

In conclusion, the current study has several strengths and limitations. Strengths include the fact that the parent-child interaction was assessed using the Strange Situation paradigm and parenting behaviors were assessed using a multi-method, multi-contextual approach. We believe this approach provides divergent kinds of evidence that parental warmth and responsiveness are consistent associates of secure child attachment relationship during the preschool years. This methodology allowed us to investigate the relation between attachment in the preschool years and parenting behaviors with increased confidence that we were in fact measuring the operationalized parenting behaviors that we intended. Additionally, we were able to assess these relations among a group of relatively economically equivalent African American and Caucasian parents and their children. This allowed for the exploration of the impact that race can have on these relationships while ensuring that racial effects would not be confounded by socioeco-

omic status. Furthermore, the participants targeted for inclusion in the study were families living in low-income environments with preschool children, an economic situation that can increase children's vulnerability to negative developmental outcomes (Huston, McLoyd, & Garcia Coll, 1994) and a period of development when the effects of income are strongest (Duncan, Yeung, Brooks-Gunn, & Smith, 1998) and thus, are those individuals that can benefit most from this type of research. Limitations include the fact that all measures and observations were collected cross-sectionally and as a result, causal interpretations between study variables are inappropriate. Additionally, the sample size necessitated the need for attachment classifications to be collapsed into secure vs. insecure categories, thus reducing some of the variance in the attachment variable. We recommend that future investigations examine relationships between parenting behaviors and attachment in a larger sample of high-risk preschoolers using a longitudinal design. This more powerful study design will allow for causal interpretations and the investigation of whether parenting or race alone, or an interactive effect between the two, occurs when predicting secure vs. insecure subtype classifications. Larger samples will also allow for the detection of small (and even medium) effect sizes, a limitation of this study. Furthermore, it may be useful to include other family process variables known to be of particular importance to low income families (e.g. social support) to determine if these processes might act in a way to suppress the relationship between corporal punishment and attachment if not measured.

Table 5. Means and Standard Deviations by Attachment of Parent Behavior across Assessments

	Attachment Security		Group Differences
	Type B Secure (n = 54)	Insecure Combined (n = 20)	
Parent Behavior During Ring Toss			
Positive affect	26.15 (5.03)	22.82 (5.31)	$F(1,72) = 6.22, p = .015$
Responsivity	31.47 (7.05)	27.08 (6.78)	$F(1,72) = 5.77, p = .019$
Control	24.51 (7.25)	22.47 (4.20)	$F(1,72) = 1.40, p = .241$
Teasing Responsiveness and Acceptance	13.03 (1.78)	14.56 (3.01)	$F(1,72) = 7.25, p = .009$
Parental Inconsistency	7.89 (1.74)	6.68 (2.50)	$F(1,64) = 4.96, p = .029$
Spanking	7.91 (2.44)	9.45 (3.43)	$F(1,72) = 4.66, p = .034$
	6.07 (4.49)	7.95 (4.58)	$F(1,72) = 2.54, p = .116$

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