

Adolescence in Context:  
The Development of an African American Family  
Interaction Macro-Coding Scheme

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This paper describes longitudinal research examining family interactions in a sample of middle class African American families with adolescents. More specifically, we focus on three issues. First, in keeping with the overall purpose of this symposium, we discuss how we adapted the Smetana, Yau, Restrepo, & Braeges (1991) Global Coding System for coding family interactions to address the primary goals of this study, and in particular, to be culturally sensitive to middle-class African American families. Second, we describe the results of factor analyses that yielded the scales that were employed in data analyses. Third, we present preliminary findings on developmental changes in family interactions in middle class African American families with adolescents.

The Smetana et al. (1991) Global Coding System is a coding scheme for examining the interactions of families with adolescents. It was developed out of a perceived lack of available instruments for coding family interactions at the macro-level and a dissatisfaction with the time, expense, and effort entailed in coding family interactions at the micro-level. The Global Coding System involves a series of rating scales that a trained coder applies after viewing a sample of video-taped family interactions. The original Global Coding System consisted of 58 5-point Likert scales, 16 scales applied separately to mothers, fathers, and adolescents, and 10 scales applied at the family level, which are defined in a detailed coding manual. The coding system was initially developed and used with a sample of married and divorced European-American middle-class families with adolescents (Smetana et al., 1991). However, its relevance for and sensitivity to African American families has not been examined.

The present study focused on the family interactions of 95 middle class African American families with adolescents who participated in a larger two-year longitudinal study

of adolescent-parent relationships. The analyses reported here focus on 82 families for whom complete family interaction data were available at both assessments. Of these, nearly two-thirds were two-parent families, and the rest were single-parent, mother-headed households. The sample was heterogeneously middle-class and ranged from lower middle-class blue-collar production line workers to upper middle-class professionals (see Table 1 for a description of the sample). Target adolescents were nearly evenly divided between males and females and were, on average, 13.14 years of age at Time 1 and 15.05 years of age at Time 2.

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Insert Table 1 about here  
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In adapting the coding system for use with our sample, there were two primary issues we wished to address. First, the initial study sample included adolescents between the ages of 11 and 14, and we wanted to modify the coding system to better reflect the developmental issues of individuation, which we viewed as central to early adolescent development and to our study. This aim was accomplished by adding codes from other coding systems that assessed these issues. Second, a central issue was the need to adapt the family coding categories to be culturally sensitive to the interactions and cultural values of middle-class African American families. We adopted a cultural competence approach to family recruitment, study methods, and the interpretation of findings.

Our adaptation of the coding system was guided by several key questions. First, we asked whether the original codes have the same meaning in African American families. Traditional African American culture values nonverbal and verbal communication. How a person communicates is viewed as even more important than what a person says Clear

communication is important, but it is more important that it be perceived as genuine. The coding category, Clarity of Thought and Idea Expression, places an emphasis on clarity that may not be as strongly valued in African American culture. We retained the coding category, but noted that genuineness in communication is more highly valued than clarity.

Second, we asked, Do certain phrases need to be reworded to be culturally appropriate and to achieve consensus for African American families and coders? Spontaneity and interpersonal exchange are valued in African American communication, and this may mean that a family member might be “interrupted” during the process of communication. This “interruption” may indicate that the family member is not listening but also may indicate active listening and an extra degree of attunement. To capture this nuance, the code 'Listening To Others' was reworded to distinguish interruptions based on inattention from those that arise from engagement.

Third, we asked, Are there ways of clarifying or changing some of the behavioral markers that will more accurately represent African American families? The category, Parental Promotion of Dialogue and Collaboration, was revised based on behaviorally based cultural differences. This code originally included the notion of parents' promoting dialogue by “asking the child through questions or through providing a structure where decision-making and problem-solving are shared.” This notion (of children sharing in decision-making) is a more Western, European-American notion and is not considered typical for African American families. This behavioral description was deleted, but the notion of promoting dialogue was retained.

Finally, we asked, Do new codes need to be written to capture modes of interaction in African American families? A new category, Degree of Family Connectedness, was

added to reflect the value of a sense of connection in African American families. Additional codes also were added to more fully characterize parenting styles of African American parents. For instance, in the original coding system, mothers and fathers were rated along dimensions of authoritarian, permissive, and authoritative parenting styles. There is a great deal of debate in the literature, however, about the validity of these styles as they pertain to African American families (e.g., Garcia Coll, Meyer, & Brillon, 1995; Spencer & Dornbusch, 1990), and we, too, struggled with whether these adequately defined parenting in African American families. We added a fourth parenting style scale, which we termed Traditional Parenting, which is consistent with what Brody and Flor (1998) have termed 'No-nonsense parenting' and with what Kelley, Power, and Wimbusch (1992) have referred to as parent-centered parenting. This code refers to a parenting style that is nonpunitive, demanding, and warm but where parents have considerable authority and do not negotiate or solicit input from the child, as this is not consistent with African American values.

In training the coders, an effort was made to select coders who were African American and who also had expert knowledge of African American culture through their clinical work or training experience. The backgrounds of the coders included marriage and family therapy with expertise in black families, cultural competency training, and an African American minister and doctoral student in human development. The coders' feedback regarding the coding categories and the overall clarity and consistency of the coding manual was actively solicited and employed in revising the coding categories.

These procedures resulted in a total of 98 5-point Likert scales, which were grouped in the eight superordinate categories described in Table 2. In the revised coding manual, coders separately rated each family member (adolescents, mothers, and, if present,

fathers) on 18 scales and separately rated mothers and fathers on 11 scales; 22 scales assessed overall family functioning. Excellent inter-rater reliability (alphas ranged from .88 - .97) was obtained prior to coding and was maintained during the coding.

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Insert Table 2 about here  
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There were two tasks, a Problem Task (where families pick and then discuss an issue of adolescent-parent disagreement; see Smetana et al., 1991), and an Outing Task, adapted from the frequently employed Plan-A-Vacation Task (Cooper, Grotevant, & Condon, 1983). Single-parent families (mothers and adolescents) were videotaped engaged in both tasks for 10 min. each. To disentangle the effects of family structure and dyadic versus triadic interactions, two-parent families were videotaped engaging in the Problem Task in three separate 10-min. sessions (mother-child dyadic, father-child dyadic, and triadic), and the Outing Task in one 10-min. triadic interaction, resulting in a total of 40 min. of videotaped family interactions. Task order was varied to control for fatigue and order effects. The same procedures were employed at both assessment periods. Our analyses and the remainder of this paper focus on the mother-child and triadic interactions in the Problem Task.

Our approach to analyses was empirically driven. Principal components analyses with varimax rotation were performed to reduce the items into scales. Analyses were performed separately for data at each assessment period and for each interaction context. Items that loaded at highly on a factor (.40 or greater) and that did not cross-load on other factors were included in a factor, and for cross-time comparison purposes, some items that were included at one assessment period but not another were eliminated.

Analyses of mother-child interactions yielded four factors and analyses of triadic interactions yielded six factors with eigenvalues greater than 1.00 and that were considered meaningful and interpretable (see Table 3). Confirmatory factor analyses (CFA) were then performed on these factors; the items retained in each factor and the factor scores obtained in the CFAs are shown in Table 4.

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Insert Tables 3 and 4 about here  
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As can be seen in Table 4, the resulting factors demonstrated both considerable overlap and also distinctiveness across the dyadic and triadic interaction contexts. Consistent with previous research on White middle-class families, both the dyadic and triadic contexts yielded factors describing family members' positive communicative behaviors (Teen Positive Communication, Mother Positive Communication, and in the triadic context, Father Positive Communication). As can be seen in Table 4, the variables loading on these factors were highly similar but not identical. The triadic context yielded three additional factors that pertained to family members' receptivity and understanding (Teen Receptive to Parents, Father Supportive, Mother Supportive). Two factors emerged in mother-child interactions: Teen Anger and Mothers' Validation of Teen's Perspective.

In the next step of the analyses, composite scores for each factor were created by obtaining mean ratings for the items on that factor. Then Gender X Time ANOVAs were run separately on mean composite scores for dyadic and triadic interactions. As shown in Table 5, mean levels of Teen Anger in the dyadic context were low at both Time 1 and Time 2. Nevertheless, consistent with previous research on adolescent-parent conflict, the analyses revealed that female adolescents were rated significantly higher in Anger than were male

adolescents,  $F(1, 74) = 3.87, p < .05$  ( $M$ 's = 2.15, 2.09,  $SD$ 's = .34, .41, respectively). In contrast, mean levels of Mother Positive Communication and Mother Validates Teen's Perspective were high. There was a nonsignificant ( $p < .10$ ) trend towards increasingly positive Teen Communication with adolescents' increasing age.

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Insert Table 5 about here  
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In the triadic context, Mother Positive Communication,  $F(1, 42) = 6.73, p < .01$ , Teen Receptive to Parents,  $F(1, 42) = 3.94, p < .05$ , and Mother Supportive,  $F(1, 42) = 10.19, p < .01$ , all declined significantly with adolescents' increasing age (see Table 5 for means). In addition, a significant Time X Gender interaction,  $F(1, 42) = 3.90, p < .05$ , revealed that among mothers of boys, Mother Supportive scores declined significantly over time,  $t(1) = 4.21, p < .001$  ( $M$ 's = 3.92, 3.40,  $SD$ 's = .78, .81).

The final set of analyses compared Mother Positive Communication and Teen Positive Communication across the dyadic and triadic contexts (for two-parent families). These analyses revealed that both Mother Positive Communication and Teen Positive Communication were significantly higher in dyadic than triadic family interactions,  $F$ 's(1, 42) = 24.79, 9.01,  $p$ 's < .0001, .01 ( $M$ 's = 4.30, 4.62, respectively), although across these two contexts, Mother Positive Communication declined significantly with adolescents' increasing age,  $F(1, 42) = 6.26, p < .05$  ( $M$ 's = 4.54, 4.37).

Thus, the results indicate that the Smetana et al. (1991) Global Coding System could be successfully adapted to assess the family interactions of middle-class African American families. Our future analyses will be directed towards examining father-adolescent interactions in the Problem Task and family interactions during the Outing

Task. Furthermore, based on recent work by Powers, Welsh, and Wright (1994), each family member also rated their interactions along dimensions of positive and negative affect and support and task involvement immediately following each family interaction task segment. Of interest is how family members' subjective understanding of their family interactions relates to raters' views of the family. More generally, we will examine how the factors that emerged from the analyses described here predict healthy outcomes for middle-class African American adolescents.

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Table 1:

Sample Demographic Characteristics

	<u>Time 1</u>			<u>Time 2</u>		
	<u>Teens</u>	<u>Moms</u>	<u>Dads</u>	<u>Teens</u>	<u>Moms</u>	<u>Dads</u>
Age (in years)	<u>M</u> 13.14	40.16	44.05	15.05	42.20	45.60
	<u>SI</u> (1.29)	(6.41)	(7.36)	1.28	(6.48)	(8.82)
Gender (Being Male)	52%			51%		
Education (in years)	<u>M</u>	14.88	14.46		14.37	14.03
	<u>SI</u>	(2.27)	(2.61)		(2.81)	(3.10)
<u>Family Income</u>						
			30%			17%
			33%			38%
			37%			26%
<u>Family Structure</u>						
			66%			67%
			29%			27%

Table 2:

Superordinate Coding Categories

<u>Categories</u>	<u>Examples of Scales</u>
Individual interaction Styles	Clarity of communication Listens to others
Family Level Interaction Styles	Parental understanding Receptivity to statements made by others
Conflict	Level of conflict Tolerates differences & disagreements
Affect	Warmth Anger
Individuation	Parental validation of teen's perspective Teen emotional maturity
Control	Overt power Pressures others to agree
Collaborative Problem-solving	Parental structuring of task Parental promotion of dialogue & collaboration
Summary Family Measures	Depression Openness Enmeshment

Table 3:

Eigenvalues & Proportion of Variance for Factors

<u>Factors</u>	<u>Eigenvalues</u>		<u>% of Variance</u>	
	Time 1	Time 2	Time 1	Time 2
<b>Dyadic (Mother-Child)</b>				
Child Communication	23.02	6.52	39%	11%
Mother Communication	5.27	19.53	9%	33%
Child Anger	4.06	4.10	7%	6%
Mother Validates Teen	3.16	3.47	5%	6%
<b>Triadic (Mom-Dad-Child)</b>				
Father Communication	32.10	7.11	33%	7%
Child Communication	8.36	8.81	9%	9%
Mother Communication	6.32	29.72	6%	31%
Child Receptive to Parents	5.48	6.78	6%	7%
Father Supportive of Teen	4.34	6.59	4%	7%
Mother Authoritative	6.56	3.91	7%	4%

Table 4:

Problem Task - Dyadic & Triadic

Factors/Variables	Factor Scores			
	Triadic (MFC)		Dyadic (M-C)	
	Time 1	Time 2	Time 1	Time 2
<b>Teen Communication</b>				
Clarity of thought	.83	.83	.81	.74
Confidence in stating opinions	.87	.83	.81	.82
Provides explanations for positions	.85	.86	.84	.87
Comfort level during interaction	.82	.84	.87	.85
Involved in task	.78	.85	.82	.80
Emotional maturity	.86	.83	.84	.85
Overt power	.73	.62	.58	.68
Requests input from mother	.73	.71	.67	.76
Requests input from father	.74	.81		
<b>Mother Communication</b>				
Clarity of thought	.77	.71	.72	.62
Provides explanations for positions	.73	.85	.71	.74
Comfort level during interaction	.80	.75	.80	.79
Involved in task	.81	.83	.77	.68
Attempted resolution of issue	.76	.80	.82	.63
Demanding	.80	.92	.85	.88
Assertive self-confidence	.84	.88	.91	.89
Overt power	.67	.76	.74	.68
Structures task	.71	.77	.87	.83
Family reaches agreement	.68	.64		
Disengaged			-.62	-.63
Confidence in stating opinions			.78	.71
<b>Father Communication</b>				
Provides explanations for positions	.82	.80		
Involved in task	.88	.80		
Connected to family	.85	.65		
Attempted resolution of issues	.80	.76		
Demanding	.83	.81		
Assertive self-confidence	.91	.85		
Overt power	.87	.79		

	<b>Factor Scores</b>			
	Triadic (MFC)		Dyadic (M-C)	
	Time1	Time 2	Time1	Time 2
<b>Teen Receptive to Parents</b>				
Listens to others	.88	.68		
Receptive to mother	.85	.71		
Receptive to father	.82	.70		
Tolerates differences & disagreements	.82	.74		
Supportive	.64	.46		
Anger	-.76	-.73		
<b>Father Supportive of Teen</b>				
Parental understanding	.90	.83		
Receptive to child	.93	.93		
Supportive	.82	.66		
<b>Mother Supportive of Teen</b>				
Mother requests input from child	.71			
Understanding	.88			
Receptive to child	.89			
Tolerates differences & disagreements	.84			
Supportive	.79	.83		
Intense affect	-.60			
Authoritative	.85	.71		
Traditional		-.66		
<b>Teen Anger</b>				
Intense affect			.44	.47
Anger			.77	.85
Pressures others to agree			.78	.85
<b>Mother Validation of Teen's Perspective</b>				
Parental understanding			.86	.82
Validates teen's perspective			.90	.88
Pressures others to agree			-.68	-.75
Authoritarian			-.50	-.66

Table 5:

Mean Factor Scores For Dyadic & Triadic Interactions Across Time

Context / Factor	<u>Time 1</u>		<u>Time 2</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Dyadic (Mother-Child) Interactions</u>				
Mother Communication	4.45	(.59)	4.46	(.49)
Teen Communication	3.52	(.65)	3.71	(.58)
Teen Anger	2.12	(.45)	2.12	(.38)
Mother Validates Teen's Perspective	3.97	(.62)	4.08	(.58)
<u>Triadic Interactions</u>				
Mother Communication	4.35	(.60)	4.18	(.69)
Father Communication	4.11	(.84)	4.18	(.60)
Teen Communication	3.46	(.71)	3.57	(.67)
Mother Supportive of Teen	3.82	(.74)	3.45	(.84)
Father Supportive of Teen	3.68	(.87)	3.82	(.61)
Teen Receptive to Parents	3.51	(.67)	3.44	(.55)