

2004

Attribution processes in mother-adolescent conflict

Ann Elisabeth Wingate

Louisiana State University and Agricultural and Mechanical College

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ATTRIBUTION PROCESSES IN MOTHER-ADOLESCENT CONFLICT

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial Fulfillment of the
requirements for the degree of
Master of Arts

in

The Department of Psychology

by
Ann Elisabeth Wingate
B.S., University of Louisiana-Lafayette, 2002
December 2004

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ABSTRACT

The present study aimed to (1) determine whether negative mother and adolescent attributions about one another are associated with increased conflict levels in a heterogeneous sample, (2) examine the possible differential predictive power of certain negative attribution types for different groups within the sample, (3) determine whether level of negative attribution, SES, or daily stress level are significant predictors of conflict, and (4) examine the potential mediating role of negative attributions in the relationship between SES and conflict level, as well as the relationship between daily stress and conflict level. One hundred forty-five mother-adolescent dyads from various racial and SES backgrounds of a moderately large urban area in southeast United States completed self-report measures of attributions associated with negative behaviors of the other, stress levels, and conflict levels. Analyses indicated that negative attributions were significantly associated with increased conflict. African American mothers presented with a nonsignificant different attribution style than all other mother groups. Mother-reported negative attributions, SES level, and mother-reported daily stress were significant predictors of both mother- and adolescent-reported conflict. Negative attributions were not found to be a mediator in the relationships between daily stress and conflict level, as well as SES level and conflict level. Clinical implications of these data are discussed.

INTRODUCTION

Children often experience increased conflict with their parents during their adolescent years compared to other phases of childhood. Adolescent theorists speculate that conflict increases as teenagers attempt to gain independence from parents (Conger, Ge, Elder, Lorenz, Simmons, & Whitbeck, 1992). Although parent-adolescent conflict during this time of transformation is expected and may facilitate independence (Steinberg, 1987), parents often respond in ways that escalate conflict to clinically significant levels (Foster & Robin, 1997; 1998).

It has been estimated that between 15 and 20 percent of teenagers and parents experience intense conflicts (Montemayor, 1983). The consequences of such conflict can affect the adjustment of adolescents and parents (Forehand, Brody, Slotkin, Fauber, McCombs, & Long, 1988; Silverberg & Steinberg, 1987). For example, adolescents who engage in high levels of conflict with their parents tend to demonstrate emotional and behavior problems (Forehand, Long, Brody, & Fauber, 1986; Foster & Robin, 1997; Slater & Haber, 1984). Similarly, mothers who have frequent arguments with their teenagers are inclined to have low self-esteem (Silverberg & Steinberg, 1987).

In light of the frequency that conflict occurs and its potentially serious consequences, parent-adolescent conflict has received much attention over the last few decades (Brody & Forehand, 1993; Foster & Robin, 1997; 1998; Sanders, Dadds, Johnston, & Cash, 1992). Specifically, research has focused on variables that appear to contribute to conflict, such as poor problem solving skills and communication deficits (Foster & Robin, 1997; 1998).

Several investigators have examined the role of cognitive factors and attributions in parent-adolescent conflict. Research has indicated that distressed parent-child dyads display more unreasonable beliefs about the other's behavior than nondistressed dyads (Vincent-Roehling & Robin, 1986). Additionally, negative perceptions of the other's intent increased the probability that the individual, mother or child, would initiate a coercive interchange (MacKinnon-Lewis, Lamb, Arbuckle, Baradaran, & Volling, 1992).

In researching the influence of attributional processes on conflict in mother-adolescent dyads, Grace, Kelley, & McCain (1993) found that as attributions about one another become more negative, dyadic conflict increased. Additionally, self-reported conflict was found to be positively correlated with mothers' and teenagers' beliefs that the other's negative behavior was intentional, selfishly motivated, and blameworthy.

Factors that have not been explicitly studied in relation to the attribution processes within mother-adolescent conflict include the chronic stress of lower and variable family income, hassles associated with daily stressful events, and possible racial differences in parental values. Past research has demonstrated that chronic stress, such as lower income levels and daily stressful events, are associated with an increasingly negative parental perception of the child within the dyad (Conger, Wallace, Sun, Simons, McLoyd, & Brody, 2002; Patterson, 1982). Racial differences in childrearing values, irrespective of SES level, have been demonstrated, however, are variable. (Hale, 1982; Peters & Massey, 1983).

The purpose of this study is to determine whether findings similar to those of Grace et al. (1993) will hold in a more heterogeneous sample. Additionally, the above mentioned factors of low SES, daily stressful events, and racial differences in child

rearing values will be examined in the analysis of attribution processes and conflict in mother-adolescent dyads. Based upon this purpose, a review of the research concerning attribution theory will be presented. Following, the literature on spousal attributions and parent-adolescent conflict is reviewed. Next, factors postulated to promote conflict among teenagers and their parents will be presented, including negative attributions and coerciveness. Lastly, literature examining the possible differential factors in parenting values and practices associated with lower socioeconomic status, race differences, and the deleterious effects of daily stress on adult and child functioning will be presented.

Attributional Theory

In a complex world, individuals attempt to simplify social information. In order to make sense of the behaviors of those around them, individuals attribute meaning to the behaviors of others, asking why individuals behave as they do and examine reasons for their behavior. Approximately 40 years ago, the basic tenets of attributional theory were presented by Jones, Davis, and Kelley as cited by Dix (1993). Specifically, attributions are inferences individuals make about the behavior of others, causes of events, and their own behavior. The attributions an individual makes about another individual influences how that first individual will respond to the second (Azar, 1991; Dix, 1991; 1993; Dix & Reinhold, 1991; Dix, Ruble, Grusec, & Nixon, 1986; Dix, Ruble, & Zambarano, 1989; D’Zurilla, 1986; Finchman & Bradbury, 1987; Jones & Davis, 1965; Lawrence & Twentyman, 1983; Weiner, 1974). For example, a person who interprets the behavior of another person as hostile may be more likely to respond in a hostile manner. These attributions, which have great implications for behavior, are considered to be part of every interpersonal interaction, including that of parent and child (Dix, 1991; 1993; Dix

& Reinhold, 1991; Dix et al., 1986; Dix et al., 1989; Finchman & Bradbury, 1987; Miller, 1995). Thus, as parents' attributions about their children's behavior are asserted to partially determine the parenting behavior, the role of attributions may explain variations in parent behavior within the realm of parent-adolescent conflict.

Spousal Attributions: A Basis for Parent-Child Research

Prior to research of the assessment of attributions among parent-child dyads, researchers examined the attributions that spouses make about one another's behavior. Typically, attribution styles among married couples have been examined by providing individuals with measures that assess their beliefs about the causes of real or hypothetical marital behaviors. For example, the Marital Attribution Style Questionnaire (MASQ; Finchman & Bradbury, 1987) depicts four hypothetical spousal behaviors representative of communication, affection, instrumental activities, and independence. Similar to other spousal attribution measures, the MASQ asks subjects to rate the causes of hypothetical behaviors on Likert type scales reflecting various attribution dimensions.

Researchers have identified a number of attributional dimensions pertaining to conflict in marital relationships. A basic distinction has been made between two major categories of attributions-causal dimensions and responsibility dimensions (Cheung, 1996). Causal attributions refer to what caused an event and mainly address the locus, globality, and stability of the causes of behaviors. Concerning locus, a spouse may locate the source of conflict in the self, the partner, the other family members, the relationship, the external environment, theological causes, luck, or fate. The second dimension, globality, denotes the extent to which causal characteristics of the attributed source has

pervasive versus specific impact. Stability explains the extent to which the causal characteristics of an attributed source are permanent (Cheung, 1996).

Researchers have demonstrated that distressed spouses and nondistressed spouses display different patterns of causal attributions (Camper, Jacobson, Hotlzworth-Munroe, & Schmaling, 1988). Specifically, research has shown, through the use of such measures as the MASQ, that distressed or clinic-referred spouses perceived their partners' negative behavior to be caused by internal factors and pleasing spousal behaviors were perceived to be caused by external factors. The reverse pattern was found among nondistressed married couples (Finchman, 1985). Additionally, distressed spouses believed that the cause of their partners' aversive behaviors was more global in nature and pleasing behaviors were believed to be affected by situation specific causes. Distressed spouses were also found to attribute their partners' negative behavior to causes that they believed would persist, whereas pleasing partner behaviors were ascribed to unstable causes (Finchman, Beach, & Baucom, 1987).

Responsibility attributions assess the extent to which the source of an event is accountable for the event once its cause is known. The research examining responsibility attributions among married couples assesses subjects' judgments about whether aversive or pleasing spousal behaviors are intended, selfishly motivated, or blameworthy. For example, Finchman and Bradbury (1991) found that the appraisal of responsibility is partially determined by whether the spouse is believed to have intended his or her behavior, whether he or she was aware of the behavior's effects, and whether he or she is believed to have been able to behave differently. Responsibility attributions also have discriminated between distressed and nondistressed couples, as research has

demonstrated that distressed spouses found their partners' negative behaviors to be more intentional, selfishly motivated, and blameworthy (Finchman et al., 1987).

Parent-Adolescent Conflict

Conflicts between adolescents and their parents have been defined as "...an interaction pattern characterized by mutual disagreement or opposition" (Collins & Laursen, 1992; Emery, 1992). A number of investigators have examined the kinds of issues that parents and their teenagers argue about and the relationship between the amount of conflict and the age of the child. Data gathered through interviews and self-reports within developmental and clinical psychology have revealed that the issues eliciting the most frequent conflicts include curfews, home responsibilities, spending money, and choice of friends, and are characterized by mundane, day-to-day issues (Ellis-Swabe & Thornberg, 1986; Montemayor, 1983; Smetana, 1989; Tesser, Forehand, Brody, & Long, 1989).

A number of factors have been postulated to account for the increase in conflicts with parents during adolescence. It is believed that the cognitive, social, and physiological transformations that occur during adolescence may promote conflict (Conger et al., 1992; Robin & Foster, 1989). For example, the newly acquired cognitive flexibility associated with formal operations, allows youngsters to perceive possibilities, make rapid comparisons, and provide their parents with logical arguments. Socially, the peer group becomes more influential, and as a result, peer delivered reinforcers compete with parent controlled consequences (Robin & Foster, 1989; Silverberg, Tennenbaum, & Jacob, 1992). Additionally, the physical changes that accompany puberty are thought to

influence familial interaction patterns by signaling to the parent the impending need for the child's independence (Miller & Dyk, 1993; Steinberg, 1981).

Parent-adolescent conflicts are believed to facilitate teenagers' attainment of independence by intermittently driving them away from parents. Development of independence from their parents is one of the major developmental tasks facing teenagers (Conger et al., 2002). From a viewpoint of evolutionary adaptation, it is speculated that if independence of the offspring does not occur, interbreeding may result and threaten the genetic integrity of the species (Steinberg, 1987).

Thus, while some degree of parent-adolescent conflict appears to have adaptive functions, conflict often escalates to clinically significant levels of distress and produces serious consequences. Although "clinically significant conflict" is not a psychiatrically defined syndrome, the fourth, text-revised edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV: TR) has introduced a "relational problems" category into which these criteria readily fit. Specifically, the DSM-IV:TR indicates that a Parent-Child Relational Problem exists when the "focus of clinical attention is a pattern of interaction between parent and child (e.g., impaired communication...) that is associated with clinically significant impairment in individual or family functioning or the development of clinically significant symptoms in parent or child" (American Psychiatric Association, 2000, p.737). Although this problem is a V-code, the DSM-IV: TR specifies that it should be coded as an Axis I problem when relationship issues are the primary focus of treatment; otherwise, it is coded on Axis IV. The DSM-IV: TR also provides a proposed Global Assessment of Relational Functioning (GARF) Scale, analogous to the Axis V scale used to quantify individual functioning.

Both the “relational problems” category and the GARF Scale clearly reflect the impact of family oriented research on the traditionally individually focused diagnostic system of the DSM series. At the same time, the criteria for relational problems lack specificity and are therefore unlikely to be highly reliably used (Foster & Robin, 1997). Family researchers are beginning to examine whether or how to develop and refine this kind of relationally focused taxonomy that explicitly addresses units such as dyads and triads rather than individuals (Kaslow, 1996).

Parent-adolescent conflict has been associated with several psychiatric disorders of childhood, such as Oppositional Defiant Disorder (ODD) (American Psychiatric Association, 2000; Foster & Robin, 1997). Because of the high rates of comorbidity of ODD, Attention-Deficit/Hyperactivity Disorder (ADHD), and Conduct Disorder (CD), families with members with any of these diagnoses would be expected to experience unusually high rates of conflict and increased frequency of juvenile delinquency (Foster & Robin, 1997). Barkley, Anastopolous, Guevremont, and Fletcher (1992) compared self-reports and behavioral observations of negative mother-adolescent interactions related to conflict among a group with adolescent ADHD, a group with comorbid ADHD and ODD, and a community control group. The teenagers diagnosed with ADHD and ODD and their mothers reported significantly more negative, angry interactions and displayed more negative behaviors during discussions of neutral issues than did adolescents and mothers in the community sample.

Similar connections have been found between aversive interactions and conduct disorder. Researchers have found associations between reports and observations of negative parent-child interactions with adolescent delinquency (Alexander, 1973;

Hanson, Henggeler, Haefele, & Rodrick, 1984) and more recently with CD diagnosis according to DSM criteria. Sanders, Dadds, Johnston, and Cash (1992) and Dadds, Sanders, Morrison, and Rebgetz (1992) compared children (including some young adolescents) formally diagnosed as having either CD, depression, both depression and CD, or no diagnosis. Parent reports of angry discussions significantly differentiated the CD from the non-CD groups (Sanders et al., 1992). In addition, observations indicated that children diagnosed with CD and their mothers displayed less positive solution-oriented behavior and more aversive content in 10-minute discussions of problems in the laboratory (Sanders et al., 1992). Mothers also displayed more aversive behavior during dinnertime observations in the home (Dadds et al., 1992).

It is hypothesized that high levels of parent-adolescent conflict promotes dysfunctional behavior by providing youngsters with models of poor problem solving, inappropriate social interactions, and poor coping skills. The dysfunctional behaviors learned at home may generalize across settings and affect a wide range of social behaviors (Conger et al., 2002). Furthermore, past research also has indicated that adolescents reporting relatively warm parenting, as measured by the Child Report of Parental Behavior (CRPB; Schaefer, 1965), by mothers and fathers had a smaller association of stressful events with symptoms of depression as compared to other adolescents (Wagner, Cohen, & Brook, 1996). It has been suggested that adolescents with positive relationships with parents may be better able to cope with stressors, perhaps because their communication with parental figures is a valuable resource (Baumrind, 1991).

Parents', particularly mothers', sense of well being also appears to be related to high levels of conflict. For example, the intensity of mother-adolescent conflict was found to be inversely related to mothers' self-esteem and life satisfaction (Silverberg & Steinberg, 1987). Additionally, mothers who have frequent arguments with teenagers report more depressive symptoms than do mothers who have positive relationships with their children (Gondoli & Silverberg, 1997). Conflicts appear to have a more powerful impact on mothers than fathers possibly because mothers have more frequent arguments with their children than do fathers (Smith & Forehand, 1986; Steinberg, 1981). Thus, mothers may be exposed to prolonged stress (Gondoli & Silverberg, 1997). Additionally, because mothers tend to have a more central child rearing role than do fathers, their self-concepts may be more significantly affected by the quality of familial relationships (Jackson, 2000). It is suggested that conflict may affect parental well-being and self-esteem because parents interpret arguments as threats to their authority or as indication of diminished competence (Jackson, 2000; Montemayor, 1983). Additionally, ongoing conflicts might be experienced as general stress and strain (Gondoli & Silverberg, 1997).

In general high levels of conflict between teenagers and parents are associated with dysfunctional behaviors among family members. However, it is important to note that this research is correlational, and thus, the direction of causality cannot be confidently determined. Thus, it is unclear whether parent-adolescent conflict causes problems for adolescents and their mothers or if the relationships between teenagers and parents are conflicted because of existing problems. Regardless of the causality, parent-adolescent conflicts are correlated with maladjustment amongst family members and thus warrant extensive examination.

Factors that Influence Parent-Adolescent Conflict

Research has delineated four major factors that are believed to affect conflict escalation between adolescents and their parents: (1) deficient communication skills, (2) problem solving deficits, (3) dysfunctional family structure, and (4) distorted and rigid beliefs about behavior (Foster & Robin, 1997; Montemayor, 1983; Robin & Foster, 1989). Communication skills are defined as “interactive behaviors that enhance family interaction and relationships” (Foster & Robin, 1997). Among parents and adolescents, communication skills are believed to promote conflict resolution, where as skill deficits are thought to increase the likelihood of conflict escalation (Robin & Foster, 1989). Behaviors identified as facilitating communication include: using appropriate voice tone, making nonaccusatory statements, acknowledging each other, and using “I” statements (Gordon, 1971). Behaviors thought to impede discussions include criticizing, accusing, and attacking (Foster & Robin, 1997).

Researchers examining communication patterns among distressed family members by means of audio taped or videotaped discussions found a number of communication behaviors which consistently discriminated clinic-referred families with problemed parent-adolescent relationships from nondistressed control groups (Jacob, Tennenbaum, Seilhamer, Bargiel, & Sharon, 1994; Prinz, Foster, Kent, & O’Leary, 1979; Robin & Weiss, 1980). For example, when clinic-referred parents and their teenagers attempted to resolve conflicts, they were more inclined to use commands, make accusations, and were less responsive to each other than control groups (Robin & Weiss, 1980). Additionally, they tended to verbally attack and insult one another and engage in exaggeration (Prinz et al., 1979; Prinz, Rosenblum, O’Leary, 1978). On the other hand,

normal parents and teenagers have shown positive behaviors when attempting conflict resolution, such as showing humor, laughing, accepting responsibility, and agreeing (Robin & Weiss, 1980).

Another pattern of communication that discriminates distressed from nondistressed families involves reciprocity (Foster & Robin, 1997; Robin & Foster, 1989). Positive reciprocity refers to the increased probability that a family member will emit a positive statement or behavior in response to positive stimuli (i.e., a compliment). Similarly, negative reciprocity indicates the likelihood that a negative statement will be made subsequent to aversive stimuli (i.e., an insult) (Margolin & Wampold, 1981). Examination of communication patterns between distressed and nondistressed parents and their teenagers reveal differences in the kinds of statements that are reciprocated. For example, contingent reciprocity of negative statements was found among distressed families, but not among normal parents and adolescents (Alexander, 1973; Robin & Weiss, 1980). Reciprocal supportive statements were found among nondistressed teenagers and their parents, but not among clinic-referred families (Alexander, 1973). Deficits in communication skills are thought to escalate parent-adolescent conflict by provoking anger and by increasing the likelihood that attempts at conflict resolution will be terminated (Foster & Robin, 1997).

Problem solving deficits are also thought to promote conflicts between teenagers and their parents (Foster & Robin, 1998; Prinz et al., 1979; Robin & Foster, 1989). Problem solving skills are typically conceptualized as a group of behaviors that include defining and clarifying problems, and generating and evaluating solutions (Foster & Robin, 1997). Similar to communication skill deficits, deficiencies in problem solving

also discriminated clinic-referred parents and adolescents from control group families. Specifically, distressed families specified problems less frequently, sought less information, generated fewer positive solutions and were less effective at resolving problems than control groups (Prinz et al., 1979; Robin & Weiss, 1980). Poor problem solving is thought to perpetuate conflicts between parents and their teenagers because the issues about which family members argue do not get resolved leading to recurring antagonistic interactions between teenagers and parents (Foster & Robin, 1997).

Dysfunctional family structure also theoretically contributes to parent-adolescent conflicts (Foster & Robin, 1998; Robin & Foster, 1989). In general terms, the way in which the family is structured dictates the distribution of power. Typically among contemporary American families, power is held by the parents who control reinforcement, punishment, and make the majority of decisions (Robin & Foster, 1989). However, according to structural family therapists, family members' alignment can produce a maladaptive redistribution of power (Aponte & Vandusen, 1981). For example, a coalition may be formed in which two members join against a third member to obtain a common outcome. Additionally, family members may triangulate, which involves two opposing family members who vie for the allegiance of a third member. Coalitions and triangulations exacerbate conflicts when they consistently result in weakening the parental authority (i.e., by uniting with one parent, the teenager acquires decision making power) or when the teenager is caught in the middle of a marital conflict (Foster & Robin, 1997; Robin & Foster, 1989).

Another family variable that can become maladaptive and promote conflicts are extreme forms of "cohesion." Cohesion describes the closeness among family members.

At one extreme is enmeshment which refers to the over-involvement between family members, whereas disengagement describes family members who are very independent from one another (AponTE & VandeuSen, 1981; Perosa & Perosa, 1990). In families that are enmeshed, the development of the child's individuation is impeded; thus, teenagers may have to rebel in extreme forms to gain independence (Robin & Foster, 1997). Among disengaged families, supervision and parental authority is rarely exercised; consequently, the adolescents' behavior may be chaotic and result in serious or dangerous consequences. When such consequences occur, disengaged parents may respond in an extreme and negative manner to temporarily establish control (Cluff & Hicks, 1994; Robin & Foster, 1989). Support for the belief that extreme forms of cohesion contribute to problematic family interactions comes from research demonstrating that enmeshed or disengaged teenagers and parents reported poorer communication than those dyads who fell in the middle ranges of cohesion (Barnes & Olson, 1985; Prange, Greenbaum, Silver, Friedman, Kutash, & Duchnowski, 1992).

Attributions and Parent-Adolescent Conflict

Parents' and adolescents' rigid expectations about the way one another should behave are also believed to affect family conflicts (Foster & Robin, 1997; Robin & Foster, 1989; Vincent-Roehling & Robin, 1986). Expectations are defined as thoughts that precede a response and relate to the likelihood that a particular response will or will not occur (Robin & Foster, 1989). Studies have shown that discrepancies between parents' expectations about typical and desirable behavior and perceptions of their own child's behavior are greater in adolescence than in the preadolescent years (Collins, 1992). Likewise, parents attribute more negative intent to adolescent behavior (Dix et al.,

1986). It is also believed that when expectations about family members' behaviors become rigid it interferes with the flexibility required to negotiate family conflicts (Foster & Robin, 1998).

Based on clinical observations, Vincent-Roehling and Robin (1986) delineated a number of unrealistic expectations held by clinic-referred families with parent-adolescent relationship problems. For example, clinic-referred parents seemed to expect "perfectionism" and complete "obedience" from their teenagers. Similarly, clinic-referred adolescents appeared to hold rigid beliefs regarding "unfairness" and "autonomy" (i.e., teenagers expect their parents always to treat them fairly and give them as much freedom they want). Vincent-Roehling and Robin (1986) also identified expectations that parents and teenagers seem to have about the potential, long term consequences of specific behavior. For example, distressed parents may hold rigid views concerning "ruination." Ruination involves the belief that catastrophic consequences (i.e., poor development of adult responsibility) will result from minor transgression (i.e., missing a curfew).

In addition to rigid expectations, misattributions among family members also are thought to promote conflicts (Foster & Robin, 1997; Robin & Foster, 1989). Attributions are defined as thoughts that follow a response and involve the interpretation of behaviors or events (Robin & Foster, 1989). Vincent-Roehling and Robin (1986) suggested that distressed parents make attributions regarding their teenagers' malicious intentions (i.e., they believe that their youngsters misbehave in order to hurt their parents). Additionally, distressed parents may attribute blame to themselves when their children misbehave (i.e., a mother may believe it's her fault that her son got into a fight) (Robin & Foster, 1997).

In related research by Geller and Johnston, mothers' situation specific attributions were found to be the most powerful predictor of their subsequent responses to their children's behavior (1995).

Based on the notion that families who experience parent-adolescent conflicts also have distorted cognitions, Vincent-Roehling and Robin (1986) examined beliefs among clinic-referred families. On the basis of the Family Beliefs Inventory (FBI), which was developed to examine cognitive distortions, such as ruination, distressed teenagers and their fathers showed more distorted beliefs than the control group. Specifically, clinic-referred teenagers held more rigid beliefs about parental unfairness, ruination, and autonomy than non-referred adolescents. Similarly, distressed fathers had stronger beliefs concerning perfectionism, obedience, ruination, and malicious intent than did nondistressed fathers. A surprising result occurred in that differences between distressed and nondistressed mothers were not found. However, in an unpublished follow-up study (Robin, 1985), differences in cognitive distortions made by clinic-referred versus non-referred mothers were reported (Foster & Robin, 1997).

In applying the methodology of couples research by Finchman and colleagues (1987, 1988, 1990), Grace, Kelley, and McCain (1993) modified the Marital Attribution Style Questionnaire (MASQ) for use within a mostly Caucasian, middle and upper class sample of mother-adolescent (7th to 12th graders) dyads. The resulting questionnaire, the Mother-Adolescent Attribution Questionnaire (MAAQ), is identical in format to the Marital Attribution Style Questionnaire (Revised) (Bradbury & Finchman, 1989). The MAAQ depicts eight hypothetical conflict situations and then asks subjects to rate their beliefs about the causes of the behavior on Likert type scales reflecting six attribution

dimensions. These attribution dimensions assess subjects' beliefs about the locus (i.e., whether or not the cause of the behavior is located within the other person), globality (i.e., whether or not the cause of the behavior is perceived to affect other areas of the relationship), stability of the cause of the behavior, and whether the behavior was perceived as intentional, selfishly motivated, and blameworthy (i.e., whether or not the other person in the dyad is held accountable for the behavior). The results revealed that mother-adolescent conflict, as measured by the Issues Checklist (IC; Prinz et al., 1979), and mother-adolescent communication, as measured by the Conflict Behavior Questionnaire (CBQ-20; Robin & Foster, 1989), was positively correlated with mothers' and teenagers' negative attributions. Additionally, self-reported conflict was positively correlated with mothers' and teenagers' beliefs that one another's negative behavior was intentional, selfishly motivated, and blameworthy. The MAAQ was also found to be internally reliable, with coefficient alphas for each dimension ranging from 0.76 to 0.85.

Finchman, Beach, Arias, and Brody (1998) specifically examined the role of attributions made by children, aged 10 to 12 years, about their parents' behavior during parent-child conflicts. Through the use of the Children's Relationship Attribution Measure (CRAM), which depicts two hypothetical parental behaviors and asks the child respondent to rate the behavior according to 6 attribution dimensions, results indicated that children's attributions about parental behavior are related to the positivity of the parent-child relationship, as measured by the Positive Affect Index (PAI; Bengtson & Schrader, 1982). The investigators found that children's negative attributions were related to self- and parent-reported conflict and observed behavior with the father. This finding is significant in that it demonstrates that the association found between child attributions

and behavior is not confined to measures collected using a single method. The absence of a relation between attributions for mother behavior and observed behavior toward the mother was reasoned by the fact that disrupted relations with the mother may be particularly threatening as children tend to report having a closer and more supportive relationship with their mother than their father (Noller, 1994). The authors also asserted that the acquisitions of attributions for children stem from modeling their parents' behavior. The sample utilized by Finchman and colleagues (1998) consisted of mostly Caucasian, middle to upper class families.

Other researchers have examined the relationship between young children's and parents' attributions and parent-child conflict. MacKinnon-Lewis et al. (1992) examined the attributions made by children, aged 7 to 9, about their mother's intentions associated with their behavior, as measured by the Child Attribution Measure (MacKinnon, 1988a), and mother attributions of their child's intentions associated with their behavior, as measured by the Maternal Attribution Measure (MacKinnon, 1988b). The Child Attribution Measure assesses children's attributions about their mothers' intentions through the depiction of eight stories of a boy and his mother followed by questions regarding the respondent's attributions of the mother's intentions in the presented stories. The Maternal Attribution Measure involves six hypothetical accounts of mother-child interactions and subsequent questions warranting an explanation and an attribution about the child's behavior in the presented hypothetical interaction. Researchers collected questionnaire data as well as direct observational data while the dyads participated in two gamelike tasks (e.g., Trouble, Etch-a-Sketch). Results demonstrated that both maternal and child attributions were significantly related to their observed coercive interactions.

The more aggressive dyads were those in which both the mother and the child perceived hostile intent in the other's behavior. Again, the utilized sample consisted of mostly Caucasian, middle and upper class families.

In another study by Mas and colleagues (Mas, Alexander, & Turner, 1991), low- and high-conflict Caucasian families were compared in terms of their attributions, based on a nonspecific questionnaire modeled after the MASQ. Results indicated that members from low-conflict families made fewer dispositional (blaming) attributions about other family members' dissatisfying versus satisfying behaviors, whereas family members from high-conflict families made equivalent amounts of attributions about others' dissatisfying versus satisfying behaviors. In a longitudinal study examining the attributions and conflict level of father-child dyads of a mostly Caucasian, middle and upper class sample, it was found that fathers' earlier observed negative behavioral interactions with their children predicted children's subsequent attributions about their father, as measured by the Children's Relationship Attribution Measure (CRAM; MacKinnon-Lewis, Castellino, Brody, & Finchman, 2001). Thus, the specific role of parent and child attributions about the other's behavior has been examined by multiple researchers and has differentiated between clinic-referred and nonreferred parent-adolescent dyads.

Negative Attributions and Coerciveness

Several authors have proposed that when mothers or children erroneously attribute negative intent to one another, their interactions become more aversive than when they accurately interpret intentions. Social cognitive variables in both mothers and children, such as negative attributional tendencies, have contributed significantly to predicting the subsequent aggressiveness of their interactions (Dodge, Pettit, Bates, &

Valente, 1995). Not only may attributions potentiate coerciveness, but negative attributions may be generated by coercion (MacKinnon, Lamb, Belsky, & Baum, 1990). Dix and Lochman (1990), for example, found that mothers of aggressive boys were more likely to attribute negative intentionality to unknown children who exhibited undesirable behavior than were mothers of nonaggressive boys.

Abusive parents have been found to perceive their children as more deviant than peers of other at-risk children, even though their children's behavior was not significantly different (Reid, Patterson, & Loeber, 1982). Similarly, Strassberg (1995) found that mothers of behavior problem boys were more likely to make negative attributions in response to children's ambiguous behaviors and were more negative in their disciplinary practices than mothers of sons without any presenting behavior problem. Patterson (1997) reported that parents of problem children tended to be 'overly inclusive' in classifying behavior as deviant. The cognitive variable 'overly inclusive' was significantly associated with mothers' aversive behavior in the home. Thus, some mothers may be inclined to attribute negative intent when such intent does not exist (i.e., attributional biases), as well as the proclivity to focus upon negative behavior when it does not occur. Beyond the attribution of negative intent on their child's behavior, other researchers have found that mothers' perceptions of their children's understanding of rules, capacity to act appropriately, and to take responsibility for negative behaviors were associated with power-assertive discipline by the mother (Dix & Grusec, 1985; Dix et al., 1989).

Considerable research has shown that a reduction in inefficient, coercive, or defensive family exchanges is associated with the reduction in delinquency rates for

juveniles (Alexander & Barton, 1980; Alexander, Barton, Schiavo, & Parsons, 1976; Barton, Alexander, Waldron, Turner, & Warburton, 1985; Patterson & Fleischman, 1979; Shaw, 1983). In an experiment specifically related to the effects of cognitive restructuring techniques on family member attributions, Morris, Alexander, & Turner (1991), found that subjects who previously received a scenario eliciting blaming attributions, demonstrated significantly lower blaming attributions after receiving relabeling information. Such relabeling information included casting the behaviors of one family member in a benign or “victim” way. Thus, as Morris et al. (1991) demonstrated, attributions are an integral point of entry for clinicians when addressing parent-child conflict (Foster & Robin, 1998).

Low Socioeconomic Status and Parenting Practices

It has been argued that poverty and economic loss diminish the capacity for supportive, consistent, and involved parenting. It also has been associated with higher parental vulnerability to debilitating negative life events; thus, adversely affecting children’s socioemotional functioning in part through its impact on the parent’s behavior toward the child (Conger, Conger, & Elder, 1997; Conger et al., 1992; Elder, Liker, & Cross, 1984; Elder, Nguyen, & Caspi, 1985; Jackson, Brooks-Gunn, Huang, & Glassman, 2000; Leinon, Solantaus, & Punamaki, 2002; McLeod & Shannahan, 1993; McLoyd, 1989; McLoyd, Jayarante, Ceballo, & Bourquez, 1994; McLoyd & Wilson, 1990). In a mediational model proposed by Conger and colleagues (2002), economic hardship was found to positively relate to economic pressure, a construct that reflects the painful realities created by hardship conditions, such as being unable to purchase necessary goods and services, having to make significant cutbacks in daily expenditures because of

limited resources, and being unable to pay monthly bills (Conger et al., 2002; Conger, Rueter, & Elder, 1999). Conger and colleagues (2002) also found that economic pressure was related to the emotional distress of caregivers, which in turn was associated with problems in the caregiver relationship and disrupted parenting practices. Researchers have found that lower levels of economic well-being, and the corollary elevated perceptions of economic pressure, indirectly affected parenting behavior through an adverse impact on parental psychological well-being (Mills & Rubin, 1992; Mistry, Vandewater, Huston, & McLoyd, 2002). Distressed parents reported feeling less effective and capable in disciplinary interactions with their child and were directly observed to be less affectionate in parent-child interactions.

Psychological factors have been identified that might mediate the influence of emotional stress associated with economic pressure on parental attitudes and actions, such as child rearing values and the parental perception of the child. The assertion of child rearing values as a mediating variable between stress and parental behavior was first hypothesized by Kohn (1969). He suggested that an individual's occupational location (white vs. blue collar) has a direct influence on child rearing values. The demands of the workplace, according to Kohn, influence parents' conceptions about the qualities desired in their children. The job emphasis for blue collar workers is compliance with directions from others, whereas white collar workers must be more self-directed. In terms of their children, blue collar workers would be expected to stress obedience and external control, whereas white collar workers would foster self-control and inner-directedness in their offspring. In terms of the parental perception of their child as a mediating variable between economic stress and parental behavior, Patterson

(1982) examined the effects of stressful life conditions, such as poverty, on parental perceptions and found that as a stress increases, the characteristics of a child may be seen in an increasingly negative light. Patterson further explained that the mistrust of and alienation from others that may be exacerbated by chronic economic stress would logically influence perceptions of family members as well. In review of other cognitive consequences of economic stress, Sameroff & Feil (1985) argued that parents of lower socioeconomic levels are more likely to hold unrealistic developmental expectations of their child's milestone achievement and independence from adult assistance in daily tasks.

Other researchers have directly examined and compared the parental behaviors of lower-class parents to middle-and high-class parents. Lower-class parents were found to be more likely to issue commands without explanation, less likely to consult with the child before about his or her wishes, and less likely to reward the child for behaving in appropriate ways. Poverty also has been associated with diminished expression of affection and lesser responsiveness to the socioemotional needs explicitly expressed by the child (Hanson, McLanahan, & Thompson, 1997; Peterson & Peters, 1985). Additionally, McLoyd (1989) found that single economically disadvantaged mothers who reported higher levels of economic deprivation hit and scolded their children more frequently.

Beyond the deleterious effects on parenting, thus affecting child adjustment, economic pressure has been directly linked to the emotional distress of the adolescent within the family (Conger et al., 1999). Researchers argue that economic pressure increases adolescent perceptions of family economic hardship, which in turn reduces the

adolescent's sense of control or mastery over time. Further, lowered mastery was found to be associated with increases in emotional distress.

In general, the stress of economic pressure has been shown to be associated with deteriorated parenting behavior, including parental perceptions, as well as adolescent emotional distress.

Racial Differences in Parenting Practice

Evidence from a number of studies based on observation, self-reports, and responses to vignettes suggests that African American parents are more severe, punitive, and power assertive in the discipline of their children than Caucasian parents of similar socioeconomic status (Allen, 1985; Blau, 1981; Deater-Deckard, Dodge, Bates, & Pettit, 1996; Hale, 1982; Portes, Dunham, & Williams, 1986; Reis, Barbara-Stein, & Bennett, 1986). African American parents also report using arbitrary rules more often and psychologically oriented discipline techniques more often (e.g., guilt induction) (Durrett, O'Bryant, & Pennebaker, 1975). Studies concerning race differences in parents' independence and responsibility demands have been mixed. Bartz and Levine (1978) found that African American parents expect the child to overcome the dependency of infancy and assume responsibility at an earlier age than Caucasian parents. However, in other studies this pattern is reversed (Allen, 1985).

In an analysis of the possible interactive effects of social class and race on parenting practices by Kessler & Neighbors (1986), it was found that psychological distress is an important source of race differences in the parenting behaviors of low-income adults. Specifically, low-income African Americans were found to be particularly vulnerable to additional race-related stressors and constraints, and thus

reported higher levels of stress than did low-income Caucasian Americans. In contrast, no differences emerged between stress levels reported by middle-income African American and Caucasian American parents. Consistent with these findings, Pinderhughes, Dodge, Bates, Pettit, & Zelli (2000) found that African American parents reported higher levels of stress and harsher discipline.

In another study by Elder, Eccles, Ardel, and Lord (1995), the association between unstable work conditions and low income with increased emotional distress and negative parenting was more pronounced for low-income African American families, as compared to low-income Caucasian families. The authors asserted that low-income African American families have fewer economic resources. Numerous other conditions, however, also may explain these differences. For example, lower-class black women, compared to lower-class white women, begin childbearing earlier, have more children, and have children who are spaced closer together—all factors that increase emotional strain and foster parenting that relies more on coercion than negotiation and reasoning (Blau, 1981; Glick, 1981; Herrenkohl & Herrenkohl, 1981; Longfellow, Zelkowitz, & Saunders, 1982; Myers & King, 1983; Pearlin & Johnson, 1977). Thus, various researchers have demonstrated variable racial differences in parenting practices and behaviors.

Daily Stressful Events and Parenting Behavior

Daily stressors have been defined as events that are irritating, frustrating, and as distressing demands that to some degree characterize everyday transactions with the environment (Kanner, Coyne, Schaefer, & Lazarus, 1981). A large body of evidence has demonstrated that minor daily stressors are strongly associated with the psychological functioning of adolescents (Compas, Howell, Pares, Williams, & Giunta, 1989; Compas,

Howell, Phares, & Ledoux, 1989) even after controlling for major life stressors (Daniels & Moos, 1990). Ongoing stressors in family, school, and peer relationships have been associated with depression, as well as anxiety and social behavioral dysfunction among youth (Conger & Peterson, 1984; Kanner, Feldman, Weinberger, & Ford, 1987). Due to their frequency, daily stressors may play a vital role in shaping the adolescent's coping skills, which are considered critical in managing the deleterious effects of stress (Lazarus, 1993).

Minor daily stressors or hassles have also been shown to be associated with psychological functioning and somatic symptoms in adults (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1981; DeLongis, Folkman, & Lazarus, 1988; Kanner et al., 1983; Monroe, 1983). Additionally, compared with major life events, daily stressors are assumed to play a more central role in the development and maintenance of psychological and somatic problems in both adolescents and adults because they are more proximal than are major life events.

Past research has also demonstrated the debilitating effects of daily, chronic stress on parental behavior. Specifically, Macoby (1980) asserted that the demands placed on parents by daily stressors or stressful living conditions may lead them to value both obedience in their children and parental practices likely to achieve rapid compliance. As a parent feels less in control of their lives, as would occur under chronic stress, they may not be as patient and understanding with their children, or as willing to take time to reason with them as they would free of such stress. Additionally, Conger, McCarty, Yang, Lahey, & Burgess (1984) found that there was an association between stress level and the level of adherence to authoritarian child-rearing values as well as the negativity

of the maternal perception of their child. In terms of the parental perception of their child as a mediating variable between stress and parental behavior, Patterson (1982) examined the effects of stressful life conditions on parental perceptions and found that as stress increases, the characteristics of a child may be seen in an increasingly negative light. This finding was also replicated more recently by Pinderhughes and colleagues (2000).

Parental stress has been associated with increases in negative parent behavior such as inconsistent discipline and low levels of supervision, and ultimately, with child social and emotional maladjustment (Conger et al., 1992; Hashima & Amato, 1994; Haskett, Myers, Pirrello, & Dombalis, 1995; Lempers, Clark-Lempers, & Simons, 1989). According to Dix (1991), high levels of stressors negatively affect parents' cognitive-emotional processes. Several links have been found between cognitive emotional processes and parents' discipline responses. First, it has been shown that parents' tendency to make hostile attributions about the child correlates with punitive parenting (MacKinnon-Lewis et al., 1992; Strassburg, 1995). Also, intense negative affect about child misbehavior may be related to the use or endorsement of forceful discipline (Dix, 1993; Dix & Lochman, 1990).

A body of literature also suggests that maternal stress is specifically associated with lower levels of responsiveness (Belsky, Crnic, & Woodworth, 1995; Conger et al., 1984). In a study by Gondoli and Silverberg (1997), the association between maternal stress and lower levels of mother-and adolescent-reported responsiveness was found to be mediated by the mother's level of child perspective taking (i.e., their ability to perceive their child's point of view and circumstances). Thus, multiple researchers have demonstrated the associated deterioration of parenting behavior by external stressors.

Past researchers have constructed various measures which assess both minor and major stressful events. For example, the Daily Stress Inventory (DSI; Brantley, Waggoner, Jones, & Rappaport, 1987) was developed to provide researchers and clinicians with a self-report instrument for the daily assessment of the sources and individualized impact of relatively minor stressful events within the adult population. It was designed to assess sources of stress not typically assessed by major life-events scales. Generalizability coefficients indicate that the scale has significant homogeneity and a useful degree of stability.

Modeled after the DSI, the Daily Stress Inventory for Adolescents (DSI-A; Huette, 2001) assesses the frequency and severity of minor, daily hassles, or stressful events specifically for the adolescent population. Internal consistency, concurrent validity, and test-retest reliability have been found to be adequate for the DSI-A (Huette, 2001).

Mediator and Moderator Variables

Past researchers have attempted to identify variables of various relationship types, such as moderating and mediating variables. Moderator variables are variables that affect the strength or direction of the relation between a predictor variable and a criterion variable. By contrast, mediator variables are those that account for or explain the relation between the predictor and criterion variables (Baron & Kenny, 1986; Holmbeck, 1997). According to Kliever and Kung (1998), moderators influence the degree of association between a predictor and a criterion variable, but fail to explain why this relationship is observed; whereas, mediators indicate the precise mechanism of the relationship between two variables.

Summary and Rationale of Current Study

A limited amount of parent-adolescent conflict has been regarded as adaptive because it reflects adolescents' desire for independence from parents (Conger et al., 1992; 2002). However, parent-adolescent conflict at high levels has been associated with poor adolescent adjustment and childhood disorders such as Conduct Disorder and Oppositional Defiant Disorder (American Psychiatric Association, 2000; Conger et al., 1992; Forehand et al., 1988).

Past researchers have examined the associated variables of high conflict levels between parents and adolescents. Deficient communication skills, problem solving deficits, dysfunctional family structure, and distorted and rigid beliefs about behavior have been proposed as contributing factors of conflict escalation between adolescents and their parents (Foster & Robin, 1997). Within the realm of distorted and rigid beliefs, researchers have demonstrated a relationship between parent-adolescent negative attributions and misattributions of one another's behavior and conflict level, as well as coercive interactions and subsequent attributions of behavior (Grace et al., 1993; MacKinnon, 1988; MacKinnon-Lewis et al., 2001). However, this research has been limited in its utilization of mostly Caucasian and middle- to upper-class families.

In unrelated research, the relationship of SES, racial factors, and daily stress with parenting behavior and parent-adolescent conflict has been reviewed. Researchers have argued that poverty and economic loss diminish the capacity for supportive, consistent, and involved parenting and adversely affect children's socioemotional functioning in part through its impact on parents' behavior toward the child (Conger et al., 2000) and parental perceptions of the child (Patterson, 1982). More specifically, Conger and

colleagues (2002) found that economic pressure was related to the emotional distress of caregivers, which in turn was associated with problems in the caregiver relationship and disrupted parenting practices.

Some researchers assert that African American parents are more severe, punitive, and power assertive in the discipline of their children than Caucasian parents of similar socioeconomic status (Deater-Deckard et al., 1996; Hale, 1982). Other researchers have proposed that the association between unstable work conditions and low income with increased emotional distress and negative parenting was more pronounced for low-income African American families, as compared to low-income Caucasian families (Elder et al., 1995).

Past research has also demonstrated the debilitating effects of daily, chronic stress on parental behavior. Demands placed on parents by daily stressors or stressful living conditions have been proposed to lead parents to value both obedience in their children and parenting practices likely to achieve rapid compliance (Macoby, 1980). Daily stress has also been shown to be associated with adherence to authoritarian child rearing values and a negative parental perception of the child (Conger et al., 1984; Patterson, 1982).

Purpose

There is a lack of research on the role of attribution processes in parent-adolescent conflict in lower socioeconomic status families, in minority families, and in families of varying stress levels. The purpose of this study is to (1) Determine whether negative mother-adolescent attributions about one another are associated with high conflict levels in a heterogeneous sample (2) Examine the possible differential predictive power of certain negative attribution types for different groups within the sample (i.e., low SES,

middle and high SES, African American, and Caucasian families) (3) Determine whether the level of negative attribution, SES, or daily stress level are significant predictors of conflict, and (4) Examine the potential mediating role of negative attributions on the relationship between SES and conflict level, as well as the relationship between and daily stress and conflict level.

Research Hypotheses

1. Hypothesis: It was predicted that there is a significant association between conflict level and negative attributions in a heterogeneous sample of mothers and adolescents.
2. Hypothesis: It was predicted that there is differential predictive power of certain attribution types for level of conflict among African American dyads, Caucasian dyads, dyads of low SES, and dyads of high SES. It was expected that the attribution dimension of blame will have higher predictive power in the African American and low SES mother samples compared to Caucasian and middle and high SES mother samples. No other predictions were warranted based on past research.
3. Hypothesis: It was expected that negative attributions, daily stress, and SES level each account for significant variance in conflict level.
4. Hypothesis: It was predicted that the level of negative attributions serve as a mediator of the relationship between SES and conflict level as well as the relationship between daily stress level and conflict level for mothers and adolescents.

METHOD

Participants

Participants were 145 (69 males, 76 females), 11 to 17-year old middle and high school students and their mothers. Ten dyads were excluded from the study due to missing data (more than 5% of data overall). Adolescent participants had a mean age of 14 (range from 11 to 17 years) and mother participants had a mean age of 42 (range from 27 to 59). The mean family yearly income reported was \$57, 230 (range from \$0 to \$100,000+). The samples consisted of 61 low SES dyads, 84 middle to high SES dyads, 66 Caucasian dyads, and 79 African American dyads. See Table 1 for demographic characteristics of all participants.

Table 1

Demographic Characteristics of Participants

	<u>N</u>	<u>%</u>
Mother Age (years)		
27-35	23	16
36-43	62	43
44-51	49	34
52-59	11	8
Mother Race		
African American	79	54
Caucasian	66	46
Mother Marital Status		
Never Married	60	41
Married	55	38
Separated	10	7
Divorced	19	13
Widowed	1	1
Adolescent Age (years)		
11	13	9
12	19	13

(table continued)

13	22	15
14	19	13
15	21	14
16	28	19
17	23	16
Adolescent Sex		
Male	69	48
Female	76	52
Adolescent Race		
African American	79	54
Caucasian	66	46
Family Income (per year)		
Below \$14,999	51	35
\$15-49,999	44	30
\$50,000 and Above	50	34
SES Level		
Level I	27	17
Level II	34	23
Level III	34	23
Level IV	28	19
Level V	22	15
Number of Children in the Home		
1	27	19
2	60	41
3	28	19
4	17	11
5	8	6
6	3	2
7	2	1

Measures

Issues Checklist (IC) The IC (Prinz et al., 1979) consists of 44 issues that might lead to arguments between parents and adolescents. These issues include topics such as curfew, household duties, friends, and homework. Adolescents and parents complete identical versions. For each topic, the subject reports whether the issue had been

discussed during the past two weeks, how frequently discussions occurred, and the intensity of the discussions on a 5 point scale (ranging from calm to angry). The IC yields a frequency score (the frequency of discussions about the issue), an intensity score (the anger intensity during discussions about the issue), and the weighted conflict score is calculated by IC-frequency X IC-intensity. The test-retest reliability of the IC has been examined for periods of one to eight weeks (Robin & Foster, 1989). For mothers, the test-retest correlations for the frequency scale range from 0.65 to 0.70. Adolescents' reports are less stable, 0.49 for 1-2 week and 6-8 week durations. Mothers' IC-intensity scores yield test-retest correlations ranging from 0.63 to 0.81, whereas adolescents' IC-intensity scores are less stable (0.37-0.47). The IC has been shown to discriminate clinic-referred from nondistressed adolescents and parents (Prinz, et al., 1979; Robin & Weiss, 1980), to correlate with observed communication and problem solving deficits, and is sensitive to treatment effects (Foster et al., 1983).

Mother Adolescent Attribution Questionnaire (MAAQ) The MAAQ (Grace et al., 1993) is a modified version of the Marital Attribution Style Questionnaire (MASQ; Finchman et al., 1987). The MAAQ is identical in format to the MASQ (Revised) (Bradbury & Finchman, 1989). The MAAQ depicts eight hypothetical conflict situations and then asks subjects to rate their beliefs about the causes of the behavior on Likert type scales reflecting six attribution dimensions. These attribution dimensions assess subjects' beliefs about: (1) locus, (2) globality, (3) stability of the cause of the behavior, and whether the behavior was perceived as (4) intentional, (5) selfishly motivated, and (6) blameworthy. A total score for each dimension is obtained by summing responses to each of the six dimensions across eight hypothetical conflict situations. Thus, each

attribution dimension is assessed by an eight item measure. The MAAQ also assesses the respondent's perception of the frequency at which they experience the conflict situation and the level of associated anger. As with the attribution dimensions, a total score for frequency and a total score for anger intensity is obtained by summing these items across each of the eight conflict situations. An overall average negative attribution score can also be obtained by summing the average scores for each dimension and dividing the sum by six.

There are two versions of the MAAQ, one for adolescents, which consists of negative mother behaviors, and one for mothers, which consists of negative adolescent behaviors. Negative behaviors are used because they are more likely to elicit attributions and are more closely correlated with relationship distress than are positive behaviors (Bradbury & Finchman, 1989). The specific behaviors described in the MAAQ were selected to reflect topics about which teenagers and their parents frequently argue. Based on research examining the topics of parent-adolescent conflicts, as well as a review by Montemayor (1983) which identified issues over a 50 year period, the four most commonly discussed issues cited in each study were delineated. Subsequently, those issues that were most consistently ranked across studies as being within the top four issues were selected for inclusion in the MAAQ. The MAAQ has been found to be internally consistent with coefficient alphas for each dimension ranging from 0.74 to 0.89 (Grace et al., 1993).

Daily Stress Inventory (DSI) (DSI; Brantley et al., 1987). The DSI is a 58-item questionnaire that assesses minor stressful events during a 24 hour period. The DSI measures both the frequency and magnitude of daily stressful events. Respondents

indicate all events that have occurred in the past 24 hours and rate the severity of stress experienced for each event. The perceived stress of daily events is rated on a 7-point Likert scale ranging from 1 (“occurred but was not stressful”) to 7 (“caused me to panic”). The DSI yields three scores: event scores, impact scores, and impact/event (I/E) ratio scores. The event score is the number of items rated as having occurred during the day. The impact score is the sum of the perceived stress rating values assigned to the items. The I/E ratio score is the average impact for a particular day and is calculated by dividing the impact score by the event score. Internal consistency of the DSI is adequate, with Chronbach alpha coefficients ranging from 0.83 to 0.87. Both convergent and discriminant validity have been demonstrated within a multitrait-multimethod framework (Brantley et al., 1987). The I/E and impact scores were used for this study.

Daily Stress Inventory for Adolescents (DSI-A) (DSI-A; Huette, 2001). The DSI-A is a 48-item self-report inventory of daily stress in adolescents. This measure was modeled after the DSI for adults (Brantley et al., 1987). The DSI-A assesses the frequency and severity of common daily stressors experienced by adolescents. Items on the DSI-A are endorsed for occurrence during the previous 24 hours and are rated on a 3-point Likert scale to assess severity (“not stressful,” “somewhat stressful,” and “very stressful”). The DSI-A yields three scale scores. The frequency score is the sum of all endorsed items. The severity score is the sum of severity ratings for endorsed items. The mean severity score is the frequency score divided by the severity score. Internal consistency, concurrent validity, and test-retest reliability have been found to be adequate for the DSI-A (Huette, 2001). The mean severity score and severity score were used in this investigation.

Demographic Questionnaire. A demographic questionnaire was used to gather descriptive information about the mother and adolescent participants. Information requested on the demographic questionnaire included descriptive information about the mother, the child, the mother's family of origin, the current family composition, including age, gender, race, education level, income, and occupation. Socioeconomic status was based on parent responses regarding marital status, education level, and occupation (Hollingshead, 1975). (Appendix A)

Procedure

Adolescents were recruited during lunchtime at local middle and high schools. Those interested in the study were given a brief verbal explanation of the study, as well as verbal and written instructions delineating the procedures and time commitment. Adolescents who agreed to participate were provided with packets containing the following: parent consent form, demographic questionnaire, IC for parent, MAAQ for parent, DSI, adolescent assent form, IC for adolescent, MAAQ for adolescent, and DSI-A. The experimenter explained that the student was responsible for taking the packet home, reading over and signing the assent form, completing the adolescent portion of the packet, having their mother read over and sign the consent form, and complete the mother portion of the packet. Adolescents were required to return the packet within one week. Mother and adolescent responses were anonymous and packets were coded to match mother and adolescent data. Following the completion of questionnaires, adolescents were debriefed regarding the purposes of the study. All participants were paid \$5 for their participation. Following data collection, 20% of mothers were contacted to insure that the adolescents had not falsified parental data. All mothers contacted indicated that

they had signed the consent form and completed the parent questionnaires included in the study materials.

RESULTS

Demographic Variables and Conflict: Analysis of Variance

Initially, a series of ANOVAs was performed to determine whether significant differences existed between various demographic variables and conflict scores. Conflict was represented by the weighted conflict score of the IC (IC-frequency x IC-intensity) for both mothers and adolescents. Selected demographic variables were the family's race, family's income, mother and spouse education level, marital status, number of children in the home, mother's age, adolescent's age, and adolescent's sex. No significant differences were obtained in the weighted conflict score of the IC on the basis of the family race, income, mother and spouse education level, marital status, adolescent age, and adolescent sex. As seen in Table 2 the mother's weighted conflict score of the IC (IC-frequency x IC-intensity) did significantly differ by mother's age, $F(27, 117) = 2.52$, $p < 0.001$ and number of children in the home $F(7, 137) = 82.10$, $p < 0.001$. Consequently, mother's age and the number of children in the home were forced in as initial predictors in later regression analyses to control for their effects.

Table 2

ANOVA Source Table for the Effects of Mother's Age and Number of Children in the Home on Mother IC-Frequency x IC-Intensity Scores

<u>Source of Variation</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mother's age	27	130.46	2.52*
Error	117	51.70	
Number of Children in Home	7	110.42	82.10*
Error	137	13.45	

* $p < .001$

Relationship among Attribution Dimensions: Correlation Analyses

The inter-relationship among the attribution dimensions was evaluated by correlation analyses. Separate correlation matrices were calculated for mothers and adolescents. The matrices are presented in Table 3 and 4. Results revealed that for adolescents, attribution dimensions are lowly to highly correlated with one another. Significant correlations ranged from .23 to .85, with a mean of .72. Further, all pairs of attribution dimension types were significantly correlated for mother participants. Significant correlations ranged from .44 to .91, with a mean of .71.

Table 3

Pearson Correlations among Adolescent Attribution Dimensions

	EXT	STA	GLO	INT	MOT	BLA	TOTAL
External							
Stable	.65*						
Global	.71*	.67*					
Intention	.05	.16	.23*				
Motivation	.79*	.60*	.79*	.09			
Blame	.77*	.70*	.76*	.03	.78*		
Total	.77*	.73*	.85*	.09	.84*	.83*	

Note: EXT=External; STA=Stable; GLO=Global; INT=Intention; MOT=Motivation; BLA=Blame

* $p < .001$

Research Hypothesis 1: Attributions and Conflict

The first hypothesis that negative attributions are significantly associated with conflict was confirmed by correlation analyses. This was specifically examined by correlating the six attribution dimensions of the MAAQ and the average negative attribution score of the MAAQ with the IC-frequency score, IC-intensity score, and the weighted conflict score of IC-frequency X IC-intensity.

Table 4

 Pearson Correlations among Mother Attribution Dimensions

	EXT	STA	GLO	INT	MOT	BLA	TOTAL
External							
Stable	.67*						
Global	.69*	.63*					
Intention	.68*	.66*	.81*				
Motivation	.69*	.56*	.79*	.80*			
Blame	.48*	.44*	.59*	.58*	.75*		
Total	.82*	.76*	.89*	.89*	.91*	.77*	

Note: EXT=External; STA=Stable; GLO=Global; INT=Intention; MOT=Motivation; BLA=Blame

* $p < .001$

These analyses were conducted separately for adolescents and mothers. As seen in Table 5, results revealed that IC-intensity was significantly associated with increased negative attributions for adolescents. Significant correlations found ranged from 0.20 to 0.41, with a mean of 0.34. As seen in Table 6, all mother attribution ratings on the external, intent, motivation, and the average MAAQ score dimensions were significantly correlated with each conflict variable.

Tables 7 and 8 present correlations between attributions and other-reported conflict. As seen in Table 7, adolescent-reported externality and the average MAAQ score were the most highly associated with all three conflict variables reported by mothers. Significant correlations ranged from .17 to .34, with a mean of .25. As seen in Table 8, all mother-reported attribution dimensions and the average MAAQ score were found to be significantly correlated with adolescent-reported IC-intensity. Significant correlations ranged from .17 to .40, with a mean of .25.

Table 5

Correlations between Adolescent Attribution Dimensions and Self-Reported Conflict

<u>Adolescent Attributions</u>	<u>Adolescent Conflict</u>		
	<u>IC-F</u>	<u>IC-I</u>	<u>IC-F x IC-I</u>
External	.12	.39*	.15
Stable	.03	.27*	.04
Global	.09	.37***	.13
Intent	.12	.08	.10
Motivation	.14	.41***	.20*
Blame	.01	.40***	.08
Total	.09	.37***	.13

Note: IC-F= Issues Checklist Frequency; IC-I= Issues Checklist Intensity

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

Table 6

Correlations between Mother Attribution Dimensions and Self-Reported Conflict

<u>Mother Attributions</u>	<u>Mother Conflict</u>		
	<u>IC-F</u>	<u>IC-I</u>	<u>IC-F x IC-I</u>
External	.19*	.31***	.24***
Stable	.32***	.33***	.32***
Global	.39***	.40***	.33***
Intent	.42***	.44***	.34***
Motivation	.36***	.35***	.29***
Blame	.26***	.21	.19
Total	.39***	.38***	.33***

Note: IC-F= Issues Checklist Frequency; IC-I= Issues Checklist Intensity

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

Research Hypothesis 2: Attributions and Conflict

It was predicted that there is differential predictive power of certain attribution types for level of conflict among African American dyads, Caucasian dyads, low SES

Table 7

Correlations between Adolescent Attribution Dimensions and Mother-Reported Conflict

<u>Adolescent Attributions</u>	<u>Mother Conflict</u>		
	<u>IC-F</u>	<u>IC-I</u>	<u>IC-F x IC-I</u>
External	.25***	.25***	.18*
Stable	.15	.09	.02
Global	.23**	.28***	.20*
Intent	.07	.02	.01
Motivation	.30***	.34***	.27***
Blame	.16	.27***	.14
Total	.23**	.29***	.17*

Note: IC-F= Issues Checklist Frequency; IC-I= Issues Checklist Intensity
 *p< .05, **p< .01, *** p<.001

Table 8

Correlations between Mother Attribution Dimensions and Adolescent-Reported Conflict

<u>Mother Attributions</u>	<u>Adolescent Conflict</u>		
	<u>IC-F</u>	<u>IC-I</u>	<u>IC-F x IC-I</u>
External	.07	.22**	.08
Stable	.18*	.27***	.18*
Global	.23**	.36***	.23**
Intent	.22**	.40***	.24**
Motivation	.15	.34***	.18*
Blame	.07	.23**	.10
Total	.17*	.34***	.20*

Note: IC-F= Issues Checklist Frequency; IC-I= Issues Checklist Intensity
 *p< .05, **p< .01, *** p<.001

dyads, and middle to high SES dyads. Stepwise multiple regression analyses were conducted and results for all analyses are summarized in Tables 9-16. Separate analyses were run on the above mentioned groups using the six attribution dimensions of the MAAQ as predictor variables and a weighted conflict score, which consisted of IC-frequency X IC-intensity, as the criterion variable. For analyses on the mother sample, the effects of mother's age and number of children in the home were controlled.

Table 9 shows that for middle to high SES mothers the attribution dimension of intention was the best predictor of their reported conflict, $F(1, 83) = 10.29, p < .01, R^2 = .13$. Thus, whether their child's undesirable behavior was viewed as intentional accounted for 13% of the variance in mother reported conflict. As seen in Table 10, middle to high SES adolescents' self-reported conflict was best predicted by the single dimension of globality, $F(1, 83) = 5.49, p < .05, R^2 = .07$.

Table 9

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among Middle to High SES Mothers

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Intention	.13	10.29	.001*

* $p < .01$

Table 11 shows that for low SES mother, like middle to high SES mothers, intention was the predictor that accounted for the most variance in mother-reported conflict, $F(1, 60) = 10.98, R^2 = .14$. Table 12 shows that similar to middle to high SES adolescents, low SES adolescents' self-reported conflict was best predicted by the single attribution dimension of globality, $F(1, 60) = 14.55, p < .01, R^2 = .12$. For low SES

adolescents the globality of their mother's behavior accounted for 12 % of the variance in conflict.

Table 10

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among Middle to High SES Adolescents

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Globality	.07	5.49	.022**

* p < .05

Table 11

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among Low SES Mothers

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Intention	.14	10.98	.001*

* p < .01

Table 12

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among Low SES Adolescents

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Globality	.12	14.55	.001*

* p < .01

Table 13 shows that within the sample of African American mothers, the best predictor found for mother-reported conflict differed from all other mother groups (middle to high SES, low SES, and Caucasian mothers). The best predictor of self-reported conflict for this group was globality, $F(1, 77) = 13.47, p < .001, R^2 = .15$. As seen in Table 14, for African American adolescents, globality, like all other adolescent groups, was the best predictor accounting for 8% of the variance, $F(1, 77) = 10.18, p < .01, R^2 = .08$.

Table 13

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among African American Mothers

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Globality	.15	13.47	.001*

* $p < .001$

Table 14

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among African American Adolescents

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Globality	.08	10.18	.002*

* $p < .01$

Table 15 shows that self-reported conflict of Caucasian mothers was found to be best predicted by the attribution dimension of intention, like all mother groups with the exception of African American mothers, $F(1, 63) = 14.80, p < .001, R^2 = .19$. As seen in Table 16, analyses on the Caucasian adolescent sample revealed that self-reported

conflict level was significantly predicted by 2 of the 6 attribution dimensions, globality and intention, $F(2, 63) = 10.96, p < .001, R^2 = .26$. Collectively the dimensions of globality and intention accounted for 26% of the variance in Caucasian adolescent self-reported conflict level.

In order to further examine the racial difference found between mothers' attribution style, a simple t-test was conducted comparing the correlation between globality and conflict for African American mothers, $r = .39$, and between intention and conflict for Caucasian mothers, $r = .44$. The two correlation coefficients were not found to be significantly different, $t = 0.40, p > .05$.

In summary, intention was the best predictor of conflict for Caucasian, low SES, and middle to high SES mothers. Globality was the best predictor of conflict for African American mothers and all adolescent groups. Thus, the previously made hypothesis of blameworthiness as the best predictor of conflict for African American and low SES mothers was disconfirmed.

Table 15

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among Caucasian Mothers

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Intention	.19	14.80	.000*

* $p < .001$

Research Hypothesis 3: Predictors of Conflict

The third hypothesis stated that negative attributions, SES, and daily stress for mothers and adolescents would each account for significant variance. A hierarchical

Table 16

Summary Table for the Stepwise Multiple Regression Predicting Self-Reported IC-Frequency x IC-Intensity Scores among Caucasian Adolescents

<u>Step</u>	<u>Attribution</u>	<u>R²</u>	<u>F</u>	<u>P</u>
1	Globality	.20	16.19	.000*
2	Intention	.26	10.96	.000*

* $p < .001$

regression analysis was conducted with level of negative attributions, SES, and daily stress as the predictor variables and level of conflict as the criterion variable. SES was represented by the outcome of each dyad's rank according to Hollingshead (1975). Daily stress was indicated by the mean severity and severity scores of the DSI-A for adolescents and the I/E and impact score of the DSI for mothers. The level of negative attributions was represented by the average attribution score according to the MAAQ for both mothers and adolescents. The level of conflict was represented by the weighted conflict score, consisting of IC-frequency X IC-intensity. Separate analyses were conducted on mother and adolescent samples. For analyses of the mother sample, the effects of mother's age and number of children in the home were controlled. It was expected that negative attributions would account for the most variance in conflict level for both adolescents and mothers. Thus, the average attribution score was entered at the first step, then SES level, and daily stress was entered at the third step.

For the mother sample, results of the analyses using the I/E score as the indicator of daily stress were significant at each step. Results from these analyses are listed in Table 17. At step one, level of negative attributions was entered and it was found to be a significant predictor of conflict level, $F(1,143) = 17.98, p < .001, R^2 = .11$. At the second

step, family SES level was also found to be a significant predictor of conflict level, $F(2, 142) = 11.31, p < .001, R^2 = .14$. At the third step, mother daily stress was also found to be a significant predictor of conflict level, $F(3, 141) = 10.88, p < .001, R^2 = .19$. The results indicated that 19% of the variance in mother reported conflict level was accounted for by these three variables. As shown in Table 18, analyses using the impact score of the DSI as the indicator of daily stress for mothers were significant at each step as well. Results from the first and second step were the same as in the previous analysis. Using the impact score of the DSI at the third step, as representative of maternal daily stress, was also found to be a significant predictor of conflict level, $F(3, 141) = 13.60, p < .001, R^2 = .22$, and the three predictors accounted for a 22% of the variance in mother-reported conflict.

Table 17

Summary Table for the Hierarchical Regression Analysis Evaluating the Effects of Mother Negative Attributions, Family SES Level, and Mother Daily Stress Level on Mother-Reported Conflict Level

Step	Multiple R	R ²	ΔR ²	F	ΔF	Sig. ΔF	p
1- MNA	.33	.11	.11	17.98	17.98	.000*	.000*
2- FSES	.37	.14	.03	11.31	4.23	.041*	.000*
3-MDS	.43	.19	.05	10.88	8.79	.004*	.000*

Note: MNA=Mother Negative Attributions; FSES=Family SES level; MDS=Mother Daily Stress as represented by the I/E score on the DSI.

* $p < .001$

For the adolescent sample, results of the analyses using conflict level as the criterion variable were significant at the second and third step. Results from these analyses are listed in Table 19. At the first step, adolescent-reported level of negative attributions accounted for approximately 2% of the variance in adolescent-reported conflict level, $F(1, 143) = 2.38, p > .1$. Thus, level of negative attributions was not found

to be a significant predictor of conflict level. At the second step, family SES level was found to be a significant predictor, $F(2, 142) = 4.20, p < .05, R^2 = .06$. Further, at the third step of the analysis, adolescent-reported daily stress level was a significant predictor of

Table 18

Summary Table for the Hierarchical Regression Analysis Evaluating the Effects of Mother Negative Attributions, Family SES Level, and Mother Daily Stress Level on Mother-Reported Conflict Level

Step	Multiple R	R ²	ΔR ²	F	ΔF	Sig. ΔF	p
1- MNA	.33	.11	.11	17.98	17.98	.000*	.000*
2- FSES	.37	.14	.03	11.31	4.23	.041*	.000*
3-MDS	.47	.22	.09	13.60	15.82	.000*	.000*

Note: MNA=Mother Negative Attributions; FSES=Family SES level; MDS=Mother Daily Stress as represented by the impact score of the DSI.

* $p < .001$

conflict level, $F(3, 141) = 2.78, p < .05, R^2 = .06$. Although found to be a significant predictor, adolescent-reported daily stress did not account for any additional variance in conflict level above that of family SES level as found in step 2. As seen in Table 20, when the severity score of the DSI-A was used in the third step as an indicator of adolescent daily stress, it accounted for minimal additional variance, $F(3, 141) = 3.28, p < .05, R^2 = .07$ as well, although still a significant predictor.

As seen in Table 21, mother reported negative attributions, SES level, and mother-reported daily stress, using the I/E score of the DSI, were used as predictors of adolescent-reported conflict in the same order as the previous analyses. At step one, mother negative attributions were entered and it was found to be a significant predictor of adolescent reported conflict level, $F(1, 143) = 5.31, p < .05, R^2 = .04$. At the second step, family SES level also was found to be a significant predictor of adolescent reported

Table 19

Summary Table for the Hierarchical Regression Analysis Evaluating the Effects of Adolescent Negative Attributions, Family SES Level, and Adolescent Daily Stress Level on Adolescent-Reported Conflict Level

Step	Multiple R	R ²	ΔR ²	F	ΔF	Sig.ΔF	p
1- ANA	.13	.02	.02	2.38	2.38	.125	.125
2- FSES	.24	.06	.04	4.20	5.93	.016*	.017*
3-ADS	.24	.06	.00	2.78	.008	.931	.043*

Note: ANA=Adolescent Negative Attributions; FSES=Family SES level;
 ADS=Adolescent Daily Stress as represented by the mean severity score of the DSI-A.
 *p< .05

Table 20

Summary Table for the Hierarchical Regression Analysis Evaluating the Effects of Adolescent Negative Attributions, Family SES Level, and Adolescent Daily Stress Level on Adolescent-Reported Conflict Level

Step	Multiple R	R ²	ΔR ²	F	ΔF	Sig.ΔF	p
1- ANA	.13	.02	.02	2.38	2.38	.125	.125
2- FSES	.24	.06	.04	4.20	5.93	.016*	.017*
3-ADS	.26	.07	.01	3.28	1.44	.233	.023*

Note: ANA=Adolescent Negative Attributions; FSES=Family SES level;
 ADS=Adolescent Daily Stress as represented by the severity score of the DSI-A.
 *p< .05

conflict, $F(2, 142) = 5.92$, $p < .01$, $R^2 = .04$. At the third step, mother daily stress was also found to be a significant predictor of adolescent conflict level, $F(3, 141) = 4.37$, $p < .01$, $R^2 = .09$. The results indicated that 9% of the variance in adolescent-reported conflict level was accounted for these three maternal variables. Thus, mother negative attributions and mother daily stress accounted for more of the variance in adolescent-reported conflict than did adolescent-reported daily stress and negative attributions.

In order to further examine the effects that low SES had on conflict levels reported by participants, an independent samples t-test was conducted between low SES and mid-high SES families with conflict level, both mother-and adolescent-reported, as the dependent variable. Low SES families (M=32) were found to have a significantly

Table 21

Summary Table for the Hierarchical Regression Analysis Evaluating the Effects of Mother Negative Attributions, Family SES Level, and Mother Daily Stress Level on Adolescent-Reported Conflict Level

Step	Multiple R	R ²	ΔR ²	F	ΔF	Sig. ΔF	p
1-MNA	.19	.04	.04	5.31	5.31	.023	.023**
2- FSES	.28	.08	.04	5.92	6.34	.013	.003*
3-MDS	.29	.09	.01	4.37	1.25	.265	.006*

Note: ANA=Adolescent Negative Attributions; FSES=Family SES level; ADS=Adolescent Daily Stress as represented by the severity score of the DSI-A.
* p < .01, **p< .05

higher level of adolescent-reported conflict than middle-high SES families (M=16), t (143) = 2.44, p < .05. No significant difference was found in mother-reported conflict.

In summary, negative attributions, SES level and daily stress were significant predictors of conflict level for mothers. For adolescents, SES level and daily stress were significant predictors of self-reported conflict. However, mother negative attributions were a significant predictor of adolescent-reported conflict. Additionally, low SES families had a significantly higher level of adolescent-reported conflict.

Research Hypothesis 4: Tests for Mediation

It was hypothesized that negative attributions would mediate the relationship between SES and conflict, as well as daily stress and conflict. For the following analyses all variables were quantified as described in the previous analysis. Based on guidelines

provided by Baron and Kenny (1986) as well as Holmbeck (1997), three sets of standard regression analyses were used to test the hypothesis that negative attributions partially mediate the relation between daily stress and conflict level, as well as SES level and conflict for both mothers and adolescents. For analyses on the mother sample, the effects of mother's age and number of children in the home were controlled.

In regard to the test of mediation of negative attributions in the relation between daily stress and negative attributions, the first set of regressions (see Path A of Figure 1) regressed daily stress onto negative attributions for both mother and adolescents separately. In the second set of regressions (see Path B of Figure 1) negative attributions were regressed onto conflict level for both mothers and adolescents. In the third set of regression analyses (see Path C of Figure 1) daily stress was regressed onto conflict level for both mothers and adolescents.

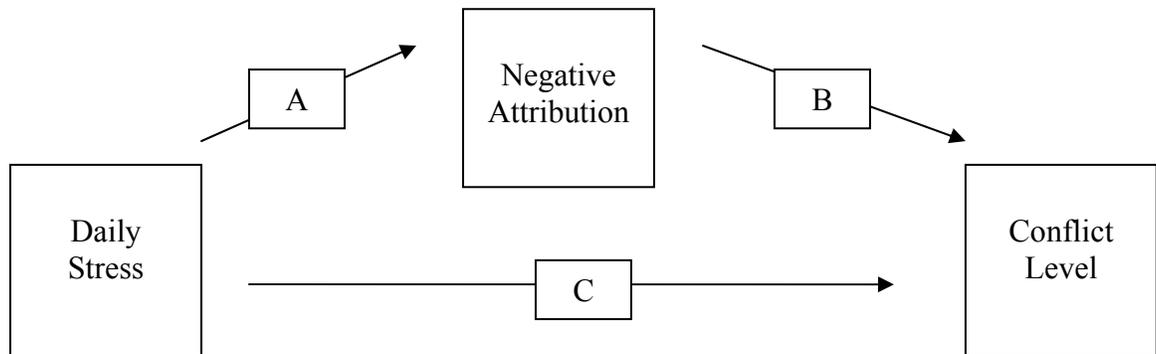


Figure 1

Proposed model of the analysis of negative attributions as a partial mediator between daily stress and conflict level for mothers and adolescents.

With regard to the test of mediation of negative attributions in the relationship between SES level and conflict, the first set of regressions (see Path A of Figure 2)

regressed SES level onto negative attributions for both mothers and adolescents separately. In the second set of regressions (see Path B of Figure 2) negative attributions were regressed onto conflict level for both mothers and adolescents. In the third set of regression analyses (see Path C of Figure 2), SES level was regressed onto conflict level for both mothers and adolescents. When all three sets of regression analyses evidenced statistically significant relations between the pertinent variables an additional analysis, based on a t-ratio (see Baron & Kenny, 1986) would be calculated. This analysis evaluates the amount of attenuation in the relation between the predictor and criterion variables after the mediator was introduced.

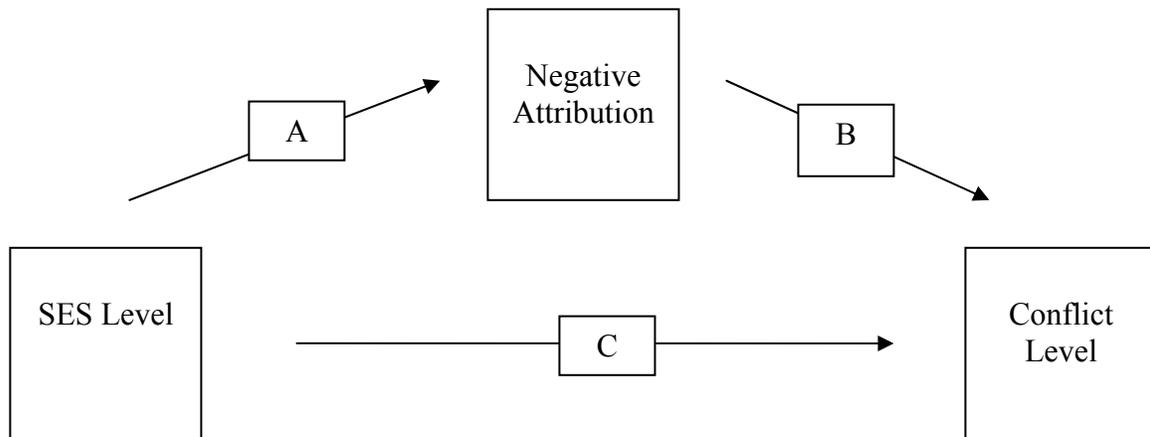


Figure 2
Proposed model of the analysis of negative attributions as a partial mediator between SES level and conflict level for mothers and adolescents.

The Linkage between Daily Stress/SES Level and Negative Attributions for Mothers and Adolescents. The first step in establishing mediation was to examine whether the predictor variables (daily stress and SES level) were significantly related to

the mediator variable (negative attributions). Standard regression analyses for both mothers and adolescents (see Table 22) demonstrated that daily stress was not significantly related to negative attributions for both mothers and adolescents. Results indicated the following for mothers and adolescents, respectively, $F(1,143) = 1.27$, $p = 0.27$, $F(1,143) = 1.25$, $p = 0.27$. With regard to the relationship between SES level and negative attributions, results indicated that for both mothers and adolescents SES level was not significantly related to negative attributions (see Table 23). As listed in the table, $F(1,143) = 0.15$, $p = 0.70$ for mothers, and $F(1,143) = 1.13$, $p = 0.30$ for adolescents.

The Linkage between Negative Attributions and Conflict Level for Mothers and Adolescents. The second step in establishing mediation was to examine whether the

Table 22

Summary Table for the Standard Regression Analysis Predicting Negative Attributions from Daily Stress for both Mothers and Adolescents

Group	R ²	df	F	p	Beta	t
Mothers	.01	1, 143	1.27	.262	.09	1.13
Adol	.01	1,143	1.25	.266	.09	1.12

Note: Adol=Adolescent

Table 23

Summary Table for the Standard Regression Analysis Predicting Negative Attributions from SES Level for both Mothers and Adolescents

Group	R ²	df	F	p	Beta	t
Mothers	.00	1, 143	.15	.696	-.033	-.39
Adol	.01	1,143	1.13	.291	-.088	-1.06

Note: Adol=Adolescent

mediator variable (negative attributions) was significantly related to the criterion variable (conflict level). Standard regression analyses for both mothers and adolescents (see Table 24) demonstrated that negative attributions were significantly related to conflict level for mothers, $F(1,143) = 17.98, p < 0.001$. For adolescents, this relationship was not significant, $F(1,143) = 2.38, p = 0.13$.

Table 24

Summary Table for the Standard Regression Analysis Predicting Conflict Level from Negative Attributions for both Mothers and Adolescents

Group	R ²	df	F	p	Beta	t
Mothers	.11	1, 143	17.98	.000	.33	4.24*
Adol	.02	1, 143	2.38	.125	.13	1.54

Note: Adol=Adolescent

* $p < .001$

The Linkage between Daily Stress/SES Level and Conflict Level for Mothers and Adolescents. The third step in establishing mediation was to examine whether the predictor variables (daily stress and SES level) were significantly related to the criterion variable (conflict level). Standard regression analyses for both mothers and adolescents (see Table 25) were conducted in order to examine the relationship between daily stress and conflict level. Analyses demonstrated that daily stress was significantly related to conflict level for mothers, $F(1,143) = 12.14, p < 0.01$; and, for adolescents, there was no significant relationship, $F(1,143) = 0.03, p = 0.90$. Standard regression analyses for both mothers and adolescents (see Table 26) were conducted in order to examine the relationship between SES level and conflict level. Analyses demonstrated that SES level was significantly related to conflict level for mothers, $F(1,143) = 4.32, p < 0.05$, and for adolescents, $F(1,143) = 6.53, p < 0.05$.

Table 25

Summary Table for the Standard Regression Analysis Predicting Conflict Level from Daily Stress for both Mothers and Adolescents

Group	R ²	df	F	p	Beta	t
Mothers	.078	1, 143	12.14	.001	.28	3.48*
Adol	.00	1,143	.03	.862	-.02	-.17

Note: Adol=Adolescent

*p<.01

Table 26

Summary Table for the Standard Regression Analysis Predicting Conflict Level from SES Level for both Mothers and Adolescents

Group	R ²	df	F	p	Beta	t
Mothers	.03	1, 143	4.32	.039	-.17	-2.08*
Adol	.04	1,143	6.53	.012	-.21	-2.56*

Note: Adol=Adolescent

*p<.05

Attenuation of the Linkage between the Predictor Variables and the Criterion Variable in Testing for Mediation. Following Baron and Kenny (1986), the presence of mediation should only be assessed if the path coefficients for the above mentioned three sets of regression analyses were found to be statistically significant. In the present study, the final test for mediation was not conducted for any hypothesized mediating relationship due to the insignificant results found within each set of variables (see Figures

3, 4, 5, & 6). Thus, negative attributions were not found to be a mediator between daily stress and conflict, or SES and conflict for mothers and adolescents.

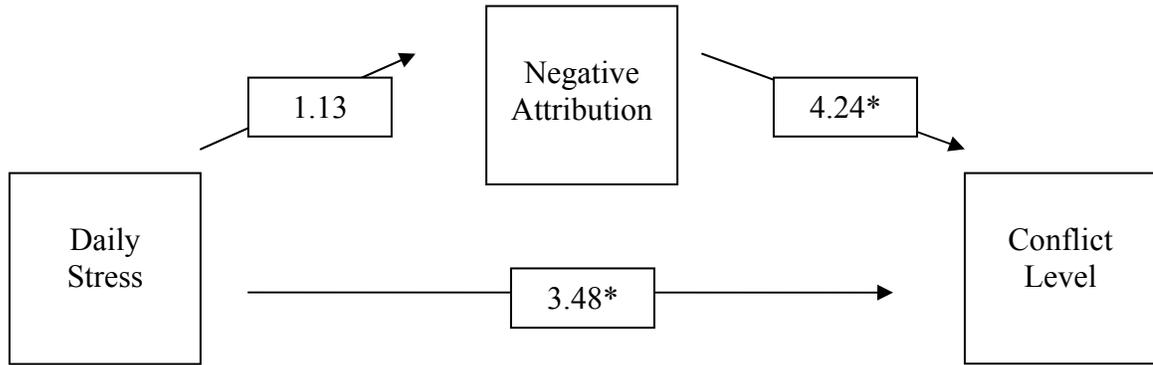


Figure 3

Model of the analysis of negative attributions as a partial mediator between daily stress level and conflict level for mothers.

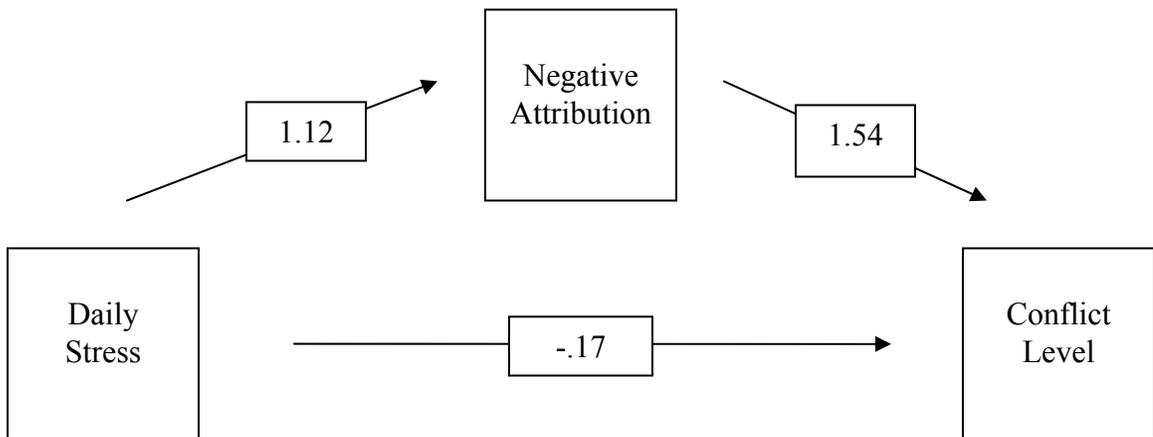


Figure 4

Model of the analysis of negative attributions as a partial mediator between daily stress level and conflict level for adolescents.

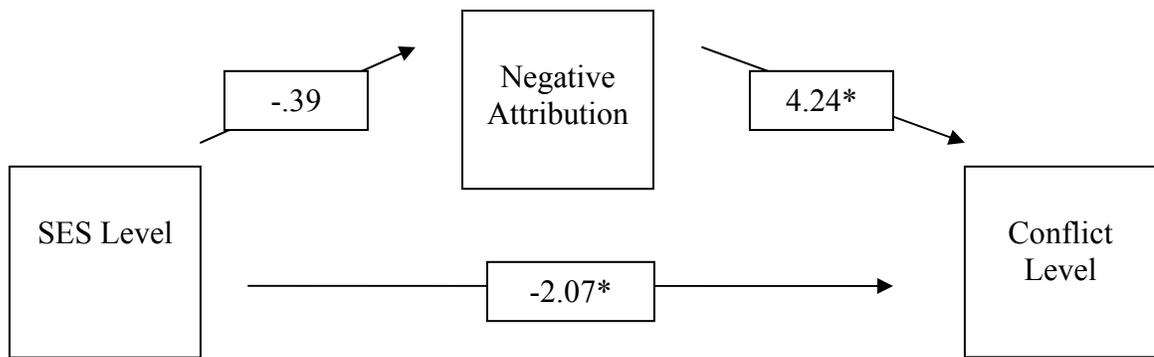


Figure 5
 Model of the analysis of negative attributions as a partial mediator between
 SES level and conflict level for mothers.

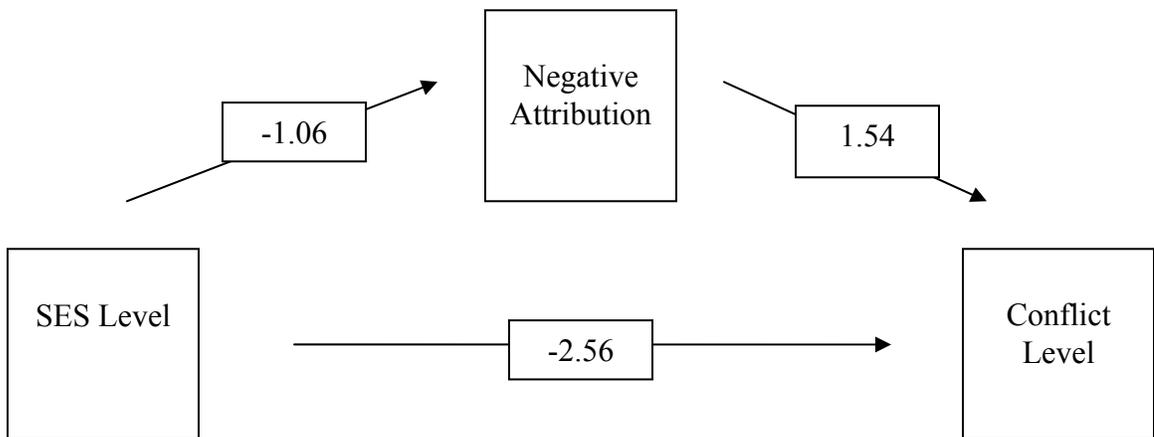


Figure 6
 Model of the analysis of negative attributions as a partial mediator between
 SES level and conflict level for adolescents.

DISCUSSION

This study examined potential factors related to mother-adolescent conflict. Specifically, this study: (1) examined the relationship between negative attributions and conflict level in mother-adolescent dyads within a heterogeneous sample, (2) explored differentially predictive attribution types for mothers and adolescents of various racial and SES backgrounds, (3) determined the predictive power of negative attributions, daily stress, and SES level on conflict level for mothers and adolescents, (4) and lastly, examined the possible mediating role of negative attributions in the relationships between daily stress and conflict level, as well as SES level and conflict level in mother-adolescent dyads. Adolescents and their mothers from various racial groups and income levels responded to the Mother Adolescent Attribution Questionnaire (MAAQ), an instrument designed to measure six attributions types regarding mother and teen behaviors (externality, stability, globality, intention, selfish motivation, and blame); the Issues Checklist (IC), an instrument designed to indicate conflict level between parents and adolescents; and, the Daily Stress Inventory (DSI) and the Daily Stress Inventory for Adolescents (DSI-A), both measures designed to indicate the level of daily stress individuals experience.

Attributions and Conflict

With regard to the first research goal mentioned above, overall results revealed significant relationships between mother-adolescent attributions and conflict. For mothers, all attribution dimensions except blame were significantly correlated with conflict intensity, frequency, and the overall conflict score. The attribution dimension of blame was only related to conflict intensity. The attribution dimension with the highest

association was intention. For adolescents, there was a lower total number of associations found to be significant between attribution dimensions and conflict levels indicated. Specifically, the intensity of conflict was the only factor of conflict that was significantly associated with all attribution dimensions, with the exception of intention. According to adolescent report, the attribution of intention was not significantly associated with any index of conflict. Additionally, selfish-motivation evidenced the strongest correlation with the intensity of conflict indicated, as well as the overall conflict score.

The above findings of this study differ from the findings of Grace, et al. (1993) in that globality and externality were the two attribution dimensions with the strongest association with reported conflict level in their study. However, our findings are concordant with other research studies conducted within the realm of parent-adolescent conflict as well as spousal conflict. For example, Vincent Roehling and Robin (1986) found that distressed parents view their teenagers as having malicious intentions (i.e., they believe that their child misbehaves in order to hurt their parents). Additionally, intention and motivation both fall in the category of what some researchers call the responsibility attributions (Davey, Finchman, Beach, & Brody, 2001; Cheung, 1996). Within the adult and spousal literature, perceptions that negative behaviors were intentional, selfishly motivated, and blameworthy are associated with marital dissatisfaction, conflict behaviors, and self-reported anger (Finchman et al., 1987; Noller et al., 1997; Sillars, Roberts, Leonard, & Dun, 2000). Our findings mirror those obtained in the adult literature.

The finding that negative attributions are positively related to conflict in a heterogeneous sample suggests the MAAQ may provide a useful assessment measure in examining the internal attributions made by distressed mothers and adolescents. Additionally, it can provide an identification of the attribution dimensions employed by both mothers and adolescents. With this identification, the cognitive restructuring and reattribution component of parent-child communication may be enhanced by tailoring session activity to the attributions most strongly endorsed by mothers and adolescents who present with extreme levels of conflict (Foster & Robin, 1998). However, our research is simply correlational; thus, treatment outcome studies using the MAAQ in the initial assessment of distressed dyads and in the treatment planning phase of parent-child communication training is warranted to confirm this assertion of the MAAQ's clinical utility.

Racial and SES Level Differences in Attribution Types

The second purpose of this study was to explore whether attributions made by participants of various racial and SES backgrounds differentially predicted conflict. Results revealed that for three of the four mother groups (middle and high SES mothers, low SES mothers, Caucasian mothers) intention was the attribution dimension that accounted for the most conflict variance. For African American mothers, globality was the attribution dimension that accounted for the most variance in conflict. Additionally, for all adolescent groups, globality was the most predictive attribution dimension of conflict. However, the correlation between globality and conflict for African American mothers was not significantly different than the correlation between intention and conflict for Caucasian mothers.

There has been much research on racial differences concerning parenting behavior, such as the type of discipline used (Pinderhughes et al., 2000). Further, research concerning racial differences and trends in parental expectations, beliefs, and cognitive processes has been mixed and variable (Allen, 1985). Thus, conclusions based on this qualitative difference are difficult to formulate due to this variability. Additionally, these results may be an artifact of the region in which the study was conducted. Therefore, additional research attempts are warranted to incorporate the effects and possible interactions that region may have on this study's qualitative difference in attribution style found between African American mothers and all other mother groups.

Contributors to Mother-Adolescent Conflict

It was hypothesized that for both mothers and adolescents, negative attributions, SES level, and daily stress would account for significant variance in conflict. For mothers, all three predictors accounted for significant variance in self-reported conflict. For adolescents, SES level and daily stress were significant predictors of self-reported conflict. When mother-reported predictors were used with adolescent-reported conflict, all three were significant predictors and each accounted for more variance than adolescent-reported predictors.

With mother-reported negative attributions predictive of both self- and adolescent-reported conflict, this finding further demonstrates the above mentioned discussion of negative attributions used as an assessment and treatment planning tool in parent-child communication training in order to reduce conflict.

With SES also as a significant contributor of conflict level for both adolescents and mothers, along with the significant difference in adolescent-reported conflict between low and middle-high SES groups, the debilitating effects that limited income and resources have on family functioning is further supported. These effects have been documented in numerous studies (Conger et al., 1997; Conger et al., 1992; Elder et al., 1984; Leinon et al., 2002) and have consisted of negative parental perception of the child, increased use of arbitrary commands, lower levels of expressed affection, and higher rates of corporal punishment. This study demonstrates economic deprivation also is associated with conflict between mothers and children in their adolescent years.

The finding of daily stress as a significant predictor of both mother- and adolescent-reported conflict is analogous to past research findings that have indicated deteriorated parenting practices are connected with daily stress (Repetti & Wood, 1997), and also the strong associations found between adolescent stress and overall psychological functioning (Compas et al., 1989).

These findings underpin the need for greater attention to be brought to the effects of mother and adolescent stress levels when dyads present with extreme conflict. Stress management components of numerous treatment protocols for parents have been devised. Such protocols have been validated on groups such as teenaged parents, single-mother households, parents of behavior disordered children, parents of toddlers, and parents of children with chronic illness (Christopherson & Mortweet, 2003; Schinke & Schilling, 1986; Tucker, 2004; Walker, 1989). Each of these mentioned studies have demonstrated positive results with a reduction in difficulty with family routines, a reduction in child

behavior problems, and a reduction in parent psychopathological symptoms post-treatment.

In order to fully demonstrate the effectiveness that any stress management treatment component would have in reducing parent-adolescent conflict, a controlled, component analysis study is warranted. Such research would ideally compare the already prescribed treatment procedures and structures of parent-adolescent communication training (Robin & Foster, 1989) to such treatment with an additional stress management component. Such a stress management component should be assessed on its clinical utility for both parents and adolescents, and should address general coping mechanisms that can be utilized in the work, school, and family settings.

Negative Attributions as a Mediator between Daily Stress/SES Level and Conflict Level

In answering the fourth research question, attributions were not found to be a partial mediator between daily stress and conflict nor between SES level and conflict level for both mothers and adolescents. Although these findings disconfirmed the prior made hypotheses, there were significant findings in the analyses conducted. These included the predictive power of daily stress, SES, and maternal attributions on conflict level.

Limitations of this Study

Within this study, there were many limitations regarding the measurement and methodological structure. Firstly, more enhanced comparisons between distressed and non-distressed mother-adolescent dyads could have been made with the use of clinic referred versus non-clinic referred dyads. Also, only one measure for the cognitive factors involved with conflict was used, the MAAQ. Other additional measures possibly

examining family beliefs, such as the Family Beliefs Inventory (FBI; Vincent-Roehlling & Robin, 1986) could have been utilized in order to provide an estimated relationship between other cognitive factors involved in mother-adolescent conflict.

This study solely utilized self-report in its measurements. No direct observations of actual conversation and interaction behaviors were included. Results of this study are limited in scope due to its sole reliance on self-report, which noticeably differed between mother and adolescent reporters. Also, no fathers were included as reporters, informants, or participants. With this exclusion, there comes a limitation in the measurement of parental perception of conflict. Further, without accounting for possible existing maternal psychopathology, the maternal perception that was ascertained in this study may have been unknowingly confounded by such factors as maternal depression, anxiety, or other psychopathology. Also, no readability tests were given to participants, neglecting the possibility of inaccurate self-report.

Such limitations as well as warranted research ventures that were ascribed in prior sections should be considered upon investigating mother- or parent-adolescent conflict and attributions.

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APPENDIX: DEMOGRAPHIC QUESTIONNAIRE

About You and Your Family

Please fill out the following background information about yourself and your family.
Read each item carefully.

Your age: _____ **Your child's age:** _____ **Your child's sex:** _____
Your spouse's age: _____

Race:

- _____ White
- _____ Black
- _____ Hispanic
- _____ Asian
- _____ Native American
- _____ Pacific Islander
- _____ Other

Marital Status:

- _____ Never Married
- _____ Married
- _____ Separated
- _____ Divorced
- _____ Widowed

Education: What is the highest level of education completed by?

 Yourself

- _____ 6th grade or less
- _____ Junior High school (7th, 8th, 9th grade)
- _____ Partial high school (10th, 11th grade)
- _____ High school graduate
- _____ Partial college (at least 1 year) or specialized training
- _____ Standard college or university graduate
- _____ Graduate professional degree (Master's, Doctorate)

 Your Souse

- _____ 6th grade or less
- _____ Junior High school (7th, 8th, 9th grade)
- _____ Partial high school (10th, 11th grade)
- _____ High school graduate
- _____ Partial college (at least 1 year) or specialized training
- _____ Standard college or university graduate
- _____ Graduate professional degree (Master's, Doctorate)

Income: What is the total annual income of your household? (Combine the income of all the people living in your house right now.)

- | | | |
|-----------------------|------------------------|------------------------|
| _____ \$0-4,999 | _____ \$15,000-24, 999 | _____ \$50,000-74,999 |
| _____ \$5,000-9,999 | _____ \$25,000-34,999 | _____ \$75,000-99,999 |
| _____ \$10,000-14,999 | _____ \$35,000-49,999 | _____ \$100,000 and up |

Occupation: Please provide your job title or position, NOT the name of your employer. If you are retired, please write “retired” and your past occupation. If you do not work outside the home, write “unemployed.”

What is your occupation? _____ and your spouse’s? _____

Family: Please list the ages and sex of all those living in your household, including yourself, your spouse, other relatives, and all children.

<u>Relationship to you</u>	<u>Age</u>	<u>Sex</u>	<u>Relationship to you</u>	<u>Age</u>	<u>Sex</u>
_____			_____		
_____			_____		
_____			_____		
_____			_____		

Your parents: Please describe your parents’ family (your family of origin). Please mark the line that best describes your family of origin.

- ___ Low income
- ___ Middle Income
- ___ High income

VITA

Ann E. Wingate earned a Bachelor of Science from the University of Louisiana-Lafayette in May of 2002. She is currently fulfilling the requirements of a Ph.D. in child clinical psychology from Louisiana State University under the supervision of Dr. Mary Lou Kelley, Ph.D.