EMOTIONAL EXPRESSION

IN ADOLESCENT-PARENT COMMUNICATION

by

Shannon L. Wagner

B.A., University of Northern British Columbia

M.Sc., University of Northern British Columbia

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in

PSYCHOLOGY

THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA

April 2002

APPROVAL

Name: Shannon L. Wagner

Degree: Doctor of Philosophy

Dissertation Title: EMOTIONAL EXPRESSION IN ADOLESCENT-PARENT COMMUNICAITON

Examining Committee:

Chair: Dr. Deborah Poff
VP Academic & Provost, and Acting Dean of Graduate Studies
UNBC

Supervisor: Dr. Sherry Beaumont
Associate Professor and Chair, Psychology Program
UNBC

Committee Member: Dr. Kenneth M. Prkachin, R.Psych.
Professor, Psychology Program
UNBC

Committee Member: Dr. Paul Madak
Professor and Chair, Education Program
UNBC

Committee Member: Dr. Kyle Matsuba
Assistant Professor, Psychology Program
UNBC

External Examiner: Dr. Kimberly Schonert-Reichl
Associate Professor, Department of Educational and Counselling Psychology, and Special Education
UBC

Date Approved: April 18, 2002

ABSTRACT

Ninety-four adolescent-parent dyads (24 daughter/mother, 22 son/mother, 25 daughter/father, 23 son/father) were examined and analyzed for differences across dyad type with regards to conversational style, emotional expression, and the links between these two dependent variables. Middle-class, primarily Caucasian, adolescents (average age = 14.2 years) participated in a discussion regarding conflict issues with either their mother or their father. These discussions were subsequently coded for conversational behaviours (overlaps, simultaneous speech, and successful interruptions) and emotional expression (joy, affection, humor, interest, sadness, anger, whining, fear, disgust, neutral). Adolescent boys and girls used more overlaps than did their parents; they also used more simultaneous speech and successful interruptions when in conversation with their mothers. However, in conversation with their fathers, the only difference evident was sons using more successful interruptions than their fathers. With respect to emotional expression, adolescent produced higher rates of interest, humor, whining, and neutral, than did their parents. In contrast, parents produced higher rates of affection than did their adolescents. With regards to disgust, sons produced significantly higher rates than did their mother. In terms of linkages between conversational style and emotional expression, a model that uses differences in conversational styles and parent disgust to predict adolescent disgust, which in turn predicts adolescents' perceptions of relationship conflict, was presented and supported. Finally, reciprocity of negative affect (i.e., disgust) in the adolescent-parent relationship was evaluated using sequential analyses. When reciprocity of adolescents' and parents' expressions of disgust was considered without other predictors, the majority of dyads demonstrated negative affect reciprocity. In other

words, there is evidence that negative affect reciprocity is present in many adolescent-parent interactions; however, it does not predict perceptions of conflict. Overall, the present research lends support to the hypothesis that differences in the conversational styles of adolescents and their parents may lead to increased negative affect, and consequently, to adolescents' increased perception of conflict within the relationship.

TABLE OF CONTENTS

List of Tables

List of Figures

ACKNOWLEDGEMENTS

Appreciation is extended to the families that participated in this study, as well as Jacqui Boonstra, Capreece Bowers, Eileen Deswiage, Victoria Harrison, Susanne Miskelly, Michelle Smith, Wendy Wittstruck, and Holly Wolitski for their assistance in various phases of the research. In addition, I would like to thank Bill Roberts and Teena Willoughby for their statistical guidance. This research was supported by a fellowship from British Columbia Medical Service Foundation awarded to the author and by a research grant from the Social Sciences and Humanities Research Council of Canada awarded to Sherry Beaumont.

Finally, I would like to extend a special thank you to my husband, my children, and my mother and father for their overwhelming support during the completion of this project, as well as to Dr. Sherry Beaumont for being the world's greatest supervisor.

Emotional Expression

In Adolescent-Parent Communication

INTRODUCTION

It is often believed by parents that some amount of conflict with their adolescent children is inevitable, and this belief has been supported by research that has shown that adolescent-parent verbal conflict is common in many families (e.g., Arnett, 1999; Laursen, Coy, & Collins, 1998). Although recent research has provided evidence that the amount of adolescent-parent verbal conflict is related to the psychological well-being of both parents and adolescents (e.g., Shek, 1998; Silverberg & Steinberg, 1990; Tullock & Pinkus, 1997), relatively little research has adequately investigated the potential predictors of adolescent-parent communication difficulties.

Several researchers have suggested that increases in parent-child verbal conflict during adolescence, as compared to preadolescence, may be due in part to increases in negative emotions caused by additional stressful life experiences (e.g., pubertal changes, peer pressure; Larson & Ham, 1993; Larson & Lampman-Petraitis, 1989). Nevertheless, although some studies have examined the characteristics of adolescent-parent communication that may lead to increased conflict (e.g., differences in conversational styles; Beaumont, Vasconcelos, & Ruggeri, 2001), few studies have examined emotional expression in adolescent-parent verbal interactions, and those that have examined emotional expression are fraught with methodological problems (e.g., Montemayor, Eberly, & Flannery, 1993). The present research will address this gap in the literature by

examining the expression of a range of positive and negative emotions in adolescent-parent conversations and whether emotional expression predicts levels of perceived conflict. In addition, this research will examine possible links between the expression of specific emotions and more objective sociolinguistic aspects of adolescent-parent communication, such as differences in conversational styles (e.g., habits for turn-taking). The following review will set the stage for this proposed research by summarizing past research on the development of emotional competence (which includes emotional expression) and parent-child communication patterns.

The Development of Emotional Competence

During the 1990s, researchers and practitioners became increasingly aware of the importance of managing one's emotional state for an individual's well-being and social relationships (e.g., Cassidy, Parke, Bukovsky, & Braungart, 1992; Cummings, 1987; Eisenberg, Fabes, Nyman, Bernzweig, & Pinuelas, 1994). These researchers have introduced terms such as *emotional competence* to describe individual differences in people's abilities to identify, manage and express their emotional states (e.g., Denham, 1998; Saarni, 1990). Researchers such as Denham (1998) describe emotional competence as composed of three related constructs: emotional expression, emotional understanding, and emotion regulation.

Emotional understanding is described by Denham (1998) as the ability to recognize one's own emotional states as well as the emotional states of others. In addition, emotional understanding involves the competent use of a culturally appropriate vocabulary

to describe emotional states. *Emotion regulation* involves the ability to cope effectively with distressing or upsetting emotions, as well as pleasurable ones. Moreover, emotion regulation involves the strategic use of emotions at appropriate times. Finally, *emotional expression* refers to such things as non-verbal emotional messages such as giving or receiving a hug, demonstrating empathic concern for others, using context appropriate displays of complex social and self-conscious emotions, and realizing that outward expression and internal state of emotion may differ.

Emotional competence is a major contributing factor to the mental health and social competence of individuals as they progress through the life span (e.g., Saarni, 1990; Salovey & Mayer, 1990). In fact, emotional competence is so important to healthy development that if the milestones of emotional competence are not negotiated effectively, a child is at risk for psychopathology (Zahn-Waxler, Iannotti, Cummings, & Denham, 1990). Specifically, emotion-related behavior consistently predicts both internalizing (e.g., anxiety/depression) and externalizing (e.g., aggression) disorders (Werner, 1989). Moreover, when behavior problems are evident in children, parents consistently report that the child tends to display anger and a lack of positive affect (Dadds, Sanders, Morrison, & Rebetz, 1992; Gardner, 1989).

Research suggests that the three components of emotional competence (i.e., understanding, regulation, and expression) are clearly and intimately linked. In fact, although all of the basic emotions[1] (e.g., happiness, surprise, sadness, anger, disgust, fear;

[1]Some researchers argue that the concept of a "basic" emotion is questionable. Specifically, Ortony and Turner (1990) suggest that there is no consistent empirical evidence to support the notion of basic emotions as the building blocks of more complex emotions. Nevertheless, a dominant theoretical assumption is that there is a small set of basic emotions from which other more complex emotions are derived.

Ekman, 1992; Ekman, Friesen & Ellsworth, 1972) are evident by the end of the child's third year, the understanding, regulation, and expression of these emotions continues to be refined through the life span (Denham, 1998). Therefore, although at a very early age emotional expression is a rudimentary skill available to a child, it is clear that as the child develops, he or she begins to better understand his or her emotional states, and consequently can more readily regulate those emotions effectively. The further refinement of emotional understanding and regulation is then followed by further skill in emotional expression. This circular interaction of the components continues indefinitely throughout an individual's life span, leading to the expectation that there is no true end-point to the process of emotional development. However, for the sake of clarity and consistency with available research, the following description will present the components separately and in relation to development during childhood.

Emotional understanding. The ability to label observed expression of emotion is a critical basic step in understanding emotions. This skill appears to be consistently applied by the end of the preschool period (Camras & Allison, 1985; Denham & Couchoud, 1990; Felleman, Barden, Carlson, Rosenberg, & Master, 1983; Field & Walden, 1982; Stifter & Fox, 1987). At the same time that children develop their understanding of emotional labels, they also begin to understand the events that elicit particular emotional experiences, and they can predict from a situation what the accompanying emotion is likely to be (Denham & Couchoud, 1990; Lieberman, 1993). For example, when shown a puppet who is receiving ice cream, children easily designate happiness as the expected emotion (Denham & Couchoud, 1990). Moreover, preschoolers can expand their expectations to

anticipate not only their own emotional experience but that of peers and parents. However, they are more apt at predicting their own emotional experiences than the emotions of others. For example, children are more likely to indicate that they would be angry if they were hit, than to indicate that someone else would be angry at being struck (Dunn & Hughes, 1998). Once preschoolers have attained the ability to anticipate emotional experiences, they can further develop the ability to anticipate the consequences of those emotional experiences. Again, they are more apt at predicting the consequences of their own emotional experiences than those of others (Denham, 1997, 1998; Russell, 1990).

The use of language to describe one's emotional experiences is another component of emotional understanding. Very young children appear to be able to understand emotional terms; they begin using them early in the preschool period (Bretherton, Fritz, Zahn-Waxler, & Ridgeway, 1986; Dunn, Brown, & Beardsall, 1991; Ridgeway & Kuczaj, 1985) and continue to develop their emotion language by describing more complex emotions throughout early childhood (Whissel & Nicholson, 1991). Language development related to emotion occurs primarily within the family and fulfills socialization, explaining, guiding and questioning needs (Bretherton et al., 1986).

Research indicates that preschool children also are capable of understanding that emotions can be regulated. For example, they are able to indicate ways that one can change a negative emotion (Denham, 1998; Fabes et al., 1988; Fabes & Eisenberg, 1992; McCoy & Masters, 1985; Covell & Miles, 1992) or change a positive emotion (McCoy & Master, 1985; Denham, 1998). In general, children tend to use behavioral strategies (e.g.,

seeking social support) for changing their emotions more often than cognitive strategies (e.g., reinterpreting the situation). The use of cognitive strategies to modify one's emotions develops more slowly throughout childhood and adolescence (Brown, Covell & Abramovitch, 1991). Throughout the periods of childhood and adolescence, children also develop the awareness of emotional display rules (knowledge of when and when not to show emotions as socialized within one's culture) and the possible incoherence of internal state and external emotional expression (Josephs, 1994). Again, although these latter abilities develop throughout childhood, Denham (1998) states that "preschoolers, even young ones, have some coherent ideas about the distinction between real and apparent emotion" (p. 93).

Emotion regulation. The second component of emotional competence is emotion regulation. Campos, Mumme, Kermonian, & Campos, (1994, p. 28) in describing emotion regulation, state that "emotions, from a functionalist perspective, equal the attempts by the person to establish, maintain, change, or terminate the relationship between the person and environment in matters of significance." Ideally, this process of emotion regulation is then followed by *coping* emotionally, cognitively, or behaviorally with the situation of interest (Denham, 1998). Emotion regulation is highly dependent on the socialization of the child, as preschoolers often require outside assistance in attempting to regulate their own emotions (Kopp, 1989; Maccoby, 1983; Thompson, 1994). The development of emotion language aids heavily in the process of emotion regulation because the use of emotion language allows the child to share their experiences, as well as to share and understand the experience of others. Denham (1998, p. 169) states:

> In my view, ER represents the pragmatically useful culmination of emotional expressiveness, understanding and socialization from all the important people in children's lives. As such, it is extremely important to children's success in the social world: it helps them to reach the goals they desire; it helps them to feel better and to feel that they can master their world; it helps them become more socially competent; and it helps them become part of their culture (Hyson, 1994).

Research by Grolnick, Bridges, and Connell (1996) has shown that even two-year-olds can use the following emotion regulation strategies: active engagement with a substitute toy, passive use of objects and exploration, symbolic self-soothing, physical self-soothing, and focus on delay/search for parent. However, research by Cummings (1987) demonstrated that children's abilities to use strategies to regulate their emotional states are hampered by pre-existing angry affect. Furthermore, general levels of angry affect are most often present in preschoolers of families in which parents express a lot of anger as measured by verbal and physical aggression. These results provide support for Denham's conclusion that emotion regulation skills develop as a result of effective socialization by parents.

Emotional expression. The ability to express one's emotions effectively and appropriately develops in parallel with an increase in the child's cognitive and social abilities (Denham, Lehman, Moser, & Reeves, 1995; LaFreniere, & Sroufe, 1985; Malatesta, Culver, Tesman, & Shepard, 1989; Riese, 1990; Tomkins, 1962, 1963, 1991; Vaughn, Contreras, & Seifer, 1993). For example, a child is required to have developed self-recognition and self-other differentiation (e.g., a cognitive ability) before intentional

emotional expression can begin (e.g., self-awareness is necessary for the expression of shame and guilt, Lewis, 1993; Zahn-Waxler & Radke-Yarrow, 1990).

These developing emotional abilities develop through interactions with parents and others who demonstrate and evaluate for the child the appropriateness and effectiveness of particular expressions of emotion. Specifically, research has shown that parents who model negative affect (e.g., anger) in family interactions have children who tend to display more aggression and less prosocial behavior than parents who do not display a lot of negative emotions within the family (e.g., Carson & Parke, 1996). Furthermore, Shortt, Bush, McCabe, Gottman and Fainsilber Katz (1994) found that boys whose parents were unhappily married were less able to regulate their anger and disgust than were boys whose parents were happily married. In situations in which anger would be an appropriate response, boys from unhappy families were found to have higher heart rate responses and than those from more happy families. Finally, Garner (1995) demonstrated that social-emotional competency in toddlers is related to positive emotional expressiveness within the toddler's family.

It is clear that these researchers have found that parents play an important role in the socialization of children's emotional competence. However, other researchers have suggested that peers play a more important role than parents in the socialization of school aged children by reinforcing emotion-related behaviors that are valued by the peer group (Harris, 1995). Nevertheless, other than research that examines the factors that predict childhood peer aggression (e.g., Dodge & Frame, 1982), few researchers have examined

the socialization of school-age or adolescent children's emotional competence in peer or parent interactions.

Emotional Expression in Families with Adolescents

The previous review clearly demonstrates that researchers have focused primarily on parents as the agents of children's emotional socialization. However, these researchers do not tend to focus on parent-child interaction as the context for creating a particular emotional climate in which the child feels open to express his or her full range of emotions (e.g., Gottman, Fainsilber Katz, & Hooven, 1997). Although researchers who study emotional development do not specifically focus on the family context, per se, researchers who study family interactions often measure emotional expression as a means of understanding the quality and influence of parent-child relationships on child adjustment.

The previous review also clearly suggests that children are quite competent with respect to all components of emotional competence by preadolescence. In fact, many researchers in this area would conclude that there are only subtle developments in the refinement of emotion regulation during the period of adolescence (Saarni, 1990). It appears that this latter conclusion has allowed researchers to largely ignore the period of adolescence when studying the development of emotional competence. Nevertheless, two primary groups of researchers have attempted to investigate the expression of emotion in adolescent-parent interactions.

Montemayor, Eberly and Flannery (1993) and Flannery, Montemayor, and Eberly (1994) investigated the possible effect of the adolescent's pubertal status on emotional expression in adolescent-parent conversations. For both of these reports, the participants included a sample of 85 two-parent families with adolescents in grades five through nine (average age = 12.8 years). Each adolescent participated in separate conversations with their mother and their father. Dyads discussed one joint activity that they enjoyed doing together (pleasant conversation) and one joint activity that they considered not enjoyable (unpleasant conversation). Conversations were videotaped and coded for positive (e.g., expressions of approval), negative (e.g., criticism, disgust), neutral (e.g., monotone voice), mixed (e.g., contradictory positive and negative affect), or altered affect (e.g., shift in expression of affect within a turn) as determined by available cues from speech content, voice tone, and non-verbal behavior.

These researchers found that as adolescents physically matured, parents expressed more negative affect towards them, whereas the expression of positive affect did not change. For adolescents, negative affect towards their mothers increased with advancing pubertal status, and this was particularly true for girls. Finally, parents and adolescents displayed more positive affect during pleasant conversations and more negative affect during unpleasant conversations.

The methodological weakness of this research program is that Montemayor, Eberly and Flannery included only global measures of emotion (e.g., positive, negative, neutral) rather than examining the expression of a range of specific emotions. This coding

decision is a methodological weakness because global categories mask emotional behaviors that can be differentiated (e.g., anger versus disgust).

Lefkowitz, Sigman and colleagues (Kahlbaugh, Lefkowitz, Valdez, & Sigman, 1997; Lefkowitz, Kahlbaugh, Au, & Sigman, 1998; Lefkowitz, Kahlbaugh, & Sigman, 1996; Lefkowitz, Romo, Corona, Au, & Sigman, 2000) measured the expression of specific emotions in conversations between mothers and adolescents (ages 10-15). Dyads discussed several topics that included personal conflict issues and issues about dating and sexuality. Conversations were videotaped and coded for non-verbal behaviors as deemed to reflect the following emotions: affiliation (e.g., smile, head-nod), shame/embarrassment (e.g., averting face, covering face), and contempt (e.g., eye-roll, nose wrinkle).

Across all studies, they found that mothers displayed more affiliation behaviors than did the adolescents, whereas the adolescents showed more embarrassment and contempt than did their mothers. The methodological weakness of this research program is that although Lefkowitz, Sigman and colleagues included some measures of specific emotions (e.g., contempt), they did not measure all of the basic emotions (e.g., happiness, surprise, disgust, anger, fear, sadness; Ekman, 1992; Ekman et al., 1972), and they focused only on mother-adolescent interactions.

In summary, both of these programs of research include a similar primary methodological weakness. The research by Montemayor, Eberly and Flannery measured global categories of emotions rather than measuring specific emotions, whereas Lefkowitz and Sigman et al. did not measure a full range of specific emotions. In order to add to the literature on the development of emotional competence, it is necessary to measure a range

of specific emotions for two reasons. Although researchers have studied the development of emotional competence during early childhood by examining the expression of a range of specific emotions, this same approach has not been applied to studies of emotional expression in later developmental periods (e.g., adolescence). Therefore, full descriptions and explanations of emotional development across the life span cannot be made. Furthermore, the expression of specific negative emotions (e.g., disgust), as distinguished from other specific positive and negative emotions, has been found to predict important outcome variables such as conflict and relationship dissatisfaction (e.g., Gottman, 1994; this finding will be expanded on further below).

Parent-Child Communication Styles

Although emotional expression is the primary construct of interest in the present study, the context of this evaluation is parent-child conversation. Therefore, it is important to review relevant literature on the development of communication in addition to the literature on the development of emotional competence. In fact, Saarni (1999) states that "not only does our language give us the tools for efficiently representing our emotional experience, but the use of emotion language literally shapes social relations as well...thus, verbalizing our emotions, especially the aversive ones, is highly likely to have consequences for our interpersonal relationships" (p. 132-133).

In the early years of infancy, the development of communication is clearly centered upon the child's caregiver. Conversational researchers have reported that as early as 3 months-of-age, infants respond by smiling or cooing when their mothers interact in a

pattern that resembles an adult-like "conversation" (Bateson, 1975; Snow, 1977). This conversational-type interaction includes the typical turn-taking behavior of adult conversation, but until about 3 years of age this turn taking appears to be largely controlled by the mother. After 3 years of age, the child begins to take a more active role in the structuring of the conversation (Kaye & Charney, 1980; Snow, 1977).

During the preschool years, a child's ability to maintain a conversational topic or follow changes of topic remain limited (Benoit, 1982; Keenan, 1975; Schley & Snow, 1992). However, preschoolers are clearly mastering the ability to follow the rules of communication with peers, in that they are both aware of the need for turn-taking as well as being competent at avoiding overlap in conversation (Ervin-Tripp, 1979; Garvey & Berninger, 1981). Moreover, the toddler years indicate the first evidence of differences between parent-child and peer-peer conversation. For example, Camaioni (1979) describes mother-child interactions as "asymmetrical" and peer-peer interactions as "symmetrical". His descriptions were derived from the observation that the mother-child conversations were more rigid in their structure primarily consisting of a question-answer pattern. Other researchers have also reported this typical question-answer pattern during parent-child interactions (Kaye & Charney, 1981; Martinez, 1987). Possible explanations for this observation include the child's limited linguistic ability, as well as keeping the conversation running smoothly and acknowledging the child's contribution to the conversation (Corsaro, 1977; Shatz, 1979).

Although the ability to speak and participate in conversation is normally quite well developed by the early school years, the complexity of the interaction continues to

advance throughout childhood. For example, Dorval and Eckerman (1984) found that whereas second-graders tended to use topically unrelated conversational turns when interacting with their peers, by the ninth grade, adolescents were more likely to use turns that were topically related. Moreover, by the twelfth-grade, adolescents were displaying a more adult-like conversational ability, in that, like adults, they were able to consider the perspective of their conversational partner and adjust their conversational behavior accordingly.

Despite the fact that by the time they enter the period of adolescence, children clearly possess the abilities necessary to have a mature conversation that includes perspective-taking, researchers have reported that children's communication with parents appears to break down during the period of adolescence. For example, adolescents interrupt their mothers more than when they were younger (e.g., Hill, 1988; Steinberg, 1981), and they report that conversations with their parents are more difficult and less pleasant (e.g., Youniss & Smollar, 1985). Two hypotheses have been proposed to explain the apparent difficulty in adolescent-parent communication. The hypothesis offered initially was that the changes in conversation with parents during adolescence were due to a change in the power structure of the relationship (e.g., Mishler & Waxler, 1968). Previous researchers have suggested that in Western families children tend to increase the frequency of their interruptions in their conversations with parents and that this indicates an attempt to dominate the parent (Mishler & Waxler, 1968; Zimmerman & West, 1975). This hypothesis is supported by the observation that during childhood the parent is the primary source of interruptions; however, as the child ages, the interaction patterns are

altered so that the adolescent becomes the primary interrupter (e.g., Hill, 1988). Specifically, adolescents have been found to interrupt their mothers and fathers more than do preadolescents, and this finding is particularly true of conversations with mothers (e.g., Hill, 1988; Papini, Datan, & McCluskey-Fawcett, 1988; Steinberg, 1981).

Contrary to the dominance hypothesis, sociolinguists provide the hypothesis that interruptions in communication may be the result of differences in *conversational style*. Specifically, Tannen (1983, 1984, 1989) describes two types of conversational style: *high involvement* and *high considerateness*.

> The high involvement style is characterized by a faster rate of speech, faster turn-taking, an avoidance of inter-turn pauses, and frequent initiations of simultaneous speech. The high considerateness style, on the other hand, consists of slower speech, slower turn-taking, longer pauses between turns, and an avoidance of simultaneous speech. According to Tannen, high involvement speakers use simultaneous speech to build rapport and signal involvement, whereas high considerateness speakers avoid simultaneous speech to honor the principle not to impose. In other words, it is the intentions of the speaker to signal considerateness or involvement, that gives rise to the linguistic devices, either silence or simultaneous speech, that are used to signal how the utterance is meant (Beaumont, 2000, p. 121).

Tannen and others suggest that it is the match between conversational styles that determines the satisfaction of the conversational interaction (Tannen, 1983, 1984;

Gumperz, 1976, Scollon, 1985). As well, Tannen (1989) states that unless the conversational partner stops talking, the interruption attempt is not successful. With these issues in mind, it is clear why the primary sociolinguistic criticism of the dominance hypothesis is that the issue of the dyad has been neglected. They believe that conversational interactions cannot be studied from an individual perspective without losing the interactional nature of communication (e.g., Tannen, 1983, 1984, 1989; Beattie, 1981; Gumperz, 1976).

Beaumont and her colleagues (Beaumont, 1995, 1996, 2000; Beaumont & Cheyne, 1998; Beaumont et al., 2001) have investigated the issue of a dominance versus conversational style explanation for the presence of interruptions in adolescent-parent conversations. According to these researchers, much of the conflict that occurs between adolescents and their parents may be the result of a difference in conversational styles. For example, Beaumont (1995) investigated the conversational styles of preadolescent and adolescent girls in 20-minute disagreement discussions with their mothers versus friends. The conversations were subsequently coded for three features of conversational style: successful interruptions, simultaneous speech, and overlaps between speaking turns. The results indicated that both preadolescents and adolescent girls used a high involvement conversational style with frequent interruptions, simultaneous speech and overlaps, with both their mothers and their friends, and the adolescent girls used a more high involvement style than the preadolescent girls. In contrast, mothers demonstrated the use of a high considerateness style with significantly fewer initiations of interruptions, simultaneous

speech, and overlaps. Consequently, the girls and their friends used similar styles, whereas mothers and daughters used significantly different conversational styles.

In 1996, Beaumont expanded her previous research to include the perceptions of the participants and outside observers. In her 1996 study, she considered the question of whether the concordance of conversational styles is related to perceptions of the interaction. In order to answer this question, Beaumont had the girls, their friends, their mothers, and outside observers rate the conversations for levels of speaker's expressions of anxiety, dominance, involvement, and friendliness. Adolescent girls and their conversation partners (mothers or friends) listened to sections of their own previously recorded conversations and rated themselves and their partners independently on five-point scales reflecting the preceding qualities (e.g., anxiety). At a later time, outside observers listened to the same sections of the conversations and completed identical rating scales for adolescents and their partners. The results indicated that both the adolescent girls and the outside observers rated the adolescent-friend conversations as more involved and friendly than conversations with mothers. Moreover, the results also indicated that on the dimensions of anxiousness and friendliness, the girls and their friends were rated similarly, whereas, in conversations with their mothers, the girls were rated as less friendly and more anxious than were the mothers. These results suggest that the use of more similar styles is related to more positive perceptions (Beaumont, 1996).

Beaumont and Cheyne (1998) provided further support for the conversational style "clash" explanation for adolescents' use of interruptions, and the belief that the high involvement style becomes more characteristic from pre-adolescence to adolescence.

These authors re-coded all instances of successful interruptions and simultaneous speech from the conversations collected for the Beaumont (1995) study for conversational function (clarification, agreement, disagreement, tangentialization, and subject change). The results indicated that speakers' interruptions and simultaneous speech reflected both agreement and disagreement functions. That is, in support of the conversational style explanation for the use of interruptions, girls used both agreement and disagreement simultaneous speech and interruptions equally in conversations with mothers and friends.

In a further follow-up study, Beaumont (2000) considered the question of whether mothers use a high considerateness style exclusively with their children in an attempt to draw them into the conversation. In this study, mothers participated in separate discussions with their daughters and with their close female friends. It was hypothesized that mothers would use a high considerateness style in conversations with their daughters, and they would use a high involvement style with their friends. The results were precisely as predicted in that "with friends, mothers used a high involvement style with high rates of overlaps and simultaneous speech. With daughters, mothers used a high considerateness style with low rates of overlaps and simultaneous speech, even though daughters used a high involvement style. Therefore, mothers and daughters experienced a 'clash' in conversational styles" (Beaumont, 2000, p. 119).

Finally, Beaumont et al. (2001) considered the issue of mother-daughter conversational differences versus mother-son conversational differences. The conversations in this study were coded for both conversational style (i.e., successful interruptions, simultaneous speech, and overlaps) and for the functions of interruptions

and simultaneous speech (i.e., confirmation, disconfirmation, rejection). The high involvement style of the preadolescent and adolescent girls versus the high considerateness style of the mothers was again revealed in this study. This combination was replicated for the preadolescent and adolescent boys, with the boys using a high involvement style and their mothers using a high considerateness style. In addition, these authors reported that preadolescents were more likely to use confirming speech than adolescents, and that preadolescent boys used more confirming speech than did adolescent boys or preadolescent girls. Analyses of the use of rejecting interruptions revealed that although there was no difference in the rates of rejecting interruptions produced by adolescent daughters and their mothers, adolescent sons produced significantly more rejecting interruptions than their mothers. Furthermore, adolescent boys produced more rejecting interruptions than did adolescent girls, and mothers of adolescent sons produced less rejecting interruptions than did mothers of adolescent girls. Beaumont et al. (2001) concluded from these findings that mothers and adolescent sons displayed the greatest difference in conversational styles.

Possible Links Between Conversational Styles and Emotional Expression

The results of Beaumont's research confirm that both mother-daughter and mother-son dyads demonstrate a "clash" in conversational styles. Beaumont at al. (2001) proposed that the fact that sons produced more rejection communication behaviors with their mothers suggests that communication between adolescent boys and their mothers may include more negative affect than communication between adolescent girls and their

mothers or communication between adolescents and their fathers. However, this hypothesis has not been fully investigated. Research by Whalen, Henker, Hollingshead, and Burgess (1996) lend support to this hypothesis. They found that adolescent boys are less emotionally expressive and more withdrawn than are adolescent girls when communicating with their parents. In addition, when communicating with their mothers, boys used less supportive communication than did girls, and boys used more neutral emotional expression when interacting with their fathers. Nevertheless, these researchers did not examine a full range of specific emotions nor did they systematically examine emotional expression in the context of adolescent-parent communication style differences.

The study of the relationship between conversational style differences and emotional expression marks a serious deficiency in the comprehensiveness of the adolescent-parent communication literature. One method of discovering adolescents' emotional reactions to differences in adolescents' and parents' communication behaviors is to examine emotional expression at the same time as examining adolescent-parent conversational style differences. That is, it may be that adolescents (and particularly boys) express more negative emotions in communication with their parents (and particularly their mothers) because they are reacting to the difference in their own and their parents' conversational styles. The constructs of adolescent-parent emotional expression and conversational style differences have never been considered in concert. However, Beaumont's (1995, 2000; Beaumont & Cheyne, 1998; Beaumont et al., 2001) work provides a foundation for research considering this linkage by comprehensively addressing the issues of communication discord between adolescents and their parents.

Past research suggests that adolescence is a time of change in the adolescent-parent relationship. During adolescence, peer interaction becomes both more common and more intimate than interaction with parents (e.g., Berndt, 1979; Montemayor & Brownlee, 1987), and adolescents report feeling less attached to their parents (e.g., Papini, Roggman, & Anderson, 1991). Moreover, adolescents describe their communication with their parents as "difficult" (Barnes & Olson, 1985).

The difficult nature of an adolescent-parent relationship may leave the adolescent vulnerable to inappropriate peer pressure due to a feeling of distance from his or her parents. In fact, Steinberg and Silverberg (1986) indicate that encouraging autonomy at an early age can put an adolescent at risk for peer pressure. Therefore, it follows that negative peer pressure is a greater risk if the emotional distance between parent and adolescent is increased (i.e., adolescent autonomy). Furthermore, this emotional distance in the relationship may leave the parent vulnerable to mid-life stress (i.e., Kidwell, Fischer, Dunham, & Barankowski, 1983). For example, Steinberg and Silverberg (1987) reported that midlife marital dissatisfaction was predicted by distance in the father-son or mother-daughter relationship during adolescence. In order to avoid an unhealthy distance from developing in an adolescent-parent relationship, it must first be clear where the greatest potential for distance exists. These distances may be identified by evaluating emotional expression in the context of conversations between adolescents and their parents.

Methodological Issues

Although the available studies provide knowledge and direction for research in the area of adolescent emotional expression and family relationships, several methodological problems remain to be addressed. One methodological problem that must be addressed is the tendency to use a triadic design (mother, father, and adolescent interacting together) in place of a dyadic design (mother/adolescent or father/adolescent interactions; e.g., Kahlbaugh & Haviland, 1994) which is a more ecologically valid method of observing adolescent-parent interaction styles. That is, Csikszentmihalyi and Larson (1984) report that adolescents, in fact, spend very little time together with both of their parents. Moreover, previous research suggests that adolescents act differently when both parents are present versus when they are interacting with only one of their parents (Crouter & Crowley, 1990; Gjerde, 1986). Therefore, it is more ecologically valid to observe adolescent-parent interactions using a dyadic design rather than a triadic design which is most often used.

Unfortunately, the previous studies that have employed the more ecologically valid dyadic design have tended to consider only the mother-adolescent relationship (e.g., Lefkowitz et al., 1996), neglecting the equally important father-adolescent relationship. An evaluation of the literature reflects a stark absence of studies that have used the dyadic design in adolescent-parent communication research. In fact, of the multitude of projects looking at parent-adolescent communication in the previous 30 years, only ten have employed the dyadic design (Beaumont, 1995, 2000; Beaumont & Cheyne, 1998; Beaumont et al., 2001; Flannery et al., 1994; Hakim-Larson & Hobart, 1987; Kahlbaugh

et al., 1997; Montemayor et al., 1993; Rodick et al., 1986; Whalen et al., 1996). Of these ten studies, only three have considered both the mother-adolescent and father-adolescent dyads (Flannery et al., 1994; Montemayor et al., 1993; Whalen et al., 1996). Of these remaining three studies, none have considered emotional expression using a specific range of emotional descriptors. In response to these observed deficiencies, the present study will consider specific emotional descriptors within the context of both adolescent-mother and adolescent-father interactions.

As discussed earlier, one of the primary issues that is evident in the literature is the measurement of global categories of emotion (e.g., negative, positive, neutral; e.g., Montemayor et al., 1993) rather than a range of specific emotions (e.g., contempt, anger, sadness, happiness) that allows for a more complete description of the emotional experience. In order to add to the literature on the development of emotional competence, it is necessary to measure a range of specific emotions for two reasons. Although researchers have studied the development of emotional competence during early childhood by examining the expression of a range of specific emotions, this same approach has not been applied to studies of emotional expression in later developmental periods (e.g., adolescence). Therefore, full descriptions and explanations of emotional development across the life span cannot be made. Furthermore, the expression of specific negative emotions (e.g., disgust), as distinguished from other specific positive and negative emotions, has been found to predict important outcome variables such as conflict and relationship dissatisfaction (e.g., Gottman, 1994).

Those studies that do rely on a more detailed analysis of emotional expression tend to focus more on the negative emotions and less on the positive ones (e.g., Kahlbaugh et al., 1997). Not evaluating positive emotional expression does not allow for a complete evaluation of the emotional climate of adolescent-parent interaction. Consequently, the current study will follow Gottman, McCoy, Coan, & Collier's (1996) suggestion that a more specific description of the independent emotions is necessary to adequately describe emotional experience in family interactions (i.e., not just positive, negative and neutral).

The final deficiency that must be addressed is the absence of an examination of negative affect reciprocity in adolescent-parent interactions using sequential analyses. Specifically, although negative emotional expression in adolescent-parent interactions has been studied, the issue of negative affect reciprocity has not been examined in previous research on adolescent-parent interactions using behavioral coding. Gottman's (1994) work on marital relationships has shown via sequential analyses that a primary contributing factor to marital dissolution is negative affect reciprocity. He states that "[negative affect reciprocity] means that if one spouse expresses negative affect, the other spouse is more likely to respond with negative affect" (p. 47). Furthermore, he found that negative affect reciprocity (and specifically, reciprocity of expressions of disgust) is more common in unhappy marriages than in happily married couples. Gottman (1994) claims that in couples who are dissatisfied with their relationship, negative affect reciprocity becomes an "absorbing state" that is resistant to change, and once in this absorbing state of negative affect, it becomes very difficult for the couple to engage in positive problem solving communication.

Although marital relationships are obviously characteristically different from parent-child relationships, it is possible that in adolescent-parent interactions, the experience of negative affect reciprocity results in a similar absorbing state that makes conflict resolution more difficult. This possibility has never been considered in research on adolescent-parent verbal conflict. That is, previous researchers have not measured for the presence of reciprocity in adolescents' and parents' expressions of disgust, nor have they considered the possible predictive relationship between negative affect reciprocity and perceptions of adolescent-parent conflict. According to Gottman (1994), in order to measure the presence of negative affect reciprocity in dyadic interactions, sequential analyses must be conducted to determine whether certain observed behaviors tend to be followed by certain other observed behaviors (using probability statistics). Therefore, the use of sequential analyses is required to adequately determine if negative affect reciprocity is occurring in adolescent-parent conversations, and whether its existence can be predicted from other variables (i.e., conversational style differences).

Objectives and Hypotheses

In order to address the above mentioned difficulties, the present research examined conversational styles and emotional expression in disagreement conversations between all possible adolescent-parent dyads (i.e., daughter/mother, son/mother, daughter/father, son/father). In addition, the current study used a method of evaluating a range of specific emotions in place of the typically used more general (positive, negative, neutral) emotion coding. Similarities and differences between adolescent-parent conversational styles and

emotional expression as a function of dyad type (daughter/mother, son/mother, daughter/father, son/father) were analyzed by coding audio taped conversations for features of conversational style (i.e., rates of overlaps between speaking turns, simultaneous speech, and successful interruptions) and emotional expression (i.e., rates of expressions of joy, sadness, anger, disgust, whining, fear, humor, affection, interest, and neutral). Analyses also considered possible predictive links between conversational style differences, emotional expression, and perceptions of conflict. Finally, the present study included sequential analyses to determine whether adolescents' and parents' expressions of disgust were reciprocally related.

Due to a minimum amount of previous research available to guide the hypotheses for the present study, the hypotheses were partially based on other research that examined the quality of adolescent-parent communication (e.g., Beaumont et al., 2001) and research that examines emotional expression in marital interactions (e.g., Gottman, 1994). Three sets of hypotheses were posed: hypotheses regarding adolescent-parent differences in conversational styles; hypotheses regarding adolescent-parent differences in emotional expression; and, hypotheses regarding links between conversational style differences, emotional expression, and perceptions of conflict (as measured by a self-report questionnaire).

Hypotheses regarding differences in conversational styles. Based upon the previously cited research by Beaumont (1995, 2000; Beaumont & Cheyne, 1998; Beaumont et al., 2001), the following hypotheses were made with regard to similarities and differences in adolescent-parent conversational styles as a function of dyad type:

(1) adolescent boys and girls will use higher rates of all three features of conversational style (overlap, simultaneous speech, successful interruptions) than their mothers and fathers; and,

(2) the largest difference in conversational styles will be found in the adolescent son/mother interactions.

Hypotheses regarding differences in emotional expression. Based upon the previously cited research by Lefkowitz, Sigman and colleagues (Kahlbaugh, Lefkowitz, Valdez, & Sigman, 1997; Lefkowitz, Kahlbaugh, Au, & Sigman, 1998; Lefkowitz, Kahlbaugh, & Sigman, 1996; Lefkowitz, Romo, Corona, Au, & Sigman, 2000), the following hypotheses were made with regard to differences in adolescents' and parents' expressions of emotions as a function of dyad type:

(1) mother-daughter dyads will exhibit the greatest range of all emotions;

(2) the father-daughter dyads will also exhibit a large range of emotions, although not as much as the mother-daughter dyads;

(3) mother-son dyads will exhibit the greatest amount of negative emotions, particularly disgust; and,

(4) the father-son dyads will exhibit primarily neutral affective tone.

Hypotheses regarding links between conversational style differences, emotional expression, and perceptions of conflict. Based upon the combination of findings from research by Beaumont (1995, 2000; Beaumont & Cheyne, 1998; Beaumont et al., 2001) and by Gottman (1994), it is further expected that there will be predictive links between adolescent-parent conversational style differences, expressions of disgust, and levels of

perceived conflict. Figure 1 presents a heuristic model that summarizes these expectations. These expectations rest on the assumption that there is a parallel between Beaumont's findings on adolescent-mother style clashes and negative perceptions, and Gottman's findings regarding the link between negative affect reciprocity and relationship dissatisfaction in marital interactions. As displayed in Figure 1, it was hypothesized that the larger the difference in the adolescent's and the parent's conversational styles, the higher the levels of expressions of disgust from the adolescent. The parent will then respond to the adolescent's expressions of disgust with their own expressions of disgust, which will trigger negative affect reciprocity. Finally, levels of adolescent disgust expressions will positively predict levels of perceived adolescent-parent conflict.

This proposed model rests on the assumption that adolescents will use a high involvement conversational style, whereas parents will use a high considerateness style, and that it is the adolescent who reacts to this difference in conversational styles by producing negative affect (i.e., disgust). This increase in negative affect on the part of the adolescent may be the result of not having his or her conversational style complemented in the interaction. This increased negative affect on the part of the adolescent may subsequently result in negative affect reciprocity if the parent responds with increased expressions of negative affect. Finally, it is negative affect reciprocity that is related to high levels of perceived conflict.

The hypothesized links displayed in this model were tested using structural equation modelling techniques that tested the fit of the data to the proposed relationships identified in the model. In addition, separate analyses examined evidence for a reciprocal

relationship between the adolescent's and parent's expressions of disgust in individual dyads. These analyses relied on probability statistics which determined whether the adolescent's expressions of disgust tended to be followed by the parent's expressions of disgust and vice versa. It was hypothesized that a significant number of the dyads who participated in the study would display a reciprocal relationship between the adolescent's expressions of disgust and the parent's expressions of disgust.

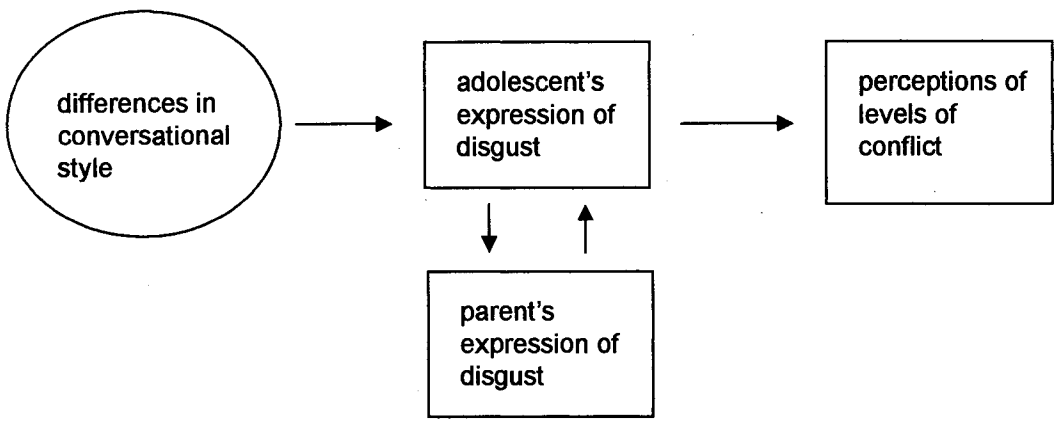

Figure 1. *Hypothesized model of links between conversational style differences, expressions of disgust, and perceptions of conflict in adolescent-parent relationships.*

METHOD

Participants

The participants included 94 adolescent-parent dyads living in greater Prince George, British Columbia, Canada. Forty-nine of the dyads included adolescent girls, and 45 dyads included adolescent boys. Approximately half of the boys and half of the girls participated in the study with either their mothers or their fathers, resulting in four dyad types: 24 daughter/mother dyads; 25 daughter/father dyads; 22 son/mother dyads, and 23 son/father dyads. In the majority of cases, the adolescent was paired with his or her biological parent; all "mother" dyads included biological mothers, and 47 of the "father" dyads involved biological fathers (four daughters and three sons were paired with their step-fathers). The participants were recruited through community advertising. Only those parents and adolescents who provided signed consent to participate were included in the research. In addition, parents provided written consent for their adolescent sons or daughters to participate.

The adolescents' ages ranged from 12.53 to 15.98 years (M = 14.21, SD = 1.00), with no significant differences between the mean ages for adolescents in each of the four dyad types (14.18 for daughter/mother dyads; 14.41 for daughter/father dyads; 13.98 for son/mother dyads; and, 14.25 for son/father dyads). The parents' ages ranged from 30.12 to 62.65 years (M = 41.92, SD = 5.42). Comparisons of the mean ages for parents in each of the four dyad types revealed a significant difference between the ages of fathers and the ages of mothers who were paired with daughters [$F(3, 93) = 4.11$, $p = .009$]. Fathers in the daughter/father dyads were significantly older than mothers in the daughter/mother

dyads (M = 43.95, SD = 4.97, M = 39.85, SD = 4.85, respectively).

Participants' responses to a demographic questionnaire indicated that the majority of the adolescents lived in two parent families with both of their biological parents (61.7%), with a biological parent and a step parent (17%), or with adoptive parents (3.2%). A smaller percentage lived in single parent homes (18.1%). Specifically, in the daughter/mother dyads, thirteen of the adolescent girls lived with both biological parents, one adolescent girl lived with her adoptive parents, four adolescent girls lived in step-families (one father/step-mother family; three mother/step-father families), and six adolescent girls lived with their biological mothers. In the daughter/father dyads, 21 of the adolescent girls lived with both biological parents, and four adolescent girls lived with their mothers and their step-fathers. In the son/father dyads, sixteen of the adolescent boys lived with both biological parents, two boys lived with their adoptive parents, four boys lived in step-families (one father/step-mother family; three mother/step-father families), and one boy lived with his biological father. In the son/mother dyads, eight of the adolescent boys lived with both biological parents, four boys lived with their biological mothers and step-fathers, and ten boys lived with their biological mothers. Because almost half of the son/mother dyads included single mothers (and because this distribution was not found for any other dyad type), following the overall analyses of differences across the four dyad types, separate analyses were conducted to determine if there were different patterns of results for single versus married mothers in the son/mother dyads (see sections entitled "Secondary Analyses" in the Results section).

The majority of parents who participated (90.4%) indicated that their ethnicity was

Caucasian, 7.4% indicated that their ethnicity was Aboriginal, 1.1% specified their ethnicity as African, and 1.1% indicated "other" as their ethnicity. Similarly, the majority of adolescents who participated (87.2%) indicated that their ethnicity was Caucasian. A small percentage of adolescents indicated that their ethnicity was Aboriginal (8.5%), Asian (1.1%), African (1.1%) or "other" (2.1%).

Based on information about both mothers' and fathers' occupations (where applicable), 87.3% of the participating families were middle class, whereas 7.4% were lower class and 5.3% were unemployed families (according to the index developed by Blishen, Carroll, & Moore, 1987). Comparisons of the families' socioeconomic status (SES) scores as a function of dyad type indicated that fathers in the daughter/father dyads had a significantly higher SES score than the mothers in the daughter/mother dyads [$\underline{M}$ = 51.18, $\underline{SD}$ = 12.09, $\underline{M}$ = 41.68, $\underline{SD}$ = 9.88, respectively; $\underline{F}(3, 86) = 3.62$, $\underline{p}$ = .016]. In addition, six of the seven parents who indicated that they were unemployed were from the son/mother dyad type (and five of these unemployed mothers also were single mothers). In summary, the socioeconomic and ethnic profile of this sample could be described as predominantly middle class and Caucasian, which is consistent with the overall profile of persons living in the Prince George region (according to 1996 census information).

Procedure

Informed consent was obtained from both parents (for both themselves and their children) and adolescents (for themselves) before participation in the study (see Appendices A and B). Each dyad was paid twenty-five dollars for their participation. A

remuneration of twenty-five dollars was believed to be large enough to encourage participation, but not so large as to inappropriately influence the decision to participate.

Data collection took place in the participants' homes at their convenience. After the informed consent forms and demographic questionnaires were completed, the parent and the adolescent independently completed the Revealed Differences Questionnaire (RDQ; Mishler & Waxler, 1968; see Appendix C). The RDQ has been used previously in family interaction studies in order to stimulate conversation (e.g., Beaumont, 1995, 2000; Hill, 1988; Steinberg, 1981). The RDQ is composed of 35 hypothetical vignettes that address a variety of opinion generating issues. Each of the 35 vignettes is accompanied by a forced (yes/no) choice decision. The parent's and adolescent's answers to the RDQ were compared, noting all item numbers for which the dyad members disagreed on the answer. Five of these items were then selected for the dyad to discuss. To ensure that dyads from all dyad types talked about a similar set of RDQ items, the discussion items were matched, where possible, across dyad types. The procedure for matching the discussion items followed from research by Beaumont (1995, 2000) and was completed by: (a) calculating the proportion of all dyads who disagreed on each item; (b) calculating the proportion of dyads of each type who disagreed on each item; and, (c) rank ordering the item numbers according to the size of the difference (from smallest to largest) between steps one and two. These steps were followed throughout the data collection process as the completed questionnaires were received. Adolescent-parent dyads discussed selected items according to the rank orderings (Beaumont, 2000).

Each dyad discussed five of the selected disagreement items for approximately four

minutes each (for a total of approximately 20 minutes of conversation). Across all dyads, 28 of the total 35 items of the RDQ were discussed; however, seven particular items were discussed most often. These items had to do with social issues such as parent-child relationships or romantic relationships. The specific RDQ items that each dyad discussed was consistent across the four dyad types (see Appendix D).

The research assistant left the room while the conversation took place with the exception of returning every four minutes in order to give the dyad a new discussion topic. The conversations were audio taped using individual lapel microphones feeding into separate channels of a stereo tape recorder.

Upon completion of the discussions, the participants were asked to complete the parent and adolescent versions of the Conflict Behavior Questionnaire (CBQ; Robin & Foster, 1989; see Appendices E and F) which were used to provide a measure of perceived levels of relationship conflict. The CBQ consists of 20 statements (e.g., my child and I compromise during arguments) to which participants indicate whether the statement is true for them. Previous studies have found good internal consistency for this questionnaire (alpha = .9), and it has been shown to distinguish between distressed and nondistressed adolescent-parent dyads (Robin & Foster, 1989). After the administration of the questionnaires, the dyad members received the twenty-five dollar honorarium.

Coding

Each taped conversation was transcribed verbatim using the "Instructions for Transcribing Overlapping Speech" (Beaumont, 1993; see Appendix G). Coding was done

using the transcriptions along with the audiotapes. Reliability coders coded 15-20% of the conversations (as indicated below) in order to establish inter-observer agreement for the coding schemes. Inter-observer agreement was ensured by calculating both an overall kappa statistic for the entire coding scheme, as well as individual percent agreements for each coding category within the coding scheme.

Coding for conversational style. Features of conversational style were coded for each speaker using the instructions for "Coding of Temporal Conversation Style" (Beaumont, 1993, revised 2000). In this coding scheme, violations of the normal turn-taking rule for conversation are coded on a turn-by-turn basis. Although all possible violations of the turn-taking rule (i.e., that one speaker talks at a time and speakers take turns; Sacks, Schegloff, & Jefferson, 1974) are identified for each speaker, the codes that are of particular relevance are the three speech acts that were introduced by Tannen (1983, 1984) in order to describe a high involvement conversational style versus a high considerateness conversational style. These three speech acts include: overlaps between speaking turns, simultaneous speech, and successful interruptions. A person who uses a high involvement conversational style would be expected to use high rates of all three of those speech behaviors according to the following definitions taken from Beaumont et al. (2001, p. 430). In these definitions, the "first speaker" is identified as the speaker who currently holds the conversational floor, and the "second speaker" is identified as the one who attempts to gain the conversational floor.

Overlaps between turns were defined as instances when the second speaker cut off only one word (or less) of the first speaker's complete utterance, or when

the two speakers began speaking at the same time after a pause. An overlap was credited to the speaker who initiated it (i.e., the speaker who is not currently holding the floor). Overlaps were included as a measure of speakers' pace of turn-taking. That is, one would expect a faster-paced (high involvement) speaker to use overlaps more frequently than a slower-paced (high considerateness) speaker.

Simultaneous speech (SS) was defined as an instance in which the second speaker began talking before the first speaker had finished her utterance and both speakers continued talking and completed their utterances. Simultaneous speech, then, demonstrates a type of unsuccessful interruption (i.e., the second speaker is not successful in getting the first speaker to stop talking). An instance of simultaneous speech was credited to the speaker who initiated it (i.e., the "interrupter").

Successful interruptions (SI) were defined as instances when the second speaker cut the first speaker off before she had finished a complete utterance (i.e., more than the last word of the utterance). Success was determined by examining whether the first speaker abruptly stopped talking before her idea was completed, in contrast to continuing to speak simultaneously with the interrupter's speech. A successful interruption was credited to the person who initiated it (i.e., the interrupter).

Listener responses (short remarks that encourage the speaker to continue; e.g., "mhmm") and *unsuccessful interruptions* (attempts to interrupt in which the first speaker continues to talk and the interrupter stops talking) also were coded to

ensure that the scheme was mutually exclusive and exhaustive in coding all possible violations of the turn-taking rule.

Inter-observer agreement was ensured by having a second coder code 15% of the transcripts and calculating a summary statistic for the entire coding scheme, which was found to be high with a kappa of .93. Percent agreements [(agreements/(agreements + disagreements)) x 100] for each coding category also were found to be high: 97.2 for overlaps, 88.3 for simultaneous speech, 81.8 for successful interruptions, 98.3 for unsuccessful interruptions, and 90.8 for listener responses.

Coding for emotional expression. Adolescents' and parents' specific emotional expressions were identified using the "Specific Affect Coding System" (SPAFF; Gottman , McCoy, Coan, & Collier, 1996). This coding system has been used extensively in previous research on emotional content in marital relationships (e.g., Gottman, 1994), but has not been applied to adolescent-parent interactions. The SPAFF includes two coding schemes: a 16-code and a 10-code version. The 16-code system includes behaviors that are not considered to be true emotions (e.g., domineering). The 10-code SPAFF coding scheme was used for the present study because it included only codes that reflect the expression of specific emotions. The 10-code SPAFF scheme codes for five of the accepted basic emotions (i.e., joy, anger, disgust, sadness, fear; Ekman et al., 1972), four derivatives of the basic emotions (i.e., humor, interest, whining, and affection; Izard, 1991), and one code that reflects an absence of emotional expression (i.e., neutral). Following the turn-by-turn coding instructions specified in the SPAFF coding manual, each speaker's turn was coded as one of ten types of emotions according to the following definitions (from

Gottman et al., 1996):

(1) *neutral* as indicated by no emotional energy and a matter-of-fact tone (e.g., information exchange);

(2) *humor* as indicated by a relaxed, good nature, expression of intimacy (e.g., jokes, puns, teasing);

(3) *affection/caring* as indicated by a direct expression of affection and supportiveness (e.g., agreement, compliment);

(4) *interest/curiosity* as indicated by positive energy and a large degree of partner involvement (e.g., affective energy, exploration);

(5) *joy* as indicated by positive energy and animation in expression (e.g., exaggeration);

(6) *anger* as indicated by a sense of being "fed-up" in combination with biting or abrupt vocal quality (e.g., blame, moralizing);

(7) *disgust/scorn/contempt* as indicated by the implication that the partner is incompetent (e.g., sarcasm, insults);

(8) *whining/defensiveness* as indicated by a nasal and "sing-song" quality to the voice (e.g., yes, but statements, cross-complaining);

(9) *sadness* as indicated by a low volume and slow speech quality that implies resignation, pessimism, or helplessness (e.g., resignation, pessimism);

(10) *fear* as indicated by speech disturbances implying discomfort with continuing to express one's opinion (e.g., worry, tension).

Inter-observer was ensured by having a second observer code 20% of the

transcripts and then calculating both an overall kappa statistic for the entire coding scheme and agreement percentages for individual coding categories. Six emotions occurred with enough frequency to adequately calculate agreement: neutral, interest, affection, humor, whining, and disgust. The overall agreement for the coding of these six categories was good with an overall kappa of .89. The agreement percentages were good for neutral (80.0), interest (91.8), humor (85.9), whining (78.8), and disgust (81.0), whereas the agreement percentage for affection (69.2) was considered adequate for analyses.

RESULTS

Treatment of the Data

The frequencies of each speaker's use of each speech type (O, SS, SI, neutral, interest, humor, affection, disgust, whining) were individually summed across the five RDQ topics. To control for differences in the amount of time that each speaker actually spoke, the raw frequencies for each speaker were transformed into rates by dividing by the number of words that a person spoke. However, the resulting rates (i.e., frequency/words) that were calculated were extremely small because the denominators were so large. To provide more meaningful data, each rate was multiplied by the approximate average number of words that were spoken across all speakers (i.e., 1764) over the entire 20 minute session (following the precedent set by Kollock, Blumstein & Schwartz, 1985). This computation resulted in data for each speaker that reflect the number of overlaps, etc., which occurred for every 1764 words spoken (or in 20 minutes of conversation) corrected for the speaker's talking time. This computation provides more interpretable data by providing comparable rates of each speech act per 20-minute conversation. Therefore, the data examined in this study reflect speakers' rates of each speech act per 20 min of conversation, if the speaker had spoken the average number of words.

Analyses of Conversational Style

Overview. Hypotheses about differences or similarities in adolescents' and parents' conversational styles as a function of dyad type (daughter/mother, son/mother, daughter/father, son/father) were addressed by statistically comparing group differences in

the use of the three features of conversational style (overlaps, simultaneous speech, and successful interruptions) using analysis of variance. Prior to conducting the analyses, speakers' rates of the three conversational style dependent variables (O, SS, SI) were evaluated for the assumption of normality. Data for all dependent variables were found to be positively skewed. A square root transformation was performed, as suggested by Tabachnick and Fidell (2001), which resulted in more appropriate distributions. The following analyses were based upon the transformed data; however, means and standard deviations for the untransformed rates are presented.

Before proceeding with further analyses, correlations were computed in order to determine whether speakers' rates of O, SS, and SI were inter-correlated. For both adolescents and parents, rates of all three variables were significantly inter-correlated (see Table 1). Consequently, speakers' rates of O, SS, and SI were analyzed by a 4 (dyad type) x 2 (speaker) x 3 (speech type) mixed-model multivariate analysis of variance (MANOVA) with dyad type (daughter/mother, son/mother, daughter/father, son/father) as a between-dyad variable and with speaker (adolescent, parent) and speech type (O, SS, SI) as within-dyad variables. Significant multivariate effects were followed by univariate analyses of variance (ANOVAs) where appropriate, and significant F ratios for interactions among variables were followed by Tukey's HSD tests of differences between means. An alpha level of .05 was applied for all statistical tests.

Multivariate Results. The means and standard deviations for speakers' rates of O, SS, and SI are presented in Table 2. The MANOVA results revealed significant multivariate main effects for speaker, $F(1, 90) = 46.53$, $p < .001$, eta-squared = .34, and

Table 1. *Inter-correlations Between Adolescents' and Parents' Rates of Overlaps (O), Simultaneous Speech (SS) and Successful Interruptions (SI).*

Variable	1	2	3	4	5	6
1. Adolescents' O	-	.48*	.40*	.31*	.19	.09
2. Adolescents' SS		-	.47*	.33*	.29*	.15
3. Adolescents' SI			-	-.01	.04	.00
4. Parents' O				-	.61*	.44*
5. Parents' SS					-	.54*
6. Parents' SI						-

*$p < .01$

Table 2. *Means and Standard Deviations for Speakers' Rates of Overlaps, Simultaneous Speech, and Successful Interruptions.*

Variable			*M*	*SD*	*n*
Overlaps					
	Adolescent				
		mom-daughter	16.87	9.55	24
		mom-son	21.78	8.56	22
		dad-daughter	17.00	7.72	25
		dad-son	20.35	12.12	23
	Parent				
		mom-daughter	16.01	7.78	24
		mom-son	16.03	8.19	22
		dad-daughter	14.37	8.47	25
		dad-son	14.80	8.10	23
Simultaneous Speech					
	Adolescent				
		mom-daughter	9.56	7.21	24
		mom-son	12.65	8.56	22
		dad-daughter	8.85	6.44	25
		dad-son	9.62	6.87	23
	Parent				
		mom-daughter	4.14	4.41	24
		mom-son	2.95	3.05	22
		dad-daughter	5.64	4.94	25
		dad-son	4.29	4.00	23
Successful Interruptions					
	Adolescent				
		mom-daughter	5.80	4.35	24
		mom-son	9.45	10.39	22
		dad-daughter	5.91	4.65	25
		dad-son	6.23	8.04	23
	Parent				
		mom-daughter	2.64	2.52	24
		mom-son	1.88	2.42	22
		dad-daughter	4.72	4.73	25
		dad-son	3.00	2.45	23

speech type, F (2, 89) = 271.49, p < .001, eta-squared = .86. These main effects were qualified by significant interactions of speaker and speech type, F (2, 89) = 10.46, p < .001, eta-squared = .19, and speaker and dyad type, F (3, 90) = 2.82, p = .043, eta-squared = .09.

Univariate Results. The significant multivariate interaction of speaker and speech type was examined at the univariate level separately for each of the three dependent variables. The results indicated that the main effect of speaker was significant for all three dependent variables: for O, F (1, 90) = 10.90, p = .001, eta-squared = .11; for SS, F (1, 90) = 69.48, p < .001, eta-squared = .44; and, for SI, F (1, 90) = 21.84, p < .001, eta-squared = .20. As displayed in Figure 2, the relevant means for the main effects of speaker indicated that adolescents produced significantly higher rates of overlaps (M = 18.91, SD = 9.68), simultaneous speech (M = 10.11, SD = 7.37), and successful interruptions (M = 6.79, SD = 7.22) than did their parents (M = 15.29, SD = 8.04; M = 4.30, SD = 4.23; M = 3.10, SD = 3.35, respectively).

The significant multivariate speaker by dyad type interaction was found to be significant at the univariate level for SS, F (3, 90) = 3.10, p = .031, eta-squared = .094, and for SI, F (3, 90) = 3.17, p = .028, eta-squared = .096. As displayed in Figure 3, examination of the relevant means for the interaction of speaker and dyad type for SS indicated that adolescents produced significantly more simultaneous speech than did their parents in all dyad types (daughter/mother, M = 9.56, SD = 7.21, M = 4.14, SD = 4.41; son/mother, M = 12.65, SD = 8.82, M = 2.95, SD = 3.05; son/father, M = 9.62, SD = 6.87, M = 4.29, SD = 3.99) except the daughter/father dyads (M = 8.85, SD = 6.44; M =

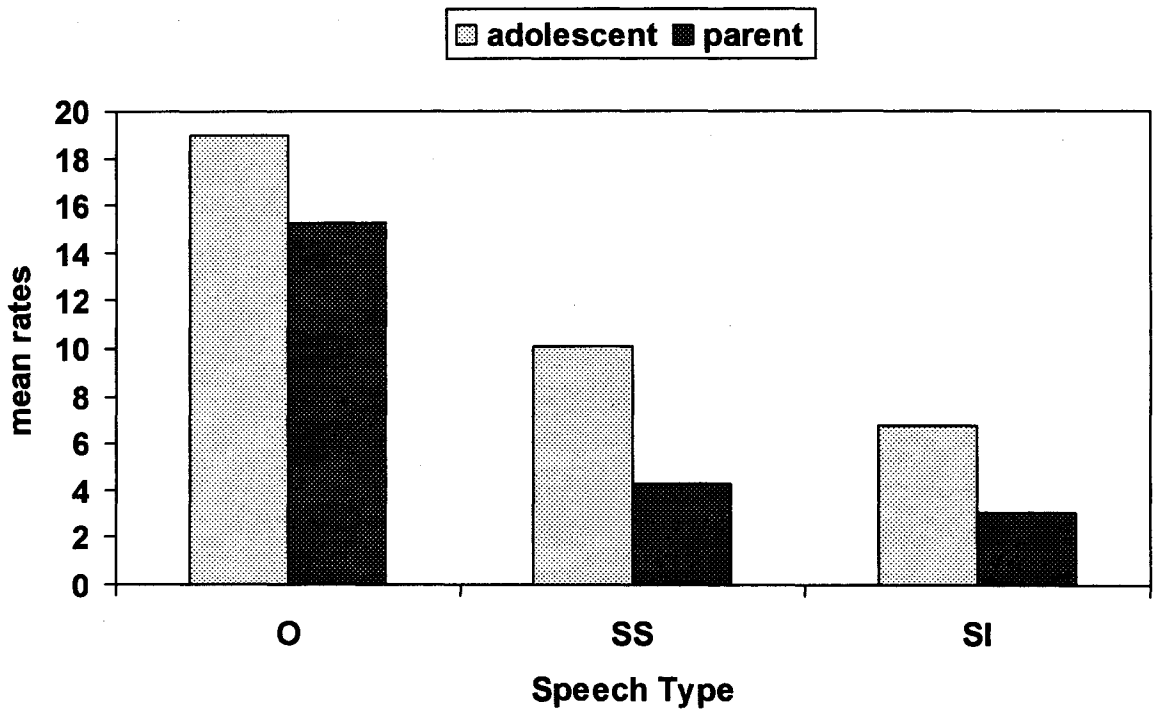

Figure 2. Speakers' mean rates of elements of conversational style.

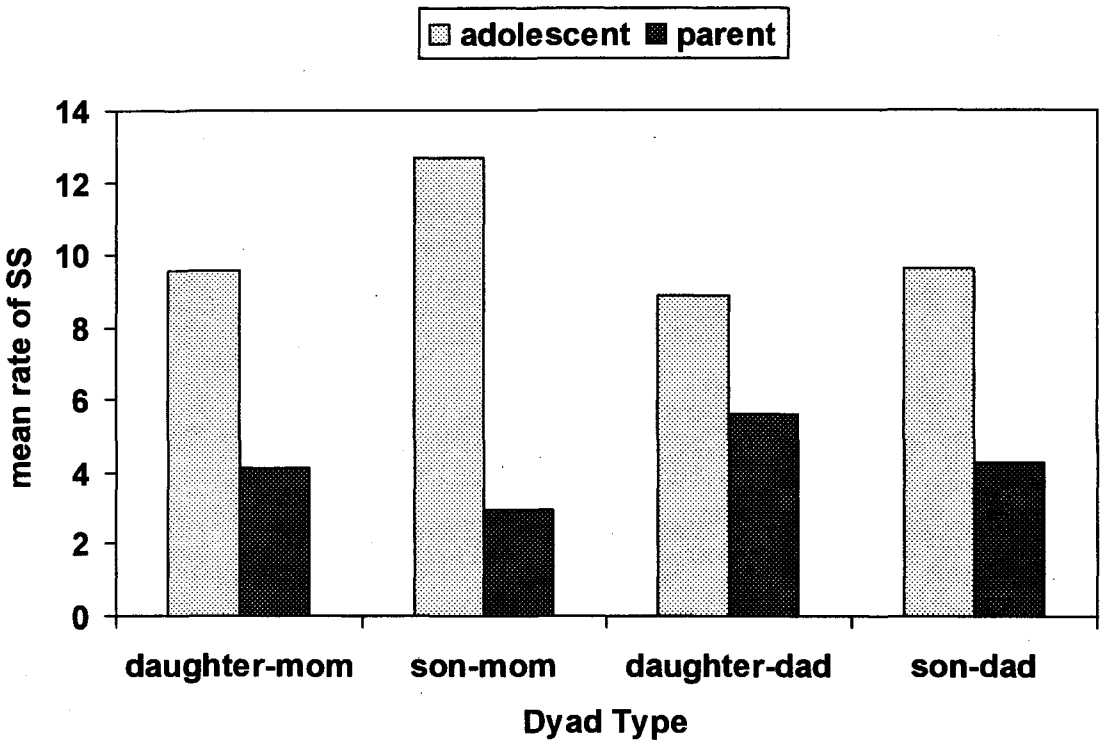

Figure 3. Speakers' rates of simultaneous speech as a function of dyad type.

5.63, SD = 4.94). Furthermore, separate one-way ANOVAs for adolescents and parents as a function of dyad type revealed no significant findings suggesting that neither adolescents nor parents rates of SS varied as a function of dyad type.

As displayed in Figure 4, examination of the relevant means for speaker and dyad type interaction for SI indicated that adolescents produced significantly more successful interruptions than did their parents in only the daughter/mother and son/mother dyads (daughter/mother, M = 5.80, SD = 4.35, M = 2.64, SD = 2.52; son/mother, M = 9.45, SD = 10.39, M = 1.88, SD = 2.42). There was no significant difference between adolescents' and parents' rates of successful interruptions in the father dyad types (daughter/father, M = 5.91, SD = 4.65, M = 4.72, SD = 4.73; son/father, M = 6.23, SD = 8.04, M = 3.00, SD = 2.45; the difference between fathers and sons is marginally significant). One-way ANOVAs examining differences in rates of SI as a function of dyad type separately for adolescents and for parents revealed no significant results for adolescents. However, mothers who talked with their sons produced significantly fewer successful interruptions than fathers who talked with their daughters, F (3, 90) = 2.79, p = .045.

Secondary Analyses. Secondary analyses focusing specifically on mothers' and sons' rates of O, SS and SI were conducted to determine if there were differences in the patterns of results found for single-mother dyads (n = 10) as compared to married-mother dyads (n = 12). Mothers' and sons' rates of O, SS, and SI were analyzed by a 2 (mother's marital status) x 2 (speaker) x 3 (speech type) mixed-model MANOVA with mother's marital status (single, married) as a between-dyad variable and with speaker (son, mother) and speech type as within-dyad variables.

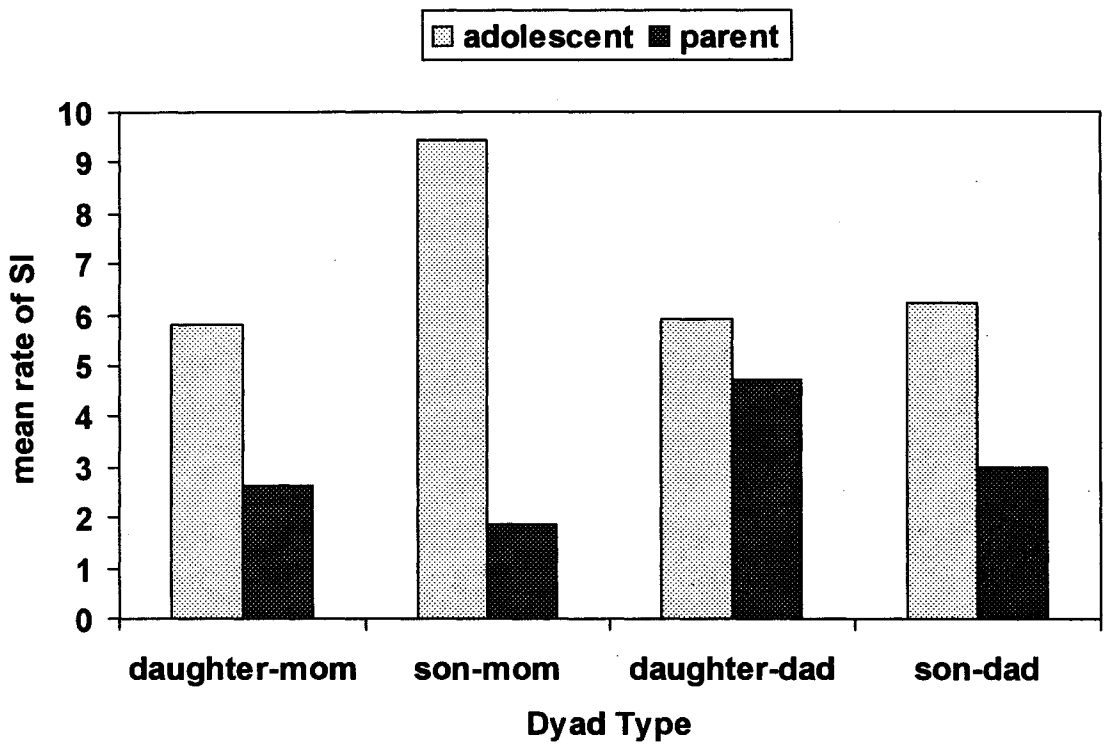

Figure 4. *Speakers' rates of successful interruptions as a function of dyad type.*

The MANOVA results revealed a significant multivariate interaction of speaker and marital status, F (1, 20) = 7.13, p = .015, eta-squared = .26. The significance of this interaction was examined at the univariate level separately for each of the three dependent variables and was found to be significant for SS, F(1, 20) = 4.76, p = .041, eta-squared = .19, and for SI, F(1, 20) = 6.36, p = .020, eta-squared = .24. As displayed in Figures 5 and 6, examination of the relevant means for the significant speaker by marital status interaction for SS and for SI indicated that sons produced significantly higher rates of SS and SI than did their mothers in both the single-mother and the married-mother dyads (sons in single-mother dyads: M = 16.38, SD = 10.00, for SS, M = 12.91, SD = 12.44, for SI; mothers in single-mother dyads: M = 2.79, SD = 3.05, for SS, M = .94, SD = .97, for SI; sons in married-mother dyads: M = 9.73, SD = 6.87, for SS, M = 6.72, SD = 8.01, for SI; mothers in married-mother dyads: M = 3.13, SD = 3.23, for SS, M = 2.70, SD = 3.01, for SI). Furthermore, the absolute difference between mothers' and sons' rates of SS was significantly larger in the single-mother dyads than in the married-mother dyads [t (20) = 2.16, p = .043]. The comparison of the absolute difference between mothers' and sons' rates of SI for single versus married mother dyads was only marginally significant [t (20) = 2.03, p = .055]. Therefore, there appears to be a greater difference in the conversational styles (at least in terms of rates of SS) of sons and their single mothers as compared to sons and their married mothers.

Analyses of Emotional Expression

Overview. Hypotheses about differences or similarities in adolescents' and

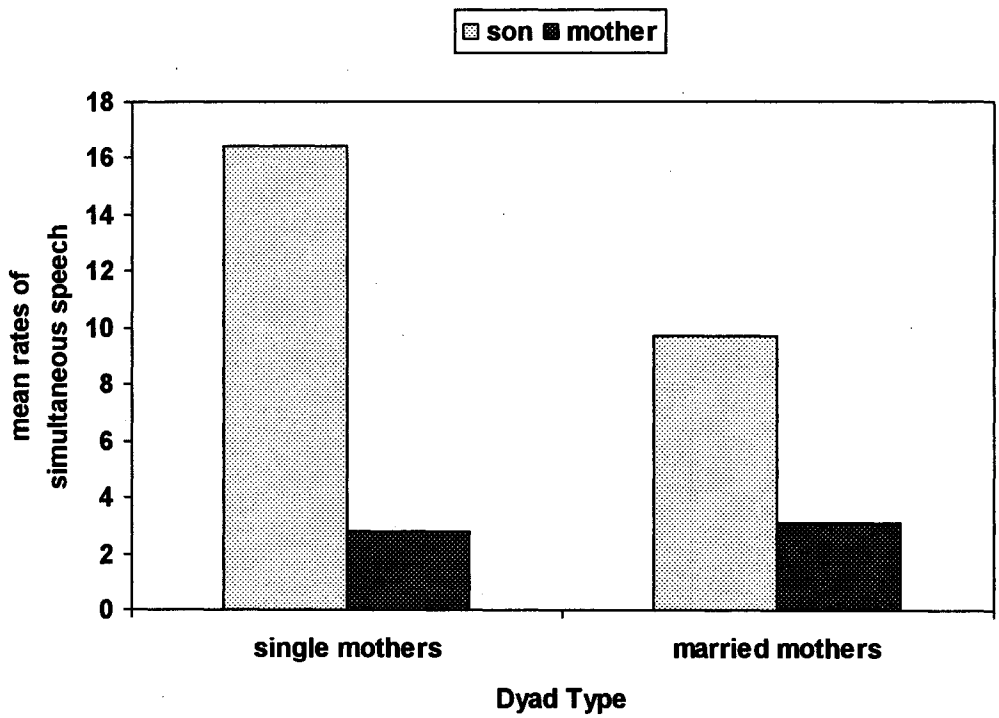

Figure 5. *Mothers' and sons' rates of simultaneous speech as a function of mothers' marital status.*

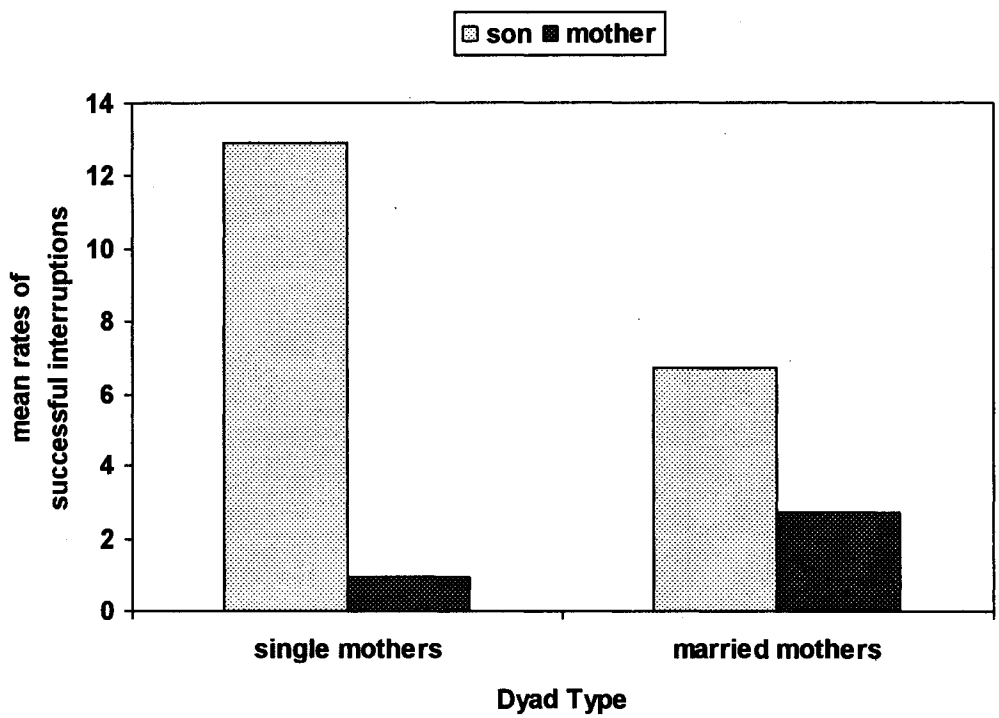

Figure 6. *Mothers' and sons' rates of successful interruptions as a function of mothers' marital status.*

parents' emotional expression as a function of dyad type (daughter/mother, son/mother, daughter/father, son/father) were addressed by statistically comparing group differences in the use of the six emotions (affection, humor, interest, neutral, disgust, whining) using analysis of variance. Prior to conducting the analyses, speakers' rates of the six emotion dependent variables were evaluated for the assumption of normality. Data for all dependent variables were found to be positively skewed. A square root transformation was performed, as suggested by Tabachnick and Fidell (2001), which resulted in more appropriate distributions. Consequently, the analyses were conducted with the transformed data, with the means and standard deviations presented for the untransformed data.

Before proceeding with the analyses, correlations were computed in order to determine whether speakers' rates of the six emotions were inter-correlated. For both adolescents and parents, rates of expressions of interest, whining, disgust and neutral emotions were found to be significantly inter-correlated between speakers (see Table 3). As a result, speakers' rates of these four emotions were analyzed by a 4 (dyad type) x 2 (speaker) x 4 (emotions) mixed-model MANOVA with dyad type (daughter/mother, son/mother, daughter/father, son/father) as a between-dyad variable and with speaker (adolescent, parent) and emotion (interest, whining, disgust and neutral) as within-dyad variables. Significant multivariate effects were followed by univariate analyses where appropriate. Because speakers' rates of affection and humor were not significantly inter-correlated with other emotions, they were analyzed by separate 4 (dyad type) x 2 (speaker) mixed-model ANOVAs. Significant F ratios for interactions between variables were followed by Tukey's HSD tests of differences between means. An alpha level of .05

Table 3. *Inter-correlations Between Adolescents' and Parents' Rates of Emotions.*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Adolescents' Neutral	-	-.04	.00	-.08	-.09	-.31*	.34*	-.20	-.16	.21	-.26	-.04
2. Adolescents' Interest		-	.19	.05	-.54*	-.25	-.44*	.88*	.12	.21	-.50*	-.26
3. Adolescents' Humour			-	.13	.07	.08	.04	.14	.70*	.14	-.03	-.06
4. Adolescents' Affection				-	-.06	.07	.00	.09	.12	.16	.03	-.10
5. Adolescents' Disgust					-	.32*	.23	-.49*	-.02	-.04	.63*	.37*
6. Adolescents' Whining						-	.09	-.18	.14	-.10	.31*	.24
7. Parents' Neutral							-	-.34*	.16	.00	.15	.26
8. Parents' Interest								-	.25	.24	-.42*	-.14
9. Parents' Humour									-	.17	.03	.04
10. Parents' Affection										-	-.24	.10
11. Parents' Disgust											-	.27*
12. Parents' Whining												-

*$p < .01$

was applied for all statistical tests.

Multivariate Results. The means and standard deviations for speakers' rates of all six emotions are presented in Tables 4 and 5. The MANOVA results for the four emotions that were inter-correlated (interest, whining, disgust and neutral) revealed significant multivariate main effects for speaker, F (1, 90) = 71.33, $p < .001$, eta-squared = .44, and emotion, F (3, 88) = 573.81, $p < .001$, eta-squared = .95. These main effects were qualified by significant interactions of speaker and emotion, F (3, 88) = 3.53, $p = .018$, eta-squared = .11, and speaker, dyad type, and emotion, F (9, 214) $\approx$ 1.94, $p = .048$, eta-squared = .06 (the degrees of freedom on the latter effect were corrected using the Greenhouse-Geisser method).

Univariate Results. The significant multivariate interaction of speaker and emotion was examined in two ways: (1) the main effect of speaker was examined at the univariate level separately for each of the four emotions; and, (2) the relative differences between rates of the four emotions were examined by conducting one-way ANOVAs separately for adolescents and for parents. The main effect of speaker was found to be significant for all four dependent variables: for neutral, $F(1, 90) = 27.32$, $p < .001$, eta-squared = .23; for interest, $F(1, 90) = 29.03$, $p < .001$, eta-squared = .24; for disgust, $F(1, 90) = 18.53$, $p < .001$, eta-squared = .17; and, for whining, $F(1, 90) = 24.72$, $p < .001$, eta-squared = .22. As displayed in Figure 7, the relevant means for the main effects of speaker indicated that adolescents produced significantly higher rates of expressions of neutral (M = 77.11, SD = 57.94), interest (M = 68.77, SD = 60.99), disgust (M = 29.95, SD = 39.00), and whining (M = 3.06, SD = 6.69) than did their parents (M = 45.98, SD = 32.35; M = 49.04, SD =

Table 4. *Means for Adolescents' Emotional Expression.*

Variable		*M*	*SD*	*n*
Neutral				
	daughter-mother	81.54	65.09	24
	son-mother	77.07	53.79	22
	daughter-father	65.41	62.13	25
	son-father	85.24	50.45	23
Disgust				
	daughter-mother	32.12	36.17	24
	son-mother	51.89	60.34	22
	daughter-father	20.23	21.43	25
	son-father	17.26	17.92	23
Whining				
	daughter-mother	2.61	4.95	24
	son-mother	2.61	5.07	22
	daughter-father	5.04	10.47	25
	son-father	1.81	3.6	23
Humour				
	daughter-mother	10.79	11.83	24
	son-mother	15.31	12.82	22
	daughter-father	12.60	10.99	25
	son-father	8.65	7.29	23
Affection				
	daughter-mother	.26	.72	24
	son-mother	.34	1.05	22
	daughter-father	.16	.49	25
	son-father	.21	.58	23
Interest				
	daughter-mother	60.33	59.38	24
	son-mother	65.39	55.35	22
	daughter-father	67.36	54.87	25
	son-father	82.33	74.47	23

Table 5. *Means for Parents' Emotional Expression.*

Variable		*M*	*SD*	*n*
Neutral				
	daughter-mother	46.19	28.50	24
	son-mother	57.84	47.26	22
	daughter-father	35.34	23.39	25
	son-father	45.99	24.02	23
Disgust				
	daughter-mother	22.86	31.91	24
	son-mother	19.39	17.83	22
	daughter-father	20.93	31.06	25
	son-father	10.43	12.70	23
Whining				
	daughter-mother	.20	.40	24
	son-mother	.85	1.91	22
	daughter-father	.13	.38	25
	son-father	.25	.51	23
Humour				
	daughter-mother	7.07	7.55	24
	son-mother	9.39	7.04	22
	daughter-father	9.39	7.99	25
	son-father	7.19	6.17	23
Affection				
	daughter-mother	1.75	3.87	24
	son-mother	2.86	4.05	22
	daughter-father	1.05	1.77	25
	son-father	1.50	2.54	23
Interest				
	daughter-mother	46.13	42.27	24
	son-mother	46.87	37.75	22
	daughter-father	50.26	35.22	25
	son-father	52.83	39.28	23

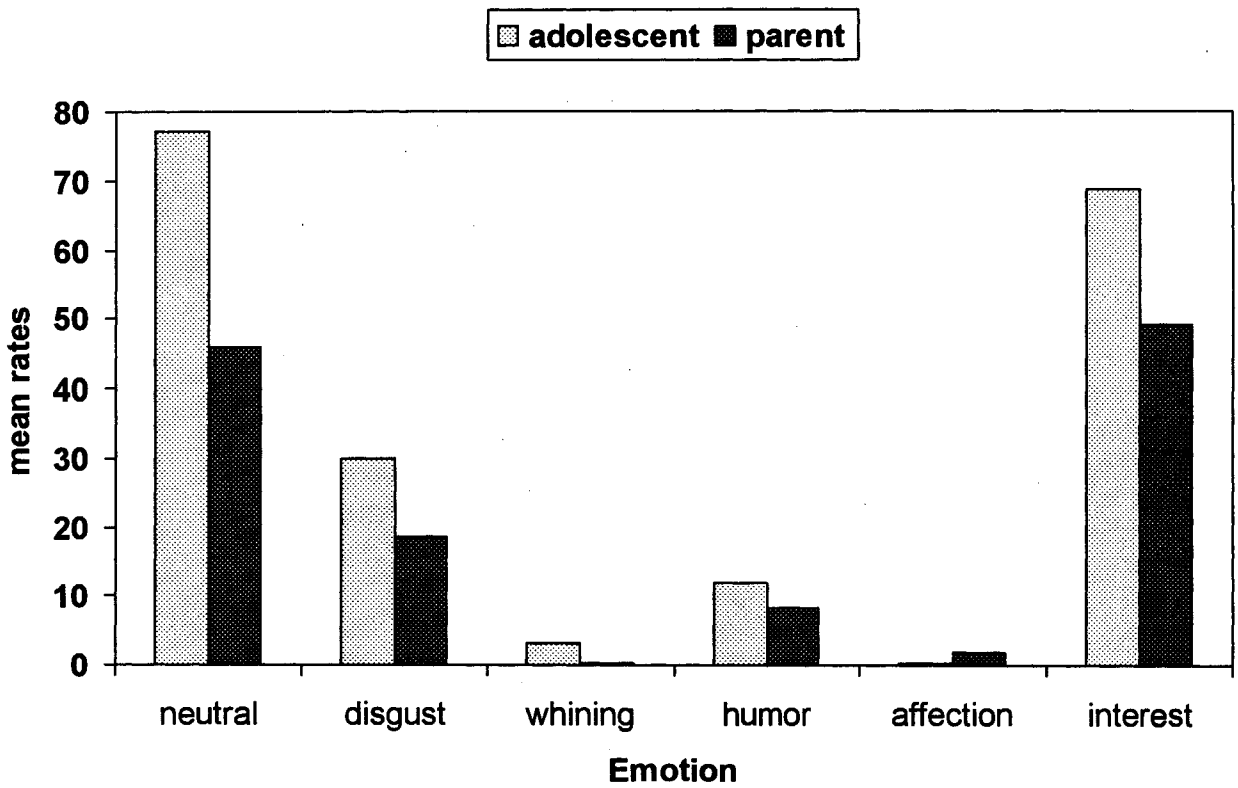

Figure 7. *Speakers' rates of emotional expression.*

38.16; M = 18.50, SD = 25.17; M = .35, SD = 1.02, respectively). Furthermore, the results of the one-way ANOVAs comparing the relative differences in the rates of the four types of emotions revealed that for both adolescents and parents [F (2, 186) = 24.19, p < .001, eta-squared = .206; F (2, 186) = 30.76, p < .001, eta-squared = .249, respectively], rates of interest and neutral emotion were significantly higher than rates of disgust and whining, and rates of disgust were significantly higher than rates of whining. Finally, there was no significant difference in the rates of expressions of interest and neutral emotions for either adolescents or parents (see Figure 7).

The dyad type by speaker by emotion interaction was found to be significant at the univariate level for expressions of disgust, F (3, 90) = 2.97, p = .036, eta-squared = .090. As displayed in Figure 8, examination of the relevant means for this interaction indicated that adolescents expressed significantly more disgust than did their parents in only the son-mother dyads (for sons, M = 51.89, SD = 60.34; for mothers, M = 19.39, SD = 17.83). There was no significant difference in adolescents' and parents' rates of disgust in the other three dyad types (for daughter/mother dyads, M = 32.12, SD = 36.17, M = 22.86, SD = 31.91; for daughter/father dyads, M = 20.22, SD = 21.43, M = 20.93, SD = 31.06; and, for son/father dyads, M = 17.26, SD = 17.92, M = 10.43, SD = 12.70).

To further examine the significant speaker by dyad type interaction for rates of disgust, one-way ANOVAs (as a function of dyad type) were conducted separately for adolescents and for parents. The effect of dyad type was not significant for parents' rates of disgust; however, this effect was significant for adolescents' rates of disgust, F (3, 90) = 3.27, p = .025, eta-squared = .098. Examination of the relevant means for this effect

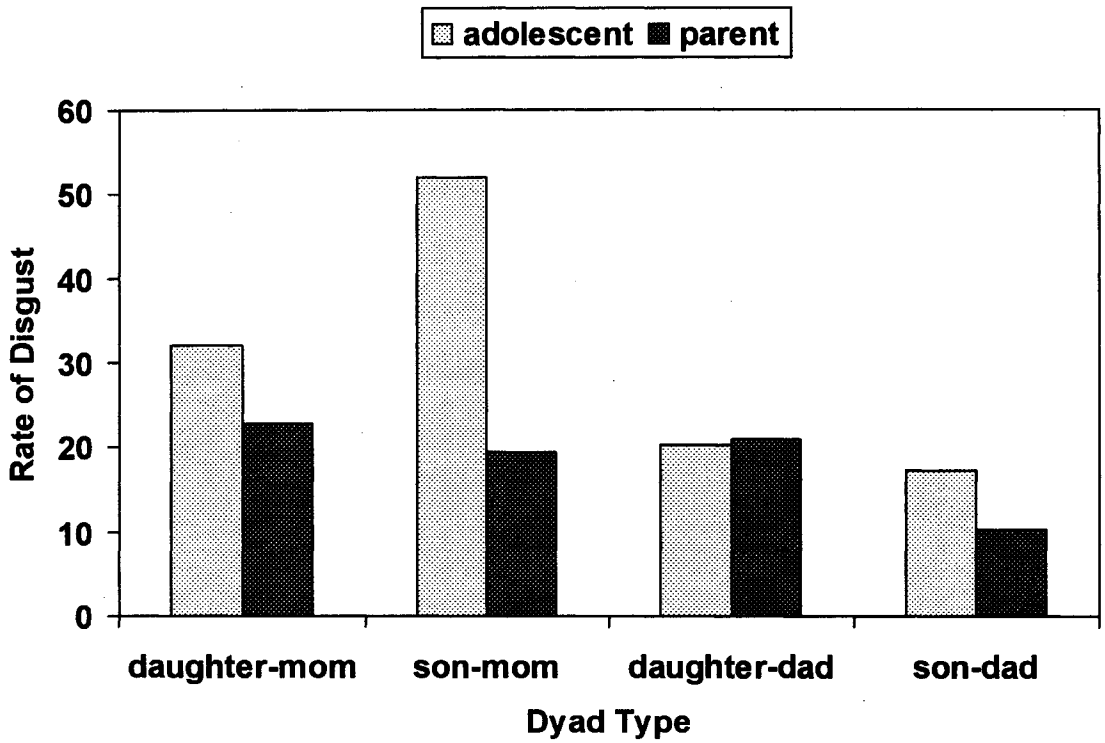

Figure 8. *Speakers' rates of disgust as a function of dyad type.*

revealed that sons expressed significantly more disgust with their mothers than with their fathers. In contrast, there was no significant difference in daughters' rates of disgust expressed in discussions with mothers versus fathers.

The separate ANOVA results for speakers' rates of affection and humor revealed a significant main effect of speaker for both dependent variables: for humor, F (1, 90) = 17.24, $p < .001$, eta-squared = .16; for affection, F (1, 90) = 34.67, $p < .001$, eta-squared = .28. Specifically, adolescents expressed significantly more humor than did their parents (M = 11.81, SD = 11.01; M = 8.26, SD = 7.22, respectively). In contrast, parents expressed significantly more affection than did adolescents (M = 1.76, SD = 3.19; M = .24, SD = .72, respectively; see Figure 7).

Secondary Analyses. Secondary analyses of mothers' and sons' rates of emotions were conducted to determine if there were differences in the patterns of results found for single-mother dyads (n = 10) as compared to married-mother dyads (n = 12). Mothers' and sons' rates of interest, whining, disgust and neutral were analyzed by a 2 (marital status) x 2 (speaker) x 4 (emotion) mixed-model MANOVA with marital status (single, married) as a between-dyad variable and with speaker (son, mother) and emotion as within-dyad variables. Mothers' and sons' rates of affection and humor were analyzed by separate 2 (marital status) x 2 (speaker) ANOVAs. The results of all analyses revealed no significant effects due to the "marital status" factor.

Analyses of the Questionnaire Data

Adolescents' and parents' perceptions of relationship satisfaction were measured

by analyzing their responses to the Conflict Behavior Questionnaire (Robin & Foster, 1989). Adolescents' and parents' responses to the Conflict Behavior Questionnaire were analyzed by a 2 (respondent) x 4 (dyad type) mixed-model ANOVA with the dyad as the unit-of-analysis and with respondent (adolescent, parent) as the within-dyad variable and dyad type (daughter/mother, son/mother, daughter/father, son/father) as the between-dyad variable. The ANOVA results revealed no significant main effects or interactions. Means and standard deviations for adolescents' and parents' ratings of perceptions of conflict are displayed in Table 6.

Analyses of Links Between Conversational Style Differences, Emotional Expression and Perceptions of Conflict

Overview. To test hypotheses about the predictive links between parents' and adolescents' conversational style differences, emotional expression and perceptions of conflict, two types of analyses were conducted. Structural equation modeling was used to examine support for the hypothesized model (Figure 1) in which differences in adolescents' and parents' conversational styles would predict higher levels of adolescents' and parents' expressions disgust, and levels of disgust would, in turn, predict perceptions of conflict. In addition, sequential analyses were conducted to determine whether adolescents' and parents' levels of disgust were reciprocally related.

Preliminary analyses for structural equation modeling. Preliminary factor analyses were completed to determine the primary factors that were evident in the data to be used in later model fitting procedures. The data to be factor analyzed included speakers' rates

Table 6. *Means and Standard Deviations for Adolescents' and Parents' Perceptions of Conflict as Measured by the Conflict Behavior Questionnaire.*

Variable		*M*	*SD*	*n*
Adolescent				
	daughter-mother	3.58	3.45	24
	son-mother	4.41	4.33	22
	daughter-father	3.20	3.16	25
	son-father	2.43	2.59	23
Parent				
	daughter-mother	3.62	3.67	24
	son-mother	4.68	3.23	22
	daughter-father	4.76	4.65	25
	son-father	3.00	2.24	23

Note: Higher mean scores reflect higher levels of perceived conflict.

of the three dependent variables for conversational style (O, SS, SI) and five dependent variables for emotion (disgust, whining, humor, affection, interest). Separate factor analyses were completed for adolescents' and for parents' rates of these eight speech behaviors (the expressions of "neutral emotions" were not considered because they reflected the absence of emotion).

A factor analysis using a direct oblimin rotation with an inter-correlation between factors set at $\varnothing = .55$ resulted in the expected factor loadings. That is, using a criterion of a minimum loading of .5 (Comfrey, 1973), three primary factors were identified for both adolescents' and parents' rates of the various speech behaviors (see Tables 7 and 8). The factor of "conversational style" included the dependent variables of overlaps, simultaneous speech and successful interruptions. The factor of "negative emotionality" included expressions of disgust, whining and a lack of interest, and the factor of "positive emotionality" included expressions of affection and humor. Because all three conversational style dependent variables loaded heavily upon the same factor, a single variable (called "conversational style") was created for each speaker which combined rates of overlaps, simultaneous speech and successful interruptions. Subsequently, in order to produce a measure of conversational style differences between each adolescent and parent dyad, the absolute difference of adolescents' and parents' rates of conversational style was computed [ABS(adolescent conversational style – parent conversational style)].

For the model fitting analyses, a decision was made to include only speakers' expressions of disgust and interest due to the relative lack of frequency of expressions of whining, affection and humor. Although, speakers' rates of disgust and interest were

Table 7. *Factor Loadings of Adolescents' Dependent Variables.*

Variable	Component		
	1	2	3
Overlaps	**.80**	.16	.24
Simultaneous Speech	**.80**	-.18	.25
Successful Interruptions	**.74**	-.22	-.16
Disgust	.46	**-.81**	-.01
Whining	.19	**-.61**	.29
Humour	.33	.11	**.69**
Affection	-.01	.01	**.72**
Interest	.28	**.83**	.29

Table 8. *Factor Loadings of Parents' Dependent Variables.*

Variable	Component		
	1	2	3
Overlaps	**.84**	-.00	.32
Simultaneous Speech	**.84**	-.13	.00
Successful Interruptions	**.76**	-.13	-.14
Disgust	.30	**-.81**	-.31
Whining	.11	**-.69**	.34
Humour	.35	.00	**.53**
Affection	-.13	.17	**.80**
Interest	.49	**.62**	.52

highly correlated, they loaded on the same factor in opposite directions. Therefore, levels of disgust and levels of interest were used as separate variables in the model fitting analyses because a single composite factor could not be created to reflect the presence of disgust as well as the absence of interest. As a result, three variables for each speaker were included in the modeling procedures (conversational style, interest, disgust). Both interest and disgust were positively correlated with the variable of conversational style (for adolescents: $\underline{r}$ = .42 for conversational style and disgust; $\underline{r}$ = .24 for conversational style and interest; for parents: $\underline{r}$ = .28 for conversational style and disgust; $\underline{r}$ = .43 for conversational style and interest).

Testing the hypothesized model. The same model for the links between conversational style, emotional expression, and perceptions of conflict was proposed for all dyad types regardless of parent or adolescent gender; therefore, all modeling analyses were completed with the entire sample of 94 dyads. The method that was used to test the appropriateness of the proposed model was the maximum likelihood estimation using Amos 4.0. The criteria used for acceptance of a model have been widely used and accepted by other researchers (Bentler, 1990). First, the degree of fit of the model was determined using a chi-square statistic. If the ratio between the chi-square statistic and the degrees of freedom is less than three, the model is considered a good fit and the null hypothesis of a well-fitting model will fail to be rejected (Cole, 1987). In addition, the goodness of fit index (GFI) and the adjusted goodness of fit index (AGFI) were both evaluated to ensure that they fell within the parameters of .9 and unity (Joreskog & Sorbom, 1999). Finally, the significance level for the regression weight of each variable

was evaluated in order to determine if it was significant at $p < .05$. If all of the above criteria were met satisfactorily, the predicted model could be considered a good fit (Kim, Conger, Lorenz, & Elder, 2001). In the displayed models, the values provided on the pathways indicate the standardized regression weights for the individual pathways. In addition, the values provided on the corners of the observed variable boxes indicated the squared multiple correlations (variance accounted for) for the individual variables.

The proposed model was tested using maximum likelihood estimation and was found to be a good fit for the data [$\chi^2(2) = 1.57$, $p = .46$, GFI = .99, AGFI = .96]. As displayed in Figure 9, it is clear that the pathway from conversational style difference to adolescent disgust was significant ($t = 5.57$, $p < .05$), the pathway from adolescent disgust to the adolescent's perceptions of conflict was significant ($t = 3.29$, $p < .05$), and the pathway from parent disgust to adolescent disgust was significant ($t = 4.61$, $p < .05$). However, the pathway from adolescent disgust to parent disgust was not significant ($t = -.11$, $p > .05$). These findings suggest that when these variables are considered together in the same model, adolescents' and parents' expressions of disgust may not be reciprocally related.

A second model was tested that did not include the pathway from adolescent disgust to parent disgust. That is, in this second model, it was hypothesized that the adolescent's expressions of disgust were predicted from the degree of difference in conversational styles as well as parents' levels of disgust, and adolescents' levels of disgust predicted perceived levels of conflict (see Figure 10). This model fit better than the previous model. That is, the fitness of this model was demonstrated both by the

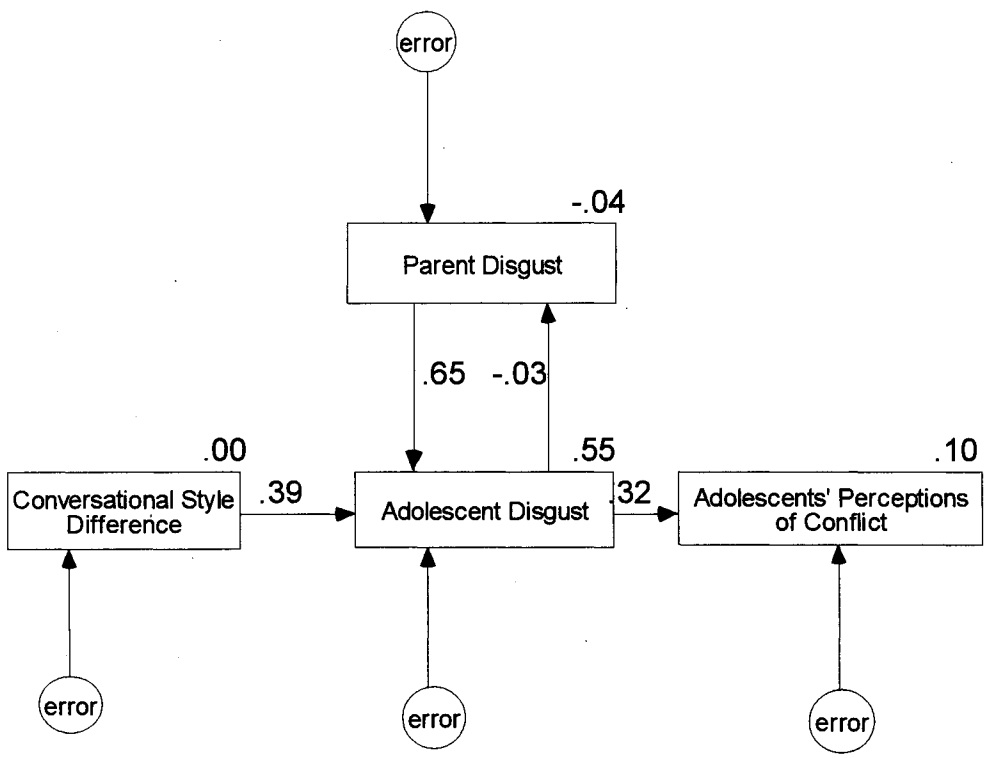

Figure 9. *Path model for Conversational Style Differences, Reciprocal Adolescent and Parent Disgust, and Adolescents' Perceptions of Conflict.*

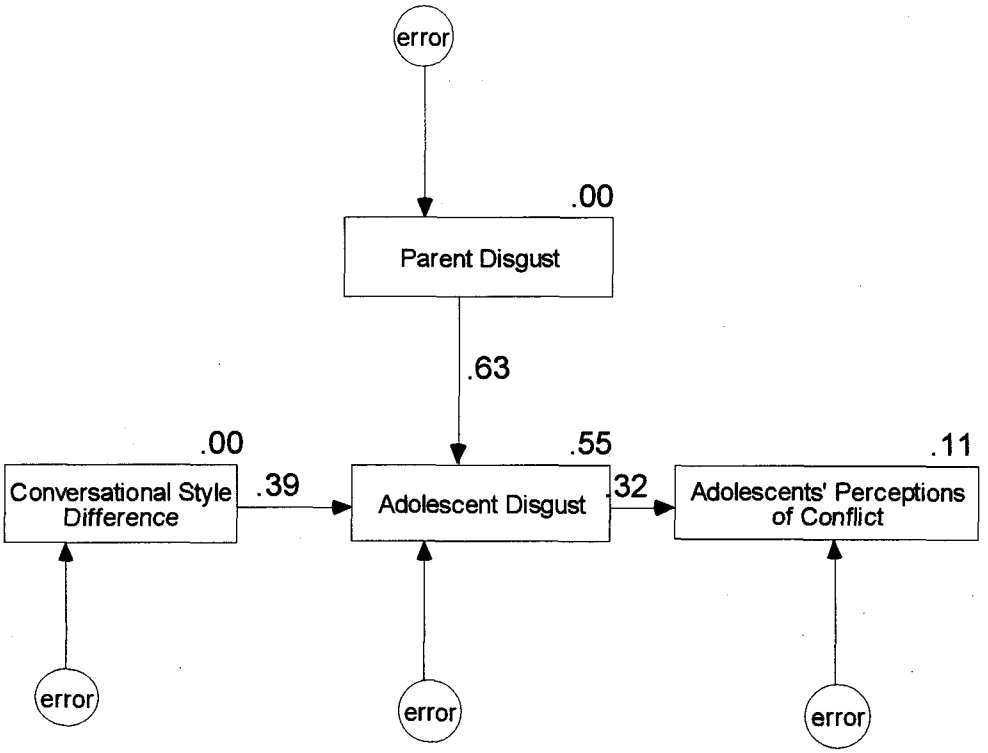

Figure 10. *Path Model for Conversational Style Differences, Non-Reciprocal Adolescent and Parent Disgust, and Adolescents' Perceptions of Conflict.*

goodness of fit statistics [$\chi^2(3) = 1.58$, $p = .66$, GFI = .99, AGFI = .97] and by the significant contribution demonstrated by all of the specified pathways (conversational style difference to adolescent disgust, $t = 5.57$, $p < .05$; parent disgust to adolescent disgust, $t = 9.05$, $p < .05$; adolescent disgust to adolescent ratings of conflict, $t = 3.30$, $p < .05$).

To further evaluate the appropriateness of accepting this second model (as displayed in Figure 10), a third model was evaluated that reversed the roles of the adolescent and parent. That is, the model became one in which conversational style differences and adolescents' disgust predicted parents' levels of disgust, which in turn predicted the parents' perceptions of conflict (see Figure 11). This model did not fit the data well at all [$\chi^2(3) = 24.47$, $p < .01$, GFI = .89, AGFI = .64]. Therefore, the best fitting model that was tested is the model displayed in Figure 10, which indicates that adolescents' levels of disgust are predicted from parent/adolescent conversational style differences and parents' levels of disgust. In turn, adolescents' levels of disgust predict adolescents' perceptions of conflict with parents.

Testing alternate models. Because both levels of disgust and interest were found to be correlated and were found to load on the same factor, an alternate model was tested that included interest in place of disgust (as in the previously tested model). That is, in this model, it was hypothesized that conversational style differences predict adolescents' expressions of disgust, and that adolescents' expressions of disgust, in turn, predict adolescents' perceptions of conflict with parents. In addition, this model included pathways reflecting the possible reciprocal relationship between high levels of adolescent disgust and low levels of parents' expressions of interest (see Figure 12). The goodness of

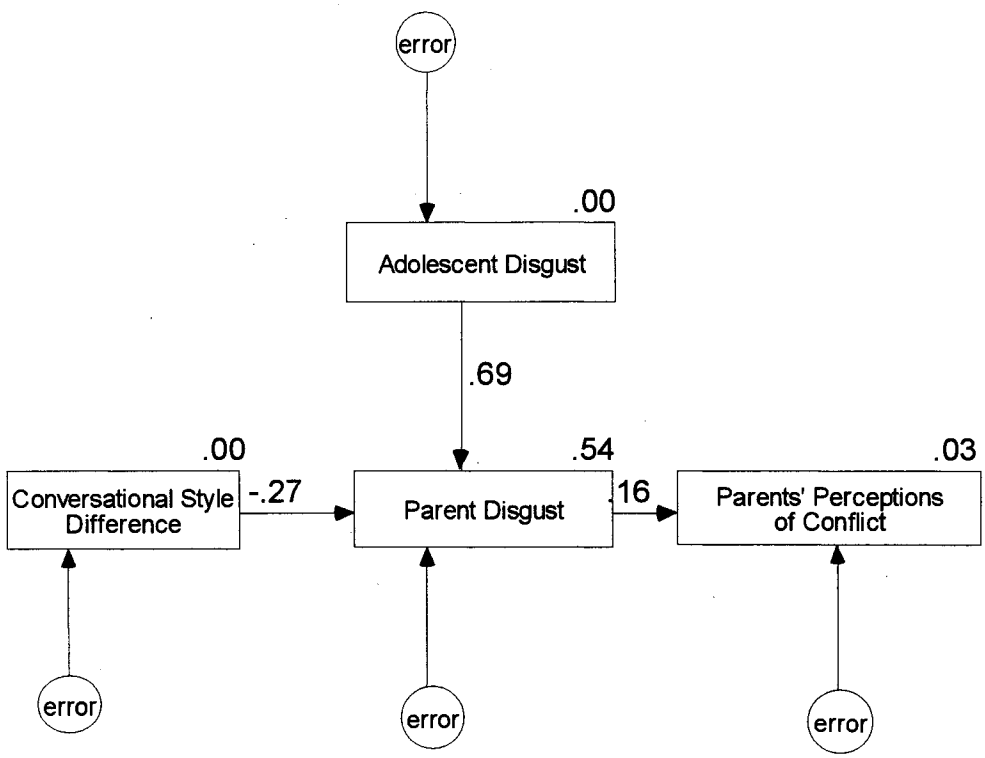

Figure 11. *Path Model for Conversational Style Differences, Non-Reciprocal Adolescent and Parent Disgust, and Parents' Perceptions of Conflict.*

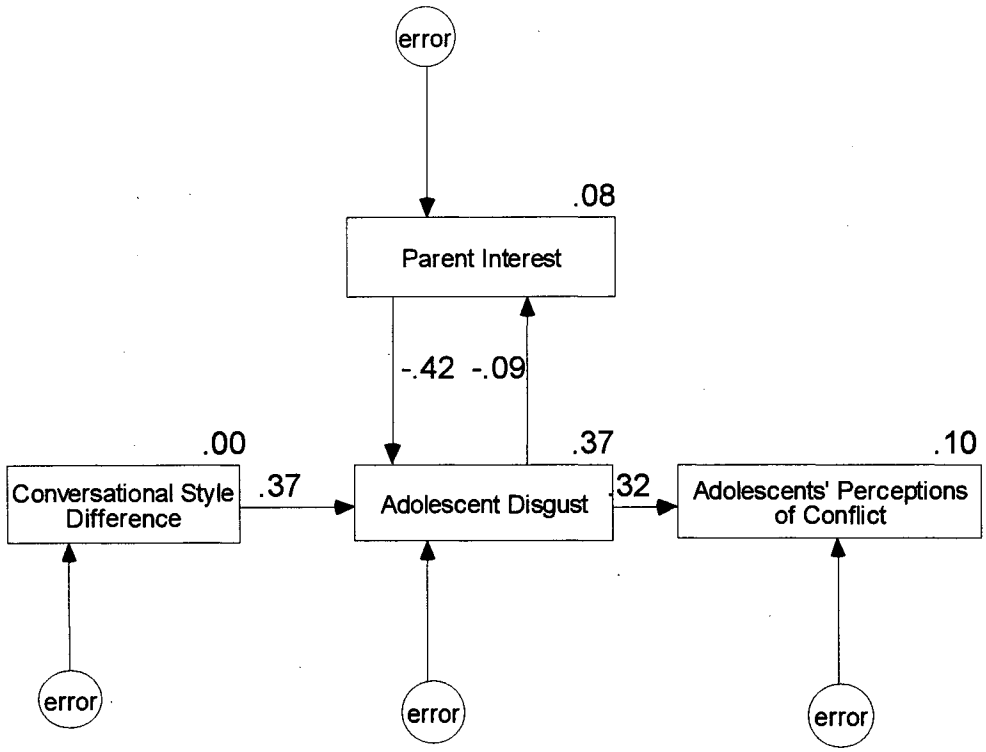

Figure 12. *Path Model for Conversational Style Differences, Reciprocal Adolescent and Parent Interest, and Adolescents' Perceptions of Conflict.*

fit statistics indicated that this model also was an appropriate model [χ^2 (2) = 2.98, p = .23, GFI = .99, AGFI = .92]. As was found for the reciprocating disgust model, the pathway from conversational style difference to adolescent disgust was significant (t = 4.47, p < .05), as were the pathways from were adolescent disgust to adolescents' perceptions of conflict (t = 3.29, p < .05) and parent interest to adolescent disgust (t = -2.18, p < .05). However, the pathway from adolescent disgust to parent interest was not significant (t = -0.34, p > .05).

As a result, an adjustment was made to the previous model so that the pathway from adolescent disgust to parent interest was removed (see Figure 13). In this adjusted model, it was hypothesized that conversational style difference and parent interest predict higher levels of adolescent disgust, and adolescent disgust positively predicts adolescents' perceptions of conflict. The fitness of this model was demonstrated both by the goodness of fit statistics [χ^2 (3) = 3.08, p = .38, GFI = .98, AGFI = .95] and by the significant contribution demonstrated by all of the specified pathways (conversational style difference to adolescent disgust, t = 4.47, p < .05; parent interest to adolescent disgust, t = -5.89, p < .05; adolescent disgust to adolescents' ratings of conflict, t = 3.27, p < .05).

Summary of model fitting analyses. Although the model that included a one-way pathway from parent interest to adolescent disgust was an appropriate and acceptable model, the final accepted model was deemed to be the model that included a one-way pathway from parent disgust to adolescent disgust (Figure 10). There were two justifications for this decision: (a) the theoretical underpinnings of the current work were more consistent with a model that considered levels of disgust expressed by both the

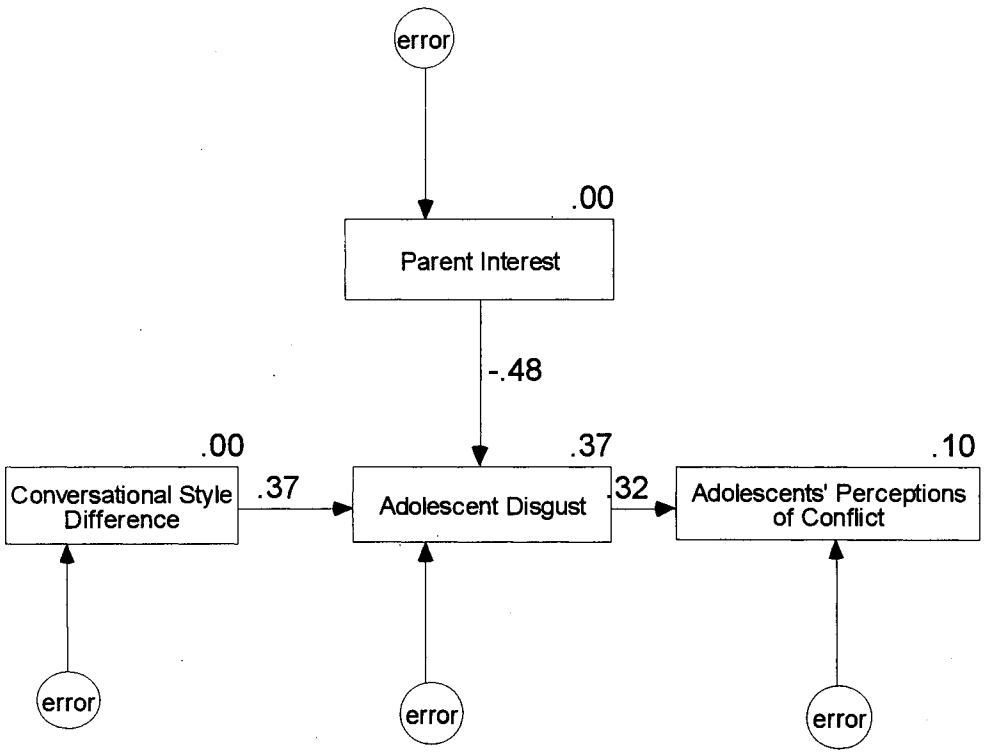

Figure 13. *Path Model for Conversational Style Differences, Non-Reciprocal Adolescent and Parent Interest, and Adolescents' Perceptions of Conflict.*

adolescent and the parent; and, (b) the consistency of the goodness of fit statistics for the model using parent disgust (rather than parent interest).

Sequential analyses. Although the results of the model fitting analyses suggest that adolescents' expressions of disgust and parents' expressions of disgust may not be reciprocally related, this result may have been due to the fact that the issue of reciprocity was considered in a model that included other variables (i.e., conversational style differences and perceptions of conflict). Therefore, separate sequential analyses were conducted for each dyad to further examine whether the adolescent's and parent's levels of disgust were reciprocally related (when not considered with other variables as in modeling procedures). The issue of reciprocity was examined by testing the probability that adolescent disgust (lag 0) is reciprocated by parent disgust (lag 1), and vice versa, above chance and above the occurrence of any other observed behavior (expressed emotions) on a turn-by-turn basis. These analyses were completed using the LAG32 Analysis Program Windows 98 Version (Roberts, 2001). This program provides conditional probabilities for observed behaviors that follow or precede a specified criterion event (in this case, adolescent disgust or parent disgust). LAG provides "contingencies between a specified criterion and the events that follow it [as] assessed by exact binomial probabilities... LAG also tests the omnibus null hypothesis that *all lag probabilities* are zero" (Roberts, 2001, p. 10). All sequential analyses were completed separately for each dyad in order to examine individual differences and because pooled data analyses did not allow for a meaningful interpretation due to excessive event frequencies. The LAG output was evaluated for both a significant outcome on the omnibus test at $p < .05$, as well as the

significance of the individual lag events at $p < .05$. Situations in which the criterion event (lag 0) did not occur were not considered in the summary statistics, and situations in which the criterion event was not followed by the lagged event of interest (lag 1) were interpreted as non-significant outcomes.

In analyses in which parent disgust was the criterion variable, adolescent disgust followed parent disgust in 56 of the 94 dyads (16 daughter/mother dyads; 17 son/mother dyads; ten daughter/father dyads; 13 son/father dyads), whereas for 30 of the dyads (five daughter/mother dyads; five son/mother dyads; 12 daughter/father dyads; eight son/father dyads), adolescent disgust did not follow parent disgust with a significant frequency. In eight of the 94 dyads (three daughter/mother dyads; one son/mother dyads; three daughter/father dyads; one son/father dyads), parent disgust did not occur. A chi-square test was completed on the three possible outcomes across dyads (significant reciprocity, non-significant reciprocity, absence of the criterion event). This analysis revealed that significant reciprocity occurred more frequently than either non-significant reciprocity or non-occurrence of the criterion event [$\chi^2(2) = 36.85$, $p < .01$]. This analysis indicates that in the majority of dyads (59.6%), parents' expressions of disgust were followed by adolescents' expressions of disgust.

In analyses in which adolescent disgust was the criterion variable, parent disgust followed adolescent disgust in 52 of the 94 dyads (15 daughter/mother dyads; 16 son/mother dyads; 11 daughter/father dyads; 13 son/father dyads), whereas for 29 of the dyads (eight daughter/mother dyads; four son/mother dyads; nine daughter/father dyads; eight son/father dyads), adolescent disgust did not occur with a significant frequency. In

daughter/father dyads; one son/father dyads), adolescent disgust did not occur. A chi-square test was completed on the three possible outcomes across dyads (significant reciprocity, non-significant reciprocity, absence of the criterion event). This analysis revealed that significant reciprocity occurred more frequently than either non-significant reciprocity or non-occurrence of the criterion event [χ^2 (2) = 32.57, $p < .01$]. This analysis indicates that in the majority of dyads (55.3%), adolescents' expressions of disgust were followed by parents' expressions of disgust.

Finally, when considering which dyads showed evidence of both adolescent disgust following parent disgust and parent disgust following adolescent disgust, 48 of the 94 dyads (51.1%; 13 daughter/mother dyads, 15 son/mother dyads, 10 daughter/father dyads, 10 son/father dyads) demonstrated reciprocity of disgust in both directions. In the remaining 13 dyads in which the criterion event occurred, significant reciprocity in both directions was not displayed (in 33 of the dyads, both of the criteria events did not occur). A chi-square test was completed on the three possible outcomes across dyads (significant bi-directional reciprocity, non-significant bi-directional reciprocity, absence of the criterion event). This analysis revealed that significant bi-directional reciprocity occurred more frequently than either non-significant reciprocity or non-occurrence of the criterion event [χ^2 (2) = 19.68, $p < .01$]. That is, in a significant number of dyads, the parent's expression of disgust was followed by the adolescent's expression of disgust *and* the adolescent's expression of disgust was followed by the parent's expression of disgust.

DISCUSSION

Overview

The purpose of this study was to examine conversational styles and emotional expression in disagreement conversations between all possible adolescent-parent dyads (i.e., daughter/mother, son/mother, daughter/father, son/father) by measuring features of conversational style (overlaps, simultaneous speech, successful interruptions) and a range of specific emotions (humor, affection, joy, interest, sadness, anger, disgust, fear, whining, neutral). Analyses also considered possible predictive links between conversational style differences, emotional expression, and perceptions of conflict. Finally, the present study included sequential analyses to determine whether adolescents' and parents' expressions of disgust were reciprocally related.

It was hypothesized that adolescent boys and girls would use higher rates of all three features of conversational style than their mothers and fathers, and that the largest difference in conversational styles would be exhibited in the adolescent son/mother interactions. In addition, it was hypothesized that daughter/mother dyads would demonstrate the greatest range of emotional expression, and the daughter/father dyads also would exhibit a large range of emotions, although not as much as the daughter/mother dyads. Furthermore, it was expected that the son/mother dyads would exhibit the greatest amount of negative emotions (particularly disgust), whereas the son/father dyads would exhibit primarily neutral affective tone.

With regard to predictive links between conversational style differences, emotional expression and perceptions of conflict, it was hypothesized that the larger the difference in

the adolescent's and the parent's conversational styles, the higher the levels of expressions of disgust from the adolescent. Subsequently, the parent would respond to the adolescent's expressions of disgust with their own expressions of disgust, which would trigger negative affect reciprocity. It was further hypothesized that levels of adolescent disgust expressions would positively predict levels of perceived adolescent-parent conflict.

Support for Hypotheses About Differences in Emotional Expression

The hypotheses regarding differences between adolescents' and parents' emotional expressions as a function of dyad type were partially supported. Specifically, the results indicated that adolescents produced higher rates of interest, humor, whining, and neutral, than did their parents. In contrast, parents produced higher rates of affection than did their adolescent sons and daughters. With regard to rates of disgust, sons produced significantly higher rates than did their mothers. The hypotheses suggesting a greater range of emotional expression for adolescent girls and their mothers and fathers was not supported. Moreover, the hypothesis regarding higher rates of neutral affective tone within son/father interactions was not supported.

It is interesting to note that the range of expressed emotions was similar across all dyad types. Specifically, in all dyad types, the most common emotions expressed by both adolescents and parents were interest, neutral, and disgust, with higher rates of interest and neutral emotions than expressions of disgust. These findings regarding the relative rates of expressed emotions could be explained by the nature of the experimental setting. That is, because adolescents and parents were asked to discuss disagreement topics, the

potential for the expression of a full range of emotions may have been reduced. Nevertheless, it is noteworthy that this conversational context elicited relatively more interest rather than disgust, as one might expect in disagreements. This finding is consistent with research by Montemayor at al. (1993) and Flannery et al. (1994) in which affect expressed in adolescent-parent communication was compared for unpleasant and pleasant conversation topics. These researchers found that although more negative affect was expressed in the unpleasant context as compared to the pleasant context, there was no difference in the amount of negative and positive affect displayed in the unpleasant conversations. It is likely that the type of conversation that the disagreement topics elicited in the present study is common in naturally-occurring disagreements between adolescents and parents.

The current findings regarding emotional expression are consistent with the limited literature available on emotional expression in adolescent-parent relationships. Specifically, as was found in the current study, Montemayor et al. (1993) and Flannery et al. (1994) found that both positive and neutral affect expressions were most common in adolescent-parent communication. These researchers also found that both parents' and adolescents' expressions of negative affect increased as the adolescents physically matured. However, comparisons between the present findings and those of Montemayor, Flannery and Eberly cannot be made with regard to relative differences between adolescents and parents because they analyzed emotional expressions separately for parents and for adolescents.

The other group of researchers that has considered emotional expression within the adolescent-parent relationship is Lefkowitz, Sigman, and colleagues (Kahlbaugh,

Lefkowitz, Valdez, & Sigman, 1997; Lefkowitz, Kahlbaugh, Au, & Sigman, 1998; Lefkowitz, Kahlbaugh, & Sigman, 1996; Lefkowitz, Romo, Corona, Au, & Sigman, 2000). Across all studies, these researchers found that mothers displayed more affiliative behaviors than did the adolescents, whereas the adolescents showed more expressions of embarrassment and contempt than did their mothers. These results are consistent with the findings of the current study which showed that parents expressed more affection than did the adolescents, whereas adolescents expressed more disgust and whining than did their parents. However, it is important to note that adolescents also displayed some of the more positive emotions (i.e., interest and humor) at a higher rate than their parents.

Support for Hypotheses About Differences in Conversational Styles

Differences in Adolescents' and Parents' Conversational Styles. The hypotheses regarding differences in the conversational styles of adolescents and parents as a function of dyad type were generally supported. That is, the results indicated that both adolescent boys and girls used a high involvement conversational style that included frequent interruptions and instances of overlapping and simultaneous speech. In contrast, both mothers and fathers demonstrated the use of a high considerateness style, with relatively fewer successful interruptions and instances of overlapping and simultaneous speech. These results suggest that, when considered as a group, adolescents and parents experience a clash in conversational styles as suggested by Beaumont (1995, 2000; Beaumont et al., 2001).

The degree to which adolescents and parents experience a difference in

conversational styles appears to depend on the particular dyad type. That is, differences between adolescents' and parents' rates of two of the features of conversational style (namely, successful interruptions and simultaneous speech) occurred primarily for adolescent/mother dyads. There was a tendency for this difference to be present in the son/father dyads (as evident by the significant difference in rates of simultaneous speech and the marginally significant difference in rates of successful interruptions). However, the daughter/father dyads displayed more similarities than differences in conversational styles. Overall, then, the greatest difference in style appears to be for adolescent/mother dyads, and particularly the son/mother dyads in which the mother is a single parent. These results are consistent with those found in the study by Beaumont et al. (2001) which showed that both adolescent sons and adolescent daughters exhibited different conversational styles than their mothers.

The results of analyses of conversational style suggest that there is a greater convergence of styles in the conversations of fathers and their daughters and sons, and a greater divergence of styles in conversations between mothers and their adolescents. Beaumont (1995, 2000; Beaumont & Cheyne, 1998; Beaumont et al., 2001) offers a possible explanation for the divergence in conversational styles exhibited by mothers and adolescents by citing a combination of theoretical arguments from sociolinguists and findings from studies by social psychologists. Specifically, two speakers are more likely to use similar communicative habits (including habits with regard to the use of interruptions and the pace of turn-taking) if they share similar communicative experiences (Gumperz, 1976), if they perceive their personalities and attitudes to be similar (e.g., Welkowitz &

Feldstein, 1969), or if they have high social acceptance or approval needs (Natale, 1975). Beaumont suggests that this phenomenon may explain why adolescents and their friends may exhibit the use of more similar styles, whereas mothers and adolescents tend to exhibit incompatible conversational styles. That is, Beaumont claims that adolescents may use a fast-paced interruptive style based on their experiences interacting with peers who reinforce the use of conversational habits that signal involvement. In contrast, as suggested by Beaumont, mothers may use a high considerateness style with their adolescents simply because it is the conversational eliciting style that they have used in interactions with their children since they were young. That is, as noted in the introduction, studies of mothers interacting with their preschool-age children show that they tend to structure conversations in a way that elicits conversation from their children (e.g., Kaye & Charney, 1980).

Contrary to what one might expect, fathers and their sons and daughters may experience greater similarity in styles for the reasons cited by Gumperz (1976). That is, in the present study, fathers and adolescents may have demonstrated more communicative symmetry because they experienced a shared understanding about the argumentative demands of the experimental task. Youniss and Smollar (1985) asked adolescents to indicate in which communicative contexts they experienced more symmetrical or asymmetrical interactions with their mothers and fathers (i.e., a symmetrical context is one in which both the adolescent and parent have equal influence or play equal roles). Both adolescent boys and girls reported that one context in which they experience symmetrical interactions with their fathers was in verbal conflicts, whereas verbal conflicts were not

listed as a symmetrical or an asymmetrical context for interactions with mothers. However, adolescents listed conversations in which mothers gave advice or listened to the adolescents' concerns as a context that was asymmetrical in nature. Therefore, in the present study, it may be that although the experimental task was the same for both adolescent/mother and adolescent/father interactions (i.e., to discuss differences in opinions), the shared understanding about the demands of that context was different for mother versus father dyads. The adolescent/mother dyads may have interpreted the context as one in which the mother gave advice or listened to the adolescents' concerns, and this shared understanding of the conversational demands created an asymmetrical interaction that is typical of adolescent/mother conversations. In contrast, the adolescent/father dyads (and particularly daughter/father dyads) may have interpreted the context as one in which they equally justify their opinions, and this shared understanding of the conversational demands created a symmetrical interaction that is typical of adolescent/father verbal interactions. If this explanation is true, it suggests that the experimental control of the context for the study of adolescent-parent interactions might still lead to contextual differences due to different interpretations of the demands of the task which are the result of naturally-occurring differences in the quality of adolescent-mother and adolescent-father communicative interactions.

The Functions of Adolescents' and Parents' Conversational Styles. The results of the present study in regards to differences in adolescent/mother and adolescent/father interruption rates are consistent with the findings reported by researchers who showed that adolescent boys and girls tend to interrupt their mothers more than they interrupt their

fathers (e.g., Hill, 1988; Holmbeck & Hill, 1991; Steinberg, 1981). On the surface, the results of this study and the results of previous research on interruptions in adolescent-parent interactions provide support for the hypothesis that adolescents may use interruptions in their conversations with their mothers in an attempt to dominate them (e.g., Hill, 1988). However, rather than simply examining rates of interruptions as other researchers have done, the results of the present study considered other features of conversational style (overlaps, simultaneous speech, and emotional content), and the results of those examinations provide more support for Beaumont's hypothesis that adolescents' use of a fast-paced, interruptive style is more consistent with Tannen's hypothesized concept of a "high involvement" style. That is, in factor analyses in which conversational style was considered as a single variable with greater scores reflecting a more fast-paced and interruptive style (i.e., high involvement style), the more high involvement style was related to the expression of more disgust and more interest. This finding is consistent with results presented by Beaumont and Cheyne (1998) and Beaumont et al. (2001) in which the high involvement style was associated with both higher agreement and higher disagreement conversational functions. Therefore, the results of the present study suggest that the fast-paced interruptive style that has been previously described by Beaumont and by Tannen as a style that reflects greater signaling of involvement, might serve both positive and negative functions and might be better characterized as an emotional style. If characterized in this way, one might conclude that adolescents used a more high involvement and emotional conversational style, whereas parents used a more high considerateness and less emotional conversational style.

This conclusion is supported by previous research that has shown that the use of a fast-paced, interruptive conversational style is associated with the expression and subjective experience of both positive and negative emotions. Specifically, Siegman (1985) found that in interview settings, individuals who were overtly angry spoke with a loud voice, fast speech rate and with short pauses within and between turns and used many interruptions, and this speech style was associated with increased blood pressure (Siegman et al., 1990). Thus, it appears that a fast-paced, interruptive speech style is associated with physiological arousal and expressed anger. In contrast, however, the results of other research suggest that physiological reactivity also is related to the experience of positive affect. For example, in conversations between acquainted peers, increases in systolic and diastolic blood pressure were associated with positive rather than negative affect (Warner & Strowman, 1995). Similarly, Scherer (1981) found that loud and fast speech was characteristic of both positive (e.g., happiness) and negative (e.g., anger) emotions. Together these findings suggest that increased physiological arousal and loud, fast-paced, interruptive speech occur together, but the emotion experienced (and subsequently expressed or inhibited) may depend on the nature of the context in which the interaction occurs (e.g., the topic being discussed). In fact, Siegman (1987, p. 401) has proposed a similar explanation:

> There are two ways that one can interpret these findings. One is basically that anger manifests itself in a loud, accelerated, and interruptive speech style.... Alternatively, it can be argued that loud and accelerated speech is no more a direct manifestation of anger arousal than is a more subdued speech style; each simply

> represents a different coping mechanism with anger. According to this point of view, expressive behavior - vocal or otherwise - is not to be seen as an immediate manifestation of affective experiences, unencumbered by cognitive processes, but rather as the manifestation of an individual's coping style.

These suggestions might lead one to conclude that in the present study, adolescents use of a fast-paced interruptive conversational style and significantly more disgust, whining, humor and interest than their parents might be indicative of a communication style that reflects an expressive form of emotion regulation. In contrast, parents use of a slower-paced and less interruptive style with less emotional expression might be indicative of a more controlled form of emotion regulation. That is, it may be that parents use a less emotional high considerateness style in an attempt to model appropriate emotion regulation for their adolescent children. This suggestion is supported by research by Eisenberg, Fabes and colleagues (Eisenberg, Fabes, Carlo, Troyer et al., 1992; Eisenberg, Fabes, Shepard, Guthrie et al., 1999; Fabes, Leonard, Kupanoff & Martin, 2001) which examined parents' responses to their preschooler's expressions of negative emotions. For example, they found that if parents practiced strategies (e.g., punishment) that restricted their children's expression of negative emotions, children displayed more emotional distress (as measured by heart rate changes and facial expressions; Eisenberg et al., 1992). In addition, parents who expressed high levels of negative emotions had children who demonstrated less effective strategies of coping with negative arousal (Eisenberg et al., 1999). Based on these and similar other results, Fabes et al. (2001, p. 908) concluded:

If parents are supportive rather than negative in situations where children express negative emotions, children may be less likely to become over aroused in those situations and better able (and more motivated) to process parents' messages and other relevant information and to manage their emotion and behaviour. Consequently, these children are more likely than over-aroused children to learn appropriate strategies for handling their emotions and emotionally driven behaviours.

These conclusions not only provide a possible explanation for the function of parents' (and particularly mothers') use of a less emotional high considerateness conversational style, but also provide further justification for measuring negative affect reciprocity between adolescent and parent. Results that are relevant to questions about negative affect reciprocity are discussed in the following section.

Support for Hypotheses About Links Between Conversational Style Differences, Emotional Expression, and Perceptions of Conflict

Analyses of differences in adolescents' and parents' conversational styles and emotional expression as a function of dyad type provide evidence about differences between averaged data for groups of participants. However, as is evident by the large standard deviations for both measures of conversational style and emotional expression, there are obviously large individual differences within the groups that are not examined when comparing group differences. Analyses of predictive links between conversational style differences, emotional expression and perceptions of conflict examined the data

across dyad types, and therefore may provide suggestions about possible individual differences rather than comparing descriptions of behavior summed across members of a particular group (dyad type). In other words, the results of the modeling and sequential analyses will provide suggestions for what combination of variables (other than dyad type) might be necessary to produce a particular outcome in any given adolescent-parent dyad.

The hypotheses regarding the links between conversational style differences, emotional expression and perceptions of conflict were generally supported. Specifically, the proposed model in which differences in conversational style predict adolescent rates of disgust, which in turn predict adolescent perceptions of conflict was supported. However, the proposed pathway linking adolescent disgust and parent disgust in a reciprocal relationship was not supported. In contrast, a model that included a single pathway linking parent disgust to adolescent disgust was supported. In summary, the model that best fit the data suggests that differences in conversational style and parents' levels of disgust, predicted higher levels of adolescents' disgust, which in turn predicted higher levels of perceived conflict from the adolescent. Nevertheless, when reciprocity of adolescents' and parents' expressions of disgust were considered without other predictors, sequential analyses illustrated that a little over half of the dyads did, in fact, demonstrate negative affect reciprocity.

These results suggest that negative affect reciprocity is present in many adolescent-parent interactions. However, contrary to what Gottman (1994) found for marital interactions, a bi-directional influence of expressions of disgust was not necessary to predict higher levels of perceived conflict. Instead, what appears to be important for

predicting adolescents' perceptions of higher conflict with their parents is conversational style differences and parents' expressions of disgust. These findings are consistent with the previous finding that the use of divergent conversational styles often leads to misunderstandings and negative perceptions (e.g., Giles, 1979; Ryan, 1979; Welkowitz & Feldstein, 1969). These findings also are consistent with studies investigating emotional expression in younger children. For example, research has shown that parents who model negative affect (e.g., anger) in family interactions have children who tend to display more aggression and less prosocial behavior than parents who do not display a lot of negative emotions within the family (e.g., Carson & Parke, 1996). Furthermore, Patterson (1982) describes research that found that parents who use a coercive approach to child discipline have children who display higher levels of aggression.

Although no support was found for including a bi-directional pathway from adolescent disgust to parent disgust in the modeling analyses, this may have been the case because, as was evident from the sequential analyses, only half of the dyads exhibited negative affect reciprocity. What is interesting about these findings is that the percentage of adolescent-parent dyads who exhibited negative affect reciprocity is higher than the percentage of Gottman's (1994) sample of married couples who displayed negative affect reciprocity. Therefore, negative affect reciprocity appears to be a common phenomenon among adolescents and parents, although it is unclear what effect this has on perceptions. What becomes clear is that levels of adolescents' expressions of disgust are predicted from levels of parents' expressions of disgust. This finding suggests that if parents model negative emotions for their adolescents, adolescents will increase their expressions of

emotions, and in combination with reactions to differences in conversational styles will predict perceptions of conflict.

What is interesting to note is that parents' perceptions of conflict were not predicted from adolescents' expressions of disgust or conversational style differences. This finding could be explained in at least two possible ways. It may be that parents are not uncomfortable with the fact that their adolescents use a different conversational style, and therefore, do not react with expressing more negative affect. In addition, as discussed earlier, it may also be that parents are motivated to use a more controlled, and less emotional, conversational style in an attempt to model emotion regulation strategies for their children. The results of this study suggest that those parents who are able to use this conversational style and maintain low levels of negative affect may reduce the negative impact of conversational style differences and negative affect expression on adolescents' perceptions of relationship quality.

Limitations of the Study and Suggestions for Future Research

Some limitations of the current study exist and consequently, must be addressed. First, it must be acknowledged that the sample used in this study was primarily a sample of convenience. It is important to note that the agreement rate for similar research has traditionally been relatively low, especially in more rural areas (Beaumont, 2000), therefore, in order to ensure an adequate sample of participants a convenience sample was employed in the present research. Mook (1983) suggests that such convenience sampling is generally not an issue for the generalization of findings from psychological research. He

suggests that external validity is normally not imperative in psychological research, as most often the population of interest is limited and generalizations beyond this population of interest are not needed nor intended, as is the case in the current study (i.e., Caucasian, middle-class families).

Another limitation evident in this research was the use of conflict conversations to elicit discussion between the adolescent and parent, potentially exacerbating naturally-occurring differences in conversational style. It seems likely, however, that the disagreement topics presented in this study would closely mimic the types of conversations that would occur naturally in the home between an adolescent and parent. A similar criticism could be that the conflict context of the discussions would not allow for a full range of emotions. Again, if the context is as ecologically valid as it appears, it likely would accurately reflect the emotional climate of a naturally occurring interaction between an adolescent and parent.

A related contextual issue that must be addressed is the use of audio tapes only, which did not allow for observation of non-vocal cues from the participants. However, it is likely that the use of non-vocal cues would have simply provided stronger indications of emotional expressiveness that would consequently strengthen the current findings. Future research could address these contextual questions by including both a variety of topics to discuss, as well as recording both audio and video tapes of the interactions.

Sampling biases were evident in the present sample in that approximately half of the mothers in the son/mother dyads were married and half were single parents. With regard to the issue of mother's marital status, Hetherington, Clingempeel, Anderson, Deal

et al. (1992, p. 128) noted that "the mother-child relationship in divorced families can be described as highly ambivalent, involved, and affectively charged." This finding is consistent with the present finding that the largest differences in conversational styles and in levels of expressions of disgust were found in the son/mother dyads (half of whom were single mothers). Although the dyads who participated were not perfectly equal across groups in terms of family situation, it is believed that the dyads included were a relatively accurate reflection of the family situation in the general population (i.e., in cases of divorce the children remain with their mother). Although it is relatively difficult to find equal numbers of single and married mothers and fathers to participate in research, future research should attempt to systematically examine potential differences in adolescent-parent communication as a function of marital status of the parent.

In addition to the maternal sampling bias, the fathers who agreed to participate tended to be of higher socioeconomic status than the general population. This phenomenon has also been found in past research. That is, fathers of higher SES tend to be more likely to agree to participate in psychological research (Costigan & Cox, 2001). In addition, they tend to have more liberal social and parenting views. Therefore, it is possible that the results found for characteristics of fathers' communication behaviors might not be generalizable to fathers who are more conservative in their parenting views. This hypothesis could be investigated by attempting to measure communication habits in a sample of more blue-collar men.

In conclusion, the results of this research contribute to the literature on adolescent-parent relationships by providing a potential explanation for the pathway linking

difficulties in communication to increased negative affect and heightened levels of perceived conflict. It was demonstrated that the greatest differences in conversational style appear to occur in the adolescent-mother relationship where the largest displays of negative affect from sons are similarly displayed. It is important to note that the results of this study are contrary to those of previous researchers who found that adolescent-mother relationships are more positive than adolescent-father relationships. The results of the current study are more consistent with the notion that father relationships are equally positive. The true difference may lie more in the interpretations that parents make of their role in communicative interactions with their adolescents. The results of the current study point to the importance of studying individual differences in the extent to which adolescents' expressions of negative emotions predict outcome variables such as perceived levels of adolescent-parent conflict, and the extent to which parents model appropriate emotion regulation strategies for their adolescent children. In addition, future research should address possible differences in the emotional climate of distressed and non-distressed families with adolescent children.

REFERENCES

Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist, 54,* 317-326.

Barnes, H. L., & Olson, D. H. (1985). Parent-adolescent communication and the circumplex model. *Child Development, 56,* 438-447.

Bateson, M. (1975). Mother-infant exchanges: The epigenesis of conversational interaction. *Annals of the New York Academy of Science, 263,* 101-113.

Beattie, G. W. (1981). Interruption in conversational interactions and its relation to the sex and status of the interactants. *Linguistics, 19,* 15-35.

Beaumont, S. L. (1993a, revised 2001). *Temporal conversation style coding scheme.* Unpublished manuscript, University of Waterloo.

Beaumont, S. L. (1993b). *Instructions for transcribing overlapping speech.* Unpublished manuscript, University of Waterloo.

Beaumont, S . L. (1995). Adolescent girls' conversations with mothers and friends: A matter of style. *Discourse Processes, 20,* 109-132.

Beaumont, S. L. (1996). Adolescents girls' perceptions of conversations with mothers and friends. *Journal of Adolescent Research, 11,* 325-346.

Beaumont, S. L. (2000). Conversational styles of mothers and their preadolescent and middle adolescent daughters. *Merrill-Palmer Quarterly, 46,* 119-139.

Beaumont, S. L., & Cheyne, J. A. (1998). Interruptions in adolescent girls' conversations: Comparing mothers and friends. *Journal of Adolescent Research, 13,* 272-292.

Beaumont, S. L., Vasconcelos, V. C. B., & Ruggeri, M. (2001). Similarities and

differences in mother-daughter and mother-son conversations during preadolescence and adolescence. *Journal of Language and Social Psychology, 20,* 419-444.

Benoit, P. (1982). Formal coherence production in children's disourse. *First Language, 3,* 161-180.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107,* 238-246.

Berndt, T. J. (1979). Developmental changes in conformity to peers and parents. *Developmental Psychology, 15,* 508-516.

Blishen, B. R., (1987). The 1981 socioeconomic index for occupations in Canada. *Canadian Review of Sociology and Anthropology, 24,* 465-488.

Bretherton, I., Fritz, J., Zahn-Waxler, C., & Ridgeway, D. (1986). Learning to talk about emotions: A functionalist perspective. *Child Development, 57,* 529-548.

Brown, K., Covell, K., & Abramovitch, R. (1991). Time course and control of emotion: Age differences in understanding and recognition. *Merrill-Palmer Quarterly, 37,* 273-287.

Camaioni, L. (1979). Child-adult and child-child conversations: An interactional approach. In E. Ochs & B. C. Schieffelin (Eds.), *Developmental pragmatics.* New York: Academic Press.

Campos, J. J., Mumme, D. L., Kermonian, R., & Campos, R. G. (1994). A functionalist perspective on the nature of emotion. In N. A. Fox (Ed.), The development of emotion regulation: Biological and behavioral considerations. *Monographs of the Society for Research in Child Development, 59*(2-3, Serial No. 240).

Camras, L. A., & Allison, K. (1985). Children's understanding of emotional facial expressions and verbal labels. *Journal of Nonverbal Behavior, 9,* 84-94.

Carson, J. L., & Parke, R. D. (1996). Reciprocal negative affect in parent-child interactions and children's peer competency. *Child Development, 67,* 2217-2226.

Cassidy, J., Parke, R. D., Bukovsky, L., & Braungart, J. M. (1992). Family-peer connections: The roles of emotional expressiveness within the family and children's understanding of emotions. *Child Development, 63,* 603-618.

Cole, D. A. (1987). Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology, 55,* 584-594.

Corsaro, W. (1977). The clarification request as a feature of adult interactive styles with young children. *Language in Society, 6,* 183-207.

Costigan, C.L., & Cox, M.J. (2001). Fathers' participation in family research: Is there a self-selection bias? *Journal of Family Psychology, 15,* 706-720.

Covell, K., & Miles, B. (1992). Children's beliefs about strategies to reduce parental anger. *Child Development, 59,* 1273-1285.

Crouter, A. C., & Crowley, M. S. (1990). School-age children's time along with fathers in single and dual-earner families: Implications for the father-child relationship. *Journal of Early Adolescence, 10,* 296-312.

Csikszentmihalyi, M., & Larson, R. (1984). *Being adolescent: Conflict and growth in the teenage years.* New York: Basic Books.

Cummings, E. M. (1987). Coping with background anger in early childhood. *Child Development, 58,* 976-984.

Dadds, M. R., Sanders, M. R., Morrison, M. & Rebetz, M. (1992). Childhood depression and conduct disorder: II. An analysis of family interaction patterns in the home. *Journal of Abnormal Psychology, 18,* 335-345.

Denham, S. A. (1997). "When I have a bad dream, Mommy holds me": Preschoolers' consequential thinking about emotions and social competence. *International Journal of Behavioral Development, 20,* 301-319.

Denham, S. A. (1998). *Emotional development in young children.* New York: Guilford Press.

Denham, S. A., & Couchand, E. A. (1990). Young preschoolers'understanding of equivocal emotional situations. *Child Study Journal, 20,* 193-202.

Denham, S. A., Lehman, E. B., Moser, M. H., & Reeves, S. (1995). Continuity and change in emotional components of temperament. *Child Study Journal, 25,* 289-304.

Dorval, B., & Eckerman, C. O. (1984). Developmental trends in the quality of conversation achieved by small groups of acquainted peers. *Monographs of the Society for Research in Child Development, 49*(2, Serial no. 206).

Dunn, J., Brown, J. R., & Beardsall, L. (1991) Family talk about feeling states and children's later understanding of others' emotions. *Developmental Psychology, 27,* 448-455.

Dunn, J., & Hughes, C. (1998). Young children's understanding of emotions within close relationships. *Cognition and Emotion, 12,* 171-190.

Eisenberg, N., Fabes, R. A., Carlo, G., Troyer, D., Speer, A.L., Karbon, M., & Switzer, G. (1992). The relations of maternal practices and characteristics to children's

vicarious emotional responsiveness. *Child Development, 63*, 583-602.

Eisenberg, N., Fabes, R. A., Nyman, M., Benzweig, J., & Pinuelas, A. (1994). The relations of emotionality and regulation to children's anger-related reactions. *Child Development, 65,* 109-128.

Eisenberg, N., Fabes, R. A., Shepard, S.A., Guthrie, I.K., Murphy, B.C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development, 70*, 513-534.

Ekman, P., Friesen, W. V., & Ellsworth, P. C. (1972). *Emotion in the human face.* New York: Pergamon Press.

Ervin-Tripp, S. (1979). Children's verbal turn-taking. In E. Ochs & B. Schieffelin (Eds.), *Developmental Pragmatics.* New York: Wiley.

Fabes, R. A., & Eisenberg, M. (1992). Young children's coping with interpersonal anger. *Child Development, 63,* 116-128.

Fabes, R. A., Eisenberg, N., McCormick, S. E., & Wilson, M. S. (1988). Preschoolers' attributions of the situational determinants of others' naturally occurring emotions. *Developmental Psychology, 24,* 376-385.

Fabes, R.A., Leonard, S.A., Kupanoff, K., & Martin, C.L. (2001). Parental coping with children's negative emotions: Relations with children's emotional and social responding. *Child Development, 72*, 907-920.

Felleman, E. S., Barden, R. C., Carlson, C. R., Rosenberg, L., & Masters, J. C. (1983). Children's and adults' recognition of spontaneous and posed emotional expressions in young children. *Developmental Psychology, 19,* 405-413.

Field, T. M., & Walden, T. A. (1982). Production and discrimination of facial expression by preschool children. *Child Development, 53,* 1299-1311.

Flannery, D. J., Montemayor, R., & Eberly, M. S. (1994). The influence of parent negative emotional expression on adolescents' perceptions of their relationships with their parents. *Personal Relationships, 1,* 259-274.

Gardner, F. E. M. (1989). Inconsistent parenting: Is there evidence for a link with children's conduct problems? *Journal of Abnormal Child Psychology, 17,* 223-233.

Garner, P. W. (1995). Toddlers' emotion regulation behaviors: The roles of social context and family expressiveness. *The Journal of Genetic Psychology, 156,* 417-430.

Garvey, C., & Berninger, G. (1981). Timing and turn taking in children's conversations. *Discourse Processes, 4,* 27-57.

Giles, H. (1979). Ethnicity markers in speech. In K.R. Scherer & H. Giles (Eds.), *Social markers in speech.* Cambridge, MA: Cambridge University Press.

Gjerde, P. F. (1986). The interpersonal structure of family interaction settings: Parent-adolescent relations in dyads and triads. *Developmental Psychology, 22,* 297-304.

Gottman, J. M. (1994). *What predicts divorce?* Hillsdale, NJ: Erlbaum.

Gottman, J. M., Fainsilber Katz, L., & Hooven, C. (1997). *Meta-emotion: How families communicate emotionally.* Mahway, NJ: Erlbaum.

Gottman, J. M., McCoy, K., Coan, J., & Collier, H. (1996). The specific affect coding system (SPAFF) for observing emotional communication in marital and family interaction. In J. M. Gottman (Ed.), *What predicts divorce? The measures.* Mahwah, NJ: Erlbaum.

Grolnick, W. S., Bridge, L. J., & Connell, J. P. (1996). Emotion regulation in two-year olds: Strategies and emotional expression in four contexts. *Child Development, 67,* 928-941.

Gumperz, J. J. (1976). Language communication and public negotiation. In P. Sanday (Ed.), *Anthropology and the public interest.* New York: Academic Press.

Hakim-Larson, J., & Hobart, C. J. (1987). Maternal regulation and adolescent autonomy: Mother daughter resolution of story conflicts. *Journal of Youth and Adolescence, 16,* 153-166.

Harris, J. R. (1995). *The nurture assumption: Why children turn out the way that they do.* New York: Free Press.

Hetherington, E. M., & Clingempeel, W. G. (1992). Coping with Marital Transitions. *Monographs of the Society for Research in Child Development, 57*(2-3 Serial No. 57).

Hill, J. P. (1988). Adapting to menarche: Familial control and conflict. In M. Gunnar (Ed.), *21st Minnesota Symposium on Child Psychology.* Hillsdale, NJ: Erlbaum.

Holmbeck, G. N., & Hill, J. P. (1991). Conflictive engagement, positive affect, and menarche in families with seventh-grade girls. *Child Development, 62,* 1030-1048.

Hyson, M. C. (1994). *The emotional development of young children: Building an emotion-centered curriculum.* New York: Teacher's College Press.

Izard, C. E. (1991). *Psychology of emotions.* New York: Plenum Press.

Joreskog, K. G., Sorbom, D. (1999). *LISREL 8.30: User's Reference Guide.* Chicago, IL: Scientific Software Inc.

Josephs, I. (1994). Display rule behavior and understanding in preschool children. *Journal of Non-verbal Behavior, 18*, 301-326.

Kahlbaugh, P. E., & Haviland, J. M. Nonverbal communication between parents and adolescents: A study of approach and avoidance behaviors. *Journal of Nonverbal Behavior, 18*, 91-111.

Kahlbaugh, P., Lefkowitz, E. S., Valdez, P., & Sigman, M. (1997). The affective nature of mother-adolescent communication concerning sexuality and conflict. *Journal of Research on Adolescence, 7*, 221-239.

Kaye, K., & Charney, R. (1980). How mothers maintain "dialogue" with two-year-olds. In D. R. Olson (Ed.), *The social foundations of language and thoughts*. New York: W. W. Norton.

Keenan, E. O. (1975). Conversational competence in children. *Journal of Child Language, 1*, 163-184.

Kidwell, J., Fischer, J. L., Dunham, R. M., & Baranowski, K. (1983). Parents and adolescents: Push and pull of change. In H. I. McCubbin & C. R. Figley (Eds.), *Stress in the Family: Coping with Normative Transitions.* New York: Brunner/Mazel.

Kim, K. J., Conger, R. D., Lorenz, F. O., & Elder, G. H. Jr. (2001). Parent-Adolescent reciprocity in negative affect and its relation to early adult social development. *Developmental Psychology, 37*, 775-790.

Kopp, C. B. (1989). Regulation of distress and negative emotions: A developmental view. *Developmental Psychology, 25*, 343-354.

LaFrenier, P. J., & Sroufe, L. A. (1985). Profiles of peer competence in the

preschool: Interrelations between measures, influence of social ecology, and relation to attachment history. *Developmental Psychology, 21,* 46-69.

Larson, R., & Ham, M. (1993). Stress and "storm and stress" in early adolescence: The relationship of negative events with dysphoric affect. *Developmental Psychology, 29*(1), 130-140.

Larson, R., & Lampman-Petraitis, C. (1989). Daily emotional stress as reported by children and adolescents. *Child Development, 60,* 1250-1260.

Laursen, B., Coy, K. C., & Collins, W. A. (1998). Reconsidering changes in parent-child conflict across adolescence: A meta-analysis. *Child Development, 69,* 817-832.

Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist, 46,* 352-367.

Lefkowitz, E. S., Kahlbaugh, P. Au, T., & Sigman, M. (1998). A longitudinal study of AIDS conversations between mothers and adolescents. *AIDS Education and Prevention, 10,* 351-365.

Lefkowitz, E., Kahlbaugh, P., & Sigman, M. (1996). Turn-taking in mother-adolescent conversations about sexuality and conflict. *Journal of Youth and Adolescence, 25,* 307-321.

Lefkowitz, E. S., Romo, L. F., Corona, R., Kit-fong Au, T., & Sigman, M. (2000). How Latino American and European American adolescents discuss conflicts, sexuality and AIDS with their mothers. *Developmental Psychology, 36,* 315-325.

Lewis, M. (1993). Basic psychological processes in emotion. In M. Lewis & J.

Haviland (Eds.), *Handbook of emotions* (pp. 223-236). New York: Guilford Press.

Lieberman, A. (1993). *The emotional life of the toddler.* New York: Macmillan.

Maccoby, E. (1983). Social-emotional development and response to stressors. In N. Garmezy & M. Rutter (Eds.), *Stress, coping and development in children* (pp. 217-234). New York: McGraw-Hill.

Malatesta, C. A., Culver, C., Tesman, J. R., & Shepard, B. (1989). The development of emotional expression during the first two years of life. *Monographs of the Society for Research in Child Development, 54*(1-2, Serial no. 219).

Martinez, M. A. (1987). Dialogues among children and between children and their mothers. *Child Development, 58,* 1035-1043.

McCoy, C. L., & Masters, J. C. (1985). The development of children's strategies for the social control of emotion. *Child Development, 56,* 1214-1222.

Mischler, E. G., & Waxler, N. E. (1968). *Interaction in families: An experimental study of family process and schizophrenia.* New York: Wiley.

Mook, D. G. (1983). In defense of external invalidity. *American Psychologist, 38,* 379-387.

Montemayor, R., & Brownlee, J. R. (1987). Fathers, mothers, and adolescents: Gender-based differences in parental roles during adolescence. *Journal of Youth and Adolescence, 16,* 281-291.

Montemayor, R., Eberly, M., & Flannery, D. J. (1993). Effects of pubertal status and conversation topic on parent and adolescent affective expression. *Journal of Early Adolescence, 13,* 431-447.

Natale, M. (1975). Social desirability as related to convergence of temporal speech patterns. *Perceptual and Motor Skills, 40,* 827-830.

Ortony, A., & Turner, T. J. (1990). What's basic about basic emotions? *Psychological Review, 97,* 315-331.

Papini, D. R., Datan, N., & McClusky-Fawcett, K. A. (1988). An observational study of affective and assertive family interactions during adolescence. *Journal of Youth and Adolescence, 17,* 477-492.

Papini, D. R., Roggman, L. A., & Anderson, J. (1991). Early-adolescent perceptions of attachment to mother and father: A test of the emotional-distancing and buffering hypotheses. *Journal of Early Adolescence, 11,* 259-275.

Prinz, R., Foster, S., Kent, R., & O'Leary, K. (1979). Multivariate assessment of conflict in distressed and nondistressed mother-adolescent dyads. *Journal of Applied Behavioral Analysis, 12,* 691-700.

Riese, M. L. (1990). Neonatal temperament in monozygotic and dizygotic twin pairs. *Child Development, 21,* 901-908.

Ridgeway, E., & Kuczaj, S. (1985). Acquisition of emotion-descriptive language: Receptive and productive vocabulary norm for ages 18 months to 6 years. *Developmental Psychology, 21,* 901-908.

Roberts, W. L. (2001). *Programs for the collection and analysis of observational data: Manual for the beta windows 98 edition.* Kamloops: Author.

Robin, A. L., & Foster, S. L. (1989). *Negotiating parent-adolescent conflict: A behavioral-family systems approach.* New York: Guilford.

Rodick, J. D., Henggeler, S. W., & Hanson, C. L. (1986). An evaluation of the family adaptability and cohesion evaluation scales and the circumplex model. *Journal of Abnormal Child Psychology, 14*, 77-87.

Russel, J. A. (1990). The preschoolers' understanding of the causes and consequences of emotion. *Child Development, 61,* 1872-1881.

Ryan, E.B. (1979). Why do low prestige language varieties persist? In H. Giles & R.N. St. Clair (Eds.), *Language and social psychology*. Baltimore, MD: University Park Press.

Saarni, C. (1990). Emotional competence: How emotions and relationships become integrated. *The Nebraska Symposium of Motivation, 36,* 115-182.

Saarni, C. (1999). *The development of emotional competence.* New York: Guilford.

Sacks, H., Schegloff, E. A., & Jefferson, G. A. (1974). A simplest systematics for the organization of turn taking for conversation. *Language, 50,* 697-735.

Salovey, P., & Mayer, J. D. (1989-1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.

Scherer, K.R. (1981). Speech and emotional states. In J.K. Darby (Ed.), *Speech evaluation in psychiatry*. New York: Grune & Stratton.

Schley, S., & Snow, C. (1992). The conversational skills of school-aged children. *Social Development, 1,* 18-35.

Scollon, R. (1985). The machine stops: Silence in the metaphor of malfunction. In D. Tannen & M. Saville-Troike (Eds.), *Perspective on silence.* Norwood, NJ: Ablex.

Schatz, M. (1979). How to do things by asking: Form-function pairing in mother questions and their relation to children's responses. *Child Development, 50,* 1093-1099.

Shek, D. T. L. (1998). A longitudinal study of the relations of family factors to adolescent psychological symptoms, coping resources, school behavior, and substance abuse. *International Journal of Adolescent Medicine and Health, 10,* 155-184.

Shortt, J. W., Bush, J. L., McCabe, J. L., Gottman, J. M., & Fainsilber Katz, L. (1994). Children's physiological responses while producing facial expressions of emotions. *Merrill-Palmer Quarterly, 40,* 40-59.

Siegman, A.W. (1985). Expressive correlates of affective states and traits. In A.W. Siegman & S. Feldstein (Eds.), *Multichannel integrations of nonverbal behavior.* Hillsdale, NJ: Erlbaum.

Siegman, A.W. (1987). The telltale voice: Nonverbal messages of verbal communication. In A.W. Siegman & S. Feldstein (Eds.), *Nonverbal behavior and communication* (2nd ed.). Hillsdale, NJ: Erlbaum.

Siegman, A.W., Anderson, R.A., & Berger, T. (1990). The angry voice: Its effects on the experience of anger and cardiovascular reactivity. *Psychosomatic Medicine, 52,* 631-643.

Silverberg, S. B., & Steinberg, L. (1990). Psychological well-being of parents with early adolescent children. *Developmental Psychology, 26,* 658-666.

Snow, C. E. (1977). The development of conversation between mothers and babies. *Journal of Child Language, 4,* 1-22.

Steinberg, L. D. (1981). Transformations in family relations at puberty.

Developmental Psychology, 17, 833-840.

Steinberg, L., & Silverberg, S. B. (1986). The vissitudes of autonomy in early adolescence. *Child Development, 57,* 841-851.

Steinberg, L., & Silverberg, S. B. (1987). Influences on marital satisfaction during middle stages of the family life cycle. *Journal of marriage and the family, 49,* 751-760.

Stifter, C., & Fox, N. (1987). Preschoolers' ability to identify and label emotions. *Journal of Nonverbal Behavior, 10,* 255-266.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics (4th ed.).* Boston, MA: Allyn and Bacon.

Tannen, D. (1983). When is an overlap not an interruption? One component of conversational style. In R. Dipietro, W. Frawley & A. Wedel (Eds.), *The 1st Delaware symposium on language studies.* Newark, DE: University of Delaware Press.

Tannen, D. (1984). *Conversational style: Analyzing talk among friends.* Norwood, NJ: Ablex.

Tannen, D. (1989). Interpreting interruption in conversation. In B. Music, R. Graczyk & C. Wiltshire (Eds.), *Papers from the 25th annual regional meeting of the Chicago Linguistic Society.* Chicago, IL: Chicago Linguistic Society.

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. In N. A. Fox (Ed.), The development of emotion regulation: Biological and behavioral considerations. *Monographs of the Society for Research in Child Development, 59*(2-3, Serial no. 240), 25-52.

Tomkins, S. (1962). *Affect, imagery, and consciousness: Vol. 1. The positive*

affects. New York: Springer

Tomkins, S. (1963). *Affect, imagery, and consciousness: Vol. 2. The negative affects.* New York: Springer.

Tomkins, S. (1991). *Affect, imagery, and consciousness: Vol. 3. The negative affects: Anger and fear.* New York: Springer.

Tullock, A. L., & Pinkus, Z. (1997). Adolescent-parent communication in self-harm. *Journal of Adolescent Health, 21,* 267-275.

Vaughn, B. C., Contreras, J., & Seifer, R. (1993). Short-term longitudinal study of maternal ratings of temperament in samples of children with Down's syndrome and children who are developing normally. *American Journal of Mental Retardation, 8,* 65-76.

Warner, R.M., & Strowman, S.R. (1995). Cardiovascular reactivity and positive/negative affect during conversations. *Journal of Behavioral Medicine, 18,* 141-159.

Welkowitz, J., & Feldstein, S. (1969). Dyadic interaction and induced differences in perceived similarity. *Proceedings of the 77th Annual Convention of the American Psychological Association, 4,* 343-344.

Werner, E. E. (1989). High-rish children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry, 59,* 72-81.

Whalen, C. K., Henker, B., Hollingshead, J., & Burgess, S. (1996). Parent-adolescent dialogue about AIDS. *Journal of Family Psychology, 10,* 343-357.

Whissell, C. K., & Nicholson, H. (1991). Children's freely produced synonyms for

seven key emotions. *Perceptual and Motor Skills, 72,* 1107-1111.

Youniss, J., & Smollar, J. (1985). *Adolescent relationships with mothers, fathers and friends.* Chicago, IL: University of Chicago Press.

Zahn-Waxler, C., Iannotti, R. J., Cummings, E. M., & Denham, S. A. (1990). Antecedents of problem behaviors in children of depressed mothers. *Development and Psychopathology, 3,* 271-292.

Zahn-Waxler, C., & Radke-Yarrow, M. (1990). The origin of empathic concern. *Motivation and Emotion, 14,* 107-130.

Zimmerman, D. H., & West, C. (1975). Sex roles, interruptions and silences in conversation. In B. Thorne & N. Henley (Eds.), *Language and sex: Differences and dominance.* Rowley, Mass: Newbury House.

Appendix A

Consent Form and Demographic Questionnaire for Parents

I have heard about the research project on parent-child communication during adolescence and adulthood being conducted under the supervision of Dr. Sherry Beaumont of the Psychology Department at the University of Northern British Columbia. I understand that all information gathered for this project is to be used for research purposes only and will be considered confidential. I also understand that permission to participate may be withdrawn at any time.

Name: _____

Mailing Address: _____

Signature: _____

Please answer the following questions about yourself for our records.

Date of birth: _____ Place of birth: _____

Ethnicity: _____ Aboriginal _____ African-Canadian (or African-American)
_____ Asian _____ Other: _____
_____ Caucasian

Sex: _____ male _____ female

Check the highest education level completed by yourself and your spouse (if applicable):

You:	Your Spouse:	
____	____	elementary school (please specify grade completed ____)
____	____	secondary school (please specify grade completed ____)
____	____	high school diploma
____	____	trade/technical school (please specify: _____)
____	____	some college
____	____	college diploma (please specify: _____)
____	____	some university
____	____	university degree (please specify: _____)
____	____	Other (please specify: _____)

Occupation: _____

Spouse's occupation (if applicable): _____

Marital Status: ___ single (never been married) ___ divorced
___ married or common-law ___ widowed
___ separated

Which of the following best describes your child's family situation? (i.e., the child who is participating in this study with you)

My child lives with:

____ biological mother only
____ biological father only
____ both biological parents
____ biological mother & stepfather
____ biological father & stepmother
____ adoptive parent(s)
____ foster parent(s)
____ other relative or guardian

How many children do you have and what are there ages (or birth dates)?

Appendix B

Consent Form and Demographic Questionnaire for Adolescents

I have heard about the research project on parent-child communication during adolescence and adulthood being conducted under the supervision of Dr. Sherry Beaumont of the Psychology Department at the University of Northern British Columbia. I understand that all information gathered for this project is to be used for research purposes only and will be considered confidential. I also understand that permission to participate may be withdrawn at any time.

Name: _____

Mailing Address: _____

Signature: _____

Signature of parent or guardian (if under 18): _____

Please answer the following questions about yourself for our records.

Date of birth: _____ Place of birth: _____

Ethnicity: _____ Aboriginal _____ African-Canadian (or African-American)
_____ Asian _____ Other: _____
_____ Caucasian

Sex: _____ male _____ female

Check your highest education level completed:
____ elementary school (please specify grade completed ____)
____ secondary school (please specify grade completed ____)
____ high school diploma
____ other (please specify: _____)

Do you have a job? ____ no ____ yes (specify: _____)

Appendix C

OPINION QUESTIONNAIRE

Here are a number of situations that people face in their lives. People have different ideas about what to do in these situations, and we are interested in your own personal opinion about them.

Please put a check mark (√) next to the alternative that comes closest to your own opinion. Please choose only ONE answer for each question.

1. The parents of a 14-year-old girl want to buy their daughter a new coat. The girl would like to pick out the coat herself to be sure it is in the same style as her friends wear. Her parents want to get a more practical coat for her, one that will last for several seasons. Should the girl pick out the coat herself, or should the parents have the final word?
   _____ Girl should pick coat herself
   _____ Parents should have final word

2. Mrs. Jones has a problem with her 3-month-old baby, who often cries when nothing is wrong with him, even after he's been fed and changed. The doctor says the baby is in good health, and says that all babies cry sometimes. The baby's crying upsets Mrs. Jones and she wonders what to do. What would you advise her?
   _____ Pick up the baby, or play with him, when he cries
   _____ Let him cry, and try to get used to it

3. Some people believe that there is nothing a person can't do or be if he wants to, and if he really works hard. Do you agree or disagree?
   _____ Agree
   _____ Disagree

4. Margaret has been seeing a man whom she likes very much and they are starting to get serious. She has never told him that she was engaged once before, several years ago, and that it ended unhappily. She hesitates to tell him now because it might seem strange that she never mentioned it before. Do you think she should tell him about it or just remain silent?
   _____ Tell him
   _____ Remain silent

5. A 20-year-old boy who lives at home prefers to go with his parents when they visit their friends and relatives rather than to spend time in social activities with friends his own age. The parents feel that this is not good for him but do not know what to do. Do you think they should let him come with them as long as he wants to, or should they put more pressure on him to spend time with friends his own age?
   _____ Let him come with them as long as he wants to
   _____ Pressure him to spend time with friends his own age

6. A foreman sees one of his crew taking some company materials home from work. Should he report him or should he just ignore it?
_____ Report him
_____ Just ignore it

7. You are traveling on the train by yourself when a middle-aged woman sits down next to you to talk about her trip and asks questions about you. Would you talk to her about yourself or would you begin to read your newspaper so she would stop talking to you?
_____ Talk to her about yourself
_____ Read your newspaper

8. George has just begun a new job and doesn't know anyone in his crew. A few of the men get together to go bowling after work and have asked him to join them. Should he join them right away or would it be better to wait a while before getting involved with one particular group?
_____ Join in right away
_____ Wait a while

9. Since her husband died, Mrs. Green has been living alone. She has not been feeling well lately and her daughter is worried about there not being anyone there to take care of her. She wants Mrs. Green to give up her house and come to live with her. Mrs. Green wants to stay in her own house. Do you think it would be best for her to stay in her own home or go to live with her daughter?
_____ Stay in her own home
_____ Live with her daughter

10. A 6-year-old boy comes home from school crying. He tells his mother that another little boy in his class hit him. His mother tells him to stop being a crybaby and to hit the other boy back next time. Do you think that was the right thing to tell him or not?
_____ Right thing to tell him
_____ Not the right thing

11. Mrs. Allen, a widow, has asked her son to wallpaper some rooms in her house and to do some repair work for her. His wife wants him to do work around their own house that needs to be done. Do you think his mother has the right to expect him to do work at her house?
_____ Yes
_____ No

12. When a 17-year-old girl has a party at her house, should her parents go out for the evening to give her and her friends privacy, or should they stay home?
_____ Should go out
_____ Should stay home

13. A Boy Scout group plans to enter a magazine subscription contest. Under the rules of the contest a boy can either try for the individual prize of a bicycle or put his subscriptions in with the other boys in his group to try for the TV set. Some boys think that they should all put their subscriptions together to try for the TV set, other boys think they should each have a chance to try for the bicycle. What do you think they should do?
_____ Put subscriptions together for TV set
_____ Let each boy try for the bicycle

14. Mrs. Jones is worried about her 11-year-old son, who very often talks back to her when she asks him to do something. She feels that if she lets him talk back he will lose respect for her. But she also wonders if it isn't sometimes good to let a child express how he feels even when it is toward his parents. Do you think it would be a good idea to let him talk back sometimes?
_____ Yes
_____ No

15. Some parents think children should not be disciplined very strictly; others feel children should be strictly disciplined so they learn early about what things are right and wrong. What do you think parents should do?
_____ Not use strict discipline
_____ Use strict discipline

16. Now that Ryan is two years old, his mother has decided to take a part-time job because the family needs extra money. While she is at work, an older woman comes over to take care of him. Ryan likes this woman but misses his mother a lot, and doesn't feel like playing when she isn't there. What do you think his mother should do?
_____ Stop work and stay at home with him
_____ Continue working and let him get used to her being away

17. Mrs. Thomas is concerned about her 19-year-old son who she feels is always making plans that he does not carry out. For instance, he may decide in the evening to look for a job the next day, but when morning comes she cannot get him out of bed. Do you think Mrs. Thomas should try to pressure him or should she let him carry out his plans in his own way?
_____ Pressure him
_____ Let him carry out plans in his own way

18. Jim is very worried about his job and his girlfriend. One day when he meets a friend, he tells him about the whole problem. Afterward, he reconsiders and thinks that he should have kept his personal problems to himself. Which do you think he should have done?
_____ Told his friend about his problems
_____ Kept his personal problems to himself

19. Mrs. Burn's husband died two weeks ago and since then she has spent most of her time sitting at home and feeling sad. Her daughter insists that it would be better right now for her to find things to do and keep busy so that she won't think about her husband's death. Which do you think is better?
_____ Keep busy and not think about him
_____ Take time to get over his death

20. The question of bedtime is an issue in many families. Do you think a 15-year-old should be allowed to have the final word about what time he goes to bed, or should his parents have the last word?
_____ 15-year-old should have final say
_____ Parents should have last word

21. The doctor has come to the conclusion, after many tests and examinations, that his patient, Mr. Weber, has an incurable illness. Should he tell Mr. Weber the truth or should he put off telling him as long as possible?
_____ Tell him the truth
_____ Put off telling him

22. Mr. and Mrs. Adams have saved a considerable amount of money during their 35 years of marriage. Mrs. Adams suggests that they give some of this money to their son, who needs it to go into business for himself. Mr. Adams thinks they should use the money themselves to enjoy some of the things they have worked hard for, like going to Florida in the Winter. What would you advise them to do?
_____ Give some of the money to their son
_____ Use it to enjoy things they worked hard for

23. Jean is 19 years old and has been going with one guy, whom she likes, steadily for the past year and feels that she has gotten to know him well. Sometimes she feels, though, that it would be better to go out with many guys and not get too involved with one person yet. Which do you think is better?
_____ Go out with one
_____ Go out with many

24. Children are often disturbed when they find out that their own parents sometimes tell "white lies," that is, small lies to avoid embarrassing situations or hurting someone's feelings. Should parents try to explain why they have to tell these lies so the children will not be disturbed when they hear them, or should they always avoid telling any kind of lies when the children are around?
_____ Explain "white lies" to children
_____ Avoid telling any lies

25. Mrs. Collins is taking Peter to kindergarten for the first time. Peter says that he wants to wear his old baseball cap. Mrs. Collins would like to let him wear it since he wants to, but she knows that the other children will be dressed in their best clothes and she'll be embarrassed in front of the other mothers if he wears the old hat. Should she let him wear it, or not?

_____ She should let him wear it
_____ She should not let him wear it

26. Mr. and Mrs. Carter's 20-year-old son sometimes leaves the house for long periods of time without telling his parents where he is going and refuses to tell them wear he's been when he returns. His father and mother feel they have a right to know how he spends his time. Do you think he has a right to keep this to himself, or should he tell his parents?
_____ Has a right to keep this to himself
_____ Should tell his parents

27. Human nature being what it is, there will be wars and conflicts. Do you agree with this?
_____ Agree
_____ Disagree

28. Mrs. Johnson's mother is a widow who is now bedridden and needs someone to take care of her. Mrs. Johnson is thinking of having her mother come to live with her. However, she has three children at home who are still in school and she wonders if it might be better for her mother to go into a nursing home. Which do you think she should do?
_____ Have her mother come to live with her
_____ Have her mother go into a nursing home

29. Janice has been spending a lot of time with a girl in her high school class that her parents disapprove of. They feel this other girl is a bad influence and want Janice to stop seeing her. Janice feels she has a right to pick her own friends. Do you think Janice is right in this?
_____ Yes
_____ No

30. Mrs. Rogers wants to send her 4-year-old girl to nursery school. The little girl is afraid to be with the other children unless her mother is with her, and she has cried each time Mrs. Rogers has left her at the school. Do you think it is better to send her to school even though she cries about it, or would it be better to wait until she's older?
_____ Better to send her to school
_____ Better to wait until she's older

31. Mrs. Williams discovers that a 10-dollar bill that was on her dining room table has disappeared. Suddenly she notices that her daughter's 5-year-old playmate has the bill sticking out of her back pocket. The child refuses to admit that she took the money. Mrs. Williams knows her mother will punish the girl very harshly. Should she tell her mother about this or not?
_____ Should tell child's mother
_____ Should not tell child's mother

32. A 15-year-old boy has ideas about religion that differ from those of his parents. His father becomes annoyed when he expresses these ideas and many arguments have arisen. Do you think he should keep his ideas to himself to avoid arguments, or does he have a right to express his own ideas if he wants to?
_____ Should keep his ideas to himself
_____ Has the right to express his own ideas

33. At what age do you think it is proper for a girl to begin dating? That is, going with a boy to a movie or going out with him when they're not with a group their own age. Fourteen or older, or under fourteen?
_____ Fourteen or older
_____ Under fourteen

34. When a committee is working together, is it important for the chairman to help people get along well together or is it more important for him to make sure that the job gets done regardless of how people feel?
_____ Help people get along well together
_____ Make sure the job gets done

35. Some parents feel that obedience and respect for authority are the most important virtues children should learn. Do you agree?
_____ Agree
_____ Disagree

Appendix D

Number of Dyads Who Discussed Each Revealed Difference Item

Item #	D-M	S-M	D-F	S-F	Total
1	10	5	6	6	27
2	1	0	1	1	3
4	1	1	1	1	4
5	0	1	0	1	2
6	5	2	2	2	11
7	3	1	1	2	7
8	1	1	0	1	3
9	3	2	2	1	8
11	12	15	12	12	51
12	11	0	14	14	39
13	0	0	1	1	2
14	7	7	9	10	33
15	5	3	3	6	17
16	0	1	0	0	1
17	6	10	6	7	29
18	4	3	1	1	9
19	0	0	1	0	1
20	12	11	12	10	45
23	7	10	11	7	35
24	9	5	7	5	26
26	8	9	10	8	35
28	5	1	4	5	15
29	1	1	6	1	9
30	0	1	0	0	1
31	9	10	9	6	34
33	0	0	0	1	1
34	0	1	1	1	3
35	0	0	1	0	1

Legend: D-M = daughter mother; S-M = son-mother; D-F = daughter-mother; S-F = son-father

Appendix E

Parent Version of the Conflict Behavior Questionnaire

You are filling out this questionnaire regarding your ___ son ___ daughter (check one) who is _____ years old. Think back over the last 2 weeks at home. The statements below have to do with you and your child. Read the statement, then decide if you believe the statement is true. If it is true, then circle true, and if you believe the statement is not true, circle false. You must circle true or false, but never both for the same item. Please answer all items. Your answers will not be shown to your child.

true false 1. My child is easy to get along with.
true false 2. My child is receptive to criticism.
true false 3. My child is well-behaved in our discussions.
true false 4. For the most part, my child likes to talk to me.
true false 5. We almost never seem to argue.
true false 6. My child usually listens to what I tell him/her.
true false 7. At least three times a week, we get angry at each other.
true false 8. My child says that I have no consideration for his/her feelings.
true false 9. My child and I compromise during arguments.
true false 10. My child often does not do what I ask.
true false 11. The talks we have are frustrating.
true false 12. My child often seems angry at me.
true false 13. My child acts impatient when I talk.
true false 14. In general, I don't think we get along very well.
true false 15. My child almost never understands my side of an argument.
true false 16. My child and I have big arguments about little things.
true false 17. My child is defensive when I talk to him/her.
true false 18. My child thinks my opinions don't count.
true false 19. We argue a lot about rules.
true false 20. My child tells me she/he thinks I am unfair.

Appendix E

Adolescent Version of the Conflict Behavior Questionnaire

Think back over the last month. The statements below have to do with you and your mother. Read the statement, and then decide if you believe the statement is true. If it is true, then circle true, and if you believe the statement is not true, circle false. You must circle true or false, but never both for the same item. Please answer all items. Your answers will not be shown to your parents.

true false 1. My mom doesn't understand me.
true false 2. My mom and I sometimes end our arguments calmly.
true false 3. My mom understands me.
true false 4. We almost never seem to argue.
true false 5. I enjoy the talks we have.
true false 6. When I state my opinion, she gets upset.
true false 7. We often get angry at each other.
true false 8. My mother listens when I need someone to talk to.
true false 9. My mom is a good friend to me.
true false 10. She says I have no consideration for her.
true false 11. My mom often seems angry at me.
true false 12. My mother is bossy when we talk.
true false 13. The talks we have are frustrating.
true false 14. My mom understands my point of view even when she doesn't agree with me.
true false 15. My mom seems to be always complaining about me.
true false 16. In general, I don't think we get along very well.
true false 17. My mom screams a lot.
true false 18. My mom puts me down.
true false 19. If I run into problems, my mom helps me out.
true false 20. I enjoy spending time with my mother.

Think back over the last month. The statements below have to do with you and your father. Read the statement, and then decide if you believe the statement is true. If it is true, then circle true, and if you believe the statement is not true, circle false. You must circle true or false, but never both for the same item. Please answer all items. Your answers will not be shown to your parents.

true false 1. My dad doesn't understand me.
true false 2. My dad and I sometimes end our arguments calmly.
true false 3. My dad understands me.
true false 4. We almost never seem to argue.
true false 5. I enjoy the talks we have.
true false 6. When I state my opinion, he gets upset.
true false 7. We often get angry at each other.
true false 8. My father listens when I need someone to talk to.
true false 9. My dad is a good friend to me.
true false 10. He says I have no consideration for him.
true false 11. My dad often seems angry at me.
true false 12. My father is bossy when we talk.
true false 13. The talks we have are frustrating.
true false 14. My dad understands my point of view even when he doesn't agree with me.
true false 15. My dad seems to be always complaining about me.
true false 16. In general, I don't think we get along very well.
true false 17. My dad screams a lot.
true false 18. My dad puts me down.
true false 19. If I run into problems, my dad helps me out.
true false 20. I enjoy spending time with my father.

Appendix G

Instructions for Transcribing Overlapping Speech
(© Beaumont, 1993)

There are four different occasions when the two speakers could be talking at the same time. Type each according to the following examples (with slashed lines indicating that the two speakers were talking at the same time):

(1) Listener Response: something the second speaker says to encourage the first speaker to continue (e.g., mhmm, that's right).

F: Now I go to bed at 10:00, so it's like /not/
C: /Mhmm./
F: really a rule.

M: Privacy in terms of our opinions.
C: /Mhmm./
M: /We're/ allowed to have them.

(2) Interruption: when the second speaker cuts the first speaker off before she is finished.

Successful:

F: Ya, you /have to/
C: /They keep/ making noise.

Unsuccessful:

M: I don't think /that/
C: /But/
M: is a very good rule.

(3) Overlap: when both speakers begin talking at the same time after a pause or end of a sentence.

C: One rule. /Um/
F: /Think/ of a real simple rule.

F: I don't know what the rule should be.
C: /Change your socks./
F: /Tell your parents/ wherever you go.

M: But that's pretty (pause) /uh/
C: /But/ I mean.....

(4) Overlap: when the second speaker overlaps on the first speaker's last word.

C: Make sure your room is clean young /lady/.
F: /No./ I don't like that rule.

(5) Simultaneous Speech: when two speakers talk at once.

C: I don't know /what rule to chose because we/
F: /I know what the rule should be./
C: don't have many rules in our house.