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AUTONOMY AND RELATEDNESS IN FAMILY INTERACTIONS WITH DEPRESSED ADOLESCENTS

by

Karen Pavlidis

A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

University of Washington

1998

Approved by ______________________
Chairperson of Supervisory Committee

Program Authorized to Offer Degree Department of Psychology

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Abstract

AUTONOMY AND RELATEDNESS DURING FAMIY INTERACTIONS WITH DEPRESSED ADOLESCENTS

by Karen Pavlidis

Chairperson of the Supervisory Committee: Professor Mark T. Greenberg
Department of Psychology

Depression is a significant problem among adolescents, especially females. The current study investigated interaction patterns along the dimensions of autonomy and relatedness in families of depressed adolescents. Externalizing adolescents and nonclinic adolescents were included as controls. Family interaction was assessed by observational coding of a mother-adolescents problem-solving task, as well as by mother and adolescent reports of family functioning. Adolescent self-concept was also assessed as a potential mediator in the link between family interaction and adolescent depression. Results suggest that depressed adolescents perceive the quality of their relationships with their parents to be significantly impaired. Mothers of depressed adolescents reported heightened conflict with their depressed adolescents, but not in the general home environment. Observation of depressed adolescents and their mothers during the problem-solving task revealed that although mothers showed normal levels of warmth and involvement, they tended to ignore or cut-off statements made by their adolescents.

Several interesting gender differences emerged within the depressed group. During the observation task, depressed girls and their mothers showed higher levels of autonomy and a more positive connection relative to depressed boys and their mothers. Similarly, homes of depressed boys were perceived by mothers as especially low in cohesion and expressiveness and as high in control. It appeared that depressed girls seemed caught between wanting their autonomy and their desire for positive relatedness. Depressed boys appeared to be more resigned and passive in the face of high levels of control in the home. Finally, self-concept was significantly impaired in the depressed adolescents although it did not mediate the relationship between family interaction and adolescent depression.

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LIST OF ABBREVIATIONS

ANOVA. Analysis of variance

CBCL. Child Behavior Checklist

ARCS. Autonomy and Relatedness Coding System

DSM-III. Diagnostic and Statistic Manual of Mental Disorders (Third Edition)

DSM-III-R. Diagnostic and Statistic Manual of Mental Disorders (Third Edition - Revised)

DSM-IV. Diagnostic and Statistic Manual of Mental Disorders (Fourth Edition)

DSS. Depressive symptom severity.

FES. Family Environment Scale

GAS. Global assessment of social functioning

GAF. Global assessment of functioning

IPPA. Inventory of Parent and Peer Attachment

K-SADS. Schedule for Affective Disorders and Schizophrenia for School Age Children

M. Mean

N. Number

PHSCS: Piers-Harris Self-Concept Scale

SD. Standard Deviation

SCID-NP. Structured Clinical Interview for DSM-III-R.

SES. Socioeconomic status

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DEDICATION

I wish to dedicate this dissertation to my beloved parents, Marion and Theodosios Pavlidis. Their constant devotion as parents, love, and encouragement have made my accomplishments possible.

INTRODUCTION

It is well recognized that the quality of family relationships is associated with emotional and behavioral adjustment throughout the lifespan. Although interaction patterns have been clearly articulated in families of youths with disruptive behavior problems (Frick, 1994; Gardner, 1992; Greenberg, Speltz, & DeKlyen, 1993; Patterson, 1982), much less is known about how family interaction relates to depression, a disorder that increases in saliency during the adolescent years. Adolescent depression is known to have a negative impact on psychosocial functioning and to pose a risk for recurrent depressive episodes (McCauley et al., 1993; Harrington & Vostanis, 1993)

Clearly, we need to understand how family factors may relate to depression in young people. The purpose of the current study is to identify family interaction characteristics that are associated with adolescent depression, with focus on dimensions of family interaction that are especially salient to the adolescent period. A major task of adolescence is to develop autonomy while maintaining positive family connections. Therefore, two major areas of investigation that may be relevant to families of depressed youths include 1) the manner in which parents and their adolescents negotiate autonomy and 2) the quality of family relatedness, which encompasses cohesion and support as well as conflict and hostility. The current study investigated autonomy and relatedness using both self-report and observational methods. In order to identify family interaction patterns that may be specifically associated with adolescent depression, externalizing

adolescents and nonclinic adolescents were included as comparison groups. The current study is one of the first efforts to systematically investigate observed interactions with clinically depressed adolescents and their families.

CHAPTER 1: BACKGROUND

Depression in adolescence

Although the general incidence of psychopathology increases only moderately during the adolescent years, the frequency of depression rises greatly, particularly in females (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Rutter, Grahm, Chadwick, & Yule, 1976). It is estimated that approximately 5-10% of adolescents experience serious depression (Fleming & Offord, 1990; Garrison, Addy, Jackson, McKeown, & Waller,1992; Lewinsohn et al., 1993; Petersen, et al., 1993; Rutter et al., 1976). The onset and gender pattern of depression is in contrast to externalizing disorders, which tend to emerge earlier in childhood and are more prevalent in males (Ebata, Petersen, & Conger, 1990).

The striking age and gender patterns in depression rates indicate that a developmental theoretical framework is needed to understand risks for adolescent depression. Therefore, knowledge of typical adolescent development can serve as a useful guide for research on depressed adolescents and their families.

Adolescent development and the adolescent-parent relationship

Dramatic changes occur during adolescence in a variety of domains, including biological, cognitive, and social development. Given such rapid developmental transformations and the expectation that, particularly within Western cultures, adolescents will develop independence and the skills needed to function apart from the

family (e.g. Baltes & Silverberg, 1994; Petersen & Leffert, 1995), it is not surprising that the nature of parent-adolescent relationships shifts as well. However, while it was once believed that healthy adolescent development is characterized by rebellion and detachment from parents (Blos, 1979; Elder, 1968; A. Freud, 1958), it is now understood that adolescent autonomy develops optimally in the context of close and positive family relationships (e.g. Josselson, 1988). Furthermore, autonomy is not a developmental task new to the adolescent period, but rather is a task that is revisited throughout development (Baltes & Silverberg, 1994; Kegan, 1982). Rapid developmental changes during adolescence and the approach of adulthood, however, make the adolescent period of increasing autonomy unique.

Despite the growing need for an increasingly separate identity during adolescence, there is evidence that adolescent emotional autonomy, or detachment, from the family may be related to poor adolescent adjustment (Papini & Roggman, 1992; Ryan & Lynch, 1989). Emotional detachment is associated with low self-esteem, loneliness, poor identity achievement, low self-reliance, low resistance to peer pressure, and substance use (Moore, 1987; Steinberg & Silverberg, 1986; Turner, Irwin, Tschann, & Millstein, 1993).

The concept that healthy adolescent autonomy occurs in the context of connected family relationships can represented by the term *autonomy-relatedness*. This phrase was coined by Bowlby (Murphey, Silber, Coelho, & Hamburg, 1962), and has recently been adopted by Allen and colleagues (Allen, Hauser, Bell, & O'Connor, 1994). Autonomy-relatedness can be conceptualized within the framework of adolescent attachment, where

the central features of attachment during infancy through early childhood extend to the adolescent period. As in earlier development, parents continue to provide a secure base from which the adolescent can explore (Allen, Hauser, Bell, & O'Connor, 1994; Bowlby, 1988). During adolescence, attachment themes generally take the form of parental support of the adolescent's autonomy and independence while maintaining a warm and supportive parent-adolescent relationship (Bowlby, 1973). The concept of a goal-corrected partnership, the parent-child negotiation of a joint plan, has also been extended to later years (Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993; Marvin & Greenberg, 1982). As cognitive advances evolve, the adolescent is increasingly able to incorporate the parent's perspective in their interpersonal negotiation strategies (Selman, Beardslee, Hickey Schultz, Krupa, & Podorefsky,1986). Since the adolescent is better able to consider the parent's role and needs, changes in how the parent and adolescent communicate about satisfying the adolescent's needs may occur. Secure attachment to parents during the adolescent period is likely characterized by mutual perspective taking and successful resolution of parent-adolescent conflict.

The relevance of secure attachment to adolescent functioning has been demonstrated empirically. Adolescents who report feeling more secure in their relationships with their parents report higher self-esteem (Armsden & Greenberg, 1987; Greenberg, Siegel, & Leitch, 1983; Rice, 1990), self-perceived competence (Papini & Roggman, 1992), self-assertion (Kenney, 1987), and academic competence (Lamborn & Steinberg, 1993). Adolescents with insecure states of mind with regard to attachment are

perceived by peers as more hostile, distressed, and lonely than secure adolescents (Kobak & Sceery, 1988).

Adolescents who perceive their parents as supporting their autonomy actually report feeling more secure in their relationship with their parents. Allen and Hauser (1996) showed that mothers who exhibited autonomy and who were positively connected with their adolescents during problem-solving discussions had adolescents who later, during young adulthood, demonstrated more security in their descriptions of their attachments. In addition, college students who reported that their parents encourage independence reported higher felt attachment security to their parents (McCormick & Kennedy, 1994). Adolescents who perceive their parents as promoting their independence have higher self-esteem (McCormick & Kennedy, 1994; Ryan & Lynch, 1989), delayed onset of sexual intercourse (Turner, et al., 1993), and a lower incidence of drug use (Baumrind, 1991a). These findings suggest that parent support for adolescent autonomy is an important aspect of healthy adolescent-parent attachment.

Studies investigating actual interactions between adolescents and their parents have yielded consistent findings. Behaviors during family interactions that are associated with adaptive adolescent functioning include low levels of hostility and demandingness, high levels of parent warmth and support, comfort with other family members' expression of differences, responsiveness to alternative viewpoints expressed by other family members, and focused problem-solving efforts (Bell & Bell, 1983; Capaldi, Forgatch, & Crosby, 1994; Grotevant & Cooper, 1985; Kobak et al., 1993). Warmth and support

during interactions are associated with adolescent positive self-concept (Allen, Hauser, Bell, & O'Connor, 1994; Bell & Bell, 1983; Capaldi et al., 1994), greater identity exploration (Grotevant & Cooper, 1985), and higher levels of ego development (Bell & Bell, 1983; Hauser et al., 1984). Interactions characterized by parents who attempt to demand and control their adolescent's behavior, in contrast, are more likely to exhibit maladaptive parent-adolescent relationships (Inoff-Germaine, Nottelman, Arnold, & Susman, 1988; Prinz, Rosenblum, & O'Leary, 1978).

Overall, it appears that optimal adolescent functioning requires supportive parental control, guidance, and responsiveness to the adolescent's autonomy and connectedness needs. It is important to note, however, that the study of parenting behaviors merits a sensitivity to ethnic and class influences. For example, although controlling parental behavior is often viewed negatively within middle-class white society, there is evidence that such behavior may be associated with adaptive outcomes within communities where high rates of danger are present (Baldwin et al., 1993; Cauce, 1995).

Parent-Adolescent Conflict

The study of parent-adolescent conflict may provide a particularly rich source for understanding how parents and adolescents negotiate needs for autonomy and relatedness. Despite evidence that adolescents have earlier expectations for autonomy than their parents (Feldman & Quantman, 1988), sharp increases in parent-child conflict during adolescence are not the norm (Montemayor, 1986; Offer & Schonert-Reichl,

1992; Steinberg, 1990). Most adolescents maintain a positive and warm connection to their parents (Baumrind, 1991b; Collins, 1990; Montemayor, 1986; Rutter et al., 1976; Tubman & Lerner, 1994; Youniss & Smollar, 1985). It appears that in order to maintain a positive parent-adolescent connection, sufficient communication and problem-solving skills are needed to adapt to the biological, social, and cognitive changes that occur during adolescence (Foster, 1987).

Although most families with especially distressed parent-adolescent relationships have adolescents with elevated rates of behavioral and emotional problems (Montemayor, 1986; Rutter et al., 1976; Steinberg, 1990), theorists have recently acknowledged potentially positive functions of parent-adolescent conflict. Conflict may be a context for facilitating adolescent social-cognitive advances as well as negotiation and problem-solving skills (Cooper, 1988). Everyday parent-adolescent disagreements may serve as a context for adolescents to assert their growing needs for individuality and autonomy (Smetana, 1989). It is likely that in order for conflict to have an adaptive function, it needs to occur in the context of an overall trusting and warm parent-adolescent relationship. Although high levels of parent-adolescent conflict are associated with adolescent psychopathology, conflict in most parent-adolescent dyads is normative and even facilitative for the adolescent's development. In addition, the study of parent-adolescent conflict may be especially helpful in revealing how families negotiate the adolescent's needs for autonomy.

<u>Depressed adolescents and their families</u>

The following review distinguishes youths with elevated rates of depressive symptoms from those with clinical depression because findings from mildly depressed youths might not generalize to those with more severe depression. Family interaction characteristics that appear specific to depressed youth will be summarized. Both relatedness and autonomy dimensions of family interaction will be reviewed from self-report and observation studies.

Self-Report Studies: Relatedness

Family warmth, support, and cohesion. Studies of children and adolescents have consistently shown that low levels of parental warmth and support are associated with both depressive symptoms and clinical depression. Reports on community samples have revealed that adolescents who perceive their parents as low in support report higher levels of depressive symptoms (Armsden & Greenberg, 1987; Burbach, Kashani, & Rosenberg, 1989; Conrad Schwarz, & Zuroff, 1979; Gonzales, 1992; Kobak, Sudler, & Gamble, 1991; Lamborn & Steinberg, 1993; Lewinsohn et al., 1994; McFarlane, Bellissimo, & Norman, 1995; Papini & Roggman, 1992; Papini, Roggman, & Anderson, 1991; Slavin & Rainer, 1990). An adolescent clinic sample of major depressives and their mothers reported poorer communication and less warmth compared to a nonclinic sample of adolescent-mother dyads (Puig-Antich et al., 1993). Adolescent depressive symptoms have also been shown to relate to adolescent reports of low family cohesion (Burt, Cohen, & Bjorck, 1988; Cumsille & Epstein, 1994; Feldman, Rubenstein, & Rubin, 1988; Garrison, Jackson, Marsteller, McKeown, & Addy, 1990; Prange et al., 1992; Reinherz et

al., 1989; Rudd, Stewart, & McKenry, 1993). Interestingly, this association may be stronger for white adolescents than for black adolescents (McKeown et al., in press). Longitudinal studies have provided evidence that adolescents with positive family relationships are less likely to become depressed one year later (McKeown et al., in press) and several years later (Lewinsohn et al., 1994; Petersen, Sarigiani, and Kennedy, 1993; Reinherz et al., 1993). The link between a perception of a less positive family environment and depressive symptoms has also been documented in younger children (Kaslow, Rehm, Pollack, & Siegel, 1990; Kaslow, Rehm, & Siegel, 1984) and in adult depressive's retrospective accounts of their family relationships (Burbach & Borduin, 1986; Lopez, Campbell, & Watkins, 1989).

Research that has examined the specificity of family relatedness problems to adolescent depression suggests that adolescent perceptions of low parental warmth, support, and family cohesion may be more strongly associated with depressive than nondepressive disorders (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Barrera & Garrison-Jones, 1992; Stark, Humphrey, Crook, & Lewis, 1990). However, a study of inpatient children with a variety of psychiatric disorders, including depression, all reported lower family cohesion (Asarnow, Carlson, & Guthrie, 1987).

Parental rejection, hostility, and family conflict. Depressive symptoms in youths have also been associated with parental rejection (Lefkowitz & Tesiny, 1984; Poznanski & Zrull, 1970; Robertson & Simons, 1989; Whitbeck et al., 1992). Furthermore, within a clinical sample of depressed children, caregiver expressions of hostility about their

children were associated with more limited recovery in their children one year later (Asarnow, Goldstein, Tompson, & Guthrie, 1993).

More extreme forms of negative parent behavior, such as severe punishment and maltreatment, have also been associated with childhood depression (Downey & Walker, 1992). Puig-Antich et al. (1993) found that mothers and their clinically depressed adolescents reported more corporal punishment relative to healthy controls. However, Lefkowitz and Tesiny (1984) found that parental rejection of their 8-year olds was a better predictor of depressive symptoms 10 years later than was parental use of punishment.

Although family conflict may be predictive of depressive symptoms both currently (Burt et al., 1988; Forehand et al., 1988; Stark et al., 1990) and prospectively (Forehand et al., 1988; Reinherz et al., 1993), family conflict and hostility may be characteristic of families of adolescents with a variety of emotional and behavioral problems (Asarnow et al., 1987; Kashani, Burbach, & Rosenberg, 1988). Parental hostility, rejection, family conflict, and coercive discipline strategies are more consistently reported by studies on families of externalizing children (Campbell, 1987; DiLalla, Mitchell, Arthur, & Pagliocca, 1988; Haddad, Barocas, & Hollenbeck, 1991; Olweus, 1980; Patterson, Dishion, & Bank, 1984).

Self-report studies: Autonomy. Less work has investigated the link between family support for autonomy and adolescent depression. There is some evidence that a perception of mothers as intrusive, controlling, or overinvolved is associated with

depressive symptoms in college students (Lopez et al., 1989; Zemore & Rinholm, 1989). In addition, the parenting literature on community samples of adolescents have provided evidence for a link between a lack of parent support of adolescent autonomy and adolescent internalizing problems. Baumrind (1991a) found that parents who value conformity, closely monitor their adolescents *and* are intrusive have adolescents with elevated rates of internalizing behavior relative to those with parents who display assertive control but are still responsive to their adolescents needs. Interestingly, Baumrind's work has suggested that the association between parent overcontrolling behavior and internalizing problems may be stronger for girls (Baumrind, 1991b). Other investigators have also found that high levels of parental control in the context of low responsiveness are associated with adolescent internalizing symptoms (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). Barber, Olsen, and Shagle (1994) specifically investigated how different types of parent control relate to internalizing versus externalizing symptoms. They found that parent psychological control, such as withdrawal of love, guilt, and pressure to change, predicted internalizing but not externalizing symptoms in offspring. In contrast, low behavioral control, such as a lack of household rules and parental monitoring, predicted both internalizing and externalizing symptoms, with a stronger prediction of externalizing symptoms.

Gonzales (1992) investigated differential parent-adolescent interaction predictors of adolescent internalizing and externalizing symptoms in a sample of African-American female teens. Adolescent perceptions of maternal behavioral control were associated

with more internalizing symptoms but not externalizing symptoms, even though the measure of control was intended as a positive maternal trait. Adolescent report of less secure attachment quality was the strongest predictor of internalizing symptoms, but did not predict externalizing symptoms. Overall, while high conflict and low maternal behavioral control were the best predictors of externalizing symptoms, adolescent perceptions of less secure attachment and of maternal restriction of autonomy in decision making were the best predictors of internalizing symptoms.

A few studies have investigated parental overcontrol and overprotection as it relates specifically to depression in youths. Burt et al. (1988) found an association between adolescent perceptions of more parent control and depressive symptoms, and Stark et al. (1990) found that a less democratic parenting style and an enmeshed family environment were associated with depression, but not anxiety, in youths. While one study of depressed adolescents did not reveal differences in adolescent perceptions of parental overprotection relative to either normal or nondepressed psychiatric controls (Burbach et al., 1989), another found parent reports of overprotection to relate to their child's depression (Magnussen, 1991). Overall, the findings suggest that while parental overcontrol and intrusiveness may be associated with depression, externalizing behavior is more strongly associated with parental undercontrol such as a lack of limit setting and monitoring (Baumrind, 1991a; Baumrind, 1991b; Gardner, 1992; Patterson & Stouthamer-Loeber, 1984; Steinberg et al., 1994).

<u>A comment on possible limits in using depressed youth's self-report measures</u>

Given that depressed children and adolescents are often characterized by a depressogenic cognitive style (Garber & Hilsman, 1992), it may be that depressed youths' perceptions of family relationships are subject to negative biases related to depressed mood. Armsden et al. (1990) found that in contrast to adolescents with a current mood disorder, remittent depressives did not rate parental support differently from normal controls. These findings were cross-sectional rather than longitudinal, however, therefore precluding more definitive conclusions about mood state-dependence. Puig-Antich et al. (1985) found that although reports of parent-child communication reflected an improvement with remission of the child's depression, maternal reports of parental warmth did not increase and communication was still impaired relative to normal controls. Families of recovered depressives improved on hostility and punishment but were still rated higher on these dimensions than normal controls and were no different from the psychiatric control group. Research on adult depressives provides further evidence that a perception of absence of family support may not be confined to the depressive episode (Gerlsma, Das, & Emmelkamp, 1993; Keitner & Miller, 1990). Direct observation studies are clearly needed to validate and extend the findings from self-report studies.

Studies of actual parent-adolescent interactions

Community samples. Kobak et al. (1993) investigated adolescent attachment and mother-adolescent interactions with adolescents who reported elevated levels of depressive symptoms. Adolescent assessment measures included the Adult Attachment

Interview (AAI) which was rated along security/anxiety and repressing/preoccupation dimensions. In addition, a 10-minute videotaped problem-solving interaction was conducted with each dyad. Adolescent depressive symptoms were associated with interactions characterized by low levels of support/validation and high levels of maternal dominance. In addition, males with more severe depressive symptoms expressed higher levels of dysfunctional anger. Both insecure attachment strategies and ratings of the problem-solving interaction contributed independently to depressive symptoms in the teens, suggesting that both current representations of attachment relationships and parent-adolescent dynamics are related to adolescent depression. In addition, it seems that depressed males may be particularly prone to expressing anger, a finding that has been reported by other investigators (Inoff-Germain, et al.,1988).

More recently, Kobak and Ferenz-Gillies (1995) conducted an observational study with adolescent sibling pairs and their mothers. The interaction task consisted of a discussion about transitions after the adolescent leaves home. Mothers were administered the AAI and were rated along secure, preoccupied, and dismissing dimensions. Results indicated that depressive symptoms were associated with lower levels of adolescent communicative assertiveness. In addition, lower adolescent communicative assertiveness was associated with mothers who seemed more preoccupied with their attachments. The authors suggested that maternal anxiety about their adolescent's increasing autonomy may make it more difficult for adolescents to express themselves autonomously and therefore may relate indirectly to adolescent depressive symptoms.

Allen, Hauser, Eickholt, Bell, & O'Connor (1994), using the Autonomy and Relatedness Coding System (Allen, Hauser, Borman, & Worrell, 1990), investigated predictors of internalizing and externalizing symptoms longitudinally in an adolescent sample. The sample consisted of adolescents who had been psychiatrically hospitalized at age 14 and a community sample of adolescents. While observation measures were unrelated to adolescent self-report of internalizing symptoms, observed adolescent depressed affect (as rated during an interview) at age 17 was related to family interaction. Specifically, adolescent depressed affect was predicted by low ratings of parent and adolescent behaviors that exhibited autonomy and relatedness 1 and 3 years earlier. In addition, higher scores on adolescent behaviors that inhibited autonomy and *lower* scores on behaviors that inhibited relatedness one year earlier were associated with depressed affect. In contrast, externalizing symptoms were predicted by higher levels of behaviors that inhibited relatedness, such as hostility. Externalizing behavior was also predicted by deficits in promoting autonomy and relatedness 3 years earlier.

Although observed deficits in maternal support and elevated rates of conflict appear related to adolescent depressive symptoms, overt conflict seems more strongly related to externalizing symptoms. Evidence from other observation studies suggest that although parental withdrawal and lack of involvement are associated with adolescent depressive symptoms, outright parental rejection is more consistently associated with externalizing symptoms (Capaldi, 1991; Fauber, Forehand, Thomas, & Wierson, 1990). Furthermore, there is evidence that youths with externalizing problems tend to have parents who

engage in coercive discipline strategies and poor monitoring of their adolescents' behavior (Capaldi, 1991), and that young adolescents with externalizing problems are more likely to dominate and defy their parents compared to internalizing youth (Inoff-Germain et al., 1988).

Overall, a lack of adolescent autonomy seems to be the most salient interaction characteristic specifically associated with adolescent depressive symptoms. The relation between observed low adolescent autonomy and elevated adolescent depressive symptoms is consistent with evidence that adolescent sadness in boys is associated with observed maternal encouraging of dependence and other maternal controlling behaviors (Inoff-Germain et al., 1988) and that observed parental psychological control, such as guilting and shaming, is associated with adolescent internalizing symptoms (Fauber, et al., 1990).

Clinic samples

There are 6 published studies that have systematically observed family interactions with clinically depressed youths. It is noteworthy that each study included a mixed sample of children and young adolescents. None of the studies investigated a sample of adolescents only.

Amanat and Butler (1984) compared 7-14 year-old samples of depressed youths and overanxious youths by rating families during a family decision-making task. Parents of depressed children were rated as showing higher levels of dominance and lower levels of negotiation. Self expression and autonomy in the children were suppressed at higher

rates than in families of overanxious children, but no differences in parent invasiveness or intrusiveness were observed. These findings need to be interpreted cautiously, however, because it is unclear whether raters were blind to clinic status or hypotheses of the study, and because data from 13 of the 36 participating families were excluded for unspecified reasons.

Cook, Asarnow, Goldstein, Marshall, and Weber (1990) studied inpatient children aged 7-14, comparing 11 depressed children to 16 children with schizophrenia spectrum disorders (SSD). Each child and his or her mother completed a videotaped problem solving task that was coded for positive and negative verbalizations. Sequential analyses revealed that depressed children were both less positive and more negative than the SSD children, and that depressed children did not reciprocate maternal positiveness or negativeness. Mothers of depressed children reciprocated positiveness but not negativeness in their children. The authors interpreted these findings as confirming the learned helplessness model of depression, since mothers were not responsive to their depressed children's negativeness.

Cole and Rehm (1986) studied family interactions with 8-12 year old clinically depressed children. Their work was based on a self-control model of depression, which posits that depressives show deficits in self-monitoring, self-evaluation, and self-reinforcement. Mother and father interactions with depressed children (N=16) were compared to those with nondepressed psychiatric controls (N=22) and with nonclinic controls (N=25). Each parent-child team was videotaped for 10-minutes during an

interaction where parents were instructed to help their child with a challenging game task. Although mothers of depressed children rewarded their children less with positive affect than the comparison groups, there were no differences in parent expression of negative affect across the three groups. However, mothers of depressed *and* nonclinic children had higher standards for responding positively to their child's success in the game. The three groups of children expressed equivalent amounts of positive affect, and depressed and nonclinic children were more likely to cease negative affect following a success relative to nondepressed psychiatric controls. These findings suggest that although mother-child interactions of depressed children may not be characterized by high levels of negative affect, there does seem to be a deficit in the expression of maternal positive affect. In contrast, the depressed children were not characterized by deficits in positive affect or by an abundance of negative affect.

Sanders, Dadds, Johnston, & Cash (1992) conducted a study of family interaction with depressed youths, conduct disordered youths, and healthy controls. They investigated 18 depressed youths, 27 conduct disordered youths, 12 youths comorbid for depression and conduct disorder, and 16 youths without emotional or behavior problems. Children ranged in age from 7-14 years-old. Mother-child pairs were videotaped during a 10-minute problem-solving interaction and were rated on levels of positive solutions, aversive content, and affective quality. Youths with conduct problems (with or without comorbid depression) and their mothers demonstrated the fewest positive solutions, the most aversive content, and the most anger. Depressed youths, particularly those in the

comorbid group, exhibited the most depressed affect.

Dadds, Sanders, Morrison, & Rebgetz (1992) conducted an additional observation study on the sample during a mealtime interaction. Conduct disordered-only youths exhibited the highest levels of deviant behavior, with the other 3 groups showing similar levels of deviant behavior. Interestingly, higher levels of depressive symptoms in the depressed groups were associated with *more* positive affect in the youths and their parents. However, mothers in all three clinic groups exhibited less positive affect than controls. Mothers of conduct disordered-only youths exhibited the most aversive behavior, with mothers of either groups of depressed youths somewhere in between mothers of conduct disordered youths and nonclinic youths in aversive behavior.

The studies of clinically depressed children seem somewhat inconsistent in their findings regarding positive affect in depressed children. Not surprisingly, Sanders and colleagues (1992) found that their depressed children appeared depressed but not angry. However, Cole and Rehm (1986) found that depressed youths displayed normal levels of positive and negative affect and Dadds et al. (1992) found that depression was even associated with more positive affect at mealtime. It may be that, despite their experience of depressed mood, depressed children try to maintain levels of positive affect to avoid the discomfort of conflict. Since positive affect in parents and children increased with child depressive symptoms, conflict may be particularly aversive for children with more severe depressive symptoms. This hypothesis is supported by research on depressed mothers that has shown that maternal sadness tends to suppress hostility in other family

members (see Downey & Coyne, 1990).

The finding that levels of behaviors such as hostility were inversely related to depressed affect suggests that families of youths with depressive symptoms may try to deflect overt conflict. In contrast, overt hostility seems most characteristic of families with adolescents with higher levels of externalizing problems. It may be that depressed youths are more invested in maintaining positive connections with family members, which in these families, may require that they avoid asserting themselves.

In summary, youth depressive symptoms and depression appear to be associated with maternal dominance, deficits in adolescent expression of autonomy, and problems in adolescent attachment. While these families may appear fairly cohesive to outsiders, it appears that they are deficient in encouraging the adolescent's autonomy and in providing emotional support. Although parents may appear to be highly involved, depressed adolescents perceive their parents as lacking in warmth and support and possibly as intrusive. It also appears that depression in males may have somewhat different family interaction correlates than those of females, where males are more likely to overtly express anger. In contrast to families of depressed youths, parent-adolescent interactions of externalizing youths are more consistently associated with overt hostility, conflict, and parental rejection, as well as a deficits in parental limit setting and monitoring of the adolescent's activities. These findings suggest that both sets of youths experience an impoverished sense of interpersonal connectedness. However, while depressed adolescents receive little support for developing autonomy, it seems that externalizing

adolescents receive little guidance in determining boundaries for their autonomy.

Other family factors associated with adolescent depression

SES and family structure. Investigators have attempted to identify specific family demographic characteristics, such as socioeconomic status and family structure that are risk factors for depression. Evidence does *not* suggest that low socioeconomic status is a risk factor for the development of major depression (Lewinsohn et al., 1994, Velez, Johnson, & Cohen, 1989).

Findings regarding family structure are somewhat mixed. Although Lewinsohn et al. (1994) found that youths with no history of depression were the most likely to be living in intact families relative to youths who had been depressed, other studies did not find family structure to relate to depression (Cumsille & Epstein, 1994; Garrison et al., 1990; Puig-Antich et al., 1993). McKeown et al. (in press), furthermore, found that while family structure predicted depressive symptoms in a community sample of adolescents, this effect became nonsignificant once adolescent perceived family cohesion was accounted for. Similarly, Feldman et al., (1988) concluded from their study that although depressive symptoms in youth were associated with single-parent status, they were more strongly related to family process. In contrast, there is evidence that low socioeconomic status and single motherhood are risk factors for externalizing disorders (e.g. Velez et al., 1989). It appears that family interaction may be more important in predicting adolescent depression than socioeconomic status or family structure.

Parental depression.

Research investigators have been striving to identify mechanisms through which the intergenerational transmission of depression might occur. Children of depressed parents have elevated rates of affective disorders both in clinical (Downey & Coyne, 1990) and nonreferred samples (Beardslee, Keller, Lavori, Staley, & Sacks, 1993). Although children of parents with affective disorders are at risk for a host of behavioral and emotional problems, childhood depression seems to be specifically associated with parental depression (Beardslee & Wheelock, 1994; Downey & Coyne, 1990).

A variety of mechanisms have been proposed to explain why offspring of depressed parents may be vulnerable to developing affective disturbances. Although genetics might play a role in the etiology of depression (Beardslee & Wheelock, 1994), there is evidence that environment may play a primary role in the development of more severe forms of depression (Rende, Plomin, Reiss, & Hetheringon, 1993). For example, depressed parents' styles of interacting with their children may increase their child's vulnerability to developing depression. Depressed mothers are more likely to use withdrawal, conflict avoidance, or overcontrolling strategies rather than negotiation to cope with child noncompliance compared to nondepressed mothers. Depressed mothers also tend to be more hostile and irritable compared to controls (Beardslee & Wheelock, 1994; Cummings & Davies, 1994; Downey & Coyne, 1990; Gelfand & Teti, 1990).

An insecure attachment history has also been proposed as a mechanism for the intergenerational transmission of depression. Children of depressed mothers are at risk for being insecurely attached (Cummings & Davies, 1994; Cummings & Cicchetti, 1990),

and an insecure attachment history may predispose an individual to maladaptive cognitive styles that are associated with risk for depression (McCauley, Kendall, & Pavlidis, 1995; Rose & Abramson, 1992). Although there is no direct evidence that early insecure attachment is associated with a depressive cognitive style, Dawson and colleagues have shown that disruptions in emotion regulation systems exist in insecurely attached infants of depressed mothers (Dawson, Grofer Klinger, Panagiotides, Spieker, & Frey, 1992). Longitudinal studies are clearly needed to confirm a link between early attachment history and the development of depression.

In summary, although children of depressed mothers are at specific risk for developing depression, the mechanisms behind this vulnerability are unclear. The findings that depressed mothers may have difficulty negotiating conflict with their children and that problems in communication with their offspring are linked to child depression merit further investigation, particularly with adolescent offspring. In addition, the study of whether an insecure attachment history puts children of depressed mothers at risk for developing depression is needed.

Youth characteristics and depression.

The family interaction literature clearly suggests that problems in the family environment are associated with adolescent depression. However, there is evidence that child characteristics are associated with depression independent of family characteristics (Downey & Walker, 1992). Two commonly studied child characteristics in the depression literature are self-concept and gender.

Self-concept. Poor self-concept is consistently associated with depression in youths (Block & Gjerde, 1990; Downey & Walker, 1992; Garber & Hilsman, 1992; Harter, 1990; McCauley, Mitchell, Burke, & Moss, 1988; Reinherz et al., 1993; Robertson & Simons, 1989; Weisz, Rudolph, Granger, & Sweeney, 1992). Furthermore, it appears that low self-esteem and coping deficits may be more associated with depression than nondepressive psychopathology (McCauley et al., 1988; Robinson, Jenson, & Yaffe, 1992). It may be that deficits in family interaction contribute to adolescent depression indirectly through a failure to foster positive self-concept.

Gender. As described earlier, it is well known that increases in the rates of depression during adolescence are more rapid for females. Gender socialization, therefore, is a crucial aspect to consider when investigating factors associated with depression. Several aspects of gender socialization have been implicated in the preponderance of female depression, one of which has been described as a conflict between connectedness and autonomy. It has been observed that depressed females often view their own autonomous behavior as a threat to relationships, and therefore they will inhibit their own independence (Kaplan, 1986). Nolen-Hoeksema (1994) has provided evidence that females are more likely to engage in more emotion-focused and less active coping responses relative to males. She has proposed that restrictions on girls' autonomy may, in the context of girls' more passive and ruminative coping style, increase adolescent female's vulnerability to depression.

The literature on adolescent development might imply that autonomy and

connectedness are not necessarily in conflict with one another. However, it appears that for females, the development of autonomy is not as encouraged as it is for males and that socialization forces may convey to females that the development of autonomy is counter to maintaining positive relationships. Block (1983), in her review of gender socialization during childhood, reported that parents encourage exploration in boys more so than in girls, and that boys actually engage in exploratory behavior more often. Furthermore, there is evidence that boys have more opportunities to experience efficacy over the environment than girls; this is apparently related to the larger degree of encouragement that boys receive to challenge themselves. Autonomy may not be encouraged in females as much as in males, as mothers themselves may perceive independence in their daughters as a threat to their relationship (Walters, 1988). It appears that a parent's ability to provide a secure base from which to explore is impacted by gender socialization, and females may therefore feel less autonomous and efficacious as compared to males. The task of achieving autonomy-relatedness during adolescence appears particularly challenging for females, and may relate in part to the preponderance of female depression beginning in adolescence.

Summary

The literature clearly suggests that adolescent depression is associated with adolescent perceptions of the family as impoverished in providing warmth, cohesion, and support, as well as elevated in conflict. Interestingly, findings from observation studies are inconsistent with those found by self-report methods. Rather than showing overt

problems in cohesiveness and conflict, families of depressed youths show few differences from normal comparisons along relatedness dimensions. Another major theme that emerged from the literature is that depression is youths may be associated with deficits in autonomy in the sense that parent overcontrolling, intrusive, or guilting behaviors have been linked to youth depressive symptoms. Given the significance of autonomy issues during adolescent development, an understanding of how adolescents and their parents negotiate autonomy may be an important direction in the study of adolescent depression. Furthermore, the argument that females may be especially prone to experiencing a conflict between autonomy and connectedness suggests that investigation of autonomy and relatedness in depressed youths may help to explain why, beginning in adolescence, depression becomes more prevalent in females. Given the established link between self-concept and depression, it may be that family interaction relates to depression indirectly through contributing to impaired self-concept.

Most of the research on family interaction and depression have relied on self-report data and on community samples of adolescents. Few studies have observed family interaction with adolescents who present with diagnosed depressive disorders. The current study builds on previous research by examining family interaction in autonomy and relatedness in a sample of clinically depressed adolescents.

The current study

The current study uses a cross-sectional design to describe observed and self-reported family interaction patterns in families with currently depressed adolescents, and

examines how depression, family factors, and adolescent self-concept might relate. Mother-adolescent dyads with clinically depressed, externalizing, and nonclinic youths are included so that specificity to depression can be examined. A variety of aspects of family interaction are investigated, including dimensions of maternal warmth and support, hostility and conflict, and the negotiation of autonomy.

Hypotheses

1) Depressed adolescents and their families will be characterized by deficits in relatedness relative to families of nonclinic adolescents as measured by both observation and self-report. Relatedness dimensions include family cohesion, support, connectedness, and conflict. Families of externalizing adolescents, however, are expected to show the greatest impairment in this domain.

2) Depressed adolescents and their families will be characterized by problems in negotiating autonomy, as measured by ratings of behaviors that exhibit and inhibit autonomy during an observation task and by mother report of autonomy within the family. It is anticipated that externalizing adolescents will also show deficits in negotiating autonomy relative to nonclinics.

3) Both psychiatric groups will report poorer self-concept compared to normal controls, and depressed adolescents will report more impaired self-concepts than externalizing

teens. Self-concept is expected to mediate the link between family interaction and psychopathology.

CHAPTER 2: METHOD

Participants

Participants included 60 adolescent-mother dyads, consisting of 20 depressed clinic adolescents, 20 externalizing clinic adolescents, and 20 nonclinic adolescents. Each group consists of 10 female and 10 male adolescents. Adolescents ranged in age from 10 to 17 years old. The adolescent sample was primarily white. One youth in the depressed sample was African-American/ white. In the externalizing sample, 3 youths were African-American/ white and 1 youth was Native American/ white. Two youths in the nonclinic sample were Asian-American/ white and 2 were Hispanic/ white. All mothers were white, except for 2 mothers in the nonclinic group who were of Asian descent.

All adolescents were living with their mothers full-time, except for 2 depressed adolescents, 1 externalizing adolescent, and 1 nonclinic adolescent who were living with their mothers only part-time. However, each of these adolescents had lived with their mothers full-time for most of their lives. Family demographic variables are reported for mothers' homes, and are presented in Table 1. Socioeconomic status was computed using the Hollingshead scoring procedure (Hollingshead, 1975). The three groups did not differ in socioeconomic status, maternal education level, maternal marital status, family structure, adolescent age, or maternal age.

Table 1. Family demographic characteristics.

	Depressed	Externalizing	Nonclinic	Test statistic	p-value
Socioeconomic Status (N)				X^2 (8) = 10.0	.27
I	8	6	9		
II	6	9	9		
III	3	1	1		
IV	1	4	1		
V	2	0	0		
SES - Mean (SD)	46.4 (14.6)	44.2 (13.9)	51.9 (9.1)	F (1, 57) = 2.0	.15
Mother's Education (N)				X^2 (6) = 9.6	.14
High school degree or less	4	4	1		
2-year college degree/ part college	6	9	4		
4-year college degree	5	1	8		
Graduate/professional school	5	6	7		

Table 1. Family demographic characteristics, continued

	Depressed	Externalizing	Nonclinic	Test statistic	p-value
Mother's Marital Status (N)				$X^2(4) = 1.7$	.80
Never Married	1	2	3		
Married	14	13	14		
Divorced	5	5	3		
Family Structure (N)				$X^2(4) = 6.5$	.16
Single Mom	5	9	6		
Mother & Bio. Father	11	6	13		
Mother and Step-Father	4	5	1		
Adolescent Age, years - Mean (SD)	14.4 (2.4)	14.1 (2.0)	14.3 (2.0)	$F(1, 57) = 0.1$	.87
Mother's Age, years - Mean (SD)	41.0 (5.8)	40.0 (4.5)	41.8 (4.9)	$F(1, 57) = 0.6$	.56

Using one-way ANOVA's, gender differences on the demographic variables within each of the three diagnostic groups were examined. Within the depressed group, SES was marginally significantly higher in homes of girls (M = 52.4, SD = 13.6) than in homes of boys (M = 40.4, SD = 13.7), F (1, 18) = 2.0, p = .07. Within the externalizing group, girls were marginally significantly more likely to live in a single mother home than were boys (70 percent of the girls and 20 percent of the boys lived in single mother homes), $X^2(2) = 5.6$, p = .06. The opposite pattern was found in the nonclinic group, where boys were marginally significantly more likely than girls to live in a single mother home (50 percent of the boys and 10 percent of the girls lived in single mother homes), $X^2(2) = 5.6$, p = .06.

Procedure

Clinic sample selection. Clinic adolescents were recruited for a larger study investigating family environment in depressed youth. The depressed and externalizing participants were contacted after they had been referred for outpatient or inpatient mental health services in western Washington state. Youths who presented with primary referral concerns about depression or disruptive behavior problems, who were between the ages of 10-17, and who were living at least part-time with their biological mothers were invited to participate. Adolescents in the externalizing group were selected to match the depressed group by age and gender. Potential participants were excluded if the adolescent presented with a history of chronic medical illness or significant developmental delay.

Nonclinic sample selection. Nonclinic adolescents were recruited by distributing

flyers to students in junior-high classrooms at local schools and to students enrolled in a driver's education program that served several local high schools. Flyers were also distributed at a general child/adolescent medical clinic. Those who responded to the flyer were administered a brief screening interview by phone (see Appendix A). Adolescents who matched the depressed group by age and gender and who presented with no evidence of significant mental health, developmental, or medical concerns were invited to participate.

Diagnostic assessment procedure. Each adolescent was administered the Schedule for Affective Disorders and Schizophrenia for School Age Children (K-SADS). Diagnoses of the clinic samples are presented in Table 2 and Table 3. Adolescents in the depressed group met criteria for either Major Depressive Disorder or Dysthymia as a primary diagnosis. Adolescents in the externalizing group met criteria for one or more primary diagnoses of Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), or Attention Deficit with Hyperactivity Disorder (ADHD). Seven of the depressed adolescents (2 girls, 5 boys) and three of the externalizing adolescents (2 girls, 1 boy) had one or more comorbid diagnoses outside of their primary diagnostic category (see Table 4). Adolescents were assigned to either the depressed or the externalizing group based on their primary diagnosis. Youths included in the nonclinic group were free of a lifetime psychiatric disorder.[1] Two females in the externalizing group and one

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[1] One adolescent had a history of one episode of depression 4 years prior to the interview.

Table 2. Diagnoses for the depressed group.

	Primary Diagnoses	Secondary Diagnoses
Major Depression	13	--
Dysthymia	7	--
Conduct Disorder	--	1
Oppositional Defiant Disorder	--	4
Generalized Anxiety Disorder	--	2

Table 3. Diagnoses for the externalizing group.

	Primary Diagnoses	Secondary Diagnoses
Conduct Disorder	6	--
Oppositional Defiant Disorder	8	3
ADHD*	6	--
Dysthymia	--	3
Phobia	--	1
Bulimia	--	1

*Of the 6 adolescents who have a primary diagnosis of ADHD, 3 were comorbid for ODD (the other 3 had no other diagnosis).

Table 4. Comorbid diagnoses in the clinic groups outside of primary diagnostic group.

Diagnosis	Depressed Girls	Depressed Boys	Externalizing Girls	Externalizing Boys
Dysthymia	--	--	2	1
Externalizing	1	4	--	--
Anxiety	1	1	1	0
Bulimia	0	0	1	0
Any Disorder	2	5	3	1

female in the depressed group were currently in inpatient care. Eighty percent of the depressed adolescents and 75 percent of the externalizing adolescents had a history of having received at least some mental health treatment.

Data Collection. Each dyad had one 3-hour visit, and mothers attended an additional 1-hour visit (some dyads combined the two visits into one longer visit) — see Appendix B for consent forms. During the first visit, mothers and adolescents were separately administered a semi-structured diagnostic interview (K-SADS). A clinical psychologist who had been trained by the first author of the K-SADS conducted the majority of the interviews. The remainder interviews (12) were conducted by either a child clinical psychology postdoctoral fellow, graduate student, or intern. Each of the three additional interviewers had received extensive training by the primary interviewer for this study. For each assessment, the interviewer was not familiar with the adolescent's case.

Adolescents and their mothers also completed questionnaire packets and participated in a 15-minute videotaped problem-solving discussion during the first visit. For the problem solving discussion, topics were assigned based on the dyad's responses to the Issues Checklist. Each dyad was asked to discuss one or more topics of disagreement and to attempt to resolve each issue assigned.

On the second visit, mothers were administered a semi-structured diagnostic interview regarding their own psychiatric history. Either a psychiatry resident or clinical psychology doctoral student conducted the interviews. Each dyad was reimbursed $50 for

their participation.

Measures

Adolescent Diagnostic Assessment. The Schedule for Affective Disorders and Schizophrenia for School Age Children (K-SADS; Puig-Antich & Ryan, 1986) was used to determine adolescent diagnostic status. The K-SADS is a semi-structured diagnostic interview that assesses current episodes of psychiatric disorders in youths aged 6-18 years. Mood, anxiety, disruptive behavior, eating, and schizophrenic disorders are assessed according to DSM-III diagnostic criteria, although for the current study more current diagnostic criteria (DSM-IV) was used to make the final decisions about diagnoses. Individual interviews are conducted with each the parent and the child. Summary scores for each symptom rated are based on the more severe of the two reports. Each youth is also rated on a scale of 1-9 according to their Global Assessment of Social Functioning (GAS). A Depressive Symptoms Severity (DSS) score was computed for each adolescent to assess symptom severity by adding the summary scores for each depressive symptom rated.

As a second source for assessing symptom severity, mothers completed the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1978, 1983). The CBC consists of 113 items that describe problems behavior in children and adolescents. Parents rate each item according to whether it is "not true", "somewhat/sometimes true", or "very/often true". This measure has been normed on large samples of children and adolescents, and provides raw scores and T-scores on broad band groupings based on factor analyses for

internalizing and externalizing symptoms. Psychometric properties of this measure are well established. Raw scores are reported in this study.

Maternal Diagnostic Assessment. Each mother was assessed using the Structured Clinical Interview for DSM-III-R - Nonpatient Edition (SCID-NP; Spitzer, Williams, Gibbon, & First, 1990). The SCID-NP is a semi-structured, diagnostic interview that assesses current and lifetime history of Axis I disorders. It covers the spectrum of mood disorders, anxiety disorders, substance abuse disorders, adjustment disorders, and psychotic disorders.

Reliability estimates between the two interviewers who administered the SCID-NP in the current study were computed using Cohen's Kappa. Reliability estimates averaged .88 across the major diagnostic categories (range .75-1.0), and was .92 for Global Assessment of Functioning ratings.

Assessment of mother-adolescent interaction. Mothers and adolescents each completed the Issues Checklist (Prinz & Kent, in Robin & Foster, 1984). The Issues Checklist (see Appendix C) is a self-report measure consisting of 44 items that describe everyday-type conflicts (e.g. chores, homework) between parents and adolescents. Each dyad rates whether each issue has been a problem between them in the past 4 weeks, and rates how intense the conflict is on a 5-point Likert scale. In this study, this instrument was used as a tool to generate topics for discussion during the observed interaction and as a measure of adolescent-mother conflict. A variable reflecting the Number of Conflict Issues endorsed and a variable reflecting the Mean Conflict Intensity were constructed.

Coding of problem-solving discussion. Problem solving interactions were coded using the Autonomy and Relatedness Coding System (ARCS; Allen, J.P., Hauser, S.T., Bell, K.L., Boykin, K.A., & Tate, D.C., 1994). The ARCS (see Appendix D) assesses audio or videotaped family interactions. Statements are classified according to various subcategories that are composited to comprise the major scales. Both content and voice tone are considered in the coding decisions by utilizing transcripts of the discussion while referring to the actual recording. Mothers and adolescents receive separate codes. Summary scales include Exhibit Autonomy, Inhibit Autonomy, Exhibit Relatedness, and Inhibit Relatedness. More detailed descriptions of the coding scales are presented in Table 5. The summary scales have demonstrated good internal consistency and interrater reliabilities in previous studies have ranged from .68 -.81.

The first 10 minutes of each videotaped problem-solving discussion interaction was transcribed. Three undergraduate female research assistants were trained on the Autonomy and Relatedness Coding System (Allen, Hauser, Bell, Boykin et al., 1993). Reliability was assessed on 23 percent of the tapes. Coders were blind to which tapes were reliability tapes. Reliability was computed by comparing each coder's ratings to that of a master coder using intraclass correlations. Master coders were one of two graduate students at the University of Virginia who had been trained by the author of the coding system and had established reliability. Reliability estimates are within acceptable limits (see Table 5).

Table 5. Autonomy and relatedness coding system scales and reliability estimates.

Summary Scales*	Individual Subscales [a, b]	Reliability Estimates Mean (Range)
Exhibits Autonomy	• States reasons clearly for disagreeing [b] • Shows confidence in stating thoughts and opinions [b]	.65 (.62 - .71)
Inhibits Autonomy	• Recants own position [a] • Overpersonalizes/ blurs boundaries between person and position [a] • Pressures other to agree [a]	.70 (.65 - .75)
Exhibits Relatedness	• Queries of another person which are information seeking [a] • Validates/ agrees/ positively reacts to other person [a] • Displays engagement in the interaction [b]	.86 (.82-.89)
Inhibits Relatedness	• Distracts/ ignores/ cuts off other person [a] • Hostile or devaluing statements towards other [a]	.77 (.69 - .86)

* Scores from the individual subscales are added to comprise the summary scales
[a] Scores are determined by coding individual statements
[b] Scores are determined by using a global rating

Correlations between the summary scales are presented in Table 6. Exhibit Autonomy and Inhibit Autonomy were unrelated, suggesting that they are independent constructs. Exhibit Relatedness and Inhibit Relatedness were inversely related for adolescents and mothers across both their own and each other's behavior. Exhibit Autonomy and Exhibit Relatedness were positively correlated for adolescents and mothers. Inhibit Autonomy and Inhibit Relatedness were also positively correlated for adolescents and mothers. Therefore, it appears that the autonomy and relatedness constructs were related.

Adolescent self-report: family relationships. Adolescents completed the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987). The IPPA (see Appendix E) is a self-report instrument with 28 parent and 25 peer items. The scale uses a 5-point Likert-scale response format; subjects are asked to rate how true each item is for them (from almost never or never true to almost always or always true). Trust, Communication, and Alienation scales are computed separately for parents and peers. Three-week test-retest reliabilities ranged from .86-.93 for the parent and peer scores. Only the parent scales will be reported.

Adolescent self-report: Self-concept. Each adolescent completed the Piers-Harris Self-Concept Scale (PHSCS; Piers & Harris, 1984). The PHSCS is an 80-item self-report questionnaire for children and adolescents aged 8-18 years old. Respondents indicate "yes" or "no" to statements which refer to various aspects of self-concept. Subscales include Intellectual and School Status, Physical Appearance and Attributes, Anxiety,

Table 6. Correlation Matrix of Mother and adolescent ARCS summary scales.

		Adolescent				Mother			
		Exhibit Aut.	Inhibit Aut.	Exhibit Rel.	Inhibit Rel.	Exhibit Aut.	Inhibit Aut.	Exhibit Rel.	Inhibit Rel.
Adolescent	Exhibit Aut.	1.00							
	Inhibit Aut.	.01	1.00						
	Exhibit Rel.	.40**	-.35**	1.00					
	Inhibit Rel.	.03	.63**	-.38**	1.00				
Mother	Exhibit Aut.	.33**	.14	.25*	-.12	1.00			
	Inhibit Aut.	-.15	.26*	-.31*	.41**	-.13	1.00		
	Exhibit Rel.	.28*	-.11	.52**	-.10	.46**	-.32*	1.00	
	Inhibit Rel.	-.01	.21	-.34**	.35**	-.21	.47**	-.39**	1.00

*p ≤ .05, ** p< .01; Rel.= Relatedness, Aut.= Autonomy

Popularity, Happiness and Satisfaction, Behavior, and Total Self-Concept. Test-retest reliabilities for a 3-4 week interval range approximate .96, and .42 for an 8-month interval. Internal consistencies for the items range from .88 to .93. The Total Self-Concept score was computed by excluding the Happiness and Behavior subscales due to possible overlap with symptom presentation for depressive and externalizing problems respectively.

Mother self-report: Family relationships. Mothers completed the Family Environment Scale (FES; Moos, Insel, & Humphrey, 1974), a 40 item self-report scale that is designed to assess 10 dimensions of family environment. Items are rated on a 1-5 Likert-form rating scale (strongly disagree to strongly agree). Five of the 10 subscales will be reported: Cohesion, Expressiveness, Conflict, Independence, and Control. Test-retest reliabilities for the scales over an 8-week period range from .68 to .86. Internal consistencies of the items range from .64 to .78.

CHAPTER 3: RESULTS

Statistical Analyses. To assess diagnostic group differences on the observation, interview, and questionnaire measures, 2 (gender) by 3 (diagnostic group) ANOVA's and planned comparisons were conducted. Gender by diagnostic group interactions for each measure were examined as well. If a significant gender by group interaction was revealed, one-way ANOVA's were computed to test gender differences within each of the three diagnostic groups. Although earlier analyses revealed minor gender differences in demographic characteristics (SES or family structure) within each of the three diagnostic groups, it was decided that these variables would not be covaried in the analyses of gender differences due to concerns that findings of interest might be obscured. Refer to Table 7 for a summary of measures that will be utilized in the analysis of relatedness and autonomy constructs.

SPSS-PC for Windows versions 6.91 and 7.0 were used for data analyses. For questionnaires with missing data, scores were prorated if data was missing on less than 25 percent of the items on a given scale. Data were examined for outliers, as defined by any score that was an extreme on a boxplot and had a z-score greater than 3 standard deviations from the mean. Only one value was identified as an outlier, and removal of the subject from the analysis did not change the result.

Table 7. Autonomy and relatedness constructs.

Source	Autonomy		Relatedness	
	Promoting autonomy	Inhibiting autonomy	Warmth/ support	Conflict/ hostility
Observation				
Mother	Exhibit Autonomy	Inhibit Autonomy	Exhibit Relatedness	Inhibit Relatedness
Adolescent	Exhibit Autonomy	Inhibit Autonomy	Exhibit Relatedness	Inhibit Relatedness
Adolescent report			IPPA: Trust	IPPA: Alienation
			IPPA: Communication	Issues Checklist: # of Conflict Issues IssuesChecklist: Mean Conflict Intensity
Mother report	FES: Independence	FES: Control	FES: Cohesion	FES: Conflict
			FES: Expressiveness	Issues Checklist: # of Conflict Issues IssuesChecklist: Mean Conflict Intensity

Severity of adolescent psychopathology.

To compare the severity of psychopathology among the three groups of adolescents, raw scores from the CBCL Total Problem Behavior, Total Competence, Total Externalizing, and Total Internalizing were analyzed, as well as the GAS scores (present episode) from the K-SADS. Means for the adolescent psychopathology scales across the three diagnostic groups are presented in Table 8. Table 9 shows gender comparisons on means for the adolescent psychopathology scales within each diagnostic group.

There were significant group main effects on Total Problem Behavior, $F(2, 52) = 36.3$, $p < .001$, Total Competence, $F(2, 49) = 25.9$, $p < .001$, Total Internalizing, $F(2, 52) = 26.2$, $p < .001$, Total Externalizing, $F(2, 52) = 39.5$, $p < .001$, and GAS scores, $F(2, 54) = 68.5$, $p < .001$.

The depressed and externalizing groups did not differ from each other on their Total Problem Behavior, Total Competence, or GAS ratings. Compared to the depressed adolescents, the nonclinic group was assigned lower Total Problem Behavior, $F(1, 55) = 7.3$, $p < .001$, higher Total Competence, $F(1, 54) = 5.4$, $p < .001$, and higher GAS scores $F(1, 57) = 10.2$, $p < .001$. Similarly, the nonclinic group was assigned lower Total Problem Behavior, $F(1, 55) = 7.4$, $p < .001$, higher Total Competence, $F(1, 54) = 6.7$, $p < .001$, and higher GAS scores, $F(1, 57) = 10.1$, $p < .001$, relative to externalizing adolescents. Thus, the depressed and externalizing adolescents displayed similar overall levels of psychopathology while the nonclinic sample showed notably higher functioning.

Group differences among the clinic groups

Table 8. Group means on severity of adolescent psychopathology.

	Depressed	Externalizing	Nonclinic	Significant Comparisons
CBCL Raw Scores				
Total Problem Behavior	63.7	66.3	16.0	b, c
	(28.1)	(22.0)	(9.2)	
Internalizing	23.6	14.8	6.5	a, b, c
	(10.1)	(6.9)	(3.8)	
Externalizing	19.5	31.2	5.0	a, b, c
	(12.7)	(10.3)	(4.2)	
Total Competence	14.2	12.8	20.2	b, c
	(4.1)	(4.0)	(2.6)	
K-SADS				
GAS [1]	4.8	4.9	8.5	b, c
	(1.4)	(1.2)	(0.7)	

[1] GAS = Global Assessment of Social Functioning (Scale of 1-9)
Standard deviations are presented in parentheses below each mean.

Table 9. Comparisons of means on the adolescent psychopathology scales within the diagnostic groups.

	Depressed Girls	Depressed Boys	Externalizing Girls	Externalizing Boys	Nonclinic Girls	Nonclinic Boys
CBCL						
Total Problem Behavior	52.9	74.5	63.4	68.7	17.3	14.8
	(12.9)	(35.2)	(15.6)	(26.6)	(11.2)	(7.0)
Total Competence	15.8	12.6	10.8	14.2	20.5	19.9
	(4.2)	(3.6)	(3.8)	(3.6)	(2.4)	(2.9)
Total Internalizing	21.5	25.7	13.7	15.6	7.1	5.9
	(6.6)	(12.7)	(7.4)	(6.8)	(4.7)	(2.8)
Total Externalizing	13.5*	25.5*	34.1	28.9	5.3	4.7
	(8.1)	(14.0)	(7.0)	(12.2)	(5.0)	(3.6)
K-SADS						
GAS	4.7	5.0	4.5	5.2	8.4	8.6
	(1.5)	(1.4)	(1.2)	(1.0)	(0.8)	(0.5)

Means that differ within a given diagnostic group are marked with an asterisk (see text).
Standard deviations are given in parentheses below each mean.

on the observation and questionnaire measures, therefore, cannot be attributed to differences in severity of overall psychopathology.

As expected, the depressed group was rated higher on Total Internalizing than the externalizing group, $F(1, 55) = 3.6$, $p < .001$. The externalizing group was higher on Total Externalizing than the depressed group, $F(1, 55) = 4.0$, $p < .001$. The nonclinic controls were lower on Total Internalizing, $F(1, 55) = 7.2$, $p < .001$, and Total Externalizing, $F(1, 55) = 5.0$, $p < .001$, relative to the depressed adolescents. Similarly, nonclinics were lower on Total Internalizing, $F(1, 55) = 3.3$, $p < .01$, and Total Externalizing, $F(1, 55) = 8.8$, $p < .001$,relative to the externalizing adolescents. In sum, the depressed adolescents were described as having more severe internalizing symptoms than the externalizing and nonclinic groups. Depressed adolescents were also more externalizing than the nonclinic group. The externalizing adolescents were described as showing more externalizing symptoms than the depressed and nonclinic groups, and as having more internalizing symptoms than the nonclinic group.

There were significant group by gender interactions on Total Externalizing, $F(2, 52) = 4.5$, $p < .01$, and on Total Competence, $F(2, 51) = 4.0$, $p < .05$. Depressed boys were higher on Total Externalizing than depressed girls, $F(1, 18) = 5.5$, $p < .05$. There were no gender differences within the externalizing and nonclinic groups on Total Externalizing. Externalizing girls were marginally significantly higher than externalizing boys on Total Competence, $F(1, 54) = 3.6$, $p = .08$. There were no gender differences on Total Competence within the depressed and nonclinic groups.

Maternal psychopathology.

Refer to Table 10 and Table 11 for current and lifetime diagnoses of mothers. The three groups of mothers did not differ in whether they had a history of a mood disorder, a history of any disorder, or a current disorder. However, there was a main effect for maternal GAF (Global Assessment of Functioning) scores, $F(2, 54) = 5.2$, $p < .01$. Mothers of externalizing adolescents were assigned lower GAF scores compared to mothers of nonclinic youth, $F(1, 57) = 3.2$, $p < .01$. Mothers of depressed adolescents were marginally significantly lower in their GAF scores relative to mothers of nonclinic adolescents, $F(1, 57) = 1.9$, $p = .07$. Mothers of depressed adolescents and mothers of externalizing adolescents did not differ in their GAF scores.

Tests of Hypotheses

Hypothesis 1. Depressed adolescents and their families will be characterized by deficits in relatedness relative to families of nonclinic adolescents as measured by both observation and self-report. Relatedness dimensions include family cohesion, support, connectedness, and conflict. Families of externalizing adolescents, however, are expected to show the greatest impairment in this domain.

Adolescent report of relatedness: IPPA. Group means on the IPPA scales are presented in Table 12. There were significant group main effects on Trust, $F(2, 54) = 9.7$, $p < .001$, Communication, $F(2, 54) = 3.2$, $p = .05$, and Alienation, $F(2, 54) = 8.4$, $p = .001$.

Compared to nonclinic adolescents, depressed adolescents were lower on Trust, F(1,

Table 10. Current Maternal Psychopathology

	Depressed	Externalizing	Nonclinic
Affective Disorder	5	2	2
Substance Abuse (no dependency)	0	0	0
Substance Dependency	0	0	0
Anxiety Disorder	4	2	2
Eating Disorder	0	0	0
Adjustment Disorder*	1	0	0
GAF scores* - Mean (SD)	76.3 (9.3)	72.3 (7.2)	81.8 (10.8)

* Current only

Six mothers of depressed adolescents, 3 mothers of externalizing adolescents, and 2 mothers of nonclinic adolescents met criteria for current psychopathology.

Table 11. Lifetime History of Maternal Psychopathology

	Depressed	Externalizing	Nonclinic
Affective Disorder	14	11	7
Substance Abuse (no dependency)	3	1	6
Substance Dependency	4	8	3
Anxiety Disorder	9	7	4
Eating Disorder	1	3	0

Fifteen mothers of depressed adolescents, 15 mothers of externalizing adolescents, and 13 mothers of nonclinic adolescents met criteria for lifetime psychopathology.

Table 12. Adolescent report on the IPPA and Issues Checklist: Group means.

	Depressed	Externalizing	Nonclinic	Significant Comparisons
IPPA				
Trust	34.1 (9.1)	35.4 (9.5)	44.4 (4.6)	b,c
Communication	33.0 (7.4)	33.6 (7.9)	38.2 (6.4)	b,c
Alienation	24.4 (6.5)	22.2 (7.5)	16.6 (5.5)	b,c
Issues Checklist				
Number of Conflict Issues	13.6 (7.7)	16.6 (9.9)	11.4 (6.2)	c
Mean Intensity of Conflict	2.2 (0.7)	2.6 (1.0)	1.6 (0.4)	b,c

Standard deviations are presented in parentheses next to the means.
a = Depressed vs. Externalizing, b = Depressed vs. Nonclinic, c = Externalizing vs. Nonclinic

54) = 4.0, $p < .001$, and Communication, $F(1, 54) = 2.3$, $p < .05$, and higher on Alienation, $F(1, 54) = 4.0$, $p < .001$. Externalizing adolescents also were lower on Trust, $F(1, 54) = 3.5$, $p < .001$, and Communication, $F(1, 54) = 2.0$, $p = .05$, and higher on Alienation, $F(1, 54) = 2.8$, $p < .01$, relative to the nonclinic adolescents. Depressed and externalizing adolescents did not differ in their reports of parent attachment. There were no significant gender by group interactions.

Adolescent report of relatedness: Issues Checklist. Group means on the Issues Checklist scales are presented in Table 12. There was a significant group main effect for Mean Conflict Intensity, $F(2, 53) = 8.3$, $p = .001$, and a marginally significant group main effect for Number of Conflict Issues, $F(2, 54) = 2.6$, $p = .08$.

Both depressed adolescents, $F(1, 53) = 2.6$, $p = .01$, and externalizing adolescents, $F(1, 53) = 4.0$, $p < .001$, reported higher Mean Conflict Intensity than the nonclinic adolescents. Externalizing, but not depressed, adolescents reported a higher Number of Conflict Issues than nonclinic adolescents, $F(1, 54) = 2.3$, $p < .05$. The depressed and externalizing youths did not differ in their reports of Mean Conflict Intensity or Number of Conflict Issues.

There was a significant group by gender interaction for Number of Conflict Issues, $F(2, 54) = 4.5$, $p < .05$ (see Figure 1). Externalizing girls reported a higher Number of Conflict Issues compared to externalizing boys, $F(1, 18) = 13.1$, $p < .01$. Similarly, nonclinic girls reported a higher Number of Conflict Issues relative to nonclinic boys, $F(1, 18) = 5.0$, $p < .05$. Depressed girls and boys did not differ from each other in Number

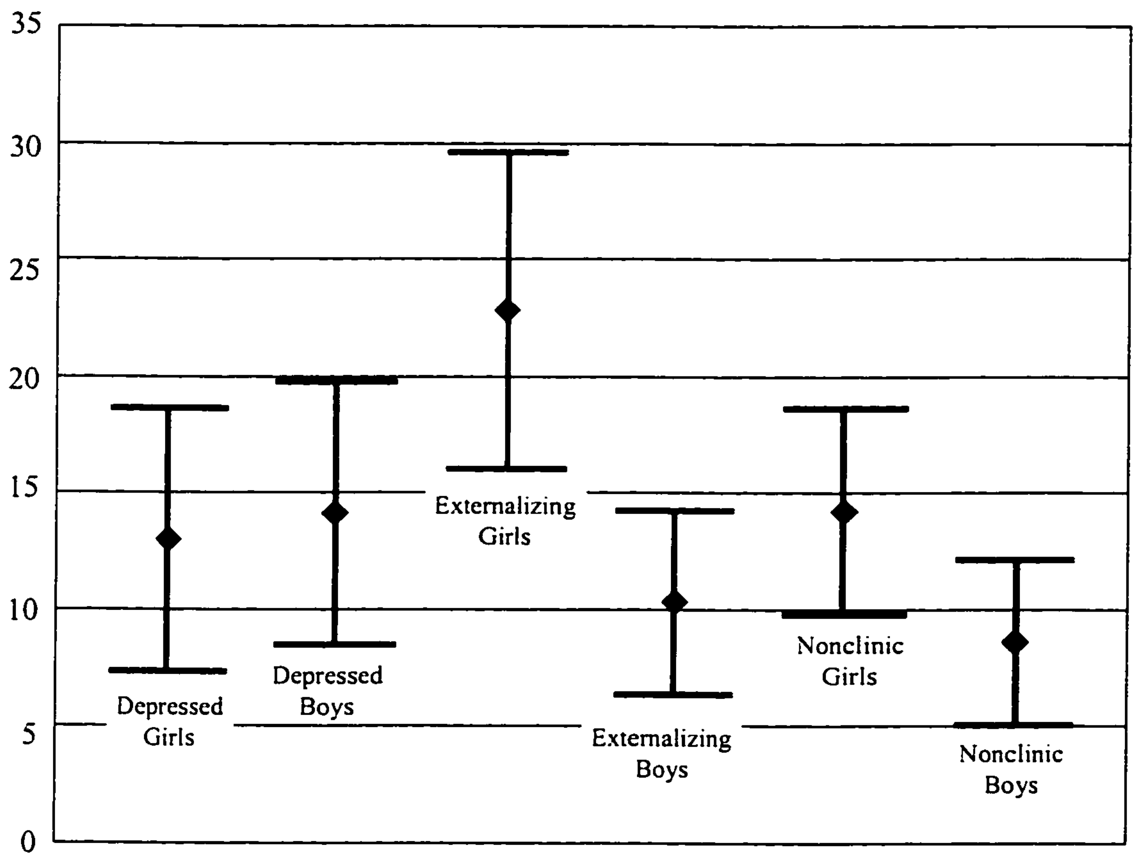

Figure 1. Adolescent report of number of conflict issues: Within group gender comparisons.

of Conflict Issues.

Overall, depressed and externalizing adolescents reported poorer perceived attachment security and more conflict with their mothers relative to nonclinic adolescents. The depressed and externalizing groups did not differ in their reports of attachment or mother-adolescent conflict. There were no gender differences in reports of attachment or conflict within the depressed group. However, externalizing and nonclinic girls reported a higher number of conflict issues with their mothers relative to their male counterparts.

Maternal report of relatedness: FES. Group means on the FES scales are presented in Table 13. Significant group main effects were found for group status on Cohesion, $F(2, 53) = 4.9$, $p = .01$, and Conflict $F(2, 53) = 6.4$, $p < .01$, but not on Expressiveness.

Compared to the nonclinic group, mothers of depressed adolescents, $F(1, 54) = 2.8$, $p < .01$, and mothers of externalizing adolescents, $F(1, 53) = 2.6$, $p = .01$, rated their families as lower in Cohesion. Mothers of externalizing and depressed adolescents did not differ in their reports of Cohesion. Mothers of externalizing adolescents reported higher scores on Conflict relative to mothers of depressed adolescents, $F(1, 53) = 2.3$, $p < .05$, and to mothers of nonclinic adolescents, $F(1, 53) = 3.5$, $p < .001$. The depressed and nonclinic groups did not differ in their reports of Conflict.

There was a significant gender by group interaction for Cohesion, $F(2, 53) = 6.2$, $p < .01$ (see Figure 2), and Expressiveness, $F(2, 53) = 6.9$, $p < .01$ (see Figure 3). Mothers of depressed girls rated their homes as higher in Cohesion, $F(1, 18) = 7.2$, $p < .05$, and

Table 13. Mother report on the FES and Issues Checklist: Group means.

	Depressed	Externalizing	Nonclinic	Significant Comparisons
FES				
Cohesion	14.8 (3.6)	15.0 (2.4)	17.0 (1.9)	b, c
Expressiveness	13.0 (3.0)	12.6 (2.2)	13.8 (2.5)	--
Conflict	11.8 (3.9)	14.6 (3.7)	10.4 (3.7)	a, c
Independence	14.4 (3.2)	13.9 (2.1)	14.6 (3.3)	--
Control	12.4 (3.1)	11.6 (2.5)	11.2 (2.8)	--
Issues Checklist				
Number of Conflict Issues	16.7 (8.8)	22.5 (8.3)	16.6 (9.4)	c
Mean Intensity of Conflict	2.0 (0.8)	2.8 (0.7)	1.6 (.36)	a, b, c

Standard deviations are presented in parentheses next to each mean.
a = Depressed vs. Externalizing, b = Depressed vs. Nonclinic, c = Externalizing vs. Nonclinic

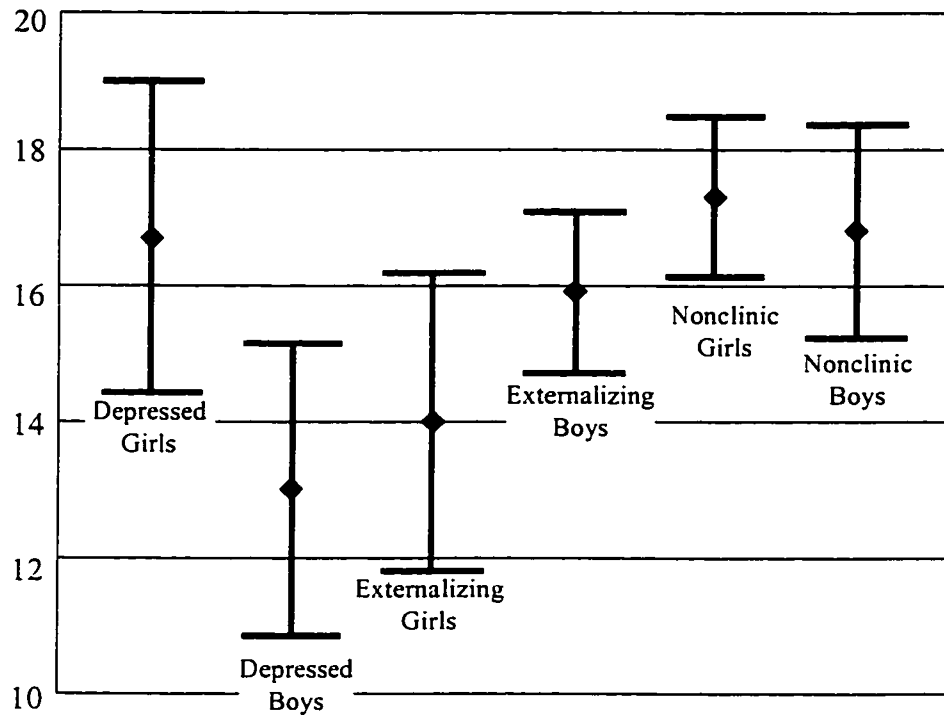

Figure 2. Within group gender comparisons on Cohesion (FES).

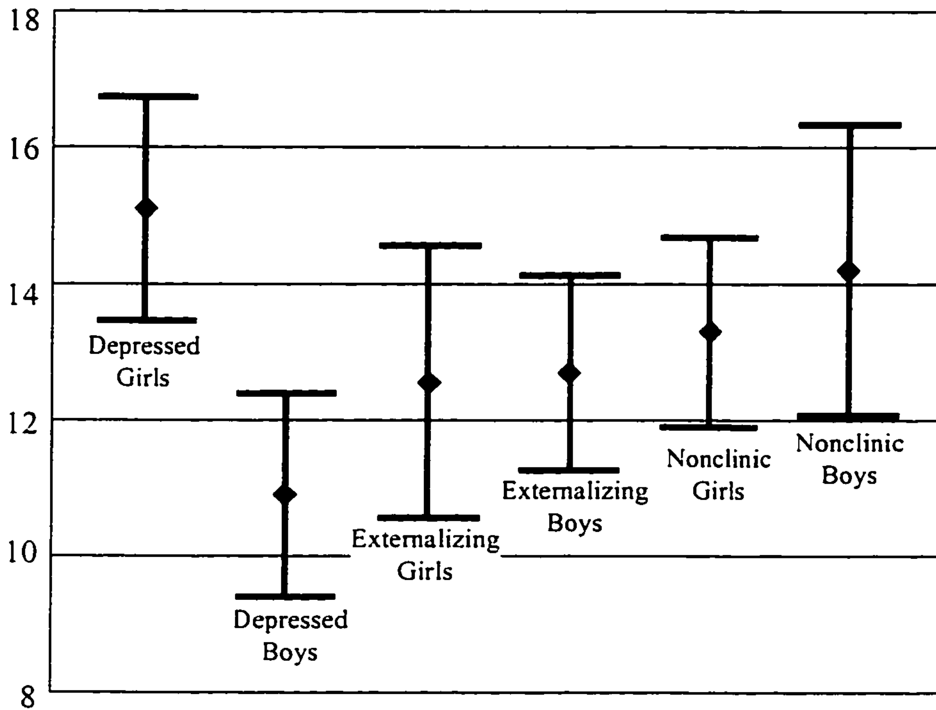

Figure 3. Within group gender comparisons on Expressiveness (FES).

Expressiveness, $F(1, 18) = 18.5$, $p < .001$, than mothers of depressed boys. Given that depressed boys were higher than depressed girls on externalizing symptom severity, the gender comparisons within the depressed group on Cohesion and Expressiveness were repeated by including Total Externalizing as a covariate. The gender comparisons within the depressed group on Cohesion, $F(1, 17) = 4.6$, $p = .05$, and Expressiveness, $F(1, 17) = 11.6$, $p < .01$, remained significant. Mothers of externalizing boys rated their homes as marginally significantly higher in Cohesion than mothers of externalizing girls, $F(1, 17) = 3.3$, $p = .09$. There were no gender differences on Cohesion or Expressiveness within the nonclinic group.

Mother report - Issues Checklist. Group means on the Issues Checklist scales are presented in Table 13. There was a significant group main effect for Mean Conflict Intensity, $F(2, 54) = 17.4$, $p < .001$. There was a marginally significant group main effect for Number of Conflict Issues, $F(1, 54) = 2.8$, $p = .07$.

Compared to mothers of nonclinic adolescents, mothers of externalizing adolescents reported a higher Mean Conflict Intensity, $F(1, 54) = 5.8$, $p < .001$, and a higher Number of Conflict Issues, $F(1, 54) = 2.1$, $p < .05$. Mothers of externalizing adolescents reported a higher Mean Conflict Intensity, $F(1, 54) = 3.8$, $p < .001$, and a higher Number of Conflict Issues, $F(1, 54) = 2.0$, $p < .05$, than mothers of depressed adolescents. Mothers of depressed adolescents reported a higher Mean Conflict Intensity, $F(1, 54) = 2.0$, $p = .05$, but not a higher Number of Conflict Issues, compared to mothers of nonclinic adolescents.

There was a significant group by gender interaction for Mean Intensity of Conflict, $F(2, 54) = 3.3$, $p < .05$ (see Figure 4). Mothers of externalizing girls reported a marginally significantly higher Mean Intensity of Conflict relative to mothers of externalizing boys, $F(1, 18) = 3.7$, $p = .07$. There were no gender differences on Mean Intensity of Conflict within the depressed and nonclinic groups.

Mothers of both clinic groups reported lower family cohesion than mothers of nonclinic adolescents. Interestingly, homes of depressed boys were described by mothers as more deficient in cohesion and expressiveness than homes of depressed girls. Mothers of externalizing adolescents reported the most intense levels of conflict in their families. Although mothers of depressed adolescents did not rate their home environments as higher in conflict than nonclinic homes, they did report more intense conflict with their depressed adolescent than mothers of nonclinic adolescents.

Observed Adolescent Behavior - ARCS Relatedness Scales. Group means are presented in Table 14. There were significant group main effects for Exhibit Relatedness, $F(2, 54) = 6.4$, $p < .01$, and Inhibit Relatedness, $F(2, 54) = 11.5$, $p < .001$.

Externalizing adolescents received lower scores on Exhibit Relatedness than both the depressed, $F(1, 54) = 2.7$, $p = .01$, and nonclinic adolescents, $F(1, 54) = 3.4$, $p = .001$, and higher scores on Inhibit Relatedness than the depressed, $F(1, 54) = 3.2$, $p < .01$, and nonclinic adolescents, $F(1, 54) = 4.7$, $p < .001$. Depressed and nonclinic adolescent did not differ from each other on either relatedness scale.

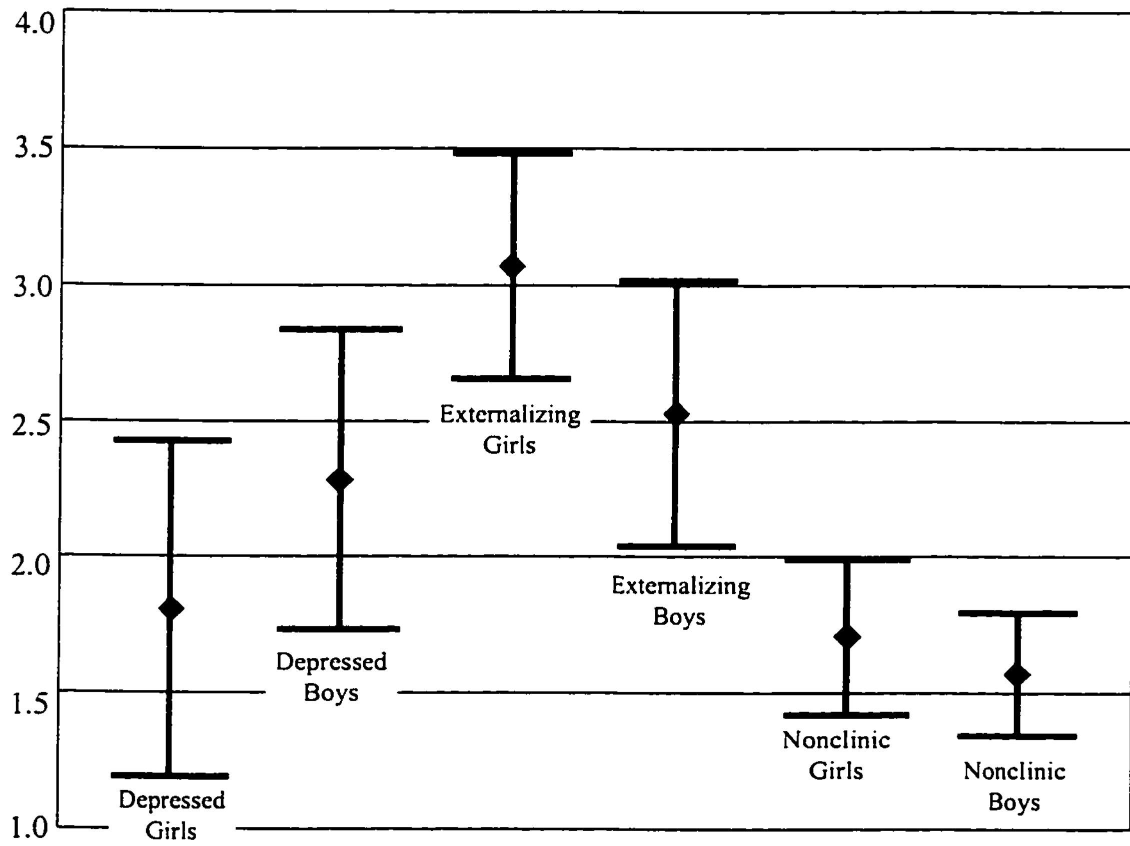

Figure 4. Mother report of mean conflict intensity: Within group gender comparisons.

Table 14. Mother and adolescent behavior: Group means on the ARCS.

	Depressed	Externalizing	Nonclinic	Significant Comparisons
Adolescent Behavior				
Exhibit Relatedness	4.5 (1.5)	3.4 (1.4)	4.8 (1.4)	a, c
Inhibit Relatedness	2.1 (1.9)	3.9 (2.3)	1.2 (1.0)	a, c
Exhibit Autonomy	3.6 (1.5)	3.8 (1.4)	4.2 (1.9)	--
Inhibit Autonomy	2.0 (1.8)	3.1 (1.7)	1.6 (1.2)	a, c
Mother Behavior				
Exhibit Relatedness	7.2 (1.8)	6.0 (1.7)	7.5 (1.1)	a, c
Inhibit Relatedness	1.7 (1.1)	2.6 (1.3)	1.0 (1.0)	a, b, c
Exhibit Autonomy	5.4 (1.3)	4.8 (1.5)	5.5 (1.5)	--
Inhibit Autonomy	2.9 (1.2)	3.3 (1.5)	2.3 (0.9)	c

Standard deviations are presented in parentheses next the each mean.
a = Depressed vs. Externalizing, b = Depressed vs. Nonclinic, c = Externalizing vs. Nonclinic

There was a significant gender by group interaction for Exhibit Relatedness, $F(2, 54) = 3.2$, $p = .05$ (see Figure 5). Within the depressed group, girls were marginally significantly higher than boys on Exhibit Relatedness, $F(1, 18) = 4.2$, $p = .06$. When severity of externalizing symptoms was included as a covariate, however, the difference became nonsignificant. There were no gender differences on Exhibit Relatedness within the externalizing or the nonclinic group.

Observed Maternal Behavior - ARCS Relatedness Scales. Group means are presented in Table 14. There were significant group main effects for Exhibit Relatedness, $F(2, 54) = 5.0$, $p = .01$, and Inhibit Relatedness, $F(2, 54) = 9.5$, $p < .001$.

Mothers of externalizing adolescents were rated lower on Exhibit Relatedness than mothers of nonclinic adolescents, $F(1, 54) = 3.0$, $p < .01$, and depressed adolescents, $F(1, 54) = 2.5$, $p < .05$, and higher on Inhibit Relatedness than the nonclinic group, $F(1, 54) = 4.4$, $p < .001$, and the depressed group, $F(1, 54) = 2.3$, $p < .05$. Mothers of depressed adolescents were rated higher on Inhibit Relatedness, $F(1, 54) = 2.0$, $p = .05$, than the nonclinic group but the two groups did not differ on Exhibit Relatedness.

There was a significant gender by group interaction for Exhibit Relatedness, $F(2, 54) = 4.1$, $p < .05$ (see Figure 6), but not for Inhibit Relatedness. Within the depressed group, mothers of depressed girls were marginally significantly higher than mothers of depressed boys on Exhibit Relatedness, $F(1, 18) = 3.9$, $p = .06$. This difference became nonsignificant after covarying for severity of externalizing symptoms. There were no within group gender

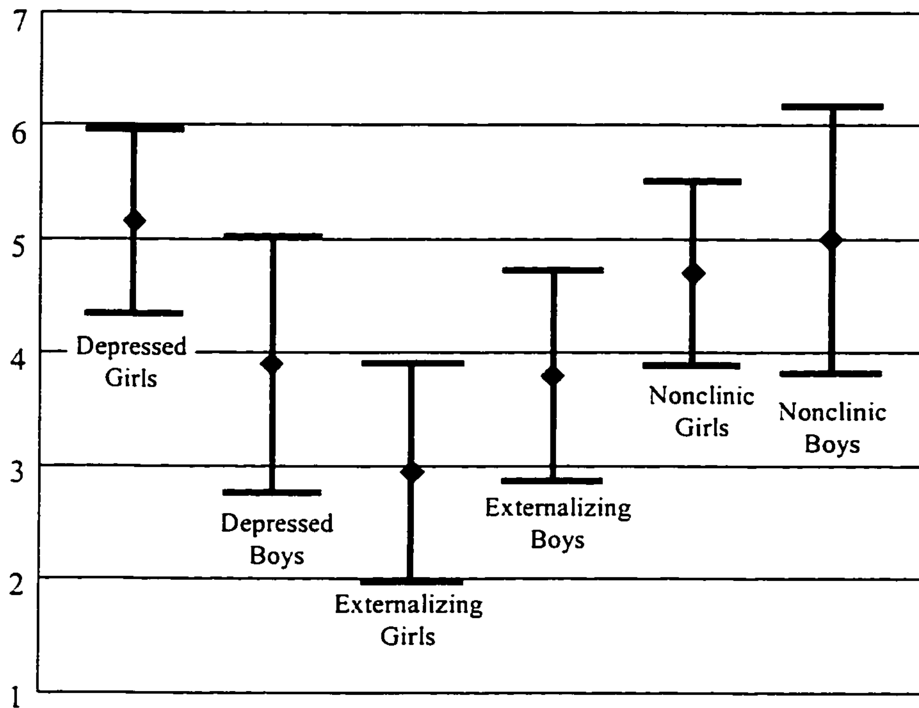

Figure 5. Observed adolescent behavior: Within group gender comparisons on Adolescent Exhibit Relatedness.

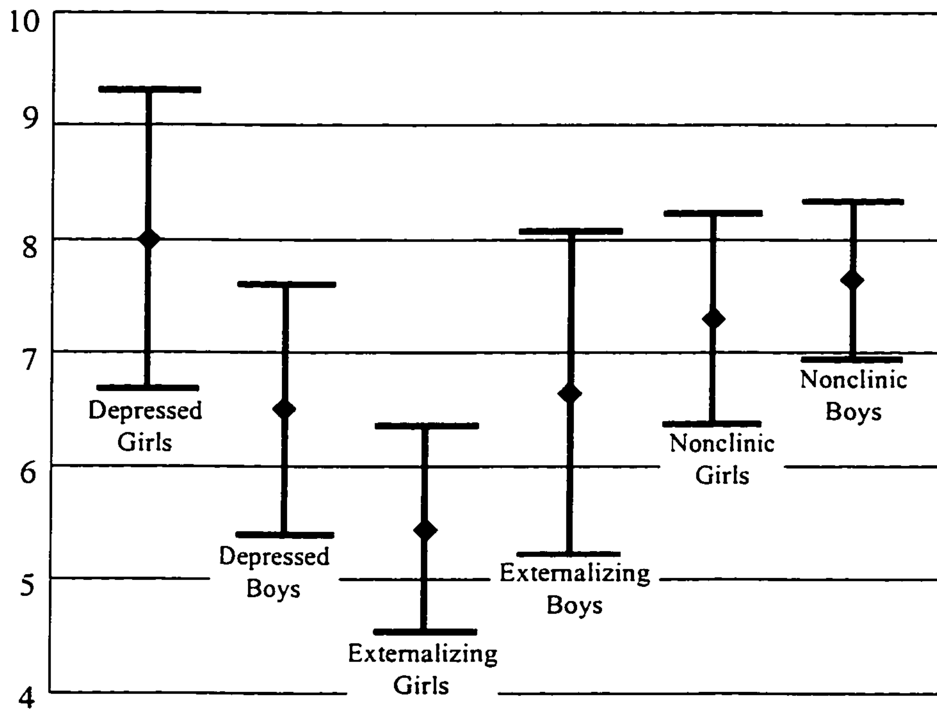

Figure 6. Observed mother behavior: Within group gender comparisons on Exhibit Relatedness.

differences in the externalizing or nonclinic group.

Hypothesis 1 was partially confirmed. Externalizing adolescents and their families appear to be the most impaired in relatedness relative to the other two groups, where both self-report and observation measures revealed that externalizing adolescents and their mothers experience deficits in warmth, support, and cohesion as well as elevated levels of conflict in their families. Families of depressed adolescents present a more complex picture. While the depressed adolescents reported less secure parent attachment and conflict with their mothers at levels similar to those reported by externalizing adolescents, the depressed group as a whole was indistinguishable from nonclinic adolescents during the observed interaction. Mothers of depressed adolescents, however, did report lower family cohesion than mothers of nonclinic adolescents and mothers of depressed boys described their homes as lower in cohesion and expressiveness than homes of depressed girls. Although mothers of depressed adolescents did not perceive their homes as elevated in conflict, they did report that they currently experienced more intense conflict with their depressed adolescents compared to nonclinics. Furthermore, although mothers of depressed adolescents demonstrated normal levels of behaviors that exhibit relatedness, such as validation and engagement, they were elevated in behaviors that inhibit relatedness (e.g. hostility and distraction) during the observed interaction with their sons.

Hypotheses 2. Depressed adolescents and their families will be characterized by problems in negotiating autonomy, as measured by ratings of behaviors that exhibit and

inhibit autonomy during an observation task and by mother report of autonomy within the family. It is anticipated that externalizing adolescents will also show deficits in negotiating autonomy relative to nonclinics.

Adolescent report of autonomy. No adolescent report was obtained in this domain.

Maternal report of autonomy: FES. Group means are presented in Table 13. There were no significant group main effects on Independence and Control. However, there was a significant gender by group interaction for Control, $F(1,53) = 3.6$, $p < .05$ (see Figure 7). Mothers of depressed boys rated their homes as higher in Control than mothers of depressed girls, $F(1, 18) = 9.7$, $p < .01$. This difference remained significant even after covarying for severity of externalizing symptoms, $F(1, 17) = 4.6$, $p = .05$. There were no gender differences on Control within the externalizing and nonclinic groups.

Observed Adolescent Behavior - ARCS Autonomy Scales. Group means are presented in Table 14. There was a group main effect for Inhibit Autonomy, $F(2, 54) = 4.5$, $p < .05$, but not for Exhibit Autonomy. Externalizing adolescents were rated higher on Inhibit Autonomy than both depressed adolescents, $F(1, 54) = 2.0$, $p =.05$, and nonclinic adolescents, $F(1, 54) = 2.9$, $p < .01$. Depressed and nonclinic adolescents did not differ on ratings of Inhibit Autonomy.

There was a marginally significant group by gender interaction for Exhibit Autonomy, $F(2, 54) = 2.8$, $p = .07$ (see Figure 8). Within the depressed group, girls were rated higher than boys on Exhibit Autonomy, $F(1, 18) = 14.1$, $p = .001$. After covarying

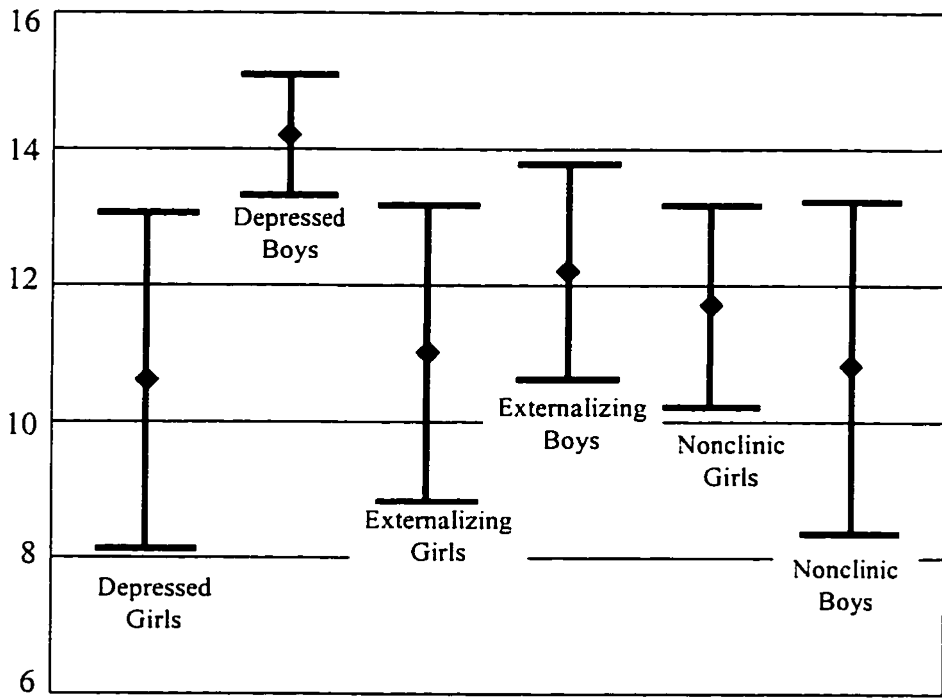

Figure 7. Within group gender comparisons on Control (FES).

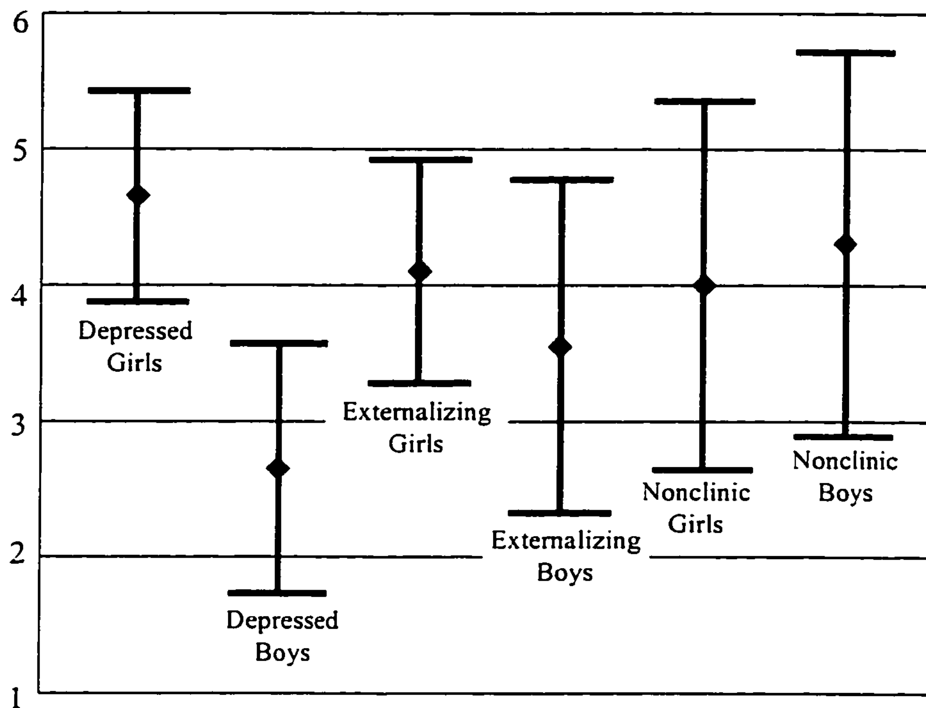

Figure 8. Observed adolescent behavior: Within group gender comparisons on Exhibit Autonomy.

for severity of externalizing symptoms, the difference remained significant, $F(1, 17) = 10.6$, $p < .01$. There were no gender differences in Exhibit Autonomy within the externalizing or nonclinic groups.

Observed Maternal Behavior - ARCS Autonomy Scales. Group means are presented in Table 14. There was a significant group main effect for Inhibit Autonomy, $F(2, 54) = 3.6$, $p < .05$, but the three groups of mothers did not differ on ratings of Exhibit Autonomy. Mothers of depressed youths did not differ from the other two groups on Inhibit Autonomy. Mothers of externalizing adolescents, however, were rated higher on Inhibit Autonomy relative to mothers of nonclinic adolescents, $F(1, 54) = 2.7$, $p < .01$.

There was a significant group by gender interaction for Exhibit Autonomy, $F(2, 54) = 3.5$, $p < .05$ (see Figure 9). Within the depressed group, mothers of girls were marginally significantly higher than mothers of boys on Exhibit Autonomy, $F(1, 18) = 4.2$, $p = .06$. After covarying for severity of externalizing symptoms, the difference was no longer significant. Within the nonclinic group, mothers of boys were marginally significantly higher than mothers of girls, $F(1, 18) = 3.6$, $p = .07$. After covarying for severity of externalizing symptoms, the difference was nonsignificant. There was no gender difference in Exhibit Autonomy within the externalizing group.

Hypothesis 2 was only partially confirmed. Externalizing adolescents and their mothers received elevated scores on behaviors that inhibited each other's autonomy. Although the depressed group as a whole did not demonstrate problems in autonomy, there were some important gender differences within the depressed group. Depressed

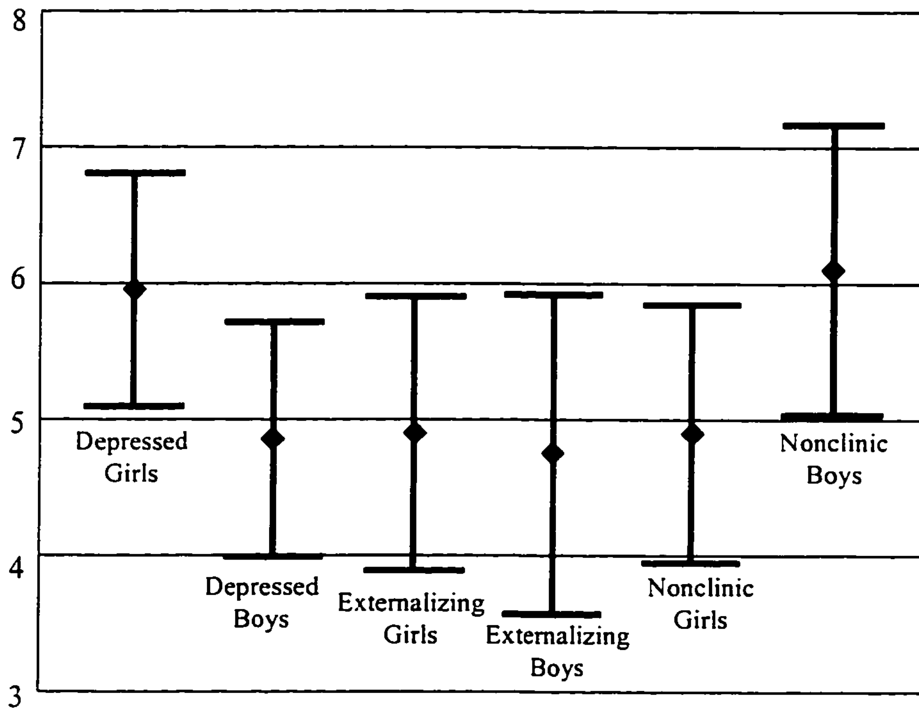

Figure 9. Observed mother behavior: Within group gender comparisons on Exhibit Autonomy.

girls and their mothers demonstrated higher levels of behaviors that exhibit autonomy relative to depressed boys and their mothers. Furthermore, mothers of depressed boys rated their homes as higher in control than mothers of depressed girls, suggesting that homes of depressed girls and boys may be characterized by different patterns of interacting around autonomy issues.

Hypothesis 3. Both psychiatric groups will report poorer self-concept compared to normal controls, and depressed adolescents will report more impaired self-concepts than externalizing teens. Self-concept is expected to mediate the link between family interaction and psychopathology.

PHSCS. Means and standard deviations of the self-concept scales are presented in Table 15. There were main effects for Total Self-Concept, $F(2, 52) = 9.7$, $p < .001$, Physical, $F 2, 52) = 3.9$, $p < .05$, and Intellectual and School Status, $F(2, 52) = 12.8$, $p < .001$, and Anxiety, $F(2, 52) = 8.3$, $p = .001$. The groups did not differ in their ratings of Popular.

Relative to externalizing adolescents, depressed adolescents rated themselves lower on Total Self-Concept, $F(1, 52) = 3.0$, $p < .01$, Intellectual and School Status, $F(1, 52) = 3.8$, $p < .001$, and Anxiety, $F(1, 52) = 3.1$, $p < .01$. Compared to the nonclinic group, depressed adolescents rated themselves lower on Total Self-Concept, $F(1, 52) = 4.3$, $p < .001$, Intellectual and School Status, $F(1, 52) = 4.9$, $p < .001$, Physical, $F(1, 52) = 2.8$, $p < .01$, and Anxiety, $F(1, 52) = 3.9$, $p < .001$. Externalizing adolescents did not differ from the nonclinic group in their ratings of self-concept.

Table 15. Adolescent report on the PHSC: Group means.

	Depressed	Externalizing	Nonclinic	Significant Comparisons
Total Self-Concept	30.8 (6.9)	37.1 (6.6)	40.0 (6.7)	a, b
Physical	8.2 (3.2)	9.6 (2.6)	10.4 (2.0)	b
Intellectual & School Status	9.8 (3.3)	13.2 (2.2)	14.2 (2.9)	a, b
Popular	8.1 (3.0)	9.1 (2.5)	9.2 (1.7)	--
Anxiety	7.7 (3.5)	10.5 (3.1)	11.2 (2.1)	a, b

Standard deviations are presented in parentheses next to each mean.
a = Depressed vs. Externalizing, b = Depressed vs. Nonclinic, c = Externalizing vs. Nonclinic

Test of mediation. To address the mediation hypothesis, a link between family interaction, Severity of Depressive Symptoms (DSS), and Total Self-Concept first needed to be established. Only maternal behavior and self-report was included, since assessment of the family outside of the adolescent's perception and behavior were of primary interest in testing the mediation hypothesis. As indicated in Table 16, although Total Self-Concept was associated with DSS, the correlations between DSS among the entire sample and family interaction variables were nonsignificant. Analyses were repeated for the depressed group only. DSS was associated with Conflict, $r = -.46$, $p < .05$, and Control, $r = -.49$, $p < .05$, but Total Self-Concept was not significantly correlated with DSS, $r = -.34$, $p = .15$. Thus, the mediation analyses could not be undertaken.

Since previous analyses indicated that gender is related to the relationship between family interaction and depression, the same series of regressions were performed for girls and boys separately, again including the entire sample. For girls, DSS was inversely associated with Total Self-Concept, $r = -.51$, $p < .01$, but family interaction was unrelated to girls' DSS. For boys, DSS was associated with Cohesion, $r = -.50$, $p < .01$, Control, $r = .45$, $p = .01$, and Expressiveness $r = -.45$, $p = .01$, and Total Self-Concept, $r = -.48$, $p < .01$. However, Total Self-Concept was unrelated to the family interaction variables.

Hypothesis 3 was partially confirmed. Depressed adolescents clearly reported the most impaired self-concept relative to both other groups, but externalizing adolescents did not differ in their self-concept from the nonclinic adolescents. The hypothesis that

Table 16. Correlations between observed mother behavior, mother report of family interaction, severity of adolescent depressive symptoms, and Total Self-Concept.

	DSS	Exh A	Inh A	Exh Rel	Inh R	Cohesion	Express	Conflict	Indep	Control	S-C
DSS	1										
Exh A	-.02	1									
Inh A	.13	-.13	1								
Exh R	-.09	.46**	-.32*	1							
Inh R	.22	-.21	.47**	-.39**	1						
Cohesion	-.17	.18	-.26*	.19	-.19	1					
Express-iveness	-.04	.21	-.24	.11	-.19	.44**	1				
Conflict	-.01	-.17	.21	-.20	.33*	-.54**	-.27*	1			
Indepen-dence	.04	.08	-.26*	.06	-.06	.44**	.20	-.21	1		
Control	.05	-.08	.28*	-.10	.21	-.50**	-.51**	.51**	-.35**	1	
S-C	-.50**	-.28*	-.07	-.11	-.05	.22	-.06	-.08	-.09	.004	1

* $p \leq .05$, ** $p < .01$; R = relatedness, A = Autonomy, Exh = Exhibit, Inh = Inhibit, S-C = Self-Concept

self-concept mediates the link between depressive symptoms and family interaction was not confirmed.

Summary of results

The depressed, externalizing, and nonclinic groups were equivalent on a variety of demographic variables. Surprisingly, the three groups of mothers did not differ in their current or past history of psychopathology with the exception that the clinic mothers were rated as currently functioning more poorly psychosocially than the nonclinic mothers. The two clinic groups of adolescents were equivalent in overall severity of psychopathology, so group differences on the family interaction variables cannot be attributed to group differences in symptom severity.

Depressed adolescents and externalizing adolescents reported impaired attachment security and heightened conflict with their mothers relative to nonclinic adolescents. Mothers of both clinic groups reported elevated conflict, although conflict may be more severe in families with externalizing adolescents. Mothers of both clinic groups reported impoverished family cohesion. However, within the depressed group, reports of lower family cohesion was limited to homes of boys. Mothers of depressed boys also described lower levels of expressiveness at home as well as elevated levels of control. Observational assessment revealed that interactions with externalizing adolescents were the most overtly impaired in autonomy and relatedness. Mothers of both male and female depressed adolescents, despite showing normal levels of warmth and involvement, were elevated in behaviors that inhibited relatedness such as ignoring their adolescent's

verbalizations. Interactions with depressed girls and their mothers showed normal levels of behaviors that exhibited relatedness and autonomy. Interactions with depressed boys, in contrast, were impoverished in behaviors that exhibited relatedness and autonomy.

Self-concept was clearly the most impaired in the depressed adolescents. It was not possible to test the mediation hypothesis -- in no case were both severity of depressive symptoms and self-concept related to a family interaction variable.

CHAPTER 4: DISCUSSION

The current study investigated patterns of family interaction with clinically depressed adolescents utilizing observation of mother-adolescent interaction as well as adolescent and mother reports. Externalizing clinic adolescents were included as a psychiatric control group so that interaction characteristics that may be specific to depression could be identified, and nonclinic adolescents were included as a normal comparison group. Family interaction patterns in relatedness and autonomy were chosen as the focus of this study due to their relevance to adolescent development and because previous research has suggested that family interaction deficits in autonomy and relatedness may be related to depression. The current study is one of the first efforts to systematically investigate observed family interaction in a sample of clinically depressed adolescents who had been referred for mental health services.

Depression and relatedness

Relative to the nonclinic group, depressed adolescents reported a sense of low perceived security in their relationships with their parents, a finding consistent with other evidence that adolescents who reported lower felt security had more severe depressive symptoms (Armsden & Greenberg, 1987; Gonzales, 1992; Papini & Roggman, 1992; Papini et al., 1991). The findings from the current study suggest that a sense of low felt attachment security may not be specific to depression, given that the externalizing adolescents reported a similar deficit in felt security. A previous study, in contrast,

reported that depressed adolescents were lower in felt security than psychiatric and nonclinic controls, and that the psychiatric controls did not differ from the nonclinics (Armsden et al., 1990). The psychiatric controls studied by Armsden and colleagues, however, were not as severe in overall psychopathology as the depressed group.

Depressed adolescents and their mothers also reported elevated levels of current mother-adolescent conflict. While the depressed adolescents' reports of mother-adolescent conflict were equivalent to externalizing adolescents' reports, mothers of depressed adolescents reported mother-adolescent conflict in the mid-ground between mothers of externalizing and nonclinic youths. It is noteworthy that although mothers of depressed adolescents reported elevated conflict with their depressed adolescents, they did not report elevated conflict in their home environment. It may be that although conflict is elevated between mothers and their depressed adolescents, their homes are not necessarily characterized by high conflict. In contrast, it appeared that conflict in homes with externalizing youths may be more pervasive among family members.

Externalizing youths clearly showed higher rates of inhibiting relatedness (conflict and hostility) relative to nonclinics. In contrast, despite the depressed adolescents' reports of heightened conflict with their mothers, the depressed adolescents were indistinguishable from nonclinic adolescents on behaviors that inhibit relatedness (such as hostility and distracting). This finding is consistent with other observation studies that have reported that depressed youths exhibit equivalent (Cole & Rehm, 1986) or even elevated (Dadds et al., 1992) positive affect relative to controls. Similarly, Allen

et al., (1994) found that adolescent depressed affect was inversely associated with behaviors that inhibit relatedness, such as hostility. It may be that depressed youths are uncomfortable with conflict and so might avoid interacting in a manner that would threaten their already fragile sense of connectedness.

It is interesting that mothers of depressed adolescents displayed normal levels of behaviors that exhibit relatedness and at the same time were elevated on behaviors that inhibit relatedness. In order to gain a clearer picture of how mothers of depressed adolescents behaved, subscale means on the scales that comprised the Inhibit Relatedness scale were examined. Means and standard deviations on the Distracting and Hostile scales are presented in Table 17. Statistical comparisons were not computed because reliability on the subscales may not have been established. Transcripts and videotapes were reviewed as another means to understand how mothers of depressed adolescents behaved.

Mothers of depressed adolescents, in general, showed normal levels of involvement, concern, and warmth towards their adolescents during the interaction task. They tend to inhibit relatedness in more subtle ways than mothers of externalizing adolescents. First, rather than showing overt hostility, mothers of depressed adolescents engaged in behaviors such as cutting off their adolescents and ignoring statements made by their adolescents. Second, statements by mothers that were coded as hostile had a different quality than hostile statements made by mothers of externalizing adolescents.

Table 17. Group means on the Inhibit Relatedness subscales.

	Depressed	Externalizing	Nonclinic
Distracting	1.2 (0.8)	1.4 (0.9)	0.7 (0.6)
Hostile	0.5 (0.8)	1.2 (0.8)	0.3 (0.8)

Standard deviations are presented in parentheses below each mean.

For example, one mother of an externalizing adolescent stated, "sometimes you say some of the dumbest things." Remarks that were coded as hostile within the depressed group, however, included: "everything is what you wanna do 150% and to hell with anybody else in the entire household" (mother of a 17-year old depressed girl). Another mother referred to a time when she ran away from home (from her current family) briefly because, "I had it with you. You screwed-up so bad." (mother of a 13-year old depressed boy). The statement by the mother of the externalizing adolescent may be viewed as more overtly insulting. In contrast, both examples of hostile statements by mothers of depressed adolescents, although also insulting, had qualities that are consistent with parent psychological control, which is often characterized by guilt induction or love withdrawal. This confirms previous research that has demonstrated a link between parent psychological control and youth depressive symptoms (Barber, 1996; Fauber et al., 1990).

It is somewhat surprising that even though both male and female depressed adolescents reported feeling unsupported by their parents, mothers of depressed boys, but not depressed girls, were deficient on behaviors such as engagement, validating their adolescent's perspective, and asking questions. It may be that depressed adolescents tend to over-report family interaction problems. Capaldi (1991) found that depressed boys (girls were not included in the study) perceived their relationships with their parents more poorly than their parents felt about them. Boys with conduct problems, in contrast, underestimated parent-child relationship problems relative to their parents' reports.

Others have also found that depressed adolescents' reports of impaired family cohesion may be exaggerated (McKeown, personal communication). It may be that depression alters perceptions of the family, or that perceptions lead to depression. The relationship is likely transactional, and longitudinal research is needed to follow changes in perceptions of the family and how they relate to timing of depression.

Gender patterns: Autonomy, relatedness and depression

When the depressed group was examined as a whole, no deficits in autonomy (either through observation or mother self-report) were apparent. However, when the depressed group was broken down by gender, some interesting findings emerged both in the autonomy and in the relatedness domains.

Before discussing the gender differences in family interaction, it is important to note that there were gender differences in symptom presentation within the depressed group. While 4 (40%) of the depressed boys were comorbid for a secondary externalizing disorder, only 1 (10%) depressed girl had a comorbid externalizing disorder. In addition, the severity of externalizing symptoms in the depressed boys approached that seen in the externalizing group. Given these different diagnostic profiles for the depressed girls versus the depressed boys, it is important to interpret any gender differences in family interaction carefully.

A major finding of the current study is that depressed girls and their mothers demonstrated higher levels of behaviors that exhibit autonomy and relatedness relative to depressed boys and their mothers. Although these differences appear to be due in part to

the different clinical picture of depressed boys versus depressed girls, where the depressed boys are higher in externalizing symptoms, it also seems that the family interaction patterns associated with depression are different for boys and girls.

Review of the subscale means that comprise the Exhibit Relatedness scale (see Table 18) suggests that the gender difference on Exhibit Relatedness within the depressed group stems from the depressed girls being more engaged during the interaction than the depressed boys. Most of the depressed girls were coded at a level of engagement indicating that at least some empathy was expressed. In contrast, only one depressed boy was coded as expressing any empathy. Therefore, it appears that depressed girls made more of an effort at connecting with their mothers than did the depressed boys. Similarly, mothers of depressed girls appeared to be more engaged and validating (such as by showing empathy, giving compliments, or agreeing with their adolescent) than mothers of depressed boys (see Table 19). This is consistent with self-reports by mothers where mothers of depressed girls reported normal levels of cohesion and expressiveness at home while mothers of depressed boys reported a deficiency in those domains.

It was surprising to find that the depressed girls were as high on Exhibit Autonomy as the nonclinic adolescents. From review of the transcripts and videotapes, it appeared as though the depressed girls were fighting for their autonomy. For example, one depressed girl was noted as stating to her mother, "why are you trying to change me?" Another stated earnestly, after several interruptions by her mother, "mom, mom, listen to me." Another depressed girl expressed how she felt too responsible for her

Table 18. Adolescent Exhibit Autonomy and Exhibit Relatedness: Gender comparisons on mean scores within the diagnostic groups.

	Depressed Girls	Depressed Boys	Externalizing Girls	Externalizing Boys	Nonclinic Girls	Nonclinic Boys
Exhibit Autonomy						
States Reasons	1.9	1.0	1.2	1.2	1.8	1.8
	(0.6)	(0.4)	(0.8)	(0.7)	(1.0)	(1.0)
Confidence	2.8	1.6	2.8	2.3	2.2	2.6
	(0.9)	(1.1)	(0.8)	(1.0)	(1.1)	(1.2)
Exhibit Relatedness						
Queries	1.4	1.2	0.9	1.3	1.6	1.2
	(0.7)	(0.9)	(0.7)	(0.7)	(0.8)	(0.7)
Validates	1.3	1.0	0.6	0.8	0.7	1.1
	(0.6)	(0.5)	(0.6)	(0.6)	(0.5)	(0.7)
Engaged	2.4	1.7	1.5	1.8	2.4	2.8
	(0.9)	(0.7)	(1.0)	(0.8)	(0.6)	(0.8)

Standard deviations are given in parentheses below each mean.

Table 19. Mother Exhibit Autonomy and Exhibit Relatedness: Gender comparisons on mean scores within the diagnostic groups..

	Depressed Girls	Depressed Boys	Externalizing Girls	Externalizing Boys	Nonclinic Girls	Nonclinic Boys
Exhibit Autonomy						
States Reasons	2.6	1.6	2.0	1.7	1.9	2.6
	(0.8)	(0.9)	(0.8)	(0.9)	(0.9)	(0.9)
Confidence	3.4	3.3	3.0	3.1	3.0	3.4
	(0.7)	(0.6)	(0.6)	(0.9)	(0.7)	(0.7)
Exhibit Relatedness						
Queries	2.8	2.7	2.6	3.1	2.8	3.0
	(0.9)	(0.8)	(0.8)	(0.8)	(0.5)	(0.6)
Validates	2.0	1.2	1.0	1.2	1.6	1.4
	(0.8)	(0.9)	(0.7)	(0.9)	(0.6)	(0.8)
Engaged	3.2	2.6	1.9	2.4	3.0	3.4
	(0.6)	(0.6)	(0.6)	(0.7)	(0.8)	(0.6)

Standard deviations are given in parentheses below each mean.

family. Depressed boys, in contrast, appeared to be more passive. They were less likely to argue and more likely to respond to their mothers with brief, nonexplanatory answers such as "I don't know." Nonclinic adolescents seemed to receive their higher scores on Exhibit Autonomy by clearly articulating their rationale for their position and sticking to it, yet they seemed willing to actively negotiate with their parents.

It may be that the mothers of depressed girls who scored relatively high on Exhibit Autonomy were actually being dominating as well as supportive of adolescent autonomy. This is consistent with previous research, where observed maternal dominance was associated with adolescent depressive symptoms (Kobak et al., 1993; Kobak & Ferenz-Gillies, 1995).

However, homes of depressed boys were highest of all in Control yet the depressed boys and their mothers were low in Exhibit Autonomy. The opposite pattern was seen in the dyads with a depressed girl. This suggests that the two scales may represent different constructs. Although the items on the Control items reflect a lack of negotiating/ high parent authority (e.g. "There are set ways of doing things at home."), the Control and Exhibit Autonomy scales (maternal and adolescent) are unrelated to each other in the entire sample and within each diagnostic group. Interestingly, for the depressed boys only, higher levels of Control were related to lower levels of adolescent Exhibit Autonomy, $r = -.72$, $p < .05$. It appears that although mothers of depressed boys do not exhibit autonomy, their home environment is high in control which relates to the low display of autonomy by depressed boys.

The current study did not replicate the finding in the literature that depressed boys are more susceptible to showing anger during observed interactions (Inoff-Germaine et al., 1988; Kobak et al., 1993). The means of the depressed boys (M = 2.0, SD = 1.8) were equivalent to the depressed girls (M = 2.2 , SD = 2.0) on behaviors that inhibit relatedness, such as hostility. This was especially unexpected given that nearly half of the depressed boys were comorbid for an externalizing disorder. However, others have found that depressed youths who were comorbid for oppositional or conduct problems, in contrast to nondepressed oppositional youths, displayed low levels of oppositional behavior during an observed family interaction (Dadds et al., 1992; Sanders et al., 1992).

It does appear, however, that the different clinical presentation of depressed boys, where they showed elevated externalizing symptoms relative to depressed girls represents a different family interaction pattern. It may be that the comorbidity in the sample of depressed boys reflects an especially impaired home environment. This is consistent with evidence that comorbid depressed mood and conduct problems in boys, relative to boys with depressed mood-only, have homes characterized by more severe problems in discipline and in the quality of the parent-child relationship (Capaldi, 1991). Furthermore, there is evidence that adolescent depression with comorbid conduct problems has different developmental outcomes in adulthood compared to adolescent depression without comorbid externalizing symptoms (Harrington, Rutter, & Fombonne, 1996).

In summary, it appears that for the depressed adolescents and their mothers, there does seem to be conflict between autonomy and relatedness, although it seems to be expressed differently for boys and girls. Depressed girls and their mothers do demonstrate a positive connection with each other - however these girls seem to be struggling for their autonomy. At the same time, depressed girls seem to put forth particular effort at staying connected with their mothers, such as by validating them and showing empathy. Depressed boys show problems in autonomy and relatedness in a different respect. They seem to be more impoverished in their connection with their mothers and seemed more resigned and passive. It may be that depressed boys are less assertive because of the high level of control at home.

Self-concept

The hypothesis that depressed youth would report the most impaired self-concept was clearly confirmed, where depressed youth scored lower on self-concept than both nonclinic and externalizing youths. However, externalizing youth did not report impaired self-concept relative to the nonclinic sample. These results are consistent with other evidence that perceived self-worth predicts depressive, but not externalizing symptoms (Robinson, Garber, & Hilsman, 1995), that aggression in boys without friends was associated with higher self-esteem (Frankel & Myatt, 1996), and that self-serving cognitive distortions are characteristic of antisocial youth (Barriga & Gibbs, 1996).

It was somewhat surprising that depressive symptoms were unrelated to family interaction variables, precluding the possibility that self-concept served to mediate the

link between family interaction and depression. However, given that depressed and externalizing youths may have distorted self-concepts in opposite directions, it makes sense that self-concept would be unrelated to the observation scales. Also, there may have been little relationship between family interaction and adolescent depressive symptoms because mother reported and observed family interaction deficits were generally small in comparison to those seen in families of externalizing adolescents. Clearly, it's important to rely on a variety of sources of evaluating family interaction with depressed youths since depressed adolescents' self-report of family interaction is likely impacted by their depressed mood and depressive cognitive style.

Summary

The results of the current study suggest that depressed adolescents perceive the quality of their relationships with their parents to be significantly impaired. Mothers of male and female depressed adolescents reported heightened conflict specifically with their depressed adolescents. However, mothers of depressed boys, but not mothers of depressed girls, described their homes as especially impoverished in cohesion and expressiveness and as high in control. Observation of depressed adolescents and their mothers during a problem-solving task revealed that although mothers showed normal levels of warmth and involvement, they tended to ignore or cut-off statements made by their adolescents. There was an important gender difference in expression of autonomy and relatedness within the depressed group. Depressed girls and their mothers showed higher levels of autonomy and a more positive connection relative to depressed boys and

their mothers. Similarly, homes of depressed boys were perceived by mothers as especially low in cohesion and high in control. However, the depressed girls seemed to be caught in a bind between wanting more autonomy and wanting to stay connected to their mothers. Depressed boys appeared to be more resigned and passive in the face of high levels of control in the home. Finally, although self-concept did not mediate the relationship between family interaction and adolescent depression, self-concept was significantly impaired in the depressed adolescents.

Limitations of the current study

There are several major limitations to the current study. First, the sample size was small, limiting both power and generalizability. Second, the sample was, to some extent, self-selected. This applies especially to the nonclinic sample who were recruited through flyers. In this respect, it is somewhat surprising that the three groups did not differ significantly in their demographics. Although the literature suggests that family SES and family structure are not risk factors for depression, there is evidence that these factors are associated with externalizing disorders. It was also unexpected that mothers across all three groups were quite low in lifetime history of psychopathology.

Lack of differences in demographics or psychopathology among the three groups of mothers may reflect a selection bias. Most of the referrals came through institutions that tend to drawn from a population that is skewed towards middle to upper-middle SES. The selection criteria that adolescents must be living with their biological mothers may have also had an impact. In addition, the time commitment and compliance needed to

participate on the part of both mother and adolescent may have selected for higher functioning families. Unfortunately, records of refusal rate of clinic participants were not kept, in part because we were not able to monitor the refusal rates from several satellite clinics who had agreed to help with subject recruitment.

A second caveat regarding the study concerns comorbidity in the sample, especially among depressed boys. However, as there is considerable evidence that rates of comorbidity among depressed youths are high (Mitchell, McCauley, Burke, & Moss, 1988; Petersen et al., 1993; Reynolds, 1994), the current sample may reflect the diagnostic composition of the general population of clinic youths. However, our power to clearly identify factors associated with depression alone in boys was limited.

Another limitation of the current study was the absence of adolescent report of autonomy. Clearly, future studies of adolescent depression and autonomy should include the adolescent's report of their autonomy as well as their perceptions of support of autonomy from their parents. Adolescent report of autonomy in conjunction with the observation autonomy scales and parent report of attitudes and practices about adolescent autonomy also could provide information about the validity of other sources of assessing autonomy.

The noninclusion of fathers is another weakness. Although many of the families in the current study were not in regular contact with the child's father, several of the clinic families reported significant concerns about the adolescent-father relationship. Clearly, our picture of family interaction in these families is incomplete without the inclusion of

fathers. In addition, there is a burgeoning literature illustrating the important role of fathers in their children's development.

The cross-sectional design of the current study, although useful in providing descriptive data, does not illuminate factors that may be causal in the development of adolescent depression. Future studies of clinically depressed adolescents should adopt a longitudinal design, following family interaction with and without remission of adolescent depression.

<u>Contributions of the current study and future directions</u>

The current study is one of the first efforts to study observed family interaction with clinically depressed adolescents. Although previous studies have observed family interaction with clinically depressed youths, no published studies have focused on a sample comprised of only adolescents (as opposed to younger depressed children) who had been referred for mental health services for depression.

The current study suggests that family interaction patterns for depressed girls and boys can be quite different, suggesting that generalizations about mixed gender samples may be misleading, or that information is washed out. These results add to a growing body of literature that suggests that there may be different correlates of depression for boys and girls (Petersen et al., 1991; Nolen-Hoeksema, 1994; Nolen-Hoeksema & Girgus, 1994).

Another contribution of the current study is its focus on developmentally relevant constructs. Given that rates of depression increase rapidly during adolescents, it is

important to consider whether depressed adolescents show deficits in mastering important adolescent developmental tasks such as growing autonomy in the context of close and supportive family relationships. Findings from the current study suggest that dynamics surrounding autonomy and relatedness are different for depressed girls and boys. Future research should continue to tease apart gender differences in the development of autonomy for boys and girls, and investigate how these differences relate to depression.

The use of two control groups, an externalizing group and a nonclinic group, allowed us to investigate factors linked to adolescent depression that may be specific to depression as opposed to an general indicator of psychopathology. The current study confirms that although conflict is characteristic of families of depressed youth, it is more strongly related to families of externalizing youths. Furthermore, while depressed adolescents appear to have overly negatively perceptions of themselves, externalizing youths may have overly positive distortions of their self-concept. Although both groups reported significant family interaction deficits, the externalizing youths' reports were more consistent with other indices of family interaction than were the depressed adolescents' reports. Future research should pursue the question of whether depressed youths' perceptions of the family are distorted.

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APPENDIX A: TELEPHONE SCREENING PROCEDURE FOR NONCLINIC PARTICIPANTS

ORAL CONSENT FORM

Before we begin talking about your child and participation in the study, I'd like to review our assessment procedure to see if it will work for you. The assessment includes two visits to either Children's Hospital on Sand Point Way or the Adolescent Clinic at the University of Washington Medical Center. We usually schedule them about one week apart. However, if it is more convenient for you, we can probably schedule it all in one visit. We are able to schedule visits on evenings and weekends if need be. During the visits, we will ask you to provide information about yourself and your child, and your child will be asked to provide information about her or himself. In addition, we would like to contact your child's teacher to ask questions about your child's behavior in the classroom.

INFORMATION ABOUT PARTICIPATION CHECKLIST: CHECKOFF COLUMN

1. The first visit takes about 2 hours, and includes you and your child. __________
   It consists of:
   (a) an interview with you about your child __________

   during your interview, your child may be asked to complete some questionnaires __________
   (b) an interview with your child about how his or herself __________

   during his or her interview, you may be asked to complete some questionnaires __________

2. The second visit takes about 2 hours, and includes you your child again.
   It consists of:
   (a) asking you and your child to identify and discuss some area of disagreement, such as chores or homework. __________
   This discussion will take about 15 minutes and will be videotaped. __________
   (b) you will complete an interview about yourself. __________
   (c) you and your child will complete any questionnaires that were not completed during the first visit. __________

We will reimburse you $50.00 for you participation of in the study __________
after the visits are completed.

If this evaluation procedure works okay for you, I can proceed to tell you about the screening interview to determine whether you child qualifies for the study.
ANY QUESTIONS SO FAR?

The screening interview takes about 15 minutes to complete. I will ask you questions about your child's age, gender, and grade, whether you are his/her biological mother, whether he or she has a chronic medical illness or disability, and whether he or she has ever received help for behavioral or psychological problems. Then, I will read you a list of emotional and behavioral problems that some adolescents have, and ask you to tell me whether your child is experiencing any of them.

This information is confidential and no one other than the study team members have access to this information. If your child does not qualify for the evaluation, this information will be destroyed.
DO YOU HAVE ANY QUESTIONS?

DO YOU AGREE TO PARTICIPATE IN THE SCREENING INTERVIEW?
YES NO

FAMILY INTERACTION PROJECT
PHONE SCREEN

Today's date: ___________
Screener's initials: ________
Caller's ID #: ___________

Mother's Name: (first name only) ___________________________

Child's Name: (first name only) _____________________________

What is your child's age? _________________
- If child's age is younger than 10 or older than 17, STOP

a) *Are you your child's biological mother?* YES NO
- If NO, STOP

If YES, *has your child lived with you most of his or her life?* YES NO
- If NO, STOP

b) *Does your child have a chronic medical illness or disability?* YES NO
- If YES, STOP

c) *Does you child have a history of learning problems?* YES NO
If YES, please explain: ____

d) *Has your child ever received special education services?* YES NO
If YES, please explain: ____
- If there is evidence of developmental delay, STOP

e) *Have you (or the child's father) or your son/daughter ever sought counseling or other professional help for your son's/daughter's behavior?*
If YES, *please explain:* ____
- If there is evidence of a history of significant emotional or behavioral problems, STOP

f) *Do you have concerns about your son's/daughter's behavior at this time?* YES NO
If YES, *please explain*: ____

g) *Have you ever had concerns about your son's daughter's behavior?* YES NO
If YES, *please explain*: ____
- If significant current or past concerns, STOP

g) *I have just a few more questions. These are problems that some adolescents have and I'd like you to tell me which ones are true for your child.*

1. *Does you child seem particularly depressed or unhappy?*
YES NO

If YES, *has this lasted for more than one week at a time?*
YES NO

If YES, *is it so bad that it interfered with your child being able to do the things s/he usually does?*
YES NO

2. *Does your child seem uninterested in things that s/he used to be interested in?*
YES NO
If YES, *has this lasted for more than one week at a time?*
YES NO

If YES, *is it so severe that it interferes with your child being able to do the things s/he usually does?*
YES NO

- If evidence of possible depression, STOP

3. *Has your child ever had a problem with drugs or alcohol use?*
YES NO

If YES, *did it cause a lot of problems with friends or family members?*
YES NO

4. *Has your child ever been suspended or expelled from school?*
YES NO
If YES, *what was it for?* ______________________________

5. *Has your child ever been in trouble with the police?*
YES NO
If YES, *what was it for?* ______________________________

6. *Does your child have any problems with anger?*
YES NO
If YES, *how frequently do they occur?* __________________

Do they cause problems with friends or family members?
YES NO
- If evidence of significant behavior problems, STOP

7. *Does your child have trouble concentrating?*
YES NO
If YES, *has your child to fall behind a grade level because of difficulty concentrating?*
YES NO

8. Does your child frequently appear anxious or worried?
YES NO
If YES, does it happen enough to interfere with the things that s/he usually likes to do?
YES NO
- If YES, STOP

9. *Does your child have any problems with his/her friends?*
YES NO
If YES, *what kind?* ___________________________
- If evidence of significant social disability, STOP

Additional comments from parents:
____
____
____

****
CHILD QUALIFIED:

Appointment scheduled for _____________

CHILD DID NOT QUALIFY:
Reason:_________________
Referral needed:_________________

1. COMPLETE FORM IF CHILD QUALIFIES FOR STUDY

2. SEPARATE THIS PAGE FROM PHONE SCREEN INTERVIEW FORM

3. PLACE IN SUBJECT NAME/ ADDRESS FILE

ID#: ________________ DATE: ________________

Phone Interviewer: ____________________

Now I would like to get your full name and phone number:

Mrs./ Ms.: ____________________________________
Name

Phone #: _________________________

Address: ____
Street/ Apt. #

____
City/ State Zip Code

Child's name: ____

School: ____

Teacher's Name: ____

APPENDIX B: CONSENT FORMS

Children's Hospital and Medical Center
Psychiatry and Behavioral Sciences
Division of Child Psychiatry

University of Washington
Division of Adolescent Medicine
Adolescent Clinic

CONSENT FORM FOR CLINIC PARTICIPANTS

FAMILY INTERACTION AND ADOLESCENT DEPRESSION

Elizabeth McCauley, Ph.D.	Associate Professor Child Psychiatry	526-2165
Karen Pavlidis	Research Assistant	526-2165

An on-call psychiatry person can be reached at anytime by calling 526-2000.

PURPOSE AND BENEFITS

The purpose of this study is to learn more about how adolescents with emotional problems feel about their families and interaction with their parents. By learning more about family interactions, the investigators hope to provide better feedback to parents and young people about how to improve family communication and support. Adolescents coping with depression as well as adolescents with other emotional or behavioral concerns will be asked to participate.

PROCEDURES

Adolescents and their mothers will be asked to participate in the study. Study participation will involve two meetings of approximately two hours in length.

In the first meeting the adolescent and his/her mother will be asked to complete a structured interview covering the adolescent's current and past emotional and behavioral problems. Mothers and adolescents will be interviewed separately. The first 10 minutes of the mother's portion of this interview will be audiotaped. Based on the interviews with the mother and the adolescent it will be determined if the young person has significant problems with depression, anxiety, or disruptive behavior. If so, they will be asked to continue in the study. If it turns out that the young person's difficulties do not fall into one of these areas feedback will be provided, but the adolescent and his/ her family will not be asked to continue with the study. This will in no way interfere with obtaining

outpatient care within the Department of Child Psychiatry.

In the second meeting adolescents will be asked to complete a series of questionnaires that ask about how they feel about themselves, their parents, their siblings, and their friends. Examples of the most personal and sensitive questions to be asked in the interview and questionnaires are "Have you ever been in trouble with the police?", "Have you used illegal substances?", "Have you ever thought about suicide?", and "Nobody really loves me", true or false.

In the second visit, mothers will be asked to participate in a structured interview about their own mental health history. Examples of the most personal questions on this interview include "Have you ever tried to commit suicide?", and "Has there been a period in your life when you drank too much?". During this visit, mothers will also be asked to complete some questionnaires that ask about her perceptions of her children and her family.

During the second visit, the adolescent and his/her mother will be asked to identify some areas of common concern, such as disagreements over phone calls, chores, etc., and then to spend about 20 minutes discussing these issues. This interaction will be videotaped.

Each adolescent and mother will be asked if we may send a form to a teacher to complete about the adolescent's behavior at school. A signed release of information will need to be completed before sending this form to the teacher.

RISKS, STRESS, OR DISCOMFORT

Participants may feel some questions are too personal to answer and have the right to choose not to answer any question. They may also get tired because of the length of the interviews and will be free to take breaks as needed. The need to schedule more than one session is burdensome especially for the mothers who will need to attend each visit. We attempt to schedule sessions at your convenience.

OTHER INFORMATION

The identity of participants in this study will be kept confidential, within the limits of the law. In any publication or report of study results, no names or other identifying information will be used. The exception to confidentiality is that the study information will be shared with your CHMC Child Psychiatric care providers. Information will be sent out to other care providers only if specifically requested by the participants. Signed release of information forms will be required to allow us to send out this information. Only the investigators and those working directly with the project will have access to study data and data will be kept five years beyond the completion of the study. All study materials will be coded numerically without names. The videotapes will be kept in a locked file cabinet and in a locked office with only numerical identification on the label. All materials will be kept five years after the end of the study. Since the

interviews do cover sensitive material, please be advised that we are legally obliged to report suspected or alleged child abuse or neglect. To clarify information obtained in the interviews, we may request access to medical and academic records. Participants will be asked to sign a release for obtaining these records.

If you choose not to participate in or complete this study, it will not affect your care or your child's care at Children's Hospital and Medical Center in any way now or in the future. Subjects are free not to participate and to withdraw from the study at any time without penalty. Each family will be reimbursed $50.00 for their participation.

________________________________ _______________

Signature of Investigator Date

SUBJECTS' STATEMENT

The study described above has been explained to me, and I voluntarily agree to participate and, (for parents), have my child participate in this activity. I have had the opportunity to ask questions and understand that future questions I have about the research or about subjects' rights will be answered by one of the investigators listed above. I understand that CHMC does not have no-fault insurance coverage and CHMC will not agree voluntarily to provide compensation for injuries that may result from participation in this research project. I understand that medical treatment at routine cost will remain available at CHMC.

________________________________ _______________

Signature of Subject Date

________________________________ _______________

Signature of Parent/ Legal Guardian Date

cc: Subject
Parent/ Guardian
Investigator's File

Children's Hospital and Medical Center
Psychiatry and Behavioral Sciences
Division of Child Psychiatry

University of Washington
Division of Adolescent Medicine
Adolescent Clinic

CONSENT FORM FOR NONCLINIC PARTICIPANTS

FAMILY INTERACTION AND ADOLESCENT DEPRESSION

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PURPOSE AND BENEFITS

The purpose of this study is to learn more about how adolescents with emotional problems feel about their families and interaction with their parents. By learning more about family interactions, the investigators hope to provide better feedback to parents and young people about how to improve family communication and support. Adolescents coping with emotional problems as well as adolescents without significant emotional or behavioral concerns will be asked to participate.

PROCEDURES

Adolescents and his/her mother will be asked to participate in the study. Study participation will involve two meetings of approximately two hours in length.

In the first meeting the adolescent and his/her mother will be asked to complete a structured interview covering the adolescent's current and past emotional and behavioral functioning. Mothers and adolescents will be interviewed separately. The first 10 minutes of the mother's portion of this interview will be audiotaped.

In the second meeting adolescents will be asked to complete a series of questionnaires that ask about how they feel about themselves, their parents, their siblings, and their friends. Examples of the most personal and sensitive questions to be asked in the interview and questionnaires are "Have you ever been in trouble with the police?", "Have you used illegal substances?", "Have you ever thought about suicide?", and "Nobody really loves me", true or false.

Also in the second visit, mothers will be asked to participate in a structured interview about their own mental health history. Examples of the most personal questions on this interview include "Have you ever tried to commit suicide?", and "Has

there been a period in your life when you drank too much?". During this visit, mothers will also be asked to complete some questionnaires that ask about her perceptions of her children and her family.

During the second visit, the adolescent and his/her mother will be asked to identify some areas of common concern, such as disagreements over phone calls, chores, etc., and then to spend about 20 minutes discussing these issues. This interaction will be videotaped.

Each adolescent and mother will be asked if we may send a form to a teacher to complete about the adolescent's behavior at school. A signed release of information will need to be completed before sending this form to the teacher.

RISKS, STRESS, OR DISCOMFORT

Participants may feel some questions are too personal to answer and have the right to choose not to answer any question. They may also get tired because of the length of the interviews and will be free to take breaks as needed. The need to schedule more than one session is burdensome especially for the mothers who will need to attend each visit. We attempt to schedule sessions at your convenience.

OTHER INFORMATION

The identity of participants in this study will be kept confidential, within the limits of the law. In any publication or report of study results, no names or other identifying information will be used. The exception to confidentiality is that the study information will be shared with your CHMC Child Psychiatric care providers. Information will be sent out to other care providers only if specifically requested by the participants. Signed release of information forms will be required to allow us to send out this information. Only the investigators and those working directly with the project will have access to study data and data will be kept five years beyond the completion of the study. All study materials will be coded numerically without names. The videotapes will be kept in a locked file cabinet and in a locked office with only numerical identification on the label. All materials will be kept five years after the end of the study. Since the interviews do cover sensitive material, please be advised that we are legally obliged to report suspected or alleged child abuse or neglect. To clarify information obtained in the interviews, we may request access to medical and academic records. Participants will be asked to sign a release for obtaining these records.

If you choose not to participate in or complete this study, it will not affect your care or your child's care at Children's Hospital and Medical Center in any way now or in the future. Subjects are free not to participate and to withdraw from the study at any time without penalty. Each family will be reimbursed $50.00 for their participation.

Signature of Investigator Date

SUBJECTS' STATEMENT

The study described above has been explained to me, and I voluntarily agree to participate and, (for parents), have my child participate in this activity. I have had the opportunity to ask questions and understand that future questions I have about the research or about subjects' rights will be answered by one of the investigators listed above. I understand that CHMC does not have no-fault insurance coverage and CHMC will not agree voluntarily to provide compensation for injuries that may result from participation in this research project. I understand that medical treatment at routine cost will remain available at CHMC.

Signature of Subject Date

Signature of Parent/ Legal Guardian Date

cc: Subject
Parent/ Guardian
Investigator's File

APPENDIX C: ISSUES CHECKLIST

PARENT ______
TEEN ______

ISSUES CHECKLIST

Below is a list of things that sometimes get talked about at home. Circle YES for the topics that you and your parent (s) have talked about at all during the last 4 weeks. Circle No for those that have not come up.

Now go back over the list. For those that you circled Yes, answer these two questions...

GO DOWN THIS COLUMN FOR ALL ITEMS. Then come back to this page and answer the questions on the right.

1. How many times during the last 4 weeks has it come up? (Give a number)

2. How hot are the discussions for each topic?

Topic		How many times?	Calm		A little angry		Angry
1. Telephone calls	yes no		1	2	3	4	5
2. Time for going to bed	yes no		1	2	3	4	5
3. Cleaning up bedroom	yes no		1	2	3	4	5

Topic		How many times?	Calm		A little angry		Angry
4. Doing homework	yes no		1	2	3	4	5
5. Putting away clothes	yes no		1	2	3	4	5
6. Using the television	yes no		1	2	3	4	5
7. Cleanliness (washing, showers, brushing teeth)	yes no		1	2	3	4	5
8. Which clothes to wear	yes no		1	2	3	4	5
9. How neat clothing looks	yes no		1	2	3	4	5
10. Making too much noise at home	yes no		1	2	3	4	5
11. Table manners	yes no		1	2	3	4	5
12. Fighting with brothers and sisters	yes no		1	2	3	4	5
13. Cursing	yes no		1	2	3	4	5
14. How money is spent	yes no		1	2	3	4	5
15. Picking books or movies	yes no		1	2	3	4	5
16. Allowance	yes no		1	2	3	4	5
17. Going places without parents	yes no		1	2	3	4	5
18. Playing stereo or radio too loudly	yes no		1	2	3	4	5

Topic	How many times?		Calm		A little angry		Angry
19. Turning off lights in house	yes	no	1	2	3	4	5
20 Drugs	yes	no	1	2	3	4	5
21. Taking care of records, games, bikes, pets, and other things	yes	no	1	2	3	4	5
22. Drinking beer or other liquor	yes	no	1	2	3	4	5
23. Buying records, games, toys, and things	yes	no	1	2	3	4	5
24. Going on dates	yes	no	1	2	3	4	5
25. Who should be friends	yes	no	1	2	3	4	5
26. Selecting new clothes	yes	no	1	2	3	4	5
27. Sex	yes	no	1	2	3	4	5
28. Coming home on time	yes	no	1	2	3	4	5
29. Getting to school on time	yes	no	1	2	3	4	5
30. Getting low grades in school	yes	no	1	2	3	4	5
31. Getting in trouble at school	yes	no	1	2	3	4	5

Topic		How many times?	Calm		A little angry		Angry
32. Lying	yes no		1	2	3	4	5
33. Helping out around the house	yes no		1	2	3	4	5
34. Talking back to parents	yes no		1	2	3	4	5
35. Getting up in the morning	yes no		1	2	3	4	5
36. Bothering parents when they want to be left alone	yes no		1	2	3	4	5
37. Bothering teenager when he or she wants to be left alone	yes no		1	2	3	4	5
38. Putting feet on furniture	yes no		1	2	3	4	5
39. Messing up the house	yes no		1	2	3	4	5
40. What time to have meals	yes no		1	2	3	4	5
41. How to spend free time	yes no		1	2	3	4	5
42. Smoking	yes no		1	2	3	4	5
43. Earning money away from the house	yes no		1	2	3	4	5
44. What teenager eats	yes no		1	2	3	4	5

Now go back to the beginning and follow the directions on the right hand sides of the Issues Checklist

APPENDIX D: AUTONOMY AND RELATEDNESS CODING SYSTEM

Autonomy and Relatedness Coding System

Manual, Version 2.0

(Revised to Allow Coding of Revealed Differences with both Real-life and Hypothetical Disagreements)

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Summary of Scoring Procedures

Coding Procedure

General Principles

The overall goal of the coding system is to identify behaviors promoting and inhibiting autonomy and relatedness in interactions between family members. To maximize the reliability of this system, it is essential that you carefully follow the procedure described below when coding a family discussion.

This coding system codes family interactions on the dyadic level. This means it does not attempt to code global patterns of family interaction, but rather, it focuses upon the patterns of interaction between individual dyads within the family (i.e. "mother to adolescent" or "father to mother"). Also, this system codes each members' interactions separately within a dyad. Thus, for each behavior coded in a dyad, for example, the "mother-adolescent" dyad, you will have a code for speech of the adolescent to the mother and a code for speech of the mother toward the adolescent.

When you are coding triads, a family member may address both other family members at once, in which case you should consider those speeches as applying to both dyads (e.g. if an adolescent were speaking, speech would apply to both the adolescent to mother dyad, and the adolescent to father dyad).

The procedure takes place in three steps.

Step1: Overview of the Family Discussion

First, you should listen to the family discussion one time in its entirety while reading along on the transcribed version of the discussion. The goal in this pass through the discussion is to get as good a feel as possible for the general tone of the discussion, as well as for the basic positions taken by each family member. For this reason, you should generally listen to the discussion without stopping or replaying sections of it, except in those few cases where this is necessary to understand what parties are saying. The object of this pass through the tape is to hear the discussion in "real time" as you would hear it if you were listening to it live.

During this pass, you should probably eventually be able to jot notes very quickly on your transcript, to highlight what appear to be important interactions or speeches to which you will want to pay particular attention on your next pass through the data, or which you want to be sure you don't miss.

Step 2: Second Pass through the Discussion: Coding the Discussion

In this pass through the discussion, you will be paying close attention to each speech, noting on your coding sheet to which codes it is relevant. Because each code represents the entirety of a member's speech to another member, this system will allow you to keep track of relevant speeches for each code. Although the final codes assigned are cumulative in nature (i.e. more, or a higher level of a particular type of speech yield a higher score), it is generally possible to enter a tentative score for a given code each time a speech occurs which is relevant to that code. In other words, each time you find a behavior relevant to a code--such as a critical comment from mother to adolescent--, note this on you scoring sheet, including the speech # on the transcript. After completing the coding, you will go back through your worksheet and decide the overall code for a dyad in a given category.

When doing this second pass, you should listen to a section of the tape (i.e. one disagreement), and then go back and carefully examine the transcript speech by speech and assign codes. You should expect to frequently replay speeches to make final coding decisions about them. In other words, look at the transcript, but don't overrely on your memory regarding tone of voice etc. When in doubt, listen again.

Note that a speech may be relevant to more than one code, and should be coded as such. Also, pay particular attention to the tone and context within which speeches are made. For example, a question asked in a sarcastic and hostile tone and context would not be scores under the code for "information seeking queries". However, be careful not to become too impressionistic in interpreting tone of voice. If a speech is ambiguous in tone, it should be interpreted in accordance with its literal content.

Step 3: Checking your scores

When you're done with the second pass through the tape, go back and look over the scores you've given. Review the criteria by which you gave each score and determine whether the score you've given truly meets the criteria. At this time you can make decisions about any scores about which you were uncertain, by re-reviewing (on the transcript, or on the tape if necessary) speeches relevant to that code.

Note: What to do when families deviate from assigned topic

If a dyad brings up a substantive disagreement during the interaction which is different from the one that they were originally assigned, scoring may continue as before. However, if the dyad moves on to a trivial disagreement, or a topic which is not a disagreement, scoring should be discontinued. Note that coding may be resumed if and when the family resumes discussing a disagreement. The one exception to this rule is that statements which fall under the negative relatedness category (codes J & K) should

still be scored. The rationale for this is as follows: the purpose of the coding system is to rate how people interact during a disagreement; issues having to do with autonomy and relatedness, as they are coded in this task, are not as salient outside of a disagreement. For example, it is easier to state reasons and/ or validate someone's ideas if you are in agreement with them. However, negative relatedness is still scored in this situation because behaviors which are hostile or critical remain salient outside of the context of a disagreement. In other words, if family members cannot get along even when they are disagreeing, this is important information to capture with regard to the relatedness construct.

Guidelines for Specific Codes

(For those specific codes where ratings are done primarily at the level of individual speeches (i.e., recanting, overpersonalizing, pressuring, queries, validating, ignoring and hostility) See scoring guidelines at end of manual for instructions on combining score to yield a total score for the transcript.)

Behaviors Promoting Autonomy

The following behaviors all promote a reasoned discussion of differences within a family by modeling and encouraging such discussions.

A. States Reasons clearly for disagreeing

The focus of this code is on the degree to which a member discusses his or her reasons for disagreeing with other family member(s). The critical feature of this code is its focus upon the reasons for disagreement. Thus statements which are irrelevant to why a person took a given position (e.g. critical statements, digressions, etc.) are not counted under this category. Nor are statements about disagreements over trivial issues (e.g. "You should get you haircut." "No, I disagree.")

Overall guideline

An important part of this code is the extent to which a person follows up their line of reasoning. Thus, individual statements are NOT coded under the reasons category. Rather, a person's argument is evaluated as a whole by looking at the quality of all of the speeches taken together.

Note: If dyads address more than one topic of disagreement during the course of their conversation, each line of reasoning is scored separately, and an overall score is assigned based on the highest level of reasoning reached within *one* topic.

Reasons for a position may be presented with varying degrees of clarity and explanation. Defined below are types of statements people may put forth in asserting their position. The kinds of statements people use will affect what score they receive in the "states reasons" category.

1. *Expanded reasons and/ or integrative suggestions* - Reasons are not only presented clearly, but are explained more thoroughly. Points may be restated in a slightly different manner. Connections between related positions are elucidated. Examples may be provided. Persons using these reasons are most likely in the 3-4 range. Proposals for solutions are thoughtful, take the available information into account, and are genuinely meant to be helpful.

Example: I should be able to drink. I know how to drink responsibly. I don't drink very often and when I do I don't mix different things together. I mainly like beer -- I enjoy the taste of beer. It's refreshing when you are thirsty.

2. *Clear reasons and/ or straightforward suggestions* - Statements which explain why a person holds a given position. Persons using these reasons are most likely in the 2-3 range. OR Proposals for solutions are clearly and directly stated and are genuinely meant to be helpful. They may not be as thoroughly thought out as in type a.

Example: (teen) I should be able to drink. I know how to drink responsibly, and I like the taste of beer.

3. *Implied/ unclear reasons and/ or demanding suggestions* - Reasons which are not explicitly stated and may require some inference in order to be understood. Statements which seem to convey some understanding of why a person hold a given position, but the connection between the statement and the position is somewhat vague. Persons using these reasons are most likely in the 1-2 range. Proposals for solutions are more like quasi-demands. They are not directed at a resolution that would acceptable to both parties.

Example: (teen) I should be able to drink, because, well, I don't mix. (This statement implies that the teen is drinking responsibly, but his must be inferred.)

4. *Non-reasons and/ or nonsuggestions* - Statement made which may include statement of position, but do not contribute any understanding of why a person holds a given position. Statements also may not relate to the topic being discussed. Persons using these reasons are most likely in the 0-.5 range. Proposals for solutions are unhelpful, not realistic, or really restatements of position. They do not seem to be intended to move the discussion toward a resolution.

Example: (teen) I should be able to drink. I just should. I'm going to drink when I want to.

Reasons Codes (examples are meant to demonstrate a person's entire argument, this will most likely occur over several speeches)

0: Offers non-reasons only; offers no solutions or only nonsuggestions. Minimally responsive. May assert an idea or a position once or multiple times, but never expands on it or offers any explanations for their position. Offers no suggestions that differ substantially from just restating position.

Example: (teen) "You should give me more money". OR "you don't like my friends. You criticize them." [NOTE: with no other elaboration and no additional reasons offered, even though these statements may be repeated]

.5: Primarily states non-reasons. May state one implied/ unclear reason to support a position, but does not explain further OR may imply reasoning/ make several statements which imply reasoning but statements are not closely connected; does not elaborate further. Makes no suggestions, or only makes suggestions that do not contribute to resolution of the problem.

> Example: (teen) "You should give me money. I deserve money." [NOTE: can be stated as one thought or over several statements, but does not deviate from this basic form].
>
> OR
>
> (teen) "I think I should be able to drink. I don't know why I can't. I can take care of myself, you shouldn't worry about it. You just go about your business and I'll go about mine." [NOTE: implying that he can drink responsible, but doesn't really say this. His suggestion here is little more than restating his position.]

1: Argument is mainly composed of implied/ unclear reasons. There may also be one clear reason. Any suggestions made are quasi-demands. Does offer some evidence and reasons for position, but does not elaborate and not much information is really conveyed. May state reasons which are basically the same, but in different forms.

> Example: (teen) "You may not believe in drinking, but in the Bible they drink. It's not a sin to drink, it is a sin to get drunk. If I drink and don't get drunk, it's not a sin, so it is OK. I'm not planning to get drunk or anything like that. That wouldn't be right. I just want to drink a little bit once in a while." [main reason is: It is not a sin to drink, which is restated different ways multiple times].
>
> Example: (mom) "I don't like your friends. I don't trust them. They are trouble." [note: gives 2 related reasons for why friends are not liked]

OR: Makes one real suggestions which doesn't just avoid further discussion or restate the position, but is still a quasi-demand.

> Example: (teen) Maybe I could start by drinking a beer or two when I eat dinner at home. That way you could see that I am a responsible drinker.

1.5: States one or two clear reasons for position OR makes two straightforward suggestions OR elaborates some on one reason/ suggestion OR reasons all stated only in response to other.

2: States multiple (3 or more) clear reasons or makes multiple (3 or more) straightforward suggestions; may be given in a somewhat unclear or haphazard fashion OR states reasons mostly in the context of responding to the other person (i.e. is not proactive; reasons are mostly stated in response).

> Example: (teen) "It's not like I am an alcoholic. I don't drink all that often. Its not like I'm drinking bourbon or hard stuff. I'm not an addict. [same as 'not an alcoholic'] Once in a while on weekends it is OK." [4 brief reasons (1 re-stated) to support the position that it is okay to drink].

OR: States unclear reason, and gives some explanation of that reason. However, explanations are brief or even hinted at, and are not always followed up.

> Example: (teen) "You should give me more money because I deserve it. I am a minor...I do a lot of babysitting for you... I am a good kid" [last 3 are explaining why teen deserves money].

2.5: Similar to a 2, but either states more clear reasons for their position or follows up more on the ones they state; may state many related/ similar reasons but does more that just re-state the same reason; occasionally states reasons proactively (i.e. not just in response to the other person).

OR: An explained clear reason with one or more straightforward suggestions.

3: States more than one well-explained reason; reasons are stated more coherently; reasons are volunteered, not just stated in the context of responding to the other person. Suggestions are integrative, taking into account both parties' wishes.

> Example: (mom) "It's not so much that I don't like your friends, the point is that I just don't trust them. I've got good reason, since two of them are on probation. I like them except for when they do stupid stuff. They might do something stupid and then you might get caught in the middle of it. But I still say, be more selective. Don't limit yourself to those particular friends. Go out and make new friends." [2 main reasons are that friends aren't trustworthy and that teen could get in trouble because of them; additional reason about not limiting friends]

OR: States one major line of reasoning (based on a well-explained reason), but expands upon the main point and elaborates on it a great deal.

Example: You think I'm supposed to give you money whenever you holler. You can't just get money from other people. You can't depend on a man to give you money. It won't just fall out of a tree for you. You don't deserve money. It doesn't work that way. If you want something, you need to work for it. If you work for it, you'll get it in the long run. [main point is that you don't just get money, you have to work for it].

OR: Earns a 2.5 for reasons AND makes one or more integrative suggestions.

4: Multiple (3 or more) well-explained reasons are presented and with extensive follow up. A great deal of information is conveyed which serves to clarify to the other person why the speaker hold a certain position. Suggestions are integrative, taking into account the wishes of both parties, and are genuinely directed at finding a resolution to the problem.

Example: (teen) "I should be able to drink. I know how to drink responsibly. I don't drink very often, and when I do, I don't drink much or mix different kinds of things together. In fact, I only really drink beer, not much of the hard stuff. [1 reason with follow up: I can drink responsibly] Its just nice to have a cold beer when you are thirsty -- it's refreshing. [2nd reason with some follow up] What's the magic number 21 have to do with anything? If I am going to drink responsibly, I might as well start learning it now. You know in Europe, people my age drink all the time. Its not that people under 21 can't handle it. It is all a matter of perspective. [3rd reason with follow-up: the law doesn't mean he can't handle drinking].

B. Gives reasons about O's statements or reasons

(Was used in prior version of system. Is now incorporated into category A above).

C. Confidence in stating thoughts and opinions

GLOBAL Category - Enter a code for this after each argument, under the argument number on the coding sheet.

This category codes the extent to which a person demonstrates confidence in speaking. Indicated by speaking out forcefully and often and with confidence. Note that a loud, shrill statement that is repeated frequently is not necessarily a confident statement. Signs of lack of confidence include not speaking, speaking only when spoken to, and qualifying statements with insecure remarks (e.g. "Well, I'm not really sure, but..." or "I guess I disagree.")

Note that this code (and category J below) are slightly more impressionistically oriented. It may be helpful on the second pass through the tape to code this category for each dyad at the end of each disagreement.

NOTE 1: Be careful to not score down for niceness or sensitivity to the feeling of O. A confident person can be nice, they just need to assert their position firmly throughout the discussion.

NOTE 2: Also, reasons do not have to be fully developed or well thought out to get high confidence scores. A person can get a 4 if they just assert their position throughout the discussion (i.e. "I want money. Give it to me." Repeated over and over again).

Codes 0-2.0 (ULTIMATELY BACKING DOWN IN THE DISCUSSION): These codes should be given to subjects who ultimately stop trying to assert or support their position. They need not recant, but they do at least back down (i.e. they give up answering O's points, or making points of their own). (If someone appears truly persuaded to change their mind by O, this does not count as backing down).

0 - Consistently quite and hesitant to assert self. May briefly restate or assert position or give one half-hearted reason, but basically just withdraws from the argument.

> Example: (teen) Well, I kind of need money. I need to buy some stuff. ;I don't know, I guess I can do without it. Never mind.
>
> Example: (mom) Well, I just prefer that you see, not just one person, but other people, but I guess I can't do anything to change your mind.

1 - Initially makes a modest effort to state position or reasons, but stops doing so early on (e.g. after a few minutes).

Example: (teen) Well, I kind of need money. I need to buy some stuff. I don't know just stuff. Okay, fine, whatever you say. (may be repeated or restated for a few minutes but position is then dropped).

Example: (mom) Well, I just prefer that you see, not just one person, but other people. I'm not so sure that this is a good relationship for you. I don't know, I guess I can't really do anything to change your mind. (may be repeated or restated for a few minutes but position is then dropped).

2 - Tries to state position or reasons repeatedly over a period of time, but ultimately (before the end of the discussion) just gives up doing this.

Example: (teen) Well, I kind of need money because I need stuff. Like I sort of need clothes, and I need ten dollars for school tomorrow to pay club dues. I don't know, I guess I kind of thought that you should give it to me because I'm your kid. (may repeat, but ultimately stops and gives up position).

Example: (mom) Well, I just prefer that you see, not just one person, but other people. I'm not so sure that this is a good relationship for you. I'm not going to push you to see other people, but don't you think that maybe you could, uh, don't you think that you can at least give it some thought? (may repeat and/ or restate, but ultimately stops and gives up position).

Codes 2.0 - 4 (REMAINING ASSERTIVE THROUGHOUT THE DISCUSSION): These codes should be given to Ss who never stop making their argument or restating their position.

2 - Never really stops restating position, but is very hesitant and tentative in doing so. Looks down, mumbles, makes statements in a wishy-washy way that doesn't sound assertive (e.g. "I don't know, I just think that you should probably do it"). May just use very short sentences (e.g. just mumbles "I don't really think so." In response to O's statements).

Example: (teen) Well, I need money because I need stuff. Like I sort of need clothes, and I need ten dollars for school tomorrow to pay club dues. I don't know, I guess I kind of thought that you should give it to me because I'm your kid. (similar to low end, but never gives up position).

Example: (mom) Well, I just prefer that you see, not just one person, but other people. I'm not so sure that this is a good relationship for you. I'm not going to push you to see other people, but don't you think that you

maybe could, consider my point of view? (similar to low end, but never gives up position)

3 - Consistently asserts position/ reasons, but does so in a way that is at least a little bit tentative or hesitant. Occasionally behaves like a 2 (e.g. looking down, mumbling, or making wishy-washy statements).

Example: (teen) Well, I need money because I need stuff. Like I sort of need clothes, and I need ten dollars for school tomorrow to pay club dues. And I want to get this outfit. I don't know, I guess I kind of thought that you should give it to me because I'm your kid. (makes similar types of statements throughout argument).

Example: (mom) Well, I just prefer that you see, not just one person, but other people. I'm not so sure that this is a good relationship for you. I'm not going to push you to see other people, but maybe you could try more to understand my point of view. You're too young to be limiting yourself to just one person. I've had some experience in this area and I'm just trying to kind of guide you to, um, not make the same mistakes, although I know that I can't keep you from making mistakes, but I'm trying to kind of guide you. But if you do end up continuing to see him, which it looks like you will, you need to at least start respecting some of my rules. (makes similar types of statements throughout argument).

4 - Statements are made with no signs of uncertainty or hesitation. Not at all tentative and shows no signs of backing down. Isn't necessarily combative or unfriendly, although may be so. Can be nice and/or sensitive to O's feelings, but must remain firm about own position.

Example: (teen) I want some money. I need money because I need stuff. Like I need clothes, and I need ten dollars for school tomorrow to pay club dues. And I want to get this outfit. Can you buy it and I'll just pay you back after I get the money? You should give it to me because I'm your kid and I'm underage. I deserve money all of the time, not just when I work for it.

OR: I want some money. Give me some. (repeated throughout).

Example: (mom) Well, I just prefer that you see, not just one person, but other people. I'm not so sure that this is a good relationship for you. I'm not going to push you to see other people, but I think you should, consider

my point of view. You're too young to be limiting yourself to just one person. I've had some experience in this area and I'm trying to help guide you to so that you don't make the same mistakes that I did. If you do end up continuing to see him, which it looks like you will, you need to at least start respecting some of my rules.

(note: can be nice/ sensitive and still get a 4)

<u>**Behaviors Inhibiting Autonomy in a Dyad:**</u>

Behaviors coded in this section all inhibit autonomy in a dyad, either by directly undercutting another family member's statements about their positions, or by modeling behaviors which deliberately avoid the opportunity to discuss the reasons behind disagreements. Note that these behaviors are not simply the absence of autonomy, but reflect several different ways of undercutting or avoiding autonomous discussion within a dyad.

D. Recanting a position without evidence of having been persuaded by clear reasoning to do so.

Recanting inhibits autonomy in a relationship by making it difficult for a conversation to continue productively. By pretending agreement, a recanting subject prevents the other person from continuing to present their arguments, so that true consensus can not be reached.

This category is exemplified by changing one's position or even a major part of one's reasoning, *when the change does not appear to reflect one's having been truly convinced by the reasons for the other side* (i.e. there is no foundation for the change, but the change instead reflects something else, (e.g. pressure to agree, need to avoid tension produced by the disagreement, etc.). Note that withdrawal from a discussion is not equivalent to a change in position.

Several dimensions of recanting are relevant in coding this category:
*How clear it is that the S is changing position.
*If it is a clear change of position, how clear it is that it is a collapse, rather than S having been persuaded by reasons.
*How much of the position was recanted (i.e. a full recant or about a minor point)
*How much initial defense was put up before the recantation.

Changing one's position in response to reasons given by another person is <u>not</u> the same as recanting a position in the absence of such reasons. This category only focuses upon changes in position which do not appear to have been inspired by a reasoned discussion, and which thus appear to serve the function of avoiding discussing the disagreement.

The first decision that must be made is whether or not the S is actually stating or implying a change of position. At this point, do **not** consider whether the change or position is sincere or not, but rather, is the S stating something inconsistent with what he/she had stated earlier. If so, then continue with coding the statement, otherwise, the statement is not coded as recanting.

Example (recanting):
A: I can handle my alcohol. I'm actually a better driver when I've been drinking because I'm more relaxed.
M: Drinking and driving is stupid. You have worse coordination, and you could hurt yourself seriously.
*A. All right, Mom, whatever you say (rolls eyes).

Example (not recanting):
A: I can handle my alcohol. I'm actually a better driver when I've been drinking because I'm more relaxed.
M: Drinking and driving is stupid. You have worse coordination, and you could hurt yourself seriously.
*A: Well, that's a good point and I can see that some people don't drive well when they've been drinking, but I'm not one of them.

While the first example is recanting, despite the teen's lack of sincerity, the second is not recanting, because even though the teen acknowledges what the mother is saying and understands her reasons, he does not appear to have changed his position at all.

Scoring multiple statements
Only score one collapse for each change of position, even if made over the course of several statements. Only score a second time if person is making a second change of position about a new area.

In scoring any individual recantation, consider the following factors and add up the points next to each factor to arrive at a 0 to 4 score.

THE SYSTEM: (In the following description, the word "collapse" means taking back one's position when one is truly unconvinced by the other persons reasons).

Possible, probable, and definite collapses are defined below. When deciding on a possible, probable vs. definite collapse, consider: tone of voice and whether S has been following and acknowledging reasons which could be a basis for the change of position.

Possible collapse

Not clear that S is changing position and/or not clear the S was not persuaded by reasons. Coder may not believe that the S's change of position was really a collapse, but thinks a case could be made for this. Seems likely that someone will see it as probable that the person collapsed, although you believe the S is most likely convinced by reasons.

Note: To even be considered as a possible collapse, evidence of original position must be present (e.g. person makes at least 2 statement which are contradictory).

Example of possible collapse:
M: You didn't call me.
A: nuh-uh, I called you, mom I...
M: /Now Julie.
A: Alright. Alright.
M: You didn't call me.
A: Yeah I did, but that's ok.

Probable collapse

Not clear that S is changing position and/or not clear that S was not persuaded by reasons. However, coder believes that the S is most likely changing position and is not persuaded by reasons.

Collapse

Clear that the S is changing position and that S was not persuaded by reasons. S states clearly that he/she is abandoning his/her position AND either sounds ambivalent, angry, or sarcastic OR S has not been following and acknowledging reasons which could be a basis for the change of position.

Absolute 0 - If the coder believes that the person changed their position because they are convinced by O's reasoning, or just to correct a confusion with the interviewer then this is not a recantation, and no further scoring occurs. Otherwise, proceed as follows:

STEP ONE: Begin with a base score of 0 to 2 from the following list:

0 - A Possible collapse. Give a base score of O but go on to the rest of the scoring steps below. DO NOT give a higher total score than a "1" after following the steps below.

0.5- Use this base score for statements between a 0 and a 1, but DO NOT give a higher total score than a "2".

Example: Not clear if the change of position is based on reasons and there is some (but not very much) basis for suspicion that the change is not based on reasons: After a long discussion in which F says the boys owes it to his father to give him the money and M disagrees, out of the blue M says:

"As I think and think and think, I can see where he wouldn't have a very good life if he disobeyed his father, so I agree with you, he should think twice before refusing"

[It's not clear whether M changes her mind for reasons or just because she's giving in gracefully. This is scored b/c the mother doesn't appear to have changed her mind b/c of the father's reasons, but we aren't at all sure.]

1- There are three ways to get this base score, either:

A. S makes clear that S doesn't necessarily believe what s/he is saying. In these cases, we are almost always completely clear that this was a collapse, because S virtually admits it. S is clearly ambivalent in their statement. Alternatively, S may sound convinced, but later resumes the argument, making clear that he had not been convinced.

Examples:

"OK, OK, I'll go along with you this time."

OR

"yes, yes, whatever you say, I give up". [makes clear that S is not convinced.]

OR

"OK, OK I'll go along this time, but I'm not really sure I see why you see it that way.

"OK, you're right, he should steal the drug...(a few statements later)..."Well I still don't think a person should ever steal." [makes ambivalence clear.]

OR

B. S recant position, probably not convinced or not completely convinced by the other's reasoning, but displays no ambivalence.

Example: "I still think Joe should keep his money, but you do have a good point about the character of the father that would act like this. I'll agree [said in a slightly unhappy tone.] that he should give the father the money." (Not clear if A is agreeing to go along (probably) or truly has been convinced (possibly).

OR

C. Diplomatic evasion. S tries to cover over differences in opinion by making an ambiguous statement which implies, but does explicitly state, that S is really agreeing with the other person.

Example:

A: I can handle my alcohol. I'm actually a better driver when I've been drinking because I'm more relaxed.

M: Drinking and driving is stupid. You have worse coordination, and you could hurt yourself seriously. I don't want you to do it any more.

*A. OK, I'll be more careful.

2- A clear collapse with no ambivalence expressed. S changes position and its completely clear that the change was not based upon reasons.

Example:

A: "He should keep the money."

F: "No, he shouldn't, he need to respect his father."

A: "But still, he earned the money himself."

F: "That doesn't matter."

A: Yes it does."

F: "Not compared to respecting his father."

A: "I guess you're right. He should given him the money."

STEP TWO: Go on to consider the following two categories which add or subtract from the base score to produce a final score for a statement.

How much of a fight was put up first?

+1 If no initial fight or defense of position

M: "He should keep the money."
F: "No he shouldn't that would be wrong."
M: "That's true, he should give the father the money."

OR F: "I think he should steal the drug."
M: "I don't think that makes any sense at all."
F: "Oh, you're right of course. I change my mind. He shouldn't steal the drug." (said sincerely).

+0 If initially stated and defended position (i.e. the recantation comes after the end of an argument). Score as a +.5 if minimal defense of position.

How important was the point about which the person collapses?

+1 If about a position that was the focus of the revealed difference.

+0 If about an important reason.

F: "He should give his father the money because loyalty is really important for a son."
A: "No it isn't."
F: "well, I guess it isn't, but I still think he should give him the money."

OR F: "Even if he steals the drug, she might not get better."
M: "no, she will get better if he steals the drug."
F: "OK, she will get better, but still..."

-0.5 If about a very minor point, not very important to the argument.
F: "The policeman is probably a nice person, who should really do his job no matter what, because that's what he's paid for."
A: "I doubt the policeman is nice."
F: "OK, so he's not."

E. Overpersonalizing/ Blurs the boundary between the person and their position.

There are several ways this may be done, all of which have the same thing in common: they treat the disagreement as being in some respect a "fault" or feature of the person's disagreeing rather than a difference in ideas and reasons. By not separating the person from the disagreement, it becomes difficult to discuss differences reasonable--it is no longer enough for someone to come to see another person's position, rather someone must given in in an important way. Who will give in becomes more important than exploring why a person took the position they took.

Please read below to see specific codes for various ways of blurring the person-position boundary. What's below is a general code to be used when multiple means of overpersonalizing occur, or when the specific codes don't apply directly.

1 - Statements which slightly or implicitly confuse person with disagreement. These statements at least imply a person/disagreement confusion in thinking, but generally are done in a relatively objective, non-critical or pressuring way.

2- Blurring of person/disagreement boundaries either by three or more #1 type statements or by statements which explicitly blur the person/disagreement boundaries. These statements are not typically done in a very critical way, and thus don't apply immense pressure to the person to give up their position or reason.

3- Three or more "2" type statements or one or two of the following statements or one or two of the following statements which blur boundaries in a way which puts a higher level of pressure on a person to give up their position or reason.

4- Three or more statements at level "3" or one of the following, which almost completely eliminates the person/ disagreement boundary.

(E1) Enlisting an Outside Person's Opinion
It is possible for a person in a dyad to enlist a third person that is not present as supporting their position, or to reference a third person's opinion/behavior in a manner which equates that person with one of the members of the dyad with no reason given for equating the two (see statements under "2" below). This is blurring because it removes the focus of the discussion from a person's reasons and appeals to "the will of the majority."

0- No signs of bringing in the point of view of a person who is not present during the discussion.

0.5- Referring to the opinion of a person who is not present, but not really implying that resolution of the issue is dependent on that person's opinion.

M: (sincerely) "I don't know what Dad will say, but..." (and then goes on with own opinion).

1- Reference to past discussions where the person brought into the discussion was present, and all three parties previously agreed on the issue, OR representing a third party's position when that person is not present.

M: "I think what Dad had said was that you have to bring home your history and read more."

2- Directly stated that a non-present person's position or behavior has direct bearing and is being called on to support the speaker's position, or erode the opposing position.

M: "Your father and I agree that..."
A: "You didn't make my sister do that."

3- Repeated "2" type statements.

4- Agreement is impossible to reach because a third party is not present.

M: "I just can't continue this conversation until I discuss it with your father.

(E2) Forcing a role onto another person/ Mimicking Another Person
A speaker may force a role onto another person by either taking on a mimicking tone, in which they use to imply that the other person speaks or acts in a certain way (e.g., an adolescent who does an impersonation of her mother as a shrieking lunatic). This is blurring because it defines the other person in a particular way and puts him or her on the

defensive, trying to say that he/she isn't the way that's implied, and takes the focus away from the reasoning in the argument. Alternatively, the same thing may be done with hypothetical situations that put the other person into a specific role. For example, A: "Suppose you were just in a bad mood, and went around insulting all of my friends whenever you saw them." This turns the discussion toward whether the parent really would do this (a quality of the parent), rather than toward the reasoning behind positions.

Finally, speakers may ask subjects to take on their role inappropriately in thinking about the disagreement (e.g., I want you to put yourself in my place so that you can see that its not reasonable not to give me what I'm asking for).

0- No signs of forcing a role on someone or of mimicry.

1- Asking other person to "put yourself in my place". That is, one person asks the other person to try to see things from the first person's perspective.

OR during the course of the disagreement, the speaker quotes the other person. To qualifies only a "1" on this scale, the quotation should be given in a normal tone of vice, without imitating the voice quality of the other person, or applying explicit pressure.

A: "You said, 'Gail, you are not allowed to the movies'." OPPOSED TO

A: "You *always* say, (in a mimicking tone), 'Gail, you can't go to the movies'."
This would be coded a "3".

2- Goes beyond simply asking the other person to put themselves in the speaker's position, and asks specifically what the person would do if the person was in the speaker's position.

OR in the process of quoting the other person, the speaker changes voice such that it is clear that the speaker is imitating the tone of the other person OR the speaker asks the other person to state what they would do if a specific hypothetical situation happened.

M: "Just think about it from my point of view. What would you do if your son was flunking out of school?"

A: "Not that I would ever do this, but what would you say if I came home without my paycheck?"

3- The speaker not only imitates the tone of the other person when quoting that person, but does it in a critical way, or states that the other person *always* behaves this way.

OR not only asking the other person to take the speaker's point of view, but making the other person play out the role.

M: "Okay, say I was your teenager, and I cam home and said I was going to Maureen's with Bob. What would you say?"

4- Repeated statements applying heavy pressure to take on roles by acting out the disagreement.

(E3) Attacking the speaker (rather than addressing what they say) -- These kinds of statements, such as "you're just saying that because you're a woman," also make it harder to treat the person's statements and reasons objectively. They imply that the disagreement is a result of a flaw in the person disagreeing, rather than a result of their reasons which should be discussed.

OR

(E3) Asserting one's own limits as definitive (pleading helpless):

In addition to attacking the other party in the conversation, a speaker may attack his or herself via self-deprecating statements. These make it harder for another person to respond objectively, and pulls for the other party to become involved in a discussion of character or personality, rather than the issue at hand. This type of statement implies that the disagreement is due to a personal flaw in the self rather than a position that has been taken. In personal dilemmas, one needs to separate emotional reasons from this type of self-deprecating statement. Note the difference between:

M: "If you move in with Deon and his mom, I will be jealous of your relationship with her, and that is something I think we will have to work on." (reasonable statement of possible emotions to be addressed).

versus

M: "You know how jealous I am, and how possessive I am, and you know that if you are living with Deon and his mom, then I am going to be jealous." (Implication that M must have her way because of her limits.)

In the first statement, the mother's jealousy is stated as a problem that needs to be dealt with in order to resolve the disagreement. In the second, the mother's position and her

jealousy are one and the same, so the problem cannot be resolved unless the mother were a different person.

0- No signs of attack on speaker or self-deprecation.

0.5- Suggestion that the other person's position depends upon who they are (ad hominem) but without implying any lack of validity to the other's position.

M: "I think we're disagreeing because there's a generation gap here."

1- Implicit suggestion of problems with person stating reason (e.g. mild incredulity at a reason or position) OR an explicit statement referring to person's position as relevant to their arguments, but this is constructively done as a way of exploring differences.

A: "Maybe you don't realize what it's like to be a 15 year-old in this town." (said non-critically)

M: "I'm just not sure how well I can handle what you're proposing...we might have to try it and see how it goes."

2- Explicit suggestion that resolution of the argument depends upon person HOWEVER, statement is not critical of the person. If statement is self-deprecating, it does not suggest that limits of speaker must determine the outcome. Also, guilt is not a major element of the statement.

3 An ad hominem argument made in a critical way, **OR** Self-deprecating statements suggesting that the limit of S should determine the outcome of the argument, or invoking guilt.

"You're just saying that because you're a ..."
"You're thinking too much like a lawyer/parent/adolescent, etc.".

M: "You know I'll just be heartbroken if you let boys come into this house when I'm not here."

4- 1 instance in which some general aspect of the person is treated as completely determining their position in a reductionistic way.

OR self-deprecating statement which implies such a major limit in S that further reasoned discourse about the disagreement is virtually shut off.

M: "You kids just always expect to get your own way."

M: "I'm the mother, and you're not, so that's it. This discussion is over."

M: "I just couldn't tolerate you're going out with him. Case closed."

"I don't care what you say, I just think I would be too upset to cope with you (M: staying out later OR A: grounding me this weekend.).

(E4) Using self or other person as an example or equating own views or experiences with reasons, by making statements along the lines of "I am this way, so you should be too", or "I did/didn't do this, so you should/shouldn't", etc. This type of argument turns the discussion to personal traits, and does not prompt discussion of reasons. It is important, however, to distinguish between personal background or behavior used as an example in the context of reasons and personal behavior brought into the discussion without such a context.

0- No use of personal examples OR use of personal examples only in the context of a line of reasoning

"Good grades are very important for later success in life, because they open up opportunities that would not otherwise be available. For example, I got good grades, and it opened up opportunities for me which allowed me to become successful."

OR

"Drinking can have a lot of negative consequences. It is against the law if you are underage, which means you can get in trouble for doing it. It can cause your judgment to be impaired so that you might do something you will regret later, or something dangerous, like drunk driving. That is why I never drank, because I was worried about getting caught, plus I was always the designated driver."

Both of these examples show the use of personal history as an example to illustrate a point in a line of reasoning; the personal example is NOT the sole argument offered, and the statements are therefore not blurring.

1- A personal example is given, with reasons implied, but the overall reasoning is not directly stated; the sole basis for the argument is personal examples.

M: "I never drank when I was younger because I was concerned about getting caught and I was always the driver".

2 - A personal example is given, with some reasons implied, but the reasoning is less clear.

M: "I never drank. I was always the driver".

3- A personal example is given, and the speaker either implicitly or explicitly states that because this trait or behavior is/was present in the speaker, it should also be present in the other person. This statement is given as the whole argument, without any other reasons being stated.

M: "I never drank." (implies that therefore you shouldn't) OR "I never drank, and I don't think you should." "I got good grades" (implies that therefore you should) or "I got good grades, so you should, too".

4 - Similar to a "3", but statement is made in an angry tone, with the implication that the other person is wrong or stupid not to be like the speaker.

F. Pressures Other to Agree
Makes statements that implicitly or explicitly pressure O to change their mind by making it uncomfortable for them not to do so.

The determining feature of pressuring is whether S's statement is likely to make it uncomfortable for O to maintain their position. This might be done directly (e.g. Why don't you just give in?), or indirectly (e.g. "That's totally absurd! Or "Oh for God's sake!"), and also may be done non-verbally through facial expressions that convey these sentiments. Indirect pressuring may also take the form of rhetorical questions which are not truly information seeking in that they do not allow/expect an answer.

Note: Although most blurring statements in some way put pressure on O, blurring statements are not scored as pressuring if the only pressure comes from the blurred content of the statement. If however, tone, or other features of a speech also place pressure on O, then score under pressure as well.

Direct statements include any attempts to get O to change his position without using reasoning, even if said in a friendly way.

Indirect pressure will often also be devaluing. It usually makes the person feel they would have to be stupid to maintain their view (it can, thus, blur boundaries as well). Indirect pressure also includes ignoring the other person's disagreement completely.

Possible ways of pressuring (things to look for when coding):
1. Rhetorical questions
2. Leading questions (e.g. Don't you think that....? or ....don't you?)
3. Sarcasm, impatience, condescension, or incredulity
4. Non-verbal signs of incredulity, frustration, or impatience
    a. raised eyebrows (suggesting skepticism)
    b. rolling eyeballs
    c. exhaling noticeably
    d. shaking head
5. Statement of ultimate position ("Obviously..." or "Of course...")
6. Direct challenges to another person's position ("Oh come on, you can't really mean that.")
7. Repeating a question/statement two or more times, when the desired answer was not given. ("Can I give her the bear? MOM! CAN I?)
8. Acting as if no disagreement exists, or assuming the other person agrees when it is not clear that they do. ("I know you agree with me that...")
9. Raising voice, use of an angry tone. (Note: This does not necessarily mean pressuring is occurring, but it is a possible marker of when pressuring MAY be occurring.)
10. Tit-for-tat exchanges (see below).

Tit for Tat is a type of pressuring in which pressure is exerted by threatening retaliation for O's statement or views. The scoring of a tit for tat statement is based on the tone of the statement and the content of the statement which encompasses (1) degree of threat (i.e. how much the stakes of the argument are raised), and (2) the appropriateness of the type of retaliation. When the stated consequences are vague, the tone of the statement becomes more important to evaluate in scoring the statement. Stating a consequence of an action in the context of reasons is NOT coded as a tit-for-tat. Non-pressuring example: "I think a 12:30 curfew is reasonable because there is not much to do after then anyway. Just like with any other rule, if you break it, there have to be consequences. So the next time you are late without a good excuse, I will have to ground you for two weeks. Tit-for-tat: "If you break curfew, you will be grounded." (The latter statement may be appropriate after a rule has been decided, but is not an appropriate way to go about discussing the validity of the rule.)

Caveats:

*Being forceful or confident is not equivalent to being pressuring.

*Answering one's own questions does not equal pressure when addressing an issue which is not the focus of disagreement (however, this would be pressuring when the issue is the focus of disagreement). (i.e., non-pressuring statement: *Do I get mad when you don't clean up? Of course I do.* Although rhetorical, this question does not necessarily put pressure on O with respect to the disagreement)

* Parents setting rules is not pressure if it does not cut off discussion (would be pressuring if it did cut off discussion).

Codes:

**Note that the code for any individual statement only goes as high as 2.5 (and scores above a 2 are rare). This is because the highest level of pressure is thought to occur when pressuring behavior is repeatedly exerted.

.5 Pressuring that is lighthearted, truly humorous **OR** a minor point that no one cares about **OR** done in a tentative way **OR** a little exasperated **OR** a tit for tat exchange said jokingly in a way that it's clear the consequences would not be enforced.

Example: M: "Can't you discipline yourself about your time?" (said with good humor)

Tit for tat Example: A: "I just want to dump my stuff in the front hall when I come in." M: "I could just change the locks and make you go around back."

1 Pressuring that is more simply questioning or reacting (not demanding) and therefore the tone is more low key than harsh. For example, a request to change position OR presuming agreement in non-threatening way OR incredulous OR answers own question (i.e. rhetorical question) OR a tit for tat exchange said more matter-of-factly and the consequences are both realistic and directed just at the issue in question.

> Example: A: "so is that my fault that you did not say anything to me?" **OR** M: "1:00 is a reasonable hour, right?"

> Tit for tat Example: A: "if you keep naggin' me, maybe I just won't take out the trash."

1.5 Pressure which is in between a request and a demand or encompasses elements of both.

> Example: A: "then why do you keep arguing?" (said with some anger or exasperation) **OR** A: "so why don't you just say 2:00 mom?" (stated as a request)

2 Pressuring statement with a commanding/demanding tone **OR** strong anger **OR** implicit or explicit but clear demand to change **OR** presuming agreement in a threatening way (threat of anger, feeling stupid, etc.) **OR** pressure to agree, not just to give up **OR** tit for tat exchanges which are explicitly threatening (i.e. delivered in a serious way) **OR** a tit for tat exchange said more forcefully and the consequences are disproportionate and go beyond the issue in question.

> Tit for tat Example: M: "If you don't start picking up your room, you can just move out." (not said with particular anger).

2.5 Pressuring statement which shows both an explicit demand to change and strong anger.

> Tit for tat Example: M: "you keep on runn' your mouth, you won't get nothin" (said angrily and aggressively).

No single statement can score any higher than a 2.5 (and 2.5 level statements are fairly rare). Higher scores are reached by combinations of statements throughout the discussion.

<u>**Behaviors Promoting Relatedness**</u>

The following codes all refer to behavior which would tend to increase the degree of positive interaction between two family members, often by expressing interest or positive reactions toward the other person and their thoughts and feelings.

G. Queries of another person which are truly information seeking
This category specifically refers to statement that indicate a genuine interest in what the other person thinks.

<u>What is a query?</u>
Research on the nature of questions has shown that the grammatical form of a speech if often an unreliable indicator of whether information is truly being sought. Thus, question statement which are primarily rhetorical, to make a point, resembling cross-examinations, or hostile are not to be considered in this category. However, some statements may mix qualities of hostility, sarcasm, etc. On the other hand, many very earnest inquiries may be offered in the form of a declarative sentence, e.g. "I would like you to help me understand in detail how you came to that conclusion." Such statements are coded as Queries.

<u>**Questions about behavior**</u>
Do not confuse questions about O's thinking and reasoning with questions about *behavior*. The latter will generally be much more critical, implying something like, "do you have any defense for your unacceptable behavior? Or, less harshly, "why would you ever do (or want to do) a thing like that? The marker for these questions is that there would be no way not to feel defensive if they were targeted at you. *Although they often look like open-ended questions, they should be given either* ***no credit, or up to a 1.0****, if it seems there is some opportunity for O to answer with something other than a defense.*

Higher credit could be given for questions where S truly wanted to understand O's motives in a situation: e.g. (said with interest): "Are you feeling a lot of peer pressure when you drink?" These can be as high as the **2.0 (for closed-ended) to 2.5 (open-ended) range** (but not higher, because they don't focus on what O's thoughts/ reasons are for O's position. Score mixtures of non-accusatory interest and accusations from **0 to 1.5**

<u>**Incredulity, skepticism, socratic questioning:**</u>
If statements are made with complete incredulity (e.g. "How could you possibly think that was fair?), then give **0.0** credit. These should be scored under pressuring.

If questions are somewhat challenging and socratic (i.e. implying, I don't think that's fair, but I want to see what you have to say about this), then give **half-credit up to 1.0.** The

key here is that: a) the speaker really wants to hear O's answer; but, b) the speaker is also implying that O probably doesn't have a very good answer.

1.0 is the maximum score for otherwise sincere statement that contain some critical, sarcastic or patronizing overtones, skepticism, or incredulity. If query appears mainly sincere, and you're not sure if any incredulity etc. is present, but you think it *might possibly be*, then score **between half and full-credit.**

0 - No queries, or only purely rhetorical queries, or factual queries that are completely unrelated to the disagreement: e.g.: "What time is it?", or "How long do we have to stay here?"

0.5 - Closed-ended, factual questions, not asking about O's thoughts. OR questions asking about O's thoughts , but not in a way related to the disagreement.

M: "Did you get home before you Dad last night?"

M: "Who is going to do the work?"

1.0 - Open-ended questions about O's thinking and reasons for position, expressed with some incredulity, skepticism, or socratic manner. (see 3 below). OR Closed-ended questions clarifying the simple meaning of O's statements about the disagreement.

A: "Are you saying I'd always have to come early?"

M: "Do you mean you want to have 3 hours on the phone each night?"

A: "Are you talking about Mom's car or Dad's car?"

2.0 - Open-ended questions clarifying simple meaning of O's statements about the disagreement.

M: "What, exactly, are you proposing?"

3.0 - Open ended questions asking about O's thinking and reasons for position. Asks for more than a clarification of what O has already said. Does NOT include requests/ demands for explanation of O's past or future behaviors (see 0.5 above).

M: "How could I be sure you would be safe if you stayed out later?"

M: "Why do you think that's fair?" (only if said with no hint of incredulity or skepticism: i.e., implying, "I want to understand how you see this as a fair deal.).

4.0 Multiple 3's.

H. Validates/Agrees/Positively Reacts to Other Person

This category codes statements which tend to validate the other person by reacting positively to them. This may be done by:
- agreeing with them directly
- "copying" what they say (repeatedly saying "that's exactly what I thought.")
- noting with words or tone that what they said is important, interesting or insightful; or,
- laughing at a joke they've made.
- agreements which are really a recantation of positions (score as both recantation, if appropriate and validation/agreement if it truly constitutes validation).
- compliments (scoring of compliments depends both on the overall enthusiasm/ positivity of the compliment and on whether, and to what extent, it is qualified by other remarks)

Statements are not counted as validating if sarcastic, rhetorical, patronizing or merely saying yes so as to go on stating position, i.e., "yes, but don't you see.", Look for true agreement. If its questionable, it may be scored on this scale, but never higher than a 1 or 2.

Statements such as "I said that." or M: He doesn't have a choice. A: OK, he doesn't have a choice. M: Right! Would only be scored if there was some enthusiasm expressed, (not if S was just making their position clear.)

0 - No agreement stated, or "yeah" said occasionally, but as a conversational filler not as significant agreement.

Example: "Yeah, but..." type statements where the yeah is used only as a conversational filler. **OR** "Yeah, but..." type statement when meant to say "I hear you," but not I agree with you.

0.5 - Statement of agreement which just makes existence of similar positions know, esp. if in the course of a general "poll-taking" of positions.

(at beginning of discussion) M: I think he should steal the money.

A: Yeah, that's what I said too.

OR Briefly acknowledging O's point, but goes on to disagree with major points and conclusions: "yes, but..." or "Ok, but..." (where the yeas is real, and indicates at least mild agreement with person's point, but the "but" is person's primary point and no real agreement with implications of O's point is indicated.)

OR Mumbled Umm Hmm which in tone indicates true agreement.

OR Parroting the other person's positions in a clear, non-mocking way, which indicates that you agree with them.

M: "Stealing can never be justified."
A: "Stealing can never be justified."

1 - Any indication of true validation or true agreement with O (except if just about position as described above), stated with some enthusiasm or encouragement.

"Yeah, me too" type statements about reasons not just positions.

"That's true" or "Right" "That's interesting" or "Yeah" said to indicate true validation/agreement re: significant statements of the other person (statements do not need to be relevant to the argument), but without strong enthusiasm.

OR Laughs at something said by O which was intended as a funny statement (i.e. laughs with O).

OR A compliment which is only somewhat enthusiastic or is qualified by a somewhat negative remark -- but the overall statement is still complimentary.

M: "Well, I think you said that fairly well."

2 - Statements expressing sincere understanding or insight into thoughts or feelings of the other person. (Note: Statements which seem less sincere may be scored lower.)

M: "I can understand why you feel that way."

OR Responds very positively to O's ideas, while disagreeing:

"That's a very interesting argument, I can see how it fits, but I think...".

OR A sincere compliment which is qualified by a slightly less positive remark.

M: " I think that you are an excellent student, but you may need to work a little bit harder in math."

3 - At least one unambivalent, sincere compliment which stands alone (i.e. is not modified by another, less complimentary remark).

OR Enthusiastic, unqualified agreement with a significant statement of the other person.

"You're absolutely right!" or "I agree completely"

4 - Repeated responses which each would be scored as "3". Person is genuinely interested in other's reasoning, listens to what they say and is encouraging even when they don't agree, but may also often agree heartily.

OR Numerous repeated clear agreements ("3's") so much as to be a clear and consistent pattern.

OR Changing mind to go along with other's arguments and making this clear in a way that validates other.

I. Engaged Interaction

GLOBAL Category - If multiple distinct disagreements are discussed as a regular part of the interaction task, then enter a code for this category after each argument. Otherwise, a single code is entered for the entire interaction.

This category focuses upon the degree to which a person's is engaging with O. Persons show that they are engaged by following up on what a persona says (whether agreeing or disagreeing), leaving O time to talk, and listening to what O has to say. A person can demonstrate engagement both verbally and non-verbally; non-verbal signs of engagement can include eye-contact, body posture, head movements (i.e. nodding, shaking head, etc.), and facial expressions. A person is fully engaged only if they are both communicating and sensitive to what O is communicating.

The code for engaged is based on both the amount and quality of engagement.

The overall code should be based on an intuitive average of the interaction. Scores ARE NOT based on the highest level reached. For example, if someone was at the 0 level for the first 8 minutes, but then reached the 2.5 level for the last 2 minutes of the interaction, that person would probably be in the .5 or 1 range.

Scores in the 0 - 2 range should be assigned when tone of interaction does not indicate any true connection. There may be listening and interacting occurring, but in the absence of any demonstrable efforts to connect or any evidence of empathy.

0 - looking down or away, little or no eye contact
- completely ignoring or not responding to other person
- cutting other person off or leaving them no time to speak
- looking bored/staring blankly

OR

- at least some response to O, after hearing them
- some interest in O, even if it is concerning a minor/trivial point
- may initiate a little interaction

OR

- little eye contact and little interaction
- keeps the interaction going minimally, but still shows no or very few signs of interest in what O is saying
- Shows little or no affect

.5 - true participation in conversation, but very little sensitivity to what O says

- "unresponsive lectures"
- dueling monologues

1 - generally following conversation , but not usually taking into account what other person is saying
-statements may occasionally respond to the content of what the other person is saying, but for the most part content is ignored

1.5 - attentive and interacting, but minimally hearing O (i.e. placating)

2 - interaction with attentiveness to O's statements, but mainly so as to argue/respond
- "courtroom listening" (sensitive to what O says, but only to the extent that they can then use the information to further their own argument)
- statements indicate a response to the content of what the other person is saying, although no attempts are made to understand the content of their speeches

Scores in the 2.5 - 4 range are assigned when the tone of the interaction does reflect some level of empathy or effort of connect with the other person (i.e. trying to understand their point of view).

2.5 - at least some empathy displayed (as defined under "3")

3 - empathy/ effort to connect with other person is present and occurs more than once or enough to be a noteworthy feature of at least part of the discussion.
-signs of empathy might include:
* finishing O's sentences in a good way
* implicitly supportive statements
* comments reflecting what O just said
* evidence of seeing O's point of view
* actively responding to O's point of view

3.5 - signs of empathy as defined above shown on multiple occasions throughout the discussion (at least 3), or in a more extended, pervasive way.

4 - empathic quality or tone to entire interaction; however, overt signs of empathy do not have to be consistently displayed, but they should be displayed quite frequently.
-verbal and nonverbal behavior are mostly consistent with each other and with an attitude of connectedness with other person (i.e. most generally facing each other with good eye contact)

A person need not be completely empathic to receive a "4" --such empathy is unlikely in the face of a serious disagreement. But effort to understand and communicate this understanding should be a noteworthy feature of most of the discussion.

Behaviors Inhibiting Relatedness:

The 3 types of behavior coded in this section are all behaviors which actively undermine the degree of positive interaction within a dyad, either by explicitly cutting them off when they try to speak, or by devaluing them and what they are saying and thus implicitly cutting them off, or by refusing to engage in discussion.

J. Distracting/ Ignoring/ Cutting Off Other Person.
This category refers to actions which ignore or cut off another person. In general, interruptions which occur when both parties start to speak at the same time don't get counted. However, if one party consistently gets to continue speaking more than the other, consider this party as cutting off the other to the extent they get to continue more than half the time.

Don't count interjections--defined as statements which are a) limited to a few words, b) don't interrupt the flow of the other person's speech AND c) don't appear intended as the beginning of a longer statement. (i.e. This is an interjection: M: He needs to please his father A: For his own safety M: as long as he's living in his father's house." This IS NOT an interjection but IS an interruption: M: He needs to please his father A: Not really, because M: as long as he's living...".)

Note: Distracting statements which attempt to bring someone who is off topic back onto topic are NOT scored.

0 - S pays attention to O appropriately and doesn't interrupt overly often or without giving O a chance to express self.

1 - A little non-receptive (e.g. a poor listener who sometimes doesn't follow what the other person is saying)

A: "I think I should be able to stay out until 12:00 because sometimes parties don't end until 11:30, and I need time to make it home."

M: "So tell me why do you think you should get to stay out late." (i.e. person wasn't paying attention, NOT that other person spoke to softly to be heard)

OR One premature interruption (e.g. after S has had a chance to make one point, but clearly cutting him or her off from making another point) which does not just stem from undue excitement in a discussion.

A: "I think I should get to stay out until 12:00 because sometimes parties aren't over until 11:30, and also because that is when..."

M: "Well, I think you should be in by 11:00."

OR Seems reluctant to give input into discussion at the very beginning (i.e. probably due more to shyness or nervousness than lack of concern for what other person is saying)

M: "So tell me again why you want to stay out later?"

A: "Oh...I don't know."

Note: 1& 2 may be scored lower, or not scored at all, if they occur at the beginning of the argument. At this time participants may cut each other off in their eagerness to state their own position OR demonstrate reluctance to engage with each other due to feeling uncomfortable with the task.

1 vs. 2: In general, 1 and 2 are similar, but 1 captures ignoring or cut-offs which may be somewhat unintentional and/or indicate hesitancy to begin discussion. Also, 2's are harsher, and are more likely to have a clear effect of stifling O.

2 - Clearly non receptive/not choosing to follow other person

A: "I think I should be able to stay out later because all of my friends do."

M: Okay, so why don't you start by saying what you thought". (i.e. makes it clear that they are ignoring statement by other person)

OR interrupts O somewhat rudely/clearly cuts O off before he/she gets to make a point

A: (early in the discussion) "I think I should get to stay out later because..."

M: Well, 11:00 is late enough."

OR A clearly distracting statement that is not an immediate response to a statement of O (and is therefore less rudely ignoring O than if statement immediately followed O's statement)

M: "I think that you should be home by 11:00." (10 second pause)
A: "is the 10 minutes up yet?"

2 vs. 3 - Higher levels of distracting/ignoring will reflect both more active and/or explicit interruptions, as well as ones which clearly attempt to derail the conversation. Distracting statements which do not completely ignore the content of what the other

person say and/ or which do not completely remove discussion from the topic at hand are scored lower than a 3.

3 - Refuses to discuss O's point of view/clearly does not want to discuss topic/protest discussing topic to camera. Or an extremely rude interruption.

M: "what do you think about our rules about dating?"
A: "Forget it." OR "I have nothing to say." OR "I don't want to talk about this."

M: "(to camera) OK. I guess we are don't with this topic." (note: statements such as these indicate reluctance to discuss a particular point, versus refusal to discuss anything at all, which can be scored under 4 below)

OR Refuses to respond to direct statements/ questions
M: "so what do you think about that?"
A: (no response)

OR A clearly distracting statement which is an immediate response to a statement of O and makes it clear that the speaker does not want to continue the discussion.
M: "I think that you should be home by 11:00."
A: "Is the 10 minutes up yet?" (follows immediately after O's statement)

4 - This score can be reached by one instance of *completely* refusing to continue the entire discussion (OR by multiple "3" level statements).
M: "(to camera) That's it. We're done. Let's stop now."

K. Hostile or Devaluing Statements Toward O, either explicitly or implicitly.

This category refers to devaluing statements which would be reasonably expected (at least slightly) to leave the other person feeling annoyed, hurt, or worse about themselves. This category includes behaviors which are critical of the other person, not just his/her behavior:

Example: M: "You say that you are not going to spend all of your money on cigarettes, but then you do" IS NOT scored as critical, as this comment addresses a specific behavior, whereas...

Example: M: "You always lie about how you spend your money". OR "You are a liar". ARE scored as critical because they address characteristics of the person.

This category also includes statements which are hostile, rude, disdainful or devaluing toward the other person or their statements. Anger which does not include any one of the above is NOT scored under this category.

Both tone and content are important to consider when scoring: mildly critical statements which are said in an extremely hostile way can be scored highly, as well as very critical statements said in a pleasant tone.

0 - No sign of devaluing or hostile statements.

.5 - Very mild, implicitly critical remarks, said with good humor.

Example: M: "Oh come on now, you really think that?"

1 - Implicitly devaluing or critical or rude statements.

Example: A: "That is because you say you are going to do something and you don't do it." (what is implicit here is "you are a liar", but because that is not stated directly, this statement is scored as implicit)

2 - At least one openly devaluing or critical remark.

Examples: **M:** "That's a stupid thing to say."

OR A: "you really only think of yourself, don't you?"

OR M: "Nasty as you are, you think I'm just supposed to hand you money?"

OR M: "You are a little slow to catch on, but you are doing it" (said flippantly).

3 - One extremely hostile, devaluing, rude, or critical remark.

Example: "You must be really stupid if you think that." **OR** "You're out of your mind. You must have bumped your head".

4 - Repeated, frequent hostile or critical remarks, or more than 1 extremely hostile remark (i.e. no single statement will score a 4).

Summary of Scoring Procedures

Stating Reasons (A) Confident assertiveness (C) and Engaged Interaction (I)
These categories are scored as an average or cumulative level across the entire interaction.

All other categories
Coded cumulatively using the following algorithm

The rule is that 2 examples of a score yield a score 1/2 point higher, and 3 examples yield a score 1 point higher. Always group in groups of 3 first.

Scores of 0.5 are an exception, in which case it takes 3 examples of 1/2 point to yield a 1.

For example:

6 examples of a given score (e.g., 2, 2, 2, 2, 2, 2) are considered (2 sets of 3) (e.g., 3 & 3) which combine to yield a score 1 1/2 points higher.

You can handle complex examples by breaking them into smaller chunks as follows:

3, 2, 2, 2, 1, 1, 1, =
3 +3 +2 =
3.5
(the final 2 doesn't add anything to the score).

or,

.5 .5 .5 1 1 2=
1.0 1.5 2 = 2.5 (not that the 3 /5's only add up to a 1. The reason for this is so that extremely low level scores on a category don't take on excessive weight if oft-repeated).

Summary Scales
To date, these individual codes have been used to create the following 3 summary scales (with codes loading as follows):

Autonomous-relatedness: Stating reasons + Confident Assertiveness + Validating + Engaged Interaction

Undermining Autonomy: Recanting + Overpersonalizing + Pressuring
Undermining Relatedness: Ignoring/ interrupting + Hostility

Queries was not used in initial analyses due to odd factor loadings (it has since been revised to tap only queries that are likely to promote relatedness).

Some labs have also kept Autonomy and Relatedness measures separate, with some evidence that this is reasonable from a factor analytic perspective.

Some evidence also exists that different ways of undermining autonomy may have different associations to adolescent attachment status (with overpersonalizing statements positively linked to passivity of thought (i.e. preoccupation), and recanting statements negatively linked to passivity).

Reliabilities for overall composite scales range roughly from .7 to .85 (intraclass correlations). If 2 codes code all tapes and their average codes are used, the resulting Spearman-Brown reliabilities should go up to .8 to .9.

APPENDIX E: INVENTORY OF PARENT AND PEER ATTACHMENT

INSTRUCTIONS FOR SECTION I

The following statements are worded so as to survey feelings about both parents. This may not be appropriate for you:

* If you consider your relationship with your father very different from that with your mother, please respond to the statements for the parent you feel has most influenced you.

* If you have lived most of your life with one of your parents, please respond to the statements according to your feelings about that parent.

Please read each statement and put a circle around the response number you have chosen for each statement.

	Almost Never or Never	Seldom True	Sometimes True	Often True	Almost Always or Always
1. My parents respect my feelings.	1	2	3	4	5
2. I feel my parents are successful as parents.	1	2	3	4	5
3. I feel alone or apart when I am with my family.	1	2	3	4	5
4. I wish I had different parents.	1	2	3	4	5
5. I try to keep to myself when I am upset.	1	2	3	4	5
6. My parents accept me as I am.	1	2	3	4	5

	Almost Never or Never	Seldom True	Sometimes True	Often True	Almost Always or Always
7. I have to rely on myself when I have a problem to solve.	1	2	3	4	5
8. I like to get my parents' point of view on things I'm concerned about.	1	2	3	4	5
9. I feel it's no use letting my feelings show.	1	2	3	4	5
10. My parents sense when I'm upset about something.	1	2	3	4	5
11. Talking over my problems with my parents makes me feel ashamed or foolish.	1	2	3	4	5
12. My parents expect too much from me.	1	2	3	4	5
13. I get upset easily at home.	1	2	3	4	5
14. I get upset a lot more than my parents know about.	1	2	3	4	5
15. When we discuss things, my parents consider my point of view.	1	2	3	4	5
16. My parents trust my judgment.	1	2	3	4	5
17. My parents have their own problems, so I don't bother them with mine.	1	2	3	4	5
18. My parents help me to understand myself better.	1	2	3	4	5

	Almost Never or Never	Seldom True	Sometimes True	Often True	Almost Always or Always
19. I tell my parents about my problems and troubles.	1	2	3	4	5
20. I feel angry with my parents.	1	2	3	4	5
21. I don't get much attention at home.	1	2	3	4	5
22. My parents encourage me to talk about my difficulties.	1	2	3	4	5
23. My parents understand me.	1	2	3	4	5
24. I don't know who I can depend on these days.	1	2	3	4	5
25. When I am angry about something, my parents try to be understanding.	1	2	3	4	5
26. What my parents don't know won't hurt them.	1	2	3	4	5
27. I trust my parents.	1	2	3	4	5
28. My parents don't understand what I'm going through these days.	1	2	3	4	5
29. I can count on my parents when I need to get something off my chest.	1	2	3	4	5
30. I feel that no one understands me.	1	2	3	4	5
31. If my parents know something is bothering me, they ask me about it.	1	2	3	4	5

SECTION II

Which of these statements comes nearest to saying how you feel about your life in general? Would you say you are:

_________ Completely satisfied

_________ Well satisfied

_________ Neither satisfied nor dissatisfied

_________ A little dissatisfied

_________ Very dissatisfied

INSTRUCTIONS FOR SECTION III

This section surveys your feelings about your relationships with your friends. Please read each statement and put a circle around the response number you have chosen for each statement.

	Almost Never or Never	Seldom True	Sometimes True	Often True	Almost Always or Always
1. I like to get my friends' point of view on things I'm concerned about.	1	2	3	4	5
2. My friends sense when I'm upset about something	1	2	3	4	5
3. When we discuss things, my friends consider my point of view.	1	2	3	4	5
4. Talking over my problems with my friends makes me feel ashamed or foolish.	1	2	3	4	5
5. I wish I had different friends.	1	2	3	4	5
6. My friends understand me.	1	2	3	4	5

	Almost Never or Never	Seldom True	Sometimes True	Often True	Almost Always or Always
7. My friends encourage me to talk about my difficulties.	1	2	3	4	5
8. My friends have their own problems, so I don't' bother them with mine.	1	2	3	4	5
9. My friends accept me as I am.	1	2	3	4	5
10. I feel the need to be in touch with my friends more often.	1	2	3	4	5
11. My friends don't understand what I'm going through these days.	1	2	3	4	5
12. I feel alone or apart when I am with my friends.	1	2	3	4	5
13. With my friends, I go along with what's expected, even when I disagree with it.	1	2	3	4	5
14. My friends are fairly easy to talk to.	1	2	3	4	5
17. When I am angry about something, my friends try to be understanding.	1	2	3	4	5
18. I worry that I'm doing something wrong around my friends.	1	2	3	4	5
19. My friends help me to understand myself better.	1	2	3	4	5
20. My friends are concerned about my well-being.	1	2	3	4	5

	Almost Never or Never	Seldom True	Sometimes True	Often True	Almost Always or Always
21. I feel angry with my friends.	1	2	3	4	5
22. I can count on my friends when I need to get something off my chest.	1	2	3	4	5
23. I can trust my friends.	1	2	3	4	5
24. My friends respect my feelings.	1	2	3	4	5
25. I get upset a lot more than my friends know about.	1	2	3	4	5
26. It seems as if my friends are irritated with me for no reason.	1	2	3	4	5
27. I find myself trying to avoid conflicts with my friends.	1	2	3	4	5
28. I tell my friends about my problems and troubles.	1	2	3	4	5
29. If my friends know something is bothering me, they ask me about it.	1	2	3	4	5

VITA

Karen Pavlidis

University of Washington

1998

Education

University of Washington
Seattle, Washington
May 1997 Defended dissertation (entered program 9/90)
Major: Child Clinical Psychology
Dissertation: Autonomy and relatedness in family interactions with depressed adolescents.
Clinical Internship: Packard Children's Hospital at Stanford/ Children's Health Council

University of Rochester
Rochester, New York
May, 1997 B.A. in Psychology; Cum laude

AWARDS

1997 Society for Research in Child Development
Student Travel Award, $300

1995 University of Washington, Department of Psychology
Robinson Psychology Dissertation Grant, $800

1995 University of Washington, Department of Psychology
Wagner Memorial Fund Travel Award, $200

RESEARCH EXPERIENCE

Oct.'94 - May '97 *Dissertation Research*

Autonomy and Relatedness During Mother-Adolescent Interactions with Depressed Adolescents. Family interaction patterns associated with adolescent depression were investigated. Videotaped interactions with clinically depressed adolescents were compared to those with externalizing adolescents and nonclinic adolescents (Dissertation Advisor: Mark Greenberg, Ph.D.).

Jan. '96 - June '96 *Research Assistant*
Department of Psychology
University of Washington, Seattle, WA

Conducted phone interviews for a longitudinal study that investigated individuals who were heavy alcohol drinkers in college (Principal Investigator: John Baer, Ph.D.).

Sept. '95 - Dec. '95 *Research Assistant*
Department of Psychology
University of Washington, Seattle, WA

Conducted structured diagnostic interviews for treatment outcome study involving women who were diagnosed with Borderline Personality Disorder.(Principal Investigator: Marsha Linehan, Ph.D.).

June '93 - March '94 *Research Assistant*
Harborview Injury Prevention and Research Center
University of Washington, Seattle, WA

Assisted in developing an observation coding system and in training observers to investigate the efficacy of a school based primary prevention curriculum (Principal Investigator. David Grossman, M.D.).

March '92 - Sept. '92 *Research Assistant*
Child Psychiatry, Children's Hospital and Medical Center
University of Washington, Seattle, WA

Coordinated a project investigating family interaction in depressed adolescents. Administered a Structured Clinical Interview to mothers (Principal Investigator: Elizabeth McCauley, Ph.D.).

Jan. '91 - Aug. '92 — *Second Year Research Project**

Children's coping with negative emotions and its relation to school-related functioning. Investigated children's emotion coping strategies in relation to school and emotional functioning. Developing an emotion coping interview, collected and analyzed data (Project Advisor: Wayne Duncan, Ph.D.). * This project is equivalent to a master's thesis.

June '91 - Sept. '91 — *Research Assistant*
Child Psychiatry, Children's Hospital and Medical Center
University of Washington, Seattle, WA

Developed a coding system and conducted statistical analyses for data collected on women with Turner syndrome (Principal Investigators: Elizabeth McCauley, Ph.D. & Virginia Sybert, M.D.).

Sept. '88 - Aug. '90 — *Undergraduate Research Assistant*
Mt. Hope Family Center
University of Rochester, Rochester, NY

Conducted home visits and interviews with families on public assistance, many of whom had active involvement with Child Protective Services. Assisted in developing a nosology of maltreatment (Principal Investigator. Dante Cicchetti, Ph.D.).

SUPERVISED CLINICAL EXPERIENCE

July '97 - present — *Child Clinical/ Pediatric Psychology Intern*
Packard Children's Hospital at Stanford/The Children's Health Council
Division of Child Psychiatry, Stanford University School of Medicine
Palo Alto, CA

Provided outpatient assessment and treatment services for children and adolescents. Experience included training in objective and projective psychological assessment, as well as in cognitive/ neuropsychological assessment. Currently, role involves providing consultation liaison services in an inpatient medical setting.

Sept. '91 - June '97 — *Staff Therapist*
Psychological Services and Training Center
University of Washington, Seattle, WA

Provided outpatient treatment for children and adolescents with behavior or internalizing disorders. Also provided adult individual psychotherapy.

June '96- *Practicum Student, Pediatric Psychology*
June '97 Rehabilitation Psychology, Children's Hospital and Medical Center
University of Washington, Seattle, WA

Provided outpatient treatment for children and adolescents with chronic or traumatic illness.

Sept. '94 - *Clinic Teaching Assistant*
Sept. '95 Psychological Services & Training Center
University of Washington, Seattle, WA

Provided intake services and assisted in supervising clinical psychology graduate students.

Oct. '93 - *Practicum Student, Adolescent and Family Therapy*
July '94 Adolescent Clinic, University of Washington Medical Center
University of Washington, Seattle, WA

Provided outpatient treatment for adolescents with behavioral, internalizing, or developmental disorders.

Oct. '92 - *Practicum Student, Neuropsychological Assessment*
March '93 Child Psychiatry, Children's Hospital and Medical Center
University of Washington, Seattle, WA

Provided neuropsychological assessment for children and adolescents on the psychiatric inpatient unit.

TEACHING EXPERIENCE

Sept. '96- *Course Instructor*
March '97 Department of Psychology
University of Washington, Seattle, WA

Course instructor for *Personality Development of the Child* (400 level). Course was taught for two consecutive quarters.

Sept. '90 - Sept. '96 *Teaching Assistant*
Department of Psychology
University of Washington, Seattle, WA

Graduate courses: *Clinical Methods*, *Clinical Ethics*, and the *Assessment of Intelligence*. Undergraduate courses: *Introductory Psychology* (2 terms), *Personality Psychology* (2 times), *Developmental Psychology* (2 terms), *Human Sexuality* (3 terms), and *Psychobiology of Women* (1 term).

MEMBERSHIPS

Society for Research in Child Development, student member
Society for Research on Adolescence, student member
American Psychological Association, student affiliate

PUBLICATIONS

Pavlidis, K., McCauley, E., & Sybert, V. (1995). Psychosocial and sexual functioning in women with Turner syndrome. Clinical Genetics, 47, 85-89.

McCauley, E., Kendall, K.G., & Pavlidis, K. (1995). The development of emotional regulation and emotional response. In I. Goodyer (ed.), Depression in Childhood and Adolescence. Cambridge University Press, Cambridge, UK.

MANUSCRIPTS IN PREPARATION

Pavlidis, K. & McCauley, E. Adolescent depression and family interaction. *In preparation*

Myers, K., McCauley, M., & Pavlidis, K. Suicidality in children and adolescents with Major Depressive Disorder: Outcome as young adults. *In preparation.*

UNPUBLISHED MANUALS

Frye, K., Dunn, R., Neckerman, H.J., & Pavlidis, K. (1994). Social-cognitive interview coding manual. *Unpublished manual.*

Asher, K., Neckerman, H.J., & Pavlidis, K. (1993). Social interaction observation system: Observer Training Manual. *Unpublished manual.*

PRESENTATIONS

Pavlidis, K., & McCauley, E. Depressed adolescents' emotional and behavioral adjustment and its relation to mother-adolescent expressions of autonomy. Paper presented at the Society for Research on Adolescence Biennial Meeting, February, 1998.

McCauley, E., & Pavlidis, K. (chairs). Family interaction in adolescent depression: Do convergent themes emerge across methodological approaches? Symposium presented at the Society for Research in Child Development conference, Washington, D.C., April, 1997.

Pavlidis, K., & McCauley, E. Expression of autonomy and relatedness during interactions with depressed adolescents and their mothers. Paper presented at the Society for Research in Child Development conference, Washington, D.C., April, 1997.

Pavlidis, K., & McCauley, E. Adolescent and maternal reports of family warmth, support, and conflict in depressed, externalizing, and nonclinic adolescents. Poster presented at the Society for Research in Child Development conference, Washington, D.C., April, 1997.

Royal, R., McCauley, E., & Pavlidis, K. Social factors and adolescent depression. Poster presented at the Society for Research on Adolescence conference, Boston, March, 1996.

Pavlidis, K., & McCauley, E. Autonomy and relatedness during parent-adolescent interactions with depressed adolescents. Poster presented at the Society for Research on Child and Adolescent Psychiatry conference, Santa Monica, January, 1996.

Pavlidis, K., & McCauley, E. Family environment and adolescent depression. Paper presented at the Society for Research in Child Development conference, Indianapolis, March/April, 1995.

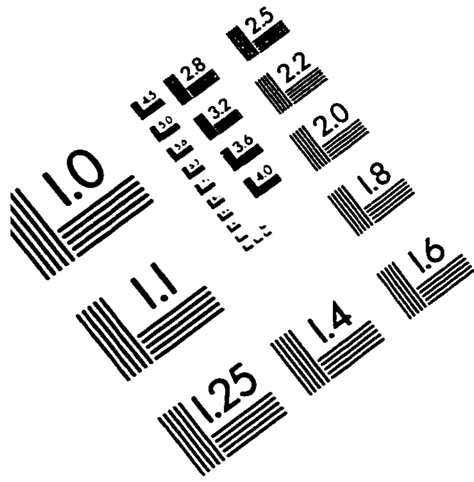
Pavlidis, K., & McCauley, E. Peer relations and self-concept in adolescent depression. Poster presented at the Society for Research in Child Development conference, Indianapolis, March/April, 1995.

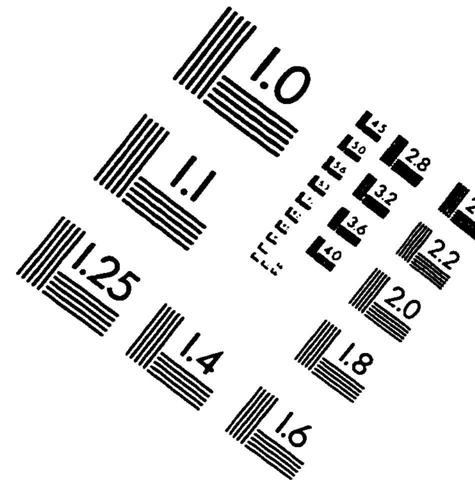
McCauley, E., Myers, K., & Pavlidis, K. Family interaction and depression: Index and sibling perceptions of self and family. Paper presented at the Society for Research in Child and Adolescent Psychiatry meetings, Santa Fe, New Mexico, February, 1993.

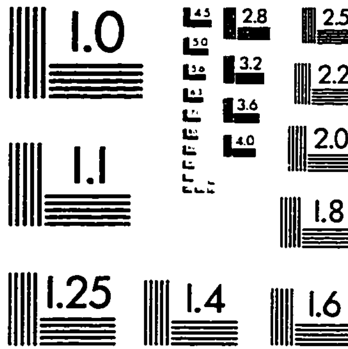
EDITORIAL POSITIONS

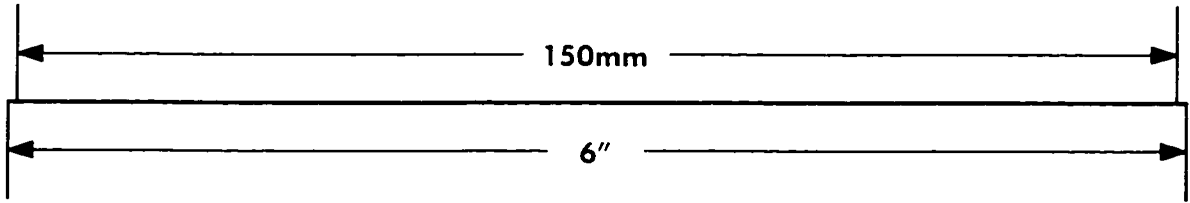
Ad Hoc reviewer for *Clinical Genetics*, 1996.

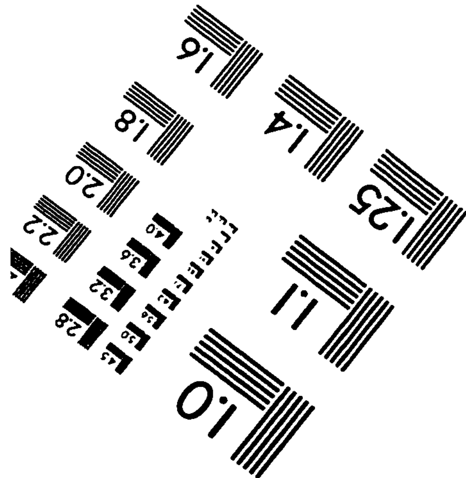
IMAGE EVALUATION
TEST TARGET (QA-3)

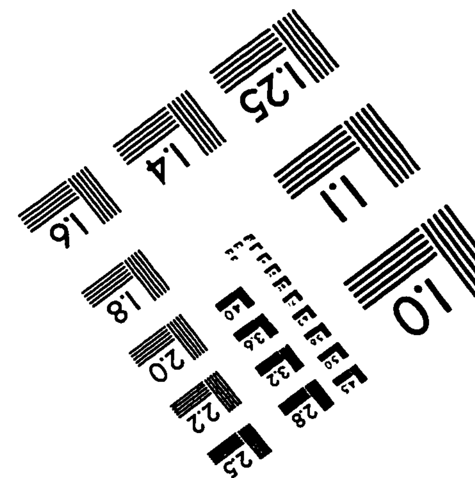












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