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Autonomy and Relatedness in Family Interactions as Predictors of Expressions of Negative Adolescent Affect

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This study examined the connection between adolescents' expressions of negative affect and their attempts to meet the developmental task of establishing autonomy and relatedness in interactions with their parents. Longitudinal, observational data were obtained by coding family interaction tasks administered to 96 adolescents at ages 14 and 16 and their one or two parents. These were then related to observer-rated adolescent depressive affect in an interview at age 16 and to self-reported internalizing and externalizing behavior at age 17. Results revealed that difficulties establishing autonomy and relatedness with parents were linked to both depressed affect and externalizing behaviors. However, depressed affect was more closely linked to difficulties establishing autonomy, whereas externalizing behaviors were more closely linked to difficulties maintaining relatedness.

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Expressions of negative affect, defined as the behavioral manifestation of negative emotions via either internalizing symptoms or externalizing behaviors, appear to become more pronounced and common during adolescence (Elliott, Huizinga, & Menard, 1989; Kandel & Davies, 1982). A central prediction from the emerging field of developmental psychopathology is that dysfunctional affect and behavior will be linked to failure to achieve important developmental tasks at critical junctures (Sroufe, 1992). Yet, there is a relative paucity of research examining the connection of negative affect to adolescents' progress in meeting critical challenges of social development (Kovacs, 1989).

This study examined the link between expressions of negative affect and adolescents' difficulties in managing a primary developmental challenge of this period: establishing autonomy and relatedness in interactions with their parents (Allen, Hauser, Bell, & O'Connor, 1994; Grotevant & Cooper, 1985). Achieving autonomy while maintaining a positive relationship with parents is increasingly being recognized as a critical, stage-salient task of adolescence linked to numerous social outcomes (Allen et al., 1994; Collins, 1990; Grotevant & Cooper, 1985; Hill & Holmbeck, 1986; Moore, 1987; Steinberg, 1990). Emerging evidence, described later, suggests that several different forms of adolescents' negative affect and related problem behaviors may be linked to failures of either autonomy or relatedness in interactions with parents.

Depressed affect and internalizing behaviors of adolescents have been linked to a lack of success in establishing autonomy and relatedness in family interactions in several studies, although these studies have relied heavily upon self-report assessments of family interactions. Two of the strongest recent studies suggest that depression and internalizing behaviors are connected to parents' failure to grant sufficient autonomy to their offspring. Fauber, Forehand, Thomas, and Wierson (1990) reported that internalizing problem behaviors are linked to children's ratings of parents as psychologically controlling (vs. autonomy promoting). In one of the few existing prospective observational family studies of adolescent depression, Gjerde and Block (1991) linked female adolescents' depressive affect at age 18 to observer ratings of mothers' prior authoritarian control of their daughters at age 5. Although not focused upon adolescent-family interactions, this study does move beyond self-reports of qualities of these interactions. More generally, adolescent depression has been related to lack of family cohesion and reported closeness to parents in several self-report studies (Feldman, Rubenstein, & Rubin, 1988; Kandel & Davies, 1982).

Adolescents' externalizing symptoms and behaviors have been linked to parental rejection, lack of parental involvement, and harsh aversive behavior by both children or adolescents and parents in numerous

studies (Dadds, Sanders, Morrison, & Rebgetz, 1992; Loeber & Dishion, 1983; Patterson, DeBaryshe, & Ramsey, 1989; Patterson & Stouthamer-Loeber, 1984). It has been suggested that a lack of relatedness between adolescents and parents may remove an important behavior-regulating influence within the family: the adolescents' desire to please the parent (Allen, Aber, & Leadbeater, 1990). Without this regulating influence, externalizing and problematic behaviors become much more likely. However, this explanation has thus far received scant attention in research using observational data to examine relatedness in parent-adolescent interactions as predictors of externalizing behaviors.

The available evidence on links between expressions of negative affect and failures in establishing autonomy and relatedness leaves several important issues unresolved. First, the absence of observational data supporting the links just described is striking (Collins, 1990), particularly given the biases and limitations inherent in self-report data about social interactions (Lewinsohn & Rosenbaum, 1987; Nisbett & Wilson, 1977). Also, even though evidence suggests that depressed and internalizing affect may be more closely linked to lack of autonomy, and externalizing behaviors may be more closely linked to a lack of relatedness (Allen et al., 1990; Fauber et al., 1990; Gjerde & Block, 1991), this premise of differential predictions from adolescent autonomy and relatedness has not been directly examined in family interactions.

This study sought to address these issues by assessing the connection of autonomy and relatedness in observed parent-adolescent interactions to several forms of adolescents' negative affect and behavior. A range of affects and affect-related negative behaviors were considered, including observer-rated depressive affect and self-reported internalizing and externalizing behaviors. Autonomy and relatedness were defined and examined with respect to a paradigmatic challenge for families with adolescents: negotiating a difference of opinions. In this context, three different types of behaviors that have been linked to adolescent development were considered: (a) behaviors exhibiting autonomous-relatedness, which differentiate a person from others and reflect independence of thought while also reflecting interest, involvement, and validation of another person's thoughts and feelings; (b) behaviors inhibiting autonomy, which make it more difficult for a family member to discuss his or her own reasons for a stated position in a disagreement; and (c) behaviors inhibiting relatedness, which undermine the relationships among family members (Allen & Hauser, 1992; Allen et al., 1994).

We examined predictors and correlates of negative affect in both one- and two-parent families, considering both main effects and inter-

actions of family type with observed relations among constructs. We included both a high-school sample and a sample of adolescents who were psychiatrically hospitalized at age 14, thus permitting observations across a broad range of levels of negative affect. A 3-year span in middle adolescence (ages 14 through 17) was examined to reflect a period when issues of autonomy and relatedness in family interactions would be maximally salient, yet not yet subsumed under the dynamics of home-leaving that occur for many adolescents at age 18.

METHOD

Subjects

Ninety-six adolescents (46 boys, 50 girls) and their parents participated in this study as part of a larger longitudinal investigation (Hauser, with Powers & Noam, 1991). Adolescents were selected as either high school freshmen (ninth grade; $n = 47$) or similar-aged, nonpsychotic, nonorganically impaired, psychiatrically hospitalized adolescents ($n = 49$) (Mean Age = 14.4 years at Time 1; 16.7 years at Time 2; and 17.5 years at Time 3). Thirty-seven percent of adolescents were from single-parent families, and 62.5% were from two-parent families. Most of the hospitalized adolescents carried diagnoses related to conduct problems or symptoms of depression. Families in both groups were predominantly upper- and upper-middle class (Mean SES = 2.30, Hollingshead, 1975; $SD = 1.16$). All subjects were White. Subjects and their families were paid \$30.00 for participating in the family session.

Subjects from the high school and psychiatric groups did not differ significantly in terms of age, gender, birth order, or number of siblings, and differed moderately in social class (higher for the high school sample). Psychiatric hospitalization at age 14 was used as a criterion to obtain a sample likely to be at lower levels of family and individual functioning and potentially higher levels of expression of negative affect. Hospitalization was examined as a covariate and a potential interaction factor for all analyses to ensure that it did not produce artifactual relations in the data.

Setting and Procedure

Individual adolescent subjects and families were assessed at age 14 in private rooms at either their hospital (for the sample that was hospitalized at age 14) or their school (for the high school sample). Assessments at age 14 included self-report measures collected in a first

session, a semistructured interview (described later) in the second session, and a family interaction task in the third session. All families in this sample took part in the age 14 family interaction assessment. At age 16, 86 family interactions were assessed, and 79 semistructured interviews were conducted. At age 17, 70 adolescents completed the Youth Self Report. Attrition at age 16 and age 17 was due primarily to logistical and funding constraints. As a result, analyses of predictions from age 14 to ages 16 or 17 each employ smaller subsamples of the 96 adolescents and families in the study. Analyses of attrition with respect to individual measures yielded significant findings at a rate only slightly greater than chance (8 findings out of 76 tests), with no clear pattern of effects of attrition.

Family interaction data were collected using a revealed differences task (Strodbeck, 1951) in which family members were first interviewed separately about two Kohlberg moral dilemmas, and then brought together to discuss issues about which they disagreed. Family members were asked to take up to 10 min to discuss their first disagreement and, if possible, to resolve it. Families were then presented with a new disagreement to discuss. This procedure continued for 30 min, with disagreements presented so as to alternate which family member was in the minority in a disagreement, beginning with the father in the minority, followed by the mother, then the adolescent. Different moral dilemmas were used in family interactions at each age.

Measures

Autonomy and Relatedness Coding System (Allen, Hauser, Borman, & Worrell, 1991; Allen et al., 1994). This system builds from a system developed by Grotevant and Cooper (1985) and examines speeches promoting or inhibiting autonomy and relatedness in the family interaction task described previously. The system considers both the frequency and intensity/salience of speeches in a category. For example, a single, brief but unusually hostile remark might very substantially increase a score for a hostility scale, whereas a digression in which the family discusses plans following the interview might not influence any scales. All interactions were coded using both audio tapes and transcripts.

The Autonomy and Relatedness coding system was designed to code 10 different types of speech that are summed and grouped on a priori grounds into three major scales for behaviors, including: (a) an overall scale for *exhibiting autonomous-relatedness*, (which includes codes for expressing and discussing reasons behind disagreements, confidence in stating one's positions, validation and agreement with

another's position, and attending to the other person's statements); (b) *inhibiting autonomy*, which includes codes for overpersonalizing a disagreement, recanting a position without appearing to have been persuaded the position is wrong (thus ending the discussion), and pressuring another person to agree (other than by making rational arguments); and (c) *inhibiting relatedness*, which includes codes for expressing hostility toward another member or interrupting/ignoring the other person.

Each code uses a scale of 0 to 4, with half-point intervals and with concrete behavioral anchors of the meaning of each full point for a code. Scores for each of the coded behaviors within a category were summed together to provide an overall score for that category (e.g., hostility and interruption scores were summed to yield scores for inhibiting relatedness). Interrater reliabilities for the three autonomy and relatedness scales (intraclass correlation coefficients) were .84, .83, and .75 for exhibiting autonomous-relatedness, inhibiting relatedness, and inhibiting autonomy, respectively. Construct validity and psychometric adequacy of these codes have been demonstrated in prior research linking these scales to a range of indices of psychosocial development (Allen & Hauser, 1992; Allen et al., 1994). Codes for autonomous-relatedness were uncorrelated with the two inhibiting codes (mean r s ranged from $-.03$ to $-.15$); inhibiting autonomy was positively correlated with inhibiting relatedness across dyads (mean $r = .35$).

Self-reported internalizing and externalizing symptoms. The Youth Self Report (YSR), developed by Achenbach and Edelbrock (1987), provides a 102-item self-report checklist of behavioral problems of the adolescent in the past 6 months. Two broad-band syndromes, derived from second-order factor analyses of this scale, were used in this study. An *Externalizing* factor reflects outwardly directed negative behaviors, such as items for lying, swearing, arguing, stealing, and destroying property. An *Internalizing* factor reflects symptoms and behaviors that are primarily internal in nature, such as difficulty concentrating, feeling sad, somatic complaints, and various fears and anxieties. In addition, a depression scale (which is part of the Internalizing factor) was also used, solely to examine the construct validity of the observer-rated depression measure described later. The YSR factors are based upon slightly different item clusters for male and female subjects. *T*-scores, standardized within gender, were thus used to allow analyses to compare male and female subjects. Extensive data on the YSR, including test-retest reliability and construct and discriminant validity are reported by Achenbach and Edelbrock (1987).

Observer-rated depressive affect. Adolescents' depressive affect was assessed by an independent observer who rated a 1-hour, open-ended, semistructured interview with each adolescent. The interview prompted the adolescent for their thoughts and feelings about each of several major areas of social functioning, such as adjustment to school, friends, and family. The interview was designed to give subjects latitude to focus primarily on areas that were of most salience to them currently, while making sure that each of the topic areas mentioned here were raised and addressed at least briefly. The interview concluded with adolescents' statements about their expectations and hopes for the future.

Ratings were made from audio tapes and transcripts of the interviews, using the California Adult Q-set Form III (Block, 1978), which consists of 100 descriptors of subjects' personality characteristics. Eleven items that directly addressed depressive affect/symptomatology (as described in *DSM-III-R*, American Psychiatric Association, 1987), were summed to create a measure of the depressive affect displayed in the interview. Items included: feeling a lack of meaning in life, withdrawal, indecisiveness, guilt, social isolation, and doubting one's adequacy as a person. Items were also included and reverse-coded that assessed: cheerfulness, productivity, rapid personal tempo, and enjoyment of sensual experiences. Internal consistency was $\alpha = .79$. Interrater reliability for the depressive affect scale was $r = .74$. This measure was correlated at $r = .33$, $p < .02$ with the YSR depression scale from age 17, which is a correlation comparable to correlations obtained by other researchers comparing self- and other-reports of depression (Achenbach, McConaughy, & Howell, 1987).

RESULTS

Preliminary Analyses

The sample mean for the YSR externalizing scale was 51.3 ($SD = 9.9$), and for the internalizing scale, 51.5 ($SD = 11.4$). These T-score means are very close to the overall means from national norms ($T = 50$; Achenbach & Edelbrock, 1987). Of the measures of negative affect, only the externalizing and internalizing scales were significantly correlated (positively), $r = .59$, $p < .001$.

Initial analyses were conducted to determine whether predictions ranging from autonomy and relatedness in family discussions to indices of negative affect interacted with gender, family structure, or prior psychiatric history of adolescents. These tests revealed no significant

interactions beyond those expected by chance. This indicates that it is appropriate to analyze data for the entire sample as a whole. Main effects of gender, family structure, and past history of hospitalization were each examined in regression equations, where they were relevant to the analyses reported later.

Simple Longitudinal Predictions

Table 1 presents simple correlations of family interaction measures at ages 14 and 16 with observer-rated depressed affect and self-reported externalizing symptoms at age 17. No significant correlations were found to self-reported internalizing behaviors, and these are omitted from Table 1. The correlations presented indicate that lack of autonomous-relatedness on the part of both adolescents and their parents at age 14 was predictive of both observer-rated depressed affect and self-reported externalizing behaviors at age 17. At age 16, adolescents'

TABLE 1
Prediction of Depressive Affect and Externalizing Symptoms
From Adolescent-Family Interactions

Interaction	A - M	M - A	A - F	F - A
Predicting Adolescent Depressive Mood (Age 16)				
Family Behavior: Age 14				
Autonomous-relatedness	-.37***	-.30**	-.42**	-.29*
Inhibiting autonomy	.09	.00	.14	.12
Inhibiting relatedness	.05	-.13	.08	-.03
Family Behavior: Age 16				
Autonomous-relatedness	-.27*	-.05	-.28	-.08
Inhibiting autonomy	.13	.07	.22	-.03
Inhibiting relatedness	-.13	-.25*	-.19	-.17
Predicting Adolescent Externalizing Symptoms (Age 17)				
Family Behavior: Age 14				
Autonomous-relatedness	-.31**	-.31**	-.30*	-.32*
Inhibiting autonomy	.12	.15	.07	.16
Inhibiting relatedness	.14	-.02	.11	.04
Family Behavior: Age 16				
Autonomous-relatedness	-.02	.03	.04	-.01
Inhibiting autonomy	.11	.11	.03	-.05
Inhibiting relatedness	.50***	.24	.03	.09

Note. For interactions with mothers: *N*s range from 70 to 79 at age 14 and from 65 to 69 at age 16. For interactions with fathers: *N*s range from 46 to 55 at age 14 and from 42 to 43 at age 16.

* $p < .05$. ** $p < .01$. *** $p < .001$.

hostility toward their mothers was strongly predictive of later self-reported externalizing behaviors.

Predicting Depressive Affect After Accounting for Demographic Factors

A series of hierarchical regressions was next used to examine the relations described previously, after controlling for gender and family structure and by considering the three autonomy and relatedness measures simultaneously (to control test-wise Type I error rates). For example, in the first equation, adolescents' depressed affect was predicted first from their gender and family structure (entered as a block into a hierarchical regression equation), and then from the three measures of adolescents' autonomy and relatedness behaviors toward their mother at age 14 (entered as a second block). This same format was used repeatedly in separate models that examined both adolescents' behaviors toward their parents and parents' behaviors toward their adolescents, at ages 14 and 16. Results of significant equations predicting depressed affect from interactions at ages 14 and 16 are presented in Tables 2 and 3, respectively. For interactions with fathers, family structure was not examined, because only fathers in two-parent households were included in the sample.

Results were consistent with initial descriptive correlations in that displays of autonomous-relatedness, particularly within the family at age 14, were significantly predictive of later depressive affect after accounting for background demographic factors. There was slight evidence that adolescents from single-parent families displayed more depressive affect than adolescents from two-parent families in one subset of analyses (predictions from age 16 family interactions).

Interestingly, at age 16, inhibition of relatedness in family interactions (from adolescents to fathers and from mothers to adolescents) was negatively associated with depressed affect. This indicates that adolescents characterized as more depressed at age 16 had families that were characterized by relatively fewer overt displays of relatedness-inhibiting behavior, such as hostility.

Predicting Externalizing and Internalizing Behaviors After Accounting for Demographic Factors

The same hierarchical approach described previously was also used to examine predictions of externalizing behaviors. Several statistically

TABLE 2
Hierarchical Regressions Using Age 14 Family Interactions and Background
Characteristics to Predict Depressive Affect at Age 16

Interactions	Depressed Affect (Age 16)		
	β	R^2/df	R^2_{change}
<u>Adolescent – Mother Interactions (Age 14)</u>			
Step I. Demographic Features			
Gender	-.17	–	–
Single-parent family	.20	–	–
Statistics for step	–	.08*	.08*
Step II. Family Interactions			
Autonomous-relatedness	-.39***	–	–
Inhibiting autonomy (14)	.01	–	–
Inhibiting relatedness	-.07	–	–
Statistics for step	–	.22**	.14**
		(5, 73)	
<u>Adolescent – Father Interactions (Age 14)</u>			
Step I. Demographic Features			
Gender	-.10	–	–
Statistics for step	–	.01	.01
Step II. Family Interactions			
Autonomous-relatedness	-.44**	–	–
Inhibiting autonomy	.08	–	–
Inhibiting relatedness	-.04	–	–
Statistics for step	–	.22*	.21*
		(4, 47)	
<u>Mother – Adolescent Interactions (Age 14)</u>			
Step I. Demographic Features			
Gender	-.20	–	–
Single-parent family	.21	–	–
Statistics for step	–	.08*	.08*
Step II. Family Interactions			
Autonomous-relatedness	-.31**	–	–
Inhibiting autonomy	-.00	–	–
Inhibiting relatedness	-.13	–	–
Statistics for step	–	.20**	.12*
		(5, 73)	

Note. Father-adolescent predictions were never significant and are not shown. β s are from full models.

* $p < .05$. ** $p < .01$. *** $p < .001$.

significant predictions to externalizing behaviors were found in regressions that controlled for background demographic factors. These are presented in Table 4. These predictions were from fathers' lack of autonomous-relatedness toward their adolescents at age 14 and from adolescents' relatedness-inhibiting behaviors toward their mothers at age 16. At age 16, higher levels of relatedness-inhibiting behavior

predicted higher levels of externalizing behaviors. This prediction from adolescents' relatedness-inhibiting behavior to externalizing behaviors was in the opposite direction from its prediction to depressed affect. No significant predictions were obtained from family interactions at 14 or 16 to adolescents' self-reported internalizing symptoms at age 17.

TABLE 3
Hierarchical Regressions Using Age 16 Family Interactions and Background Characteristics to Predict Depressive Affect at Age 16

Interactions	Depressed Affect (Age 16)		
	β	R^2/df	R^2 change
<u>Adolescent — Mother Interactions (Age 16)</u>			
Step I. Demographic Features			
Gender	-.20	—	—
Single-parent family	.29*	—	—
Statistics for step	—	.11*	.11*
Step II. Family Interactions			
Autonomous-relatedness	-.39**	—	—
Inhibiting autonomy (14)	.23	—	—
Inhibiting relatedness	-.23	—	—
Statistics for step	—	.30*** (5, 59)	.19**
<u>Adolescent — Father Interactions (Age 16)</u>			
Step I. Demographic features			
Gender	-.16	—	—
Statistics for step	—	.02	.02
Step II. Family Interactions			
Autonomous-relatedness	-.33*	—	—
Inhibiting autonomy	.23	—	—
Inhibiting relatedness	-.32*	—	—
Statistics for step	—	.23* (4, 37)	.21*
<u>Mother — Adolescent Interactions (Age 16)</u>			
Step I. Demographic features			
Gender	-.15	—	—
Single-parent family	.22	—	—
Statistics for step	—	.10*	.10*
Step II. Family Interactions			
Autonomous-relatedness	-.11	—	—
Inhibiting autonomy	.17	—	—
Inhibiting relatedness	-.30*	—	—
Statistics for step	—	.20** (5, 59)	.10*

Note. Father-adolescent predictions were never significant and are not shown. β s are from full models.

* $p < .10$. ** $p < .05$. *** $p < .01$. **** $p < .001$.

TABLE 4
Hierarchical Regressions Predicting Externalizing Behaviors at Age 16 From Family Interactions and Background Characteristics

Interactions	Externalizing Behavior (Age 17)		
	β	R^2/df	R^2 change
Father - Adolescent Interactions (Age 14)			
Step I. Demographic Features			
Gender (1 = M, 2 = F)	-.28*	-	-
Statistics for step	-	.06	.06
Step II. Family Interactions			
Autonomous-relatedness	-.41**	-	-
Inhibiting autonomy	.20	-	-
Inhibiting relatedness	-.12	-	-
Statistics for step	-	.24*	.18*
		(4, 40)	
Adolescent - Mother Interactions (Age 16)			
Step I. Demographic Features			
Gender (1 = M, 2 = F)	-.09	-	-
Single-parent family	.06	-	-
Statistics for step	-	.04	.04
Step II. Family Interactions			
Autonomous-relatedness	.05	-	-
Inhibiting autonomy	-.05	-	-
Inhibiting relatedness	.49***	-	-
Statistics for step	-	.26**	.22**
		(5, 57)	

Note. Only significant models are presented. β s are from full models.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Predicting Depressed Affect and Externalizing Symptoms After Accounting for Prior Psychiatric History

The next set of analyses employed a highly conservative approach in which adolescents' depressed affect and externalizing symptoms were predicted after first removing not only background demographic factors, but also a dummy variable for adolescents' prior history of psychiatric hospitalization at age 14. Because this factor was expected to be related to later depressed affect and externalizing behaviors, its removal greatly reduces the meaningful variance available to be explained. The resulting equations essentially examine whether family factors can predict varying levels of negative affective displays within the hospitalized and high school samples. Results of significant equations are presented in Table 5.

Depressed affect at age 17 was significantly predicted after accounting for prior psychiatric hospitalization from parents' behaviors to-

TABLE 5
Predicting Depressed Affect From Family Interactions Covarying Prior History of Psychiatric Hospitalization

Interactions	Depressed Affect (Age 16)			Youth Self-Report-Externalizing (Age 17)		
	β	R ² /df	R ² change	β	R ² /df	R ² change
<u>Adolescent - Mother Interactions (Age 16)</u>						
<u>Step I. Background Characteristics</u>						
Psych. Hx.	.29*	-	-	.40**	-	-
Gender (1 = M, 2 = F)	-.21	-	-	-.10	-	-
Single-parent family	.23*	-	-	.01	-	-
Statistics for step	-	.25***	.25***	-	.14*	.14*
<u>Step II. Family Interactions</u>						
Autonomous-relatedness	-.28*	-	-	.26*	-	-
Inhibiting autonomy	.23*	-	-	-.09	-	-
Inhibiting relatedness	-.24*	-	-	.48***	-	-
Statistics for step	-	.37***	.12*	-	.38***	.24***
		(6, 58)			(6, 56)	
<u>Adolescent - Father Interactions (Age 16)</u>						
<u>Step I. Background Characteristics</u>						
Psych. Hx.	.38*	-	-	-	-	-
Gender (1 = M, 2 = F)	-.16	-	-	-	-	-
Statistics for step	-	.16*	.16*	-	-	-
<u>Step II. Family Interactions</u>						
Autonomous-relatedness	-.17	-	-	-	-	-
Inhibiting autonomy	.21	-	-	-	-	-
Inhibiting relatedness	-.38*	-	-	-	-	-
Statistics for step	-	.34**	.18*	-	-	-
		(5, 36)				

Note. Only significant models are presented.
* $p < .05$. ** $p < .01$. *** $p < .001$.

ward their adolescent at age 16, but not at 14. Adolescents' relatively low levels of behaviors displaying autonomous-relatedness and relatively high levels of behaviors inhibiting autonomy toward mothers were both associated with depressed affect. Adolescents' relatedness-inhibiting behaviors toward both parents were negatively related to depressed affect at age 16. This indicates that adolescents characterized as more depressed at 16 displayed less relatedness-inhibiting behavior toward parents, but also had interactions with mothers characterized by low levels of autonomous-relatedness and by the adolescents' active inhibition of autonomy.

Adolescents' externalizing behaviors at age 17 were predicted, after accounting for history of psychiatric hospitalization, only by adolescents' behaviors toward their mothers at age 16. The strongest predictor was adolescents' inhibition of relatedness as a predictor of externalizing behaviors. Adolescents' positive displays of autonomous-relatedness were also slightly related to higher levels of later externalizing behaviors, a finding that did not occur in any other analyses of interactions within this dyad.

DISCUSSION

The findings of this study support the notion that negative affect in adolescence, whether expressed as depressive behavior in an interview or as self-reported externalizing behavior, is linked to difficulties meeting the developmental challenge of establishing autonomy and relatedness in interactions with parents. However, different types of difficulties meeting this challenge were associated with different expressions of negative affect. Adolescents' depressed affect at age 16, as rated independently from a semistructured interview, was consistently linked to lack of autonomous-relatedness between adolescents and their parents. Significantly, the absence of hostile, relatedness-inhibiting behavior in several dyads' interactions was also linked to adolescents' depressive affect. Finally, in the most conservative analysis, covarying prior psychiatric history, adolescents' behaviors inhibiting autonomy in interactions with mothers were also related to depressed affect.

Taken together, these findings suggest that adolescent depressed affect is linked to a particular type of failure to establish autonomy and relatedness that is perhaps best characterized as avoidance of autonomy. This is seen directly in the lack of displayed autonomous-relatedness and in adolescents' inhibition of autonomy toward mothers. Thus, it was not lack of relatedness, but lack of autonomy within the parent-

adolescent relationship that was linked to depressed affect, a finding consistent with several recent studies in this area (Dadds et al., 1992; Fauber et al., 1990; Gjerde & Block, 1991). Notably, depressed adolescents also were low in relatedness-inhibiting behaviors, which can also function as alternative means of establishing autonomy when more constructive means fail (Allen, Hauser, O'Connor, Bell, & Eickholt, 1993). These findings are consistent with the notion that depressed affect may result from experiencing and internalizing models of relationships that do not permit direct expressions of independent behaviors within the relationship and that make it difficult to move beyond these relationships (Bowlby, 1980). Notably, other researchers have found that depressed children display less aversive familial behavior than conduct-disordered children and note that depression may provide a means of retreating from aversive patterns of family interaction (Dadds et al., 1992). However, determining whether depressed affect results from difficulties establishing autonomy, whether it creates these difficulties, or whether both affect and difficulties establishing autonomy result from other cognitive-developmental or biological-genetic processes must await further research.

Adolescents' self-reported externalizing behaviors were also related to difficulties with autonomy and relatedness, but the primary difficulties appeared to be with relatedness. Externalizing behaviors were predicted both by lack of autonomous-relatedness in fathers' behaviors toward their adolescents and by adolescents' behaviors inhibiting their relatedness with their mothers at age 16. These findings are consistent with the suggestion that increased problematic behavior in adolescence may be linked to failures of attachment and failures to maintain relatedness with parents, which in turn weaken parental controls over adolescent behavior (Allen & Hauser, 1992; Allen et al., 1990). Of course, it is also possible that both externalizing behaviors and inhibition of relatedness reflect other ongoing difficulties in the parent-adolescent relationship, in adolescents' overall development, or even biological-genetic predispositions. Problem behaviors might also have led to conflicts that produced relatedness-inhibiting behavior (Patterson et al., 1989).

No relations were found between family interactions and adolescents' self-reported internalizing behaviors. Given the findings with depression reported earlier, it may be that the construct of internalizing behaviors incorporates so many different types of behavior that it washes out specific predictions. It is also possible that self-reported internalizing behavior differs from behavior observable by independent raters in ways that make it less predictable from family interactions.

No statistical interactions with past psychiatric history, gender, or family structure occurred for any of these findings. Although this lack of statistical interactions supports the idea that general processes of social development were being observed, the small sample sizes for these analyses greatly limit any such interpretations. It is noteworthy that several results became apparent only in regressions that controlled for the effects of gender, family type, and prior psychiatric history, which indicates the importance of these factors.

The lack of gender differences in levels of depression and externalizing symptoms may, perhaps, best be attributed either to lack of power to detect these differences or to the sample composition. Because half of the sample was selected for the presence of serious psychopathology, higher than normal numbers of depressed male adolescents and externalizing female adolescents were likely included in the initial sample, and this clearly precludes the generalization of findings (or lack of findings regarding gender) to more normative populations. Replication across other family types, across broader demographic groups, in larger samples, and over longer spans of time is now clearly needed.

Taken together, these findings suggest that processes of establishing autonomy and relatedness in families are not only linked to negative adolescent affect, but may be helpful in distinguishing among adolescents displaying different types of negative affect. Although these findings cannot establish causal connections, they suggest the potential value of examining adolescents' negative affect by focusing upon the social-developmental tasks that the adolescent must accomplish within the family. It now remains for future research to consider the potential long-term consequences of success or failure in meeting these developmental tasks as adolescents make the transition into young adulthood.

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