HHS Public Access

Author manuscript

J Early Adolesc. Author manuscript; available in PMC 2018 March 09.

Published in final edited form as:

J Early Adolesc. 2015 May ; 35(4): 511–537. doi:10.1177/0272431614537116.

Adolescent-Peer Relationships, Separation and Detachment from Parents, and Internalizing and Externalizing Behaviors: Linkages and Interactions

Justin Jager,
Arizona State University

Cynthia X. Yuen,
University of Illinois

Diane L. Putnick,
Eunice Kennedy Shriver National Institute of Child Health and Human Development

Charlene Hendricks, and
Eunice Kennedy Shriver National Institute of Child Health and Human Development

Marc H. Bornstein
Eunice Kennedy Shriver National Institute of Child Health and Human Development

Abstract

Most research exploring the interplay between context and adolescent separation and detachment has focused on the family; in contrast, this investigation directs its attention outside of the family to peers. Utilizing a latent variable approach for modeling interactions and incorporating reports of behavioral adjustment from 14-year-old adolescents (N = 190) and their mothers, we examine how separation and detachment relate to adolescent peer relationships, and whether peer relationships moderate how separation and detachment relate to adolescent internalizing and externalizing behaviors. Positive peer relationships were both associated with lower detachment and sharply attenuated relations between detachment and higher adolescent internalizing and externalizing. Separation from parents was unrelated to peer relationships, and regardless of whether peer relationships were positive, separation was not related to adolescent internalizing and externalizing. We integrate these findings with those from family-focused investigations and discuss their substantive and clinical implications.

Keywords

separation; detachment; internalizing; externalizing; latent variable interactions

Separation from parents during adolescence entails casting off childish dependencies and idealized representations of parents. Separation is believed to be normative and adaptive, as well as a prerequisite for healthy, autonomous functioning during adulthood, as it better

Correspondence concerning this article should be addressed to Justin Jager, T. Denny Sanford School of Social and Family Dynamics, Arizona State University, PO Box 873701, Tempe AZ 85287-3701. Phone: 480-727-9673. Fax: 480-965-6779. justin.jager@asu.edu.

equips adolescents to broaden their social network and develop social investments outside of the family (Beyers, Goossens, Van Calster, & Duriez, 2005; Blos, 1967; McElhaney, Allen, Stephenson & Hare, 2009; Smollar & Youniss, 1989). By contrast, adolescent detachment from parents, which represents a radical and developmentally premature emotional distancing, is linked to broad deficits in behavioral adjustment in part because detached adolescents typically lack access to important forms of support and socialization that parents ideally provide (Ingoglia, Lo Coco, Liga, & Lo Cricchio, 2011; Ryan & Lynch, 1989). Due to separation's developmental significance and detachment's clear link to behavioral maladjustment, a good deal of attention has been paid to the contextual correlates of separation and detachment as well as the contextual factors that either dampen or amplify their effects on behavioral adjustment (Bray, Adams, Getz, & Stovall, 2001; Fuhrman & Holmbeck, 1995; Lamborn & Steinberg, 1993; Ryan & Lynch, 1989). Although this important line of research clarifies the etiology and behavioral effects of separation-failure (e.g., enmeshment) and detachment, and thereby informs their prevention and treatment, its focus has been limited to a single context: the family.

In this study we direct our attention outside of the family to peers. We do so because adolescent-parent relationship quality as well as its impact on adolescent behavioral adjustment are not independent of adolescent-peer relationships (Bornstein, Jager, & Steinberg, 2013; Connolly & Johnson, 1996; Gauze, Bukowski, Aquan-Assee, & Sippola, 1996). Specifically, this cross-sectional study has two aims: (a) to examine how separation and detachment relate to adolescent peer relationships and (b) to examine whether peer relationships moderate how separation and detachment relate to internalizing and externalizing behaviors. Regarding behavioral adjustment, we focus on internalizing and externalizing behaviors because they comprise a widely agreed upon classification of behavior disorders during adolescence and because each is a strong predictor of adult psychopathology, including mood, anxiety, personality, and substance use disorders (Achenbach, Howell, McConaughy, & Stanger, 1995; Pardini, White, & Stouthamer-Loeber, 2007).

Separation and Detachment During Adolescence

Before turning our attention to peers, we first review the constructs of separation and detachment and their associations with internalizing and externalizing behaviors. Adolescent separation is commonly referred to as the second (after toddlerhood) individuation from parents, and entails adolescents (a) relinquishing childhood representations of their parents as omnipotent and omniscient and acquiring more realistic and deidealized views of their parents, (b) relying less (or at least not exclusively) on their parents for help and guidance while relying more on themselves as well as other age mates, and (c) formulating their own opinions, views, and beliefs, no longer merely content to imitate those of their parents (Beyers et al., 2005; Blos, 1967; Hoffman, 1984; Lamborn & Steinberg, 1993; Smollar & Youniss, 1989). Unlike separation, which does not entail a break in adolescent-parent relatedness or affective bonds (Blos, 1967; Hoffman, 1984; Smollar & Youniss, 1989), detachment is characterized by feelings of alienation and mistrust towards parents, a reluctance to rely on parents for help, and the belief that parents do not understand or accept adolescents for who they actually are (Beyers et al., 2005; Ingoglia et al., 2011; Ryan &

Lynch, 1989). There also are reasons to believe that detachment is distinct from insecure attachment. First, while an adolescent's attachment style is believed to be a working model of relationships that generalizes across one's set of relationships (Allen, Porter, McFarland, McElhaney, & Marsh, 2007), an adolescent's detachment is specific to certain relationships (i.e., his or her relationship with parents). Second, unlike attachment insecurity, which represents a problematic or low-quality attachment, detachment is thought to represent a loss or absence of attachment. Third, detachment and insecure attachment are only modestly correlated (Fuhrman & Holmbeck, 1995; Ryan & Lynch, 1989; Turner et al., 1993).

Detachment is commonly associated with elevated internalizing (e.g., feelings of depression, anxiety, distress) and externalizing (e.g., delinquency and substance use) behaviors (Beyers & Goossens, 2003; Ingoglia et al., 2011; Turner et al., 1993). Despite the fact that separation is believed to be normative and adaptive (Blos, 1967), how separation relates to internalizing and externalizing behaviors is far less clear. For example, some studies indicate no relation between separation and internalizing behaviors (Beyers & Goossens, 1999; Lamborn & Groh, 2009), but others indicate a negative relation (Ingoglia et al., 2011). Moreover, although separation appears to be related to higher levels of underage drinking and illicit drug use (Bray et al., 2001; McQueen, Getz, & Bray, 2003), it appears to be unrelated to broader indexes of externalizing and deviant behaviors (Beyers & Goossens, 1999; Ingoglia et al., 2011).

Separation and Detachment in Context: Incorporating Peer Relationships

Most research exploring the interplay between context and adolescent separation and detachment has focused on the family; in contrast, this investigation focuses on peers for two reasons. First, peers provide unique and increasingly impactful forms of socialization over the course of adolescence (Berndt, 1982; Brown & Larson, 2009). Second, adolescent-parent relationship quality as well as its impact on adolescent behavioral adjustment are not independent from adolescent-peer relationships (Bornstein et al., 2013; Connolly & Johnson, 1996; Gauze et al., 1996). Thus, the extent to which an adolescent separates or detaches from parents as well as the impact of that separation or detachment on the adolescent's behavioral adjustment may be influenced or modified by the adolescent's relationships with peers. As our first aim, we examine how separation and detachment relate to adolescent peer relationships. As our second aim, we examine whether peer relationships moderate how separation and detachment relate to internalizing and externalizing behaviors. To better capture the full range of socialization and social supports provided by peers (Bukowsi & Hoza, 1989; Ladd et al., 1997), we use a broad conceptualization of peer relationships that incorporates self-perceptions of peer acceptance, friendship quality, and friendship quantity. This conceptualization of peer relationships encompasses the extent to which adolescents feel they are accepted by peers and have a network of supportive friends that they can rely on for affiliation, intimacy, and support.

Peer Relationships and Individual Differences in Separation and Detachment

Adolescent separation from parents entails relying less on parents for help and guidance and relying more on one's self and peers (Blos, 1967). Whether adolescents feel that they have peers they can turn to is, presumably, a limiting factor in whether they actually turn to peers instead of parents for help. In this way, positive peer relationships could facilitate adolescent separation. The reverse could also be true: Separation might facilitate positive peer relationships. That is, across adolescence children spend more time with their age mates and come to expect more from them in terms of intimacy, self-disclosure, and trust (Brown & Larson, 2009). Potentially, the failure to separate from parents properly during adolescence could hinder this age-appropriate gravitation towards peers. Whether positive peer relationships facilitate separation, separation facilitates healthy peer relationships, or both (i.e., effects are bidirectional), healthy peer relationships should be associated with greater separation (Hypothesis 1).

Conversely, we expect positive peer relationships to be associated with less detachment (Hypothesis 2). That is, relative to non-detached adolescents, detached adolescents often display poorer communication skills, perspective taking, and conflict management strategies as well as lower emotional and self-regulation during parent-child interactions (McElhaney et al., 2009). These deficits in social skills may, in turn, translate into less healthy peer relationships as well (Zimmer-Gembeck & Collins, 2003). Moreover, relative to parents of non-detached adolescents, parents of detached adolescents are more likely to engage in autonomy-hindering behaviors, such as coercive, restrictive, and overly controlling parenting, which have consistently been linked to adolescent peer relationships that are more hostile, distant, and rejecting (Amato, 1989; Barber, 1996; Liable, & Carlo, 2004). Therefore, whether an adolescent's detachment is driven by his or her deficit in social skills, his or her parents' autonomy-inhibiting behaviors, or a combination of the two, there is reason to believe that detached adolescents will have less healthy peer relationships. Importantly, exploring how peer relationships relate with separation and detachment will provide preliminary evidence regarding the nature and degree to which the separation and detachment processes connect to factors outside of the family, which could clarify the etiology of separation-failure and detachment and inform their prevention and treatment.

Separation, Detachment, and Behavioral Adjustment: Peer Relationships as Moderator

For children reared in risk-laden environments, an external support system, such as peers, is a key source of psychosocial resilience that encourages and reinforces the child's coping efforts (Rutter, 1987). Peer relationships during adolescence can ameliorate the effects of harsh and neglectful family environments on internalizing and externalizing behaviors (Criss et al., 2002; Gauze et al., 1996; Patterson, Cohn, & Kao, 1989). The likely reason for this interplay between the family and peer contexts is the overlap among social provisions that adolescents obtain from their relationship experiences in the parent and peer domains, including social support, closeness, intimacy, and dependability (Price, 1996).

The overlapping social provisions of the family and peer contexts may help to explain why existing research is mixed with respect to the relation between separation and behavioral adjustment. As part of the separation process, adolescents depend less on parents and more on age mates for problem solving, help and guidance, and the acquisition of values, beliefs, and norms. Whether or not this increased dependence on age mates is adaptive and promotes healthy behavioral adjustment may hinge on whether adolescents have a supportive network of friends and peers to turn to for these important forms of support and socialization. Therefore, we expect how separation relates with internalizing and externalizing to be moderated by peer relationships such that the relations become more negative (i.e., more adaptive) as peer relationships become more positive (Hypothesis 3). By exploring whether separation is adaptive only under certain conditions (such as when it is accompanied by positive peer relationships) or is universally adaptive (as is currently believed), this investigation seeks to expand our understanding of separation's role in adolescent adjustment and prompt future research on the topic.

Given the overlapping social provisions of parent and peer contexts, there is also reason to believe that peer relationships may buffer adolescents from the effects of detachment on behavioral adjustment. That is, regarding support, intimacy, and affiliation, what detached adolescents gain from their peers may compensate for what they lack from their parents. Therefore, we expect detachment's positive relations with internalizing and externalizing to be attenuated among those adolescents with healthier, more positive peer relationships (Hypothesis 4). By clarifying the degree to which positive peer relationships protect adolescents from the negative effects of detachment, this investigation hopes to add to the existing resilience literature demonstrating the protective role of peers and to inform clinical intervention strategies for adolescents who detach from their parents due to problematic home environments.

Finally, when examining whether peer relationships moderate how separation (Hypothesis 3) and detachment (Hypothesis 4) relate to internalizing and externalizing behaviors, we control for adolescent-parent attachment security. We do so to remove as a potential confound any redundancy between detachment and insecure attachment. To reduce reporter bias, adolescent adjustment was based on adolescent and maternal report (Deal, 1995).

Summary and Key Questions

This cross-sectional study examines how separation and detachment relate to adolescent peer relationships and whether positive peer relationships moderate how separation and detachment relate to internalizing and externalizing behaviors. We expect that positive peer relationships will be associated with greater separation (Hypothesis 1) and less detachment (Hypothesis 2). We also expect that, as peer relationships become more positive, separation's relations with internalizing and externalizing behaviors will become more negative (more adaptive; Hypothesis 3) and detachment's relations with internalizing and externalizing behaviors will become less positive (less maladaptive; Hypothesis 4).

Methods

Participants

Families were recruited through mass mailings and newspaper advertisements from a U.S. East Coast metropolitan area. Out of the 209 families that provided data, analyses were limited to the 190 families that had adolescents who provided data for separation and detachment. Levels of behavioral adjustment, relationship quality with mothers, fathers, and peers, and socioeconomic status did not differ between those included and those excluded from the analyses. The analytic sample consisted of 14-year-old (M = 13.90, SD = 0.27) European American adolescents (43% female) and their mothers who were from families that were mostly intact (95%), well-educated (80% and 77% of mothers and fathers, respectively, had a college degree or greater), and of a broad range of socioeconomic status with a mean Hollingshead (1975) score of 55.44 (SD = 9.59, range = 29–66). The sample was limited to European Americans because ethnic differences in the effects of parenting (Park & Bauer, 2002), adolescent-parent relationships (Hofferth, 2003), and adjustment (Jager, 2011) could cloud the effects of this study if ethnic groups were combined (Bornstein, Jager, & Putnick, 2013). Among those included in the analyses (n = 190), missingness (3.3%) was low (i.e., on average a participant provided data for 96.7% of the variables included in our analyses). To handle missing data among those included in the study, full information maximum likelihood (FIML) was used (Arbuckle, 1996).

Procedure

Adolescents and their mothers participated in a home and a laboratory visit. For families living significant distances from the laboratory, all visits were conducted in the home. Participants were compensated for their time. Table 1 summarizes the instruments and questionnaires used.

Measures

Separation and detachment—We used Beyers et al.'s (2005) alternative factor structure for the Emotional Autonomy Scale (EAS; Steinberg & Silverberg, 1986) to measure adolescent separation and detachment from parents. As originally devised, the 20-item self-report EAS consists of four subscales developed from Blos's (1967) theoretical perspective of individuation: *perceives parents as people* (6 items; α = .63); *parental deidealization* (5 items; α = .67); *nondependency on parents* (4 items; α = .52); and *individuation* (5-items; α = .71). However, confirmatory factor analyses indicate that the EAS's original four-factor structure displays poor construct validity and provides poor model fit (Beyers et al., 2005; Schmitz & Baer; 2001). Additionally, low reliability of subscales necessitates omitting particular subscales from analyses (Beyers & Goossens, 1999; Lamborn & Steinberg, 1993) or avoiding the use of subscales and treating the EAS as a unidimensional measure (Ryan & Lynch, 1989).

Due to the EAS's poor psychometric properties, Beyers et al. (2005) developed an alternative factor structure consisting of two second-order factors (*separation* and *detachment*) and seven first-order factors: *deidealization* (e.g., "My parents hardly ever make mistakes", reverse coded), *nondependency* (e.g., "It's better for kids to go to their best friend

than to their parents for advice on some things"), *nonimitation* (e.g., "There are things I will do differently from my mother and father when I become a parent"), *privacy* (e.g., "There are some things about my life that my parents don't know"), *perceived ignorance* (e.g., *"*I wish my parents would understand who I really am*"*), *distrust* (e.g., *"*I have often wondered how my parents act when I am not around*"*), and *perceived alienation* (i.e., "My parents act the same way when with friends as when at home", reverse coded). The second-order separation factor is derived from the deidealization, nondependency, nonimitation, and privacy factors; the second-order detachment factor is derived from the perceived ignorance, distrust, and perceived alienation factors. As others have done (Ingoglia et al., 2011), we used means (parcels) for all first-order factors; higher scores reflect higher levels. Research utilizing this alternative factor structure indicates that its separation and detachment factors display good convergent, discriminant, and construct validity (Beyers, Goossens, Van Calster, et al., 2005; Beyers & Goossens, 2003; Beyers, Goossens, Vansant, & Moors, 2003; Ingoglia et al., 2011; Lamborn & Groh, 2009).

We replicated the Beyers et al. (2005) alternative factor structure for the EAS, with one difference. In the present study, a model (Figure 1) with the privacy indicator loading on the Detachment factor, $\chi^2(10) = 15.95$, $p = .10$, CFI = .97, RMSEA = .06, fit the data better than did a model with the privacy indicator loading on the Separation factor, $\chi^2(10) = 46.10$, $p < .001$; CFI = .81, RMSEA = .14. Because these two models are not nested, a traditional χ^2 difference test is not appropriate; however, the .16 difference in CFI between the two models far exceeds the value of .01, the threshold for rejecting the null hypothesis that two models provide a comparable fit (Cheung & Rensvold, 2002). Additionally, of the two models only the revised model (i.e., model with privacy loading on Detachment) proved an acceptable fit. Consistent with Beyers et al. (2005), the Separation and Detachment factors were not empirically redundant (i.e., a model treating them as distinct factors fit better than a model treating them as a single factor, $\Delta\chi^2(1) = 34.45$, $p < .001$), indicating discriminant validity. Also consistent with Beyers et al. (2005), residual variances among the Separation and Detachment indicators were allowed to covary, when significant.

Peer relationships—Peer Relationships were based on four scales that collectively capture self-perceptions of peer acceptance, friendship quality, and friendship quantity. The first scale was the *social acceptance* subscale from the Self-Perception Profile for Adolescents (SPPA; Harter, 1988; e.g., "Some kids are popular with others their age"), which captures the degree to which the adolescent is accepted by peers, feels popular, has a lot of friends, and feels that he or she is easy to like. The second scale, also from the SPPA, was the *close friendships* subscale (e.g., "Some kids have a close friend they can share secrets with"), which captures the adolescent's perceived capacity to make close friends whom they can trust and confide in. The third scale was the *classmate support* subscale from the Social Support Scale for Children (SSSC; Harter, 1985; e.g., "Some kids have classmates who like them the way they are"), which captures the extent to which adolescents perceive that their classmates like them the way they are, are friendly, and listen to what they have to say. The fourth scale, also from the SSSC, was the *close friend support* subscale (e.g., "Some kids have a close friend who really understands them"), which captures the extent to which adolescents feel that they have a close friend who really understands them, to whom

they can complain and tell problems, and who really listens to what they say. For all scales, mean scores were used; higher scores reflect more positive peer relationships.

Behavioral adjustment—Adolescent internalizing and externalizing were assessed by adolescent and mother self-report; adolescents completed the Youth Self-Report Inventory (YSR; Achenbach & Rescorla, 2001) and mothers completed the School-Age Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). *Internalizing* behaviors were assessed using the combined withdrawal, somatic complaints, and depression-anxiety subscales of the YSR and CBCL. *Externalizing* behaviors were assessed using the combined aggressive behavior and delinquent behavior subscales of the YSR and CBCL. For all scales, mean scores were used; higher scores reflect higher internalizing and externalizing.

Attachment security—Adolescent attachment security to parents was assessed using the Kerns Security Scale (KERNS; Kerns, Klepac, & Cole, 1996), a child-report measure of parent-child relationships that is based on attachment theory and appropriate for adolescents (Lieberman, Doyle, & Markiewicz, 1999). The measure captures children's beliefs regarding whether their parent is responsive and available, open to communication, and a reliable source of help and comfort when needed (e.g., "Some kids find it easy to trust their mom"). The mean score of the *security* scale was used; higher scores reflect greater attachment security. Adolescents completed this questionnaire twice, once for each parent. Item wording was the same, aside from "mother" or "mom" being replaced by "father" or "dad".

Results

All analyses were conducted with M*plus* Version 7.2 (Muthén & Muthén, 1998–2012) and utilized a maximum likelihood estimator that is robust to nonnormality. Basic descriptive statistics are presented in Table 1. When determining model fit, we took a comparative fit index (CFI) ≥ .90 and root mean square error of approximation (RMSEA) ≤ .08 to indicate an acceptable fit and a CFI ≥ .95 and a RMSEA ≤ .05 to indicate a good fit (Hu & Bentler, 1999; Kline, 2011). All model comparisons were based on χ^2 difference tests, unless specified otherwise. Because we used a robust maximum likelihood estimator, for all model comparisons we applied the correction factors appropriate for such an estimator (Muthén & Muthén, 1998–2012).

Full Structural Model with Latent Variable Interactions

The full structural model used to examine associations among Peer Relationships, Separation, and Detachment, as well as their associations with adolescent Internalizing and Externalizing, is presented in Figure 2. To reduce the number of model parameters, all model indicators were mean-centered and their means were fixed to zero. We modeled latent variable interactions using the latent moderated structural equation (LMS) method (Klein & Moosbrugger, 2000), which is available for use in M*plus* through the XWITH command. Because LMS models do not output standardized effects, we used the procedure outlined by Muthén (2012) to calculate standardized effects. We utilized the LMS method for two reasons. First, simulations indicate that the LMS method is an unbiased, efficient, and reliable estimator of latent variable interactions (Cham, West, Ma, & Aiken, 2012; Klein &

Moosbrugger, 2000). Second, because this latent variable approach produces estimates that are unattenuated by measurement error, it offers clear advantages over more conventional approaches to testing interactions that assume perfect measurement, such as ordinary least squares regression (Busemeyer & Jones, 1983; Kenny & Judd, 1984; Little, Bovaird, & Widaman, 2006). Specifically, in addition to reducing a study's power, approaches that assume perfect measurement are more likely to yield biased estimates.

Because traditional model fit indices (e.g., CFI, RMSEA, and χ^2) have not been developed for LMS models, the overall fit of the LMS model is assessed in two steps (Klein & Moosbrugger, 2000; Muthén, 2012). The first step is to model the "first-order" structural model (i.e., a model with only the main effect paths) and assess model fit. The second step is to model the full structural model by adding in the "second-order" effects (i.e., the latent variable interactions and their paths) and assessing the change in model fit using a loglikelihood ratio test.

Step 1—We found that the first-order model (the black portion of the model in Figure 2) provided a good fit: $\chi^2(89) = 125.91$, $p = .006$, CFI = .96, RMSEA = .05. Specifically, we loaded the adolescent and mother reports of internalizing onto a single factor to account for reporter bias and other forms of measurement error (Deal, 1995). We did the same for the adolescent and mother reports of externalizing. Doing so yielded "shared" factors that captured the common variance across adolescent and mother reports of internalizing and externalizing, respectively. To control for the effect of parental attachment on adolescent internalizing and externalizing, we regressed each indicator of adolescent Internalizing and Externalizing on maternal and paternal attachment (as reported by the adolescent via KERNS), and used the residuals from these regressions as the indicator variables for Internalizing and Externalizing. We allowed the within-reporter residual variances of internalizing and externalizing reports to covary. Although the correlation between the Internalizing and Externalizing disturbances was negative and non-significant ($r = -.21$), without any predictors the correlation between the Internalizing and Externalizing latent factors was positive and significant, $r = .35$, $p = .008$, indicating that the addition of predictors to the model accounted for all of the shared variance between Internalizing and Externalizing.

Step 2—We modeled the full structural model by adding the "second-order" effects (i.e., the gray portion of the model in Figure 2) to the first-order structural model. Using the XWITH command we specified two latent variable interactions: Separation by Peer Relationships (SxP) and Detachment by Peer Relationships (DxP). Because latent variable interactions do not have a mean or variance and do not covary with other variables, they add zero parameters to the model (Muthén, 2012). For each latent variable interaction we specified two directional paths: one directed to Internalizing and one directed to Externalizing. Using a loglikelihood ratio test, we assessed the change in model fit when the four interaction paths are added to the model (i.e., we compared the loglikelihood for the first-order structural model to the loglikelihood for the full structural model) and found that adding the four interaction paths lead to a significant improvement in model fit, $2\Delta LL(4) = 10.89$, $p = .028$. Thus, it is safe to conclude that the full structural model provided a good fit

because it fit the data better than the first-order structural model, which, as indicated earlier, itself provided a good fit.

According to simulations, the study's sample size (N = 190) is sufficiently large to yield valid and reliable estimates given the complexity of the model in Figure 2 (50 parameters). For example, whereas the sample size to parameter (S/P) ratio for the model in Figure 2 is 3.8, simulations indicate that SEM models with a S/P ratio as small as 1.25 yield parameter estimates that are equivalent to models with S/P ratios as large as 20.0 (Jackson, 2003). Although some recommend S/P ratios as high as 10.0 (Kline, 2011) to reduce the likelihood of convergence problems, provided convergence problems are avoided (as was the case here) S/P ratios as small as 1.0 are sufficient to yield valid and reliable estimates (Marsh & Bailey, 1991).

Peer Relationships and Individual Differences in Separation and Detachment

As expected (Hypothesis 1), Peer Relationships were negatively associated with Detachment (−.38). Although we expected Peer Relationships and Separation to be positively associated with one another (Hypothesis 2), the relation between the two factors proved non-significant (−.15). Finally, even though the relation between Peer Relationships and Separation was itself non-significant, it did significantly differ from the relation between Peer Relationships and Detachment, $\Delta\chi^2(1) = 5.17$, $p = .023$.

Separation, Detachment, and Behavioral Adjustment: Peer Relationships as Moderator

Because the indicators of Internalizing and Externalizing are unstandardized residuals that adjust for the effects of maternal and paternal attachment security, all path estimates within Figure 2 control for the effects of maternal and paternal attachment security. Although not directly related to our hypothesis, the Peer Relationships main effect path was negative for Internalizing (−.28) but not significant for Externalizing (.09).

Separation and peer relationships—The Separation main effect paths were non-significant for both Internalizing (−.20) and Externalizing (.09). More relevant to this study's hypotheses, the Peer Relationships by Separation interaction paths (Internalizing = .17, Externalizing = .11) also were non-significant. Thus, our expectation that separation's relation with internalizing and externalizing behaviors would become more negative (i.e., more adaptive) as peer relationships become more positive (Hypothesis 3) was not supported.

Detachment and peer relationships—For both Internalizing and Externalizing, whereas the Detachment main effect paths were significant and positive (Internalizing = .59, Externalizing = .58), the Peer Relationship by Detachment interaction paths were significant and negative (Internalizing = −.35, Externalizing = −.32). To interpret each interaction, using the estimates from Figure 2, we graphed the regression coefficients for both main effects and the latent interaction, as is done in standard regression models (Dawson, 2013). The interaction plots for Internalizing and Externalizing are displayed in Figures 3a and 3b, respectively (note for both peer relationships and detachment "low" indicates 1 *SD* below the mean whereas "high" indicates 1 *SD* above the mean). Regarding Internalizing (Figure

3a), the relation between detachment and internalizing becomes less positive as peer relationships become more positive (i.e., in Figure 3a the “low peer relationships” standardized slope, $b^* = .85$, is 5.7 times more positive than the “high peer relationships” standardized slope, $b^* = .15$). A similar pattern held for Externalizing (Figure 3b). Specifically, the relation between detachment and externalizing becomes less positive as peer relationships become more positive (i.e., in Figure 3b the “low peer relationships” standardized slope, $b^* = .90$, is 3.5 times more positive than the “high peer relationships” standardized slope, $b^* = .26$). Therefore, our expectation that the relations between detachment and internalizing and externalizing behaviors would become less positive (i.e., detachment would become less maladaptive) as peer relationships become more positive (Hypothesis 4) was supported.

Discussion

Most existing research examining the contextual correlates of separation and detachment as well as the contextual factors that dampen or amplify their effects on behavioral adjustment has focused on the family; by contrast, the present study directed its attention outside of the family to peers. As expected, positive peer relationships were associated with lower detachment (Hypothesis 2), they also sharply dampened relations between detachment and higher adolescent internalizing and externalizing (Hypothesis 4). Thus, although detached adolescents were less likely to report positive peer relationships, they appeared to benefit the most from peers’ ameliorative effects. Contrary to our expectations, separation from parents does not appear to be linked to adolescent relationships with peers (Hypothesis 1), and regardless of adolescent relationships with peers, separation does not appear to be related to adolescent behavioral adjustment (Hypothesis 3). We integrate these findings with those from family-focused investigations and discuss their substantive and clinical implications.

Detachment and Behavioral Adjustment

Previous investigations (Beyers & Goosens, 2003; Ingoglia et al., 2011) reported, like ours, that adolescent detachment is strongly associated with internalizing and externalizing behaviors, but our investigation is the first to show that these associations remain when controlling for maternal and paternal attachment security. Because we controlled for attachment security to both parents, we were able to examine detachment’s relations with behavioral adjustment independent of adolescent-parent attachment security. On this basis, our findings suggest that the relation between detachment and poorer behavioral adjustment is not merely a reflection of insecure attachment (i.e., insecure attachment does not operate as a “third variable” when it comes to the relation between detachment and poorer behavioral adjustment). This investigation is also the first to show that detachment’s positive associations with internalizing and externalizing are sharply attenuated by positive peer relationships. For example, as illustrated by the interaction plots in Figures 3a and 3b, relative to adolescents with “low” peer relationships (i.e., 1 *SD* below the mean), among adolescents with “high” peer relationships (i.e., 1 *SD* above the mean) the associations between detachment and internalizing and detachment and externalizing were 5.7 and 3.5 times lower, respectively. Thus, independent of adolescents’ attachment security with parents, detachment is associated with sharp deficits in behavioral adjustment; however,

positive peer relationships can buffer adolescents from these effects. These findings are consistent with the notion that support systems outside of the family can serve as key sources of psychosocial resilience for youth growing-up in risk-laden environments (Rutter, 1987). They also add to existing literature indicating that adolescent peer relationships can ameliorate the effects of problematic family environments on adolescent internalizing and externalizing behaviors (Gauze et al., 1996). Finally, just as the present study indicates that detachment's link with poor behavior adjustment is dampened when relationships with peers are positive, research focused on the family context indicates that detachment's link with poor behavioral adjustment is dampened when relationships with parents are negative (i.e., cool, insecure, and unsupportive; Lamborn & Steinberg, 1993; Ryan & Lynch, 1989). Thus, it may be that in cases where adolescent-parent relationship(s) are beyond repair and adolescents have supportive, reliable networks of peers to turn to, detachment from parents may actually be an adaptive course in terms of healthy adjustment.

Potential Avenues for Increasing Detached Adolescent's Access to Peers

Our study's findings – that peers are an important but often unavailable resource for detached adolescents – have clear implications for clinicians, policy makers, and school administrators. Even if clinicians and other practitioners working with detached adolescents view family dynamics as the source of dysfunction and therefore the focal point of treatment, our findings suggest that they should also focus on improving the detached adolescent's connection to supportive, healthy peers.

Improving detached adolescents' social competence through social skills training is one potential step that those working with detached adolescents could take to improve their clients' connections to peers. Although detachment's relations with more negative peer relationships (as found by this study) and more negative parent relationships (as found by existing family-focused research) are likely the product of a complex and ongoing chain or cascade of transactions among adolescents and the peer and family contexts within which adolescents are embedded, there is reason to believe that adolescent social competence is a key link within this chain of transactions. As we outlined in the introduction, whether deficits in social competence contribute to detachment (i.e., deficits in social competence strain the adolescent-parent relationship, making detachment more likely; McElhaney et al., 2009), are a side effect of detachment (i.e., ineffective parenting leads to adolescents who are both socially incompetent and more likely to detach; Zimmer-Gembeck & Collins, 2003), or are a combination of the two, there is reason to believe that detached adolescents are less socially competent. In turn, this potential lack of social competence may be what mediates, either in part or in full, the relation between detachment and adolescents' peer relationships. Therefore, elevating detached adolescents' social competence through social skills training may improve their connections to peers, and thereby their overall behavioral adjustment.

Alternatively, it is possible that some detached adolescents actually have access to quality, supportive peers but, due to perceptual bias, do not realize it. That is, adolescent detachment is associated with adolescent internalizing, and adolescent internalizing is associated with overly negative perceptions of peer relationship quality (Brendgen, Vitario, Turgeon, &

Poulin, 2002). In addition to improving detached adolescent's social competence through social skills training, another step that those working with detached adolescents could take to improve their clients' connections to peers may be identifying and eliminating any negative biases regarding the perceived quality of peer relationships.

Is Separation Adaptive?

Regarding adolescent separation, findings from our investigation, combined with findings from existing family-focused research, tentatively point towards a surprising conclusion: Separation does not promote behavioral adjustment, nor is it associated with more healthy interpersonal relationships. For example, while this investigation found that separation was unrelated to adolescent internalizing and externalizing behaviors even when accompanied by positive peer relationships, other family-focused investigations have reported that separation was either unrelated or positively related to adolescent internalizing and externalizing behaviors even when accompanied by supportive, less controlling relationships with parents (Beyers & Goossens, 1999; Bray et al., 2001; Lamborn & Groh, 2009). Thus, both lines of research suggest that separation is not associated with better behavioral adjustment, even when accompanied by healthier interpersonal relationships, whether with peers or parents. Additionally, neither this investigation, which indicates that separation is unrelated to the quality and quantity of peer relationships, nor family-focused investigations, which indicate that separation is related to lower quality relationships with parents (Beyers & Goossens, 1999; Lamborn & Groh, 2009), suggest that separation is linked to healthier interpersonal relationships.

These findings suggest that separation may be distinct from autonomy, which is typically defined as self-governance, self-regulation, and independence (Hill & Holmbeck, 1986; Turner et al., 1993). After all, unlike separation, autonomy is associated with healthier adjustment when accompanied by warm, connected adolescent-parent relationships (Grotevant & Cooper, 1986) and is linked to higher quality relationships with both peers (Noom, Deković, & Meeus, 1999) and parents (Peterson, Bush, & Supple, 1999). Although future research should further differentiate separation from autonomy, the key distinction between the two constructs may be that autonomy is defined more by independence from parents (e.g., I am my own person) whereas separation is defined more by distinctness from parents (e.g., I am not the same as my parents). These findings also hint that separation may be inconsequential; however, there are possible alternative explanations. First, it could be that separation is adaptive, but only over the long term. Although the second separation process initiates during early adolescence, its benefits may not manifest until late adolescence or young adulthood, when youth more fully disengage from the family and transfer their primary attachments to friends or romantic partners (Ainsworth, 1989). Second, it could be that the relation between separation and adjustment (both behavioral and interpersonal) is curvilinear: An intermediate amount of separation is optimal, whereas too much or too little separation is suboptimal (Bornstein & Manian, 2013). Third, it could be that available measures of separation are inadequate and fail to capture separation and only separation. By potentially using these alternative explanations as starting points, future research may clarify if, when, and how separation promotes adolescent adjustment.

Limitations

In addition to its cross-sectional, correlational design, which challenges determinations of causality and direction of effects, this study has additional limitations. First, because all measures of peer relationships were adolescent-report, we were unable to differentiate perceptual bias from adolescents' actual state of peer relationships. Second, although our sample size (N = 190) was sufficient for the models tested here, it was not sufficient to test more complex models; for example, we were unable to examine other potential mediators or moderators, such as adolescent gender. The sample size also may not have yielded the power necessary to detect small effects, increasing the likelihood of Type II errors. Therefore, caution should be used when interpreting null findings.

Future Directions

In addition to identifying the mechanisms that underlie relations among detachment, interpersonal relationships, and behavioral adjustment, and clarifying if, when, and how separation promotes healthy adjustment, future research should further differentiate detachment from insecure (unhealthy) attachment. This study took a first step in that direction by demonstrating that detachment's and attachment's effects on behavioral adjustment are independent (i.e., detachment strongly predicted behavioral adjustment when controlling for attachment security with both parents), but many questions remain. For example, how is detachment distinct, conceptually and empirically, from insecure attachment, and to what extent is detachment an adolescent manifestation of ongoing attachment difficulties that extend back to childhood? Indeed, a great deal of research – see work by Allen et al. (2007), Furman et al. (2002), and Kobak and Sceery (1988) – has focused on adolescent attachment security and demonstrated its clear and broad relation to both intrapersonal and interpersonal adjustment. Expanding this impactful line of research by integrating detachment will help clarify how the properties and effects of detachment are distinct from attachment, as well as further refine our understanding of parent-child relationships and the vital role they play in adolescent adjustment. Finally, although the peer and friend domains overlap empirically and conceptually (Ladd et al, 1997), each can uniquely contribute to adolescent adjustment (Ladd et al., 1997). Given that the present study utilized a global measure of peer relationships that incorporates aspects of peer support as well as the quality and quantity of friendships, future research should explore whether the buffering effects found here hold equally across the peer and friend domains.

Acknowledgments

This research was supported by the Intramural Research Program of the NIH, NICHD.

References

Achenbach TM, Howell CT, McConaughy SH, Stanger C. Six-year predictors of problems in a national sample: III. Transitions to young adult syndromes. Journal of the American Academy of Child & Adolescent Psychiatry. 1995; 34:658–669. [PubMed: 7775361]

Achenbach, TM., Rescorla, LA. Manual for the ASEBA School-Age Forms & Profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families; 2001.

Ainsworth MDS. Attachments beyond infancy. American Psychologist. 1989; 44:709–716. [PubMed: 2729745]

Allen JP, Porter M, McFarland C, McElhaney KB, Marsh P. The relation between attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. Child Development. 2007; 78:122–1239.

Amato PR. Family processes and the competence of adolescents and primary school children. Journal of Youth and Adolescence. 1989; 18:39–53.

Arbuckle, JL. Full information estimation in the presence of incomplete data. In: Marcoulides, GA., Schumacker, RE., editors. Advanced structural equation modeling: Issues and techniques. Mahwah, NJ: Erlbaum; 1996. p. 243-277.

Barber B. Parental psychological control: Revisiting a neglected construct. Child Development. 1996; 67:3296–3319. [PubMed: 9071782]

Berndt T. The features and effects of friendships in early adolescence. Child Development. 1982; 53:1447–1460.

Beyers W, Goossens L. Emotional autonomy, psychosocial adjustment, and parenting: Interactions, moderating and mediating effects. Journal of Adolescence. 1999; 22:753–769. [PubMed: 10579888]

Beyers W, Goossens L. Psychological separation and adjustment to university: Moderating effects of gender, age, and perceived parenting style. Journal of Adolescent Research. 2003; 18:363–382.

Beyers W, Goossens L, Van Calster B, Duriez B. An alternative substantive factor structure of the Emotional Autonomy Scale. European Journal of Psychological Assessment. 2005; 21:147–155.

Beyers W, Goossens L, Vansant I, Moors E. A structural model of autonomy in middle and late adolescence: Connectedness, separation, detachment, and agency. Journal of Youth and Adolescence. 2003; 32:351–356.

Blos P. The second individuation process of adolescence. The Psychoanalytic Study of the Child. 1967; 22:162–186. [PubMed: 5590064]

Bornstein MH, Jager J, Putnick DL. Sampling in developmental science: Situations, shortcomings, solutions, and standards. Developmental Review. 2013; 33:357–370. [PubMed: 25580049]

Bornstein, MH., Jager, J., Steinberg, LD. Adolescents, parents, friends/peers: A relationships model (with commentary and illustrations). In: Weiner, I.Lerner, RM.Easterbrooks, MA., Mistry, J., editors. Handbook of Psychology. 2. Vol. 6. New York: Wiley; 2013. Developmental Psychology

Bornstein MH, Manian N. Maternal responsiveness and sensitivity re-considered: Some is more. Development and Psychopathology. 2013:25.

Bray JH, Adams GJ, Getz JG, Stovall T. Interactive effects of individuation, family factors and stress on adolescent alcohol use. American Journal of Orthopsychiatry. 2001; 71:436–449. [PubMed: 11822216]

Brendgen M, Vitaro F, Turgeon L, Poulin F. Assessing aggressive and depressed children's social relations with classmates and friends: A matter of perspective. Journal of Abnormal Child Psychology. 2002; 30:609–624. [PubMed: 12481975]

Brown, BB., Larson, J. Peer relationships in adolescence. In: Lerner, RM., Steinberg, L., editors. Handbook of adolescent psychology. Hoboken, NJ: John Wiley & Sons; 2009. p. 74-103.Vol. 2: Contextual influences on adolescent development

Bukowski, WM., Hoza, B. Popularity and friendship: Issues in theory, measurement, and outcome. In: Berndt, TJ., Ladd, GW., editors. Peer relations in child development. New York: Wiley; 1989. p. 15-45.

Busemeyer JR, Jones LE. Analysis of multiplicative combination rules when the causal variables are measured with error. Psychological Bulletin. 1983; 93:549–562.

Cham H, West SG, Ma Y, Aiken LS. Estimating latent variable interactions with nonnormal observed data: A comparison of four approaches. Multivariate Behavioral Research. 2012; 47:840–876. [PubMed: 23457417]

Cheung GW, Rensvold RG. Evaluating goodness-of-fit indexes for testing measurement invariance. Structural Equation Modeling. 2002; 9:233–255.

Connolly JA, Johnson AM. Adolescents' romantic relationships and the structure and quality of their close interpersonal ties. Personal Relationships. 1996; 3:185–195.

Criss MM, Pettit GS, Bates JE, Dodge KA, Lapp AL. Family adversity, positive peer relationships, and children's externalizing behavior: A longitudinal perspective on risk and resilience. Child Development. 2002; 73:1220–1237. [PubMed: 12146744]

Dawson JF. Moderation in management research: What, why, when, and how. Journal of Business and Psychology. 2013

Deal JE. Utilizing data from multiple family members: A within-family approach. Journal of Marriage and the Family. 1995; 57:1109–1121.

Fuhrman T, Holmbeck GN. A contextual-moderator analysis of emotional autonomy and adjustment in adolescence. Child Development. 1995; 66:793–811. [PubMed: 7789202]

Gauze C, Bukowski WM, Aquan-Assee J, Sippola LK. Interactions between family environment and friendship and associations with self-perceived well-being during early adolescence. Child Development. 1996; 67:2201–2216. [PubMed: 9022238]

Grotevant HD, Cooper CR. Individuation in family relationships. Human Development. 1986; 29:82–100.

Harter, S. Manual for the Social Support Scale for Children and Adolescents. Denver: University of Denver; 1985.

Harter, S. Manual for the Self Perception Profile for Adolescents. Denver: University of Denver; 1988.

Hill JP, Holmbeck GN. Attachment and autonomy during adolescence. Annals of Child Development. 1986; 3(45):145–189.

Hofferth SL. Race/ethnic differences in father involvement in two-parent families: Culture, context or economy? Journal of Family Issues. 2003; 24:185–216.

Hoffman JA. Psychological separation of late adolescents from their parents. Journal of Counseling Psychology. 1984; 31:170–178.

Hu LT, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling. 1999; 6:1–55.

Ingoglia S, Lo Coco A, Liga F, Lo Cricchio MG. Emotional separation and detachment as two distinct dimensions of parent-adolescent relationships. International Journal of Behavioral Development. 2011; 35:271–281.

Jackson DL. Revisiting sample size and number of parameter estimates: Some support for the N:q hypothesis. Structural Equation Modeling. 2003; 10:128–141.

Jager J. A developmental shift in Black-White differences in depressive affect across adolescence and early adulthood: The influence of early adult social roles and socio-economic status. International Journal of Behavioral Development. 2011; 35:457–469. [PubMed: 22282639]

Kenny DA, Judd CM. Estimating nonlinear and interactive effects of latent variables. Psychological Bulletin. 1984; 96(1):201–210. DOI: 10.1037/0033-2909.96.1.201

Kerns KA, Klepac L, Cole A. Peer relationships and preadolescent perceptions of security in the child-mother relationship. Developmental Psychology. 1996; 32:457–466.

Klein A, Moosbrugger H. Maximum likelihood estimation of latent interaction effects with the LMS method. Psychometrika. 2000; 65:457–474. DOI: 10.1007/BF02296338

Kline, RB. Principles and practice of structural equation modeling. 3. New York: Guilford Press; 2011.

Kobak RR, Sceery A. Attachment in late adolescence: Working models, affect regulation, and representations of self and others. Child Development. 1988; 59:135–146. [PubMed: 3342708]

Ladd GW, Kochenderfer BJ, Coleman CC. Classroom peer acceptance, friendship, and victimization: Distinct relational systems that contribute uniquely to children's school adjustment? Child Development. 1997; 68:1181–1197. [PubMed: 9418233]

Lamborn SD, Groh K. A four-model part of autonomy during emerging adulthood: Associations with adjustment. International Journal of Behavioral Development. 2009; 33:393–401.

Lamborn SD, Steinberg L. Emotional autonomy redux: Revisiting Ryan and Lynch. Child Development. 1993; 64:483–499. [PubMed: 8477630]

Liable DJ, Carlo G. The differential relations of maternal and paternal support and control to adolescent social competence, self-worth, and sympathy. Journal of Adolescent Research. 2004; 19:759–782.

Lieberman M, Doyle AB, Markiewicz D. Developmental patterns in security of attachment to mother and father in late childhood and early adolescence: Associations with peer relations. Child Development. 1999; 70:202–213. [PubMed: 10191523]

Little TD, Bovaird JA, Widaman KF. On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables. Structural Equation Modeling. 2006; 13:497–519.

Marsh HW, Bailey M. Confirmatory factor analyses of multitrait-multimethod data: A comparison of alternative models. Applied Psychological Measurement. 1991; 15:47–70. DOI: 10.1177/014662169101500106

McElhaney, KB., Allen, JP., Stephenson, JC., Hare, AL. Attachment and autonomy during adolescence. In: Lerner, RM., Steinberg, L., editors. Handbook of adolescent psychology. 3. Vol. 1. Hoboken: John Wiley & Sons; 2009. p. 358-403.

McQueen A, Getz JG, Bray JH. Acculturation, substance use, and deviant behavior: Examining separation and family conflict as mediators. Child Development. 2003; 74:1737–1750. [PubMed: 14669893]

Muthén, B. Latent variable interactions. 2012 Sep 20. Retrieved from http://www.statmodel.com/download/LV%20interaction.pdf

Muthén, L., Muthén, B. Mplus User's Guide. Los Angeles, CA: Muthén & Muthén; 1998–2009.

Noom MJ, Deković M, Meeus WHJ. Autonomy, attachment, and psychosocial adjustment during adolescence: A double-edged sword? Journal of Adolescence. 1999; 22:771–783. [PubMed: 10579889]

Pardini D, White HR, Stouthamer-Loeber M. Early adolescent psychopathology as a predictor of alcohol use disorders by young adulthood. Drug and Alcohol Dependence. 2007; 88:S38–S49. DOI: 10.1016/j.drugalcdep.2006.12.014 [PubMed: 17257781]

Park H, Bauer S. Parenting practices, ethnicity, socioeconomic status and academic achievement in adolescents. School Psychology International. 2002; 23(4):386–395.

Patterson CJ, Cohn DA, Kao BT. Maternal warmth as a protective factor against risks associated with peer rejection among children. Developmental Psychopathology. 1989; 1:21–38.

Peterson GW, Bush KR, Supple A. Predicting adolescent autonomy from parents: Relationship connectedness and restrictiveness. Sociological Inquiry. 1999; 69:431–457.

Price, JM. Friendships of maltreated children and adolescents: Contexts for expressing and modifying relationship history. In: Bukowski, WM.Newcomb, AF., Hartup, WW., editors. The company they keep: Friendships in childhood and adolescence. New York: Cambridge University Press; 1996. p. 262-285.

Rutter MR. Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry. 1987; 57:316–331. [PubMed: 3303954]

Ryan RM, Lynch JH. Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. Child Development. 1989; 60:340–356. [PubMed: 2924656]

Schmitz MF, Baer JC. The vicissitudes of measurement: A confirmatory factor analysis of the Emotional Autonomy Scale. Child Development. 2001; 72:207–219. [PubMed: 11280479]

Smollar J, Youniss J. Transformations in adolescents' perceptions of parents. International Journal of Behavioral Development. 1989; 12:71–84.

Steinberg L, Silverberg SB. The vicissitudes of autonomy in early adolescence. Child Development. 1986; 57:841–851. [PubMed: 3757604]

Turner RA, Irwin CE, Tschann JM, Millstein SG. Autonomy, relatedness, and the initiation of health risk behaviors in adolescence. Health Psychology. 1993; 12:200–208. [PubMed: 8500449]

Zimmer-Gembeck, MJ., Collins, WA. Autonomy development during adolescence. In: Adams, GR., Berzonsky, MD., editors. Blackwell Handbook of Adolescence. Oxford: Blackwell Publishing; 2003. p. 175-204.

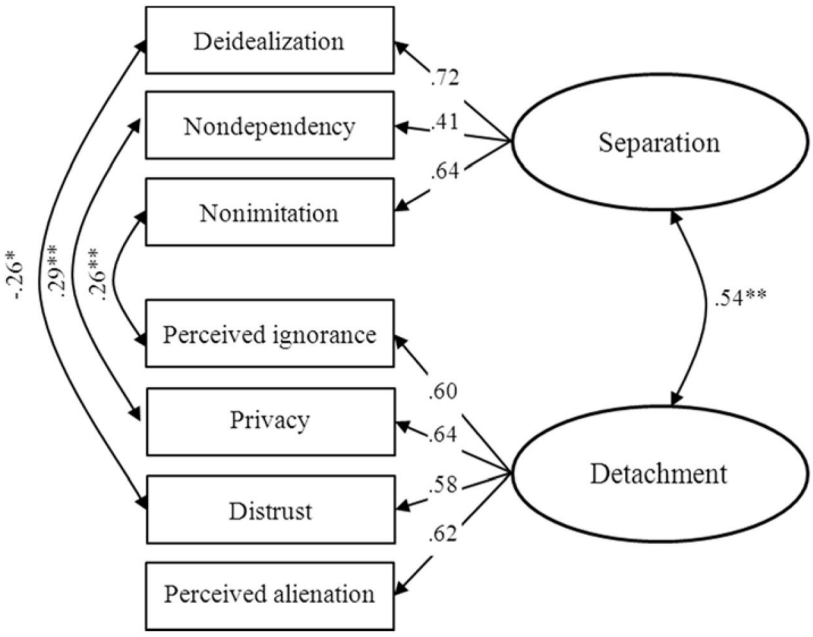

Figure 1.

Confirmatory factor analysis of separation and detachment. All estimates are standardized. All factor loadings are significant at the .01 level or higher. Model fit: $\chi^2(10) = 15.95$, $p = .10$, CFI = .97, RMSEA = .06. * $p < .05$, ** $p < .01$.

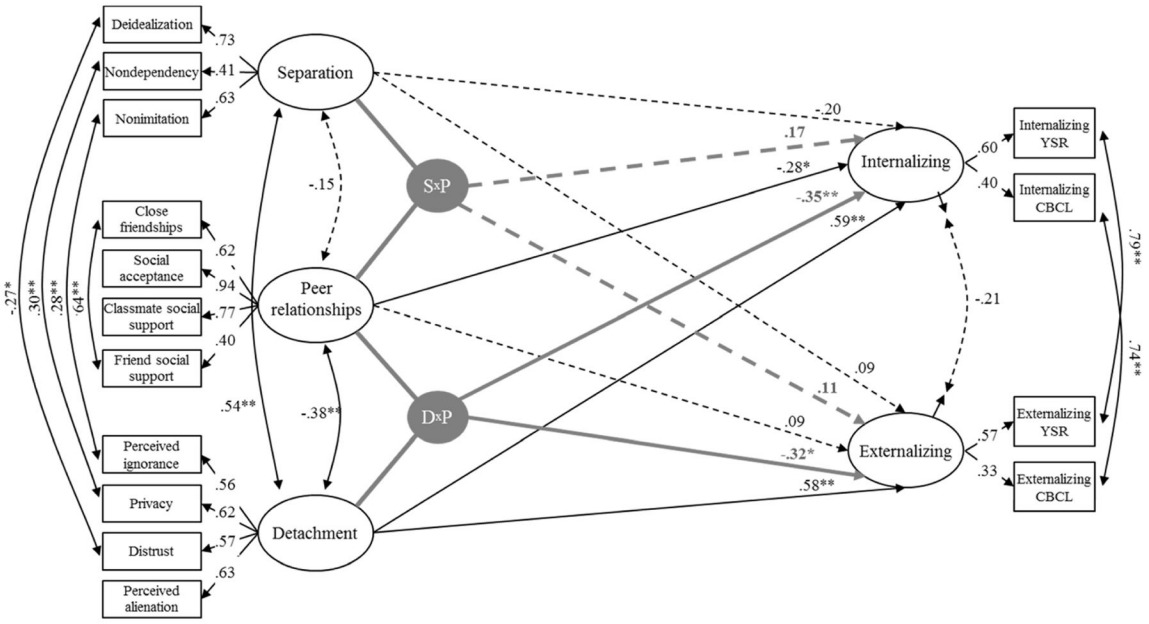

Figure 2.

First-order structural model and full structural model. Latent variable interactions depicted as grey circles. SxP = separation by peer relationships interaction; DxP = detachment by peer relationships interaction The black portion of the figure represents the first-order structural model. The black and gray portions of the figure combined represent the full structural model. All effects are standardized. All factor loadings significant at the .01 level or higher. Model fit of main effects structural model: $\chi^2(89) = 125.91$, $p = .006$, CFI = .96, RMSEA = .05. Model fit of full structural model relative to main effects structural model: $2\Delta LL(4) = 10.89$, $p = .028$. * $p < .05$, ** $p < .01$.

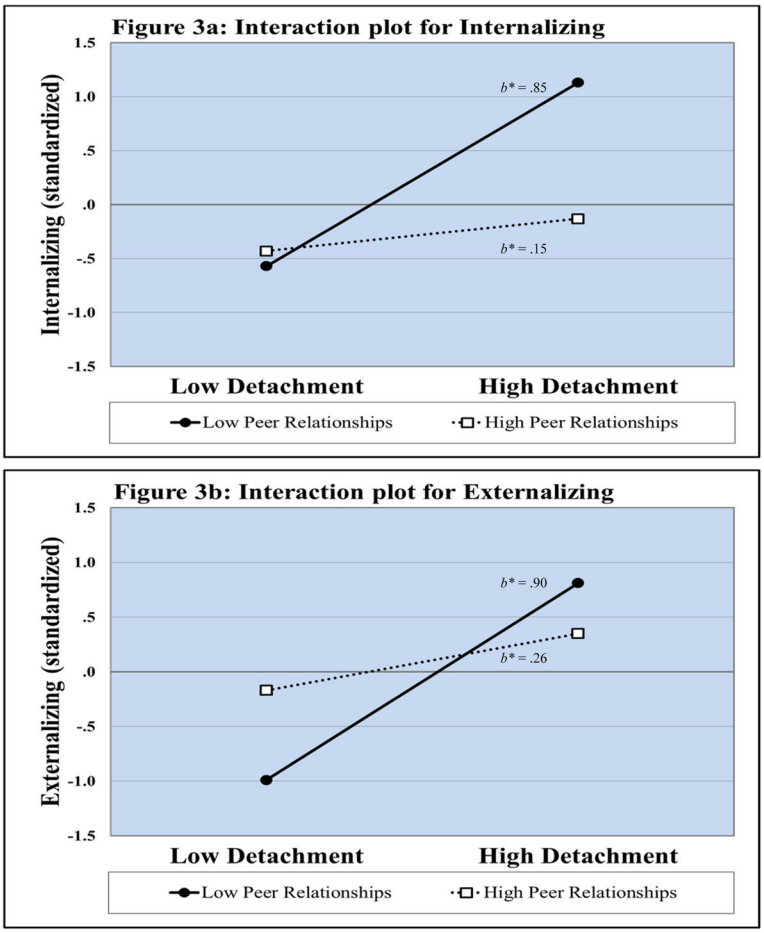

Figure 3.

Peer Relationships by Detachment interaction plots. Low/high Detachment and low/high Peer Relationships = 1 *SD* below/above the mean.

Table 1

Descriptive Statistics for Measures of Peer Relationships, Separation and Detachment, Behavioral Adjustment, and Attachment to Parents

						Intercorrelations															
	No. of items	Range	α/r[1]	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Peer relationships																						
1. Social acceptance (SPPA)	6	1–4	.86	3.15	.66	--																
2. Close friendships (SPPA)	5	1–4	.86	3.30	.67	.58	--															
3. Classmate social support (SSSC)	6	1–4	.82	3.29	.54	.72	.48	--														
4. Friend social support (SSSC)	6	1–4	.92	3.47	.60	.34	.70	.46	--													
Separation (EAS)																						
5. Deidealization	4	1–4	.63	2.88	.45	−.14	−.07	−.16	−.02	--												
6. Nondependency	4	1–4	.60	2.78	.50	.02	−.04	.00	.06	.35	--											
7. Nonimitation	2	1–4	.40	2.84	.60	−.07	−.09	.03	.04	.43	.28	--										
8. Privacy	2	1–4	.53	3.00	.67	−.21	−.12	−.11	.02	.30	.32	.28	--									
Detachment (EAS)																						
9. Perceived ignorance	2	1–4	.43	2.35	.68	−.17	−.16	−.12	−.02	.16	.14	.36	.41	--								
10. Distrust	3	1–4	.64	2.51	.55	−.16	−.08	−.15	.05	.05	−.06	.21	.30	.41	--							
11. Perceived alienation	3	1–4	.62	2.40	.52	−.25	−.21	−.29	−.09	.28	.10	.23	.37	.30	.35	--						
Behavioral adjustment																						
12. Internalzing (YSR)	31	0–2	.84	.36	.24	−.30	−.23	−.38	−.15	.26	.17	.11	.29	.21	.21	.39	--					
13. Internalizing (CBCL; mother report)	31	0–2	.84	.21	.18	−.23	−.15	−.22	−.09	.12	−.13	.07	.08	.14	.17	.21	.27	--				
14. Externalizing (YSR)	30	0–2	.90	.39	.22	−.14	−.16	−.23	−.09	.32	.23	.21	.24	.25	.23	.40	.64	.09	--			
15. Externalizing (CBCL; mother report)	33	0–2	.90	.23	.21	−.09	−.09	−.15	−.09	.16	.04	.21	.08	.09	.04	.27	.09	.65	.24	--		
Attachment to parents																						
16. Adolescent-mother security (KERNS)	15	1–4	.87	3.16	.44	.30	.27	.41	.27	−.39	−.30	−.35	−.19	−.30	−.15	−.35	−.23	−.15	−.30	−.23	--	

	No. of items	Range	α/r[1]	*M*	*SD*	Intercorrelations															
						1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
17. Adolescent-father security (KERNS)	15	1–4	.89	3.11	.50	.24	.26	.25	.25	−.34	−.21	−.39	−.28	−.30	−.15	−.26	−.21	−.14	−.19	−.10	.42	--

Note: Unless noted otherwise, all measures are adolescent self-report. All correlations ≥.14 are significant at the .05 level.

[1]For scales limited to 2 items, the correlation (i.e., *r*) is listed.