

# In Search of the Sources of Psychologically Controlling Parenting: The Role of Parental Separation Anxiety and Parental Maladaptive Perfectionism

Bart Soenens, Maarten Vansteenkiste, Bart Duriez, and  
Luc Goossens

*Katholieke Universiteit Leuven*

This study investigated the role of two dimensions of parental separation anxiety—Anxiety about Adolescent Distancing (AAD) and Comfort with Secure Base Role (CSBR)—and parental maladaptive perfectionism in the prediction of psychologically controlling parenting. In a sample of middle adolescents and their parents ( $N = 677$ ), it was found that parents' AAD scores and maladaptive perfectionism were positively related to psychological control, whereas parents' CSBR scores were negatively related to psychological control. Further, psychological control served as an intervening variable in the links between parent characteristics and adolescent well-being. These findings suggest that two qualitatively different types of psychological control may exist: one originating from parents' separation anxiety and another originating from parents' maladaptive perfectionist standards.

There is renewed interest in the construct of psychological control, as it relates to parents' attempts to control the psychological world of their child via guilt-induction, love withdrawal, and manipulations of the attachment bond with the child (Barber, 1996; Schaefer, 1965). Psychological control characterizes parents who are overly involved with their personal

needs and lack an appropriate sense of empathy for their children's perspective and goals. As such, psychologically controlling parents hinder autonomy development and personal identity formation (Barber & Harmon, 2002). Because psychological control intrudes on the adolescent's self-direction and psychological sense of self (Barber, 1996), high psychological control is predictive of a lower self-esteem and higher vulnerability to internalizing problems such as depression and loneliness (e.g., Barber, 1996; Barber & Harmon, 2002; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005).

Given the negative developmental outcomes associated with psychological control, it is important to identify the precursors of this parenting style (Barber, Bean, & Erickson, 2002). The few studies that examined antecedents of psychological control have focused on child behavior and problems related to marital functioning. For instance, psychological control was predicted by children's externalizing problem behaviors (Pettit, Laird, Dodge, Bates, & Criss, 2001) and inter-parental hostility or conflict (Krishnakumar, Buehler, & Barber, 2003). Although these studies provide some insight into the antecedents of psychological control, Barber et al. (2002) urged greater attention to the role of parental resources and personality characteristics. The present research examines the role of two parental characteristics: maladaptive perfectionism and separation anxiety, as well as the potential mediating role of psychological control in relations between parent characteristics (i.e., separation anxiety and maladaptive perfectionism) and adolescent psychosocial functioning.

## PARENTAL MALADAPTIVE PERFECTIONISM

Psychologically controlling parents have been described as critical, achievement-oriented, highly demanding, and strict (Barber & Harmon, 2002; Pomerantz & Eaton, 2001)—characteristics that are closely related to perfectionism (Blatt, 1995), as defined by the pursuit of personally demanding and self-imposed standards, rigid adherence to these standards, and high levels of critical self-evaluations (Blatt, 1995; Frost, Marten, Lahart & Rosenblate, 1990). Recent research indicates that perfectionism is a multidimensional construct, containing both adaptive and maladaptive components (Bieling, Israeli, & Antony, 2004; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993). Setting high personal standards may, as such, be adaptive because endorsing high personal standards is unrelated to negative adjustment outcomes (e.g., Bieling et al., 2004). In contrast, negative self-evaluations that arise from a rigid and inflexible adherence to these

personal standards may be more maladaptive because they strongly predict both depression and anxiety (Blatt, 1995).

Recently, Soenens, Elliot, et al. (2005) suggested that, because maladaptive perfectionist parents have a tendency to pursue their own personal goals rigidly (Blatt, 1995), they may lack the empathic ability to be attuned to their children's needs and aspirations. Instead, these perfectionist parents may extend the wishes and norms that they feel unable to achieve themselves to their children, critically evaluate their children's behavior, and engage in psychologically controlling parenting techniques. Consistent with this, Soenens, Elliot, et al. (2005) demonstrated that parental maladaptive (but not adaptive) perfectionism significantly predicted parent-rated and adolescent-perceived psychological control (for similar results, see Elliot & Thrash, 2004). The present research aims to replicate this finding and to extend this research by exploring the role of parental separation anxiety.

### PARENTAL SEPARATION ANXIETY

A psychologically controlling rearing style is also similar to characteristics typical of enmeshed families, that is, families lacking psychological boundaries between its members (Barber & Buehler, 1996). In line with this, psychologically controlling parents have been described as possessive, unduly emphasizing affective bonds with their child and fostering dependency (Barber & Harmon, 2002). Most likely, such promotion of dependency is characteristic of parents who have difficulties in dealing with their adolescent children's growing autonomy. As described by Bowlby (1973, 1988), some parents interpret their children's increasing autonomy as a forerunner of an impending separation process. For these parents, the child's movement toward autonomy would represent a threat to the relationship with the child or, in other words, a threat of loss (Bowlby, 1973). Reactions to this threat may include anxiety associated with being apart from the child as well as sadness and anger about the inability to remain in close proximity of the child (Hock, McBride, & Gnezda, 1989). These reactions may constitute an additional source of psychological control.

Recently, Hock, Eberly, Bartle-Haring, Ellwanger, and Widaman (2001) developed an instrument that assesses two parental separation anxiety dimensions: Anxiety about Adolescent Distancing (AAD) and Comfort with Secure Base Role (CSBR). Although both dimensions express parental involvement with their children's individuation and are positively correlated in empirical research, these dimensions pertain to two

qualitatively different patterns of reacting to this process. The AAD dimension describes parents' anxiety about adolescent distancing. High scores on this dimension suggest a reluctance to relinquish impact and a denial of the adolescent's needs for autonomy and self-regulated functioning. The CSBR dimension, in contrast, reflects parental commitment to being accessible to adolescents who display more autonomous behaviors. Parents with high scores on this dimension experience their children's growing autonomy with a sense of comfort rather than resentment or sadness.

In samples of early to late adolescents and their parents, Hock et al. (2001) provided construct validity of both dimensions by showing differential relations to variables such as attachment quality, parent-child communication, and family differentiation. Further, Hock et al. (2001) found parental separation anxiety to be rooted in parents' own attachment history. The attachment representations of parents with high AAD scores were characterized by low comfort with closeness and dependency and by high anxiety about rejection. Moreover, the research by Hock et al. (2001) showed that parental separation anxiety affects the current attachment relationship with their children. Children of parents with high AAD scores reported lower levels of attachment quality. In contrast, children of parents with high CSBR scores report higher attachment quality (Hock et al., 2001).

The present study examines whether both parental separation anxiety dimensions are predictive of parents' use of psychological control. We hypothesize that the two dimensions will be differentially related to psychological control. Because parents who score high on the AAD dimension may perceive any expression of autonomous functioning of their child as a threat, they may attempt to maintain close proximity to the child by inhibiting the child's age-appropriate autonomous behavior and by manipulating the child's attachment to the parent. Such manipulations are likely to be expressed in psychologically controlling techniques such as guilt-induction and conditional approval (Barber, 1996). In contrast, parents who are capable of dealing adaptively with their children's increasing autonomy by serving as a source of security and comfort (i.e., parents scoring high on CSBR) can be expected to refrain from such autonomy-inhibiting and manipulative parenting techniques.

Given that maladaptive perfectionism has been found to relate to parental psychological control, (Soenens, Elliot, et al., 2005), we examined the relative contribution of (both dimensions of) separation anxiety and maladaptive perfectionism in the prediction of psychological control. We hypothesize that both parental characteristics (i.e., separation-anxiety and

maladaptive perfectionism) would predict independent variance in psychological control.

### PSYCHOLOGICAL CONTROL AS A MEDIATOR

A final aim of this study is to examine the mediating or intervening role of psychological control in the potential effects of the parent characteristics on adolescent well-being. Given that separation anxiety and maladaptive perfectionism are hypothesized to predict psychological control and that psychological control is known to (negatively) predict well-being (Barber, 1996), it is proposed that psychological control may serve as an intervening mechanism to explain the link between the parent characteristics and adolescents' well-being. Evidence for the proposed mediation model can be drawn from recent investigations demonstrating that characteristics in the parental and marital realm carry over into parenting behaviors and ultimately shape youth well-being (e.g., Dmitrieva, Chen, Greenberger, & Gil-Rivas, 2004; Fauber, Forehand, Thomas, & Wierson, 1990; Krishnakumar et al., 2003).

With regard to parental maladaptive perfectionism, psychological control has been shown to play a mediating role in the intergenerational transmission of maladaptive perfectionism and fear of failure. Soenens, Elliot, et al. (2005) found that any direct relationship between parents' and their late adolescent daughters' perfectionism could be accounted for by parental psychological control. Similarly, Elliot and Thrash (2004) showed that the intergenerational transmission of fear of failure is significantly mediated by late adolescent reports of maternal love withdrawal. The present study extends this research by examining whether psychological control also plays a mediating or intervening role in possible relations between parental maladaptive perfectionism and adolescents' psychosocial well-being.

With regard to separation anxiety, Bartle-Haring, Brucker, and Hock (2002) documented evidence for a direct effect of parental separation anxiety on adolescents' psychosocial development. Their study showed mothers' comfort with secure base to be positively related to adolescent identity achievement. Fathers' anxiety about distancing, in contrast, was significantly related to a foreclosed identity (albeit only in daughters). To the best of our knowledge, however, no published study has either documented the links between separation anxiety and more direct indicators of adolescents' well-being, such as self-esteem, depression, and loneliness, or the role that psychological control may play in mediating the relation between parental separation anxiety and adolescent adjustment.

## OVERVIEW OF THE PRESENT STUDY

The present research addresses two questions. First, we examined the relations between two parental characteristics, namely maladaptive perfectionism and separation anxiety, and psychological control. We expected both characteristics to independently explain variance in psychological control. Second, we examined the role of psychological control as a mediator or intervening variable in the relationship between the parent characteristics (i.e., separation anxiety and maladaptive perfectionism) and adolescent well-being (as indicated by high self-esteem, low depression, and low loneliness). These questions were examined in a sample of middle adolescents and their parents. Middle adolescence was deemed an appropriate period to study our hypotheses because both separation anxiety dimensions are particularly salient during this period (Hock et al., 2001). Because there are gender differences in each of the constructs in our conceptual model (Barber & Harmon, 2002; Hock et al., 2001; Leadbeater, Kuperminc, Blatt, & Herzog, 1999), we controlled for potential gender effects in the primary analyses. In addition, both parent and child reports of psychological control were used as indicators of psychological control in order to reduce common method variance (Schwarz, Barton-Henry, & Pruzinsky, 1985).

## METHOD

### Participants and Procedure

Participants were 10th-grade students from seven secondary schools in Flanders (Belgium) and their parents. Active informed consent was obtained from the adolescents and passive informed consent was obtained from parents. Parents received a letter about the purpose and method of the study 2 weeks before the data collection and they were asked to fill out a form if they did not want their child to participate in this study. Less than 2% of the parents did not allow their child to participate and none of the students with parental permission refused participation. In addition, parents received a questionnaire that they were asked to fill out and to deliver to the school's principal by the time data collection would take place. The adolescent questionnaires were administered during a class period. Students had approximately 45 minutes to complete the survey.

This resulted in a sample of 677 adolescents (337 boys and 340 girls). Adolescent age ranged from 15 to 18 years (mean = 15.65 years;  $SD = .36$ ). 87% of the adolescents came from intact married families, 10% had divorced parents, and 3% came from a family in which one of the parents

had deceased. Five hundred & forty mothers (80%) and 473 fathers (70%) participated. Mothers' mean age was 44 years ( $SD = 3.73$ ). On a six-point scale, the mean educational level was 3.65 ( $SD = 1.12$ ), indicating an average of 12 years of education. Fathers' mean age was 46 years ( $SD = 3.83$ ). Fathers' mean educational level was 3.91 ( $SD = 1.35$ ), indicating an average of about 15 years of education.

## Measures

All questionnaires were translated into Dutch, the participants' mother tongue, according to the guidelines of the International Test Commission (Hambleton, 1994). Unless otherwise indicated, items were scored on five-point Likert scales, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and scale scores were computed by taking the mean of the scale items.

**Separation anxiety.** Parents rated the Parents of Adolescents Separation Anxiety scale (PASAS; Hock et al., 2001). The PASAS is a 35-item instrument with two subscales: AAD and CSBR. A sample AAD item reads "I feel sad because my teenager doesn't share as much as he/she used to with me." Cronbach's  $\alpha$  of the AAD scale was .88 for mothers and .86 for fathers. A sample CSBR item reads "I am happy when my teenager relies on me for advice about decisions." Cronbach's  $\alpha$  of the CSBR scale was .67 for mothers and .76 for fathers. Validity and psychometric data are presented in Hock et al. (2001).

**Perfectionism.** Parents completed two scales from the Frost Multi-dimensional Perfectionism Scale (MPS; Frost et al., 1990), namely Concern over Mistakes (nine items, e.g., "People will probably think less of me if I make a mistake") and Doubts about Actions (four items, e.g., "Even when I do something very carefully, I often feel that it is not quite right"). Past research has identified both scales as indicators of maladaptive perfectionism (Bieling et al., 2004; Frost et al., 1990). A maladaptive perfectionism scale was constructed by computing the mean of the items tapping Concern over Mistakes and Doubts about Actions (Soenens, Vansteenkiste, et al., 2005; Soenens, Elliot, et al., 2005). Cronbach's  $\alpha$  of this maladaptive perfectionism scale was .88 for mothers and .89 for fathers.

**Psychological control.** The eight-item Psychological Control Scale—Youth Self Report (PCS-YSR; Barber, 1996) was used to assess psychological control (e.g., "My mother/father is less friendly to me if

I don't see things like he/she does"). The adolescent participants rated the items for both mother and father. The parent participants rated the items with respect to their own parenting behavior. For this purpose, the items were slightly revised to make them amenable to parent self-report (e.g., the prior sample item was revised to "I tend to be less friendly to my son/daughter if he/she does not see things like I do"). Cronbach's  $\alpha$ 's for adolescent reports of maternal and paternal psychological control were .82 and .79, respectively; Cronbach's  $\alpha$  was .69 for both the mother and the father self-reports.

**Depression.** Adolescent participants completed the 20-item Center for Epidemiological Studies-Depression (CES-D) scale (Radloff, 1977), indicating how often they experienced specific depressive symptoms during the past week. Ratings were made on a scale ranging from (0) *rarely or none of the time (less than one day)*, over (1) *a couple of times (1–2 days)*, and (2) *sometimes or regularly (3–4 days)*, to (3) *most or all of the time (5–7 days)*. For each individual, a total severity of depression score was calculated by summing the responses. This produced a possible range of depression scores from 0 (*low depression*) to 60 (*high depression*). Cronbach's  $\alpha$  was .91.

**Self-esteem.** Adolescent participants completed the Global Self-Worth subscale of Harter's (1988) Self-Perception Profile for Adolescents (SPPA). The Dutch adaptation of the SPPA, developed by Straathof and Treffers (1988), was modified with respect to its item format. In the original format, participants are asked to make a choice between two items, each describing an adolescent with opposite characteristics. We used the less cumbersome item format proposed by Wichstrom (1995), in which only one statement is used for each item. A sample item reads "I am often disappointed with myself." Cronbach's  $\alpha$  of this five-item scale was .83.

**Loneliness.** Adolescents rated the state dimension of the State-Trait Loneliness Scales (STLS; Gerson & Perlman, 1979). A sample item reads "During the past days, nobody really knew me." Cronbach's  $\alpha$  of this scale was .78.

## RESULTS

### Descriptive Statistics and Correlational Analyses

Means and standard deviations of the study variables are shown in Table 1. Preliminary analyses were conducted to investigate gender differences. Three sets of MANOVAs were performed with gender as between-sub-



TABLE 1  
Means, Standard Deviations, and Correlations Among Study Variables

	M	SD	1	2	3	4	5	6	7
<i>Adolescent well-being</i>									
1. Depression	13.24	9.83							
2. Self-esteem	3.67	.85	-.64***						
3. Loneliness	2.04	.63	.61***	-.53***					
<i>Maternal variables</i>									
4. Anxiety about distancing	2.66	.65	.19***	-.14***	.14***				
5. Comfort with secure base role	4.29	.37	.05	.07	-.02	.28***			
6. Maladaptive perfectionism	1.92	.64	.12**	-.12**	.13**	.37***	-.09*		
7. Psychological control—YR	2.10	.72	.30***	-.22***	.26***	.20***	-.12**	.19***	
8. Psychological control—PR	2.22	.57	.11*	-.14***	.09*	.25***	-.25***	.29***	.29***
<i>Paternal variables</i>									
4. Anxiety about distancing	2.57	.58	.14**	-.08	.11*				
5. Comfort with secure base role	4.03	.45	-.02	.09*	-.05	.29***			
6. Maladaptive perfectionism	2.04	.69	.07	-.11*	.06	.33***	-.18***		
7. Psychological control—YR	2.16	.70	.43***	-.32***	.29***	.14**	-.16***	.14**	
8. Psychological control—PR	2.30	.55	.13**	-.10*	.06	.21***	-.22***	.36***	.30***

Note: YR, youth report; PR, parent report.  
\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

jects variable and with the maternal, paternal, and adolescent well-being variables as dependent variables. Gender did not have a significant multivariate effect on the maternal variables (Wilk's  $\lambda = .99$ ;  $F(5, 527) = 1.65$ ;  $p > .01$ ;  $\eta^2 = .02$ ) or on the paternal variables (Wilk's  $\lambda = .97$ ;  $F(5, 462) = 2.58$ ;  $p > .01$ ;  $\eta^2 = .03$ ). However, significant gender differences were obtained in the adolescent well-being variables (Wilk's  $\lambda = .94$ ;  $F(3, 673) = 14.63$ ;  $p < .001$ ;  $\eta^2 = .06$ ). Univariate ANOVAs indicated that girls reported more depression ( $M = 15.13$ ;  $SD = 10.63$ ) and lower self-esteem ( $M = 3.52$ ;  $SD = .89$ ) than boys ( $M = 11.27$ ;  $SD = 8.53$  and  $M = 3.82$ ;  $SD = .79$ , respectively;  $F(1, 675) = 27.21$ ;  $p < .001$  and  $F(1, 675) = 22.35$ ;  $p < .001$ , respectively). No gender differences were found for loneliness ( $F(1, 675) = .65$ ;  $p > .01$ ).

Table 1 shows correlations among the parental characteristics, psychological control, and the well-being variables. Although the AAD and the CSBR dimension were moderately positively related, they were differentially related to psychological control. As expected, AAD was positively related to psychological control, whereas CSBR was negatively related

to psychological control. These relations were obtained across type of informant (parent vs. adolescent) and across parental gender. Maladaptive perfectionism was positively related to psychological control (cf. Soenens, Elliot, et al., 2005). Significant but moderate correlations were also found between AAD and maladaptive perfectionism. As hypothesized, higher parental AAD was associated with higher depression scores and lower self-esteem and loneliness scores. In contrast, CSBR did not relate significantly to any of the well-being constructs. Further, as predicted, both maternal and paternal psychological control was related to lower well-being (as indexed by high depression, low self-esteem, and low loneliness), although the relations obtained were stronger for adolescent reports of parenting than for parent reports. Finally, mother and adolescent psychological control reports were positively correlated,  $r = .29$  ( $p < .001$ ), and so were the father and adolescent psychological control reports,  $r = .30$  ( $p < .001$ ). The magnitude of these relationships is similar to those observed in other research using parent and child reports of parental socialization (e.g., Schwarz et al., 1985). The parent and adolescent psychological control reports were used as indicators of the same underlying construct in all primary analyses (cf. Soenens, Elliot, et al., 2005).

### Primary Analyses

Structural equation modeling (SEM) with latent variables was used to examine the hypotheses. Analysis of the covariance matrices was conducted using LISREL 8.54 (Jöreskog & Sörbom, 1996), and solutions were generated on the basis of maximum-likelihood estimation. With the exception of psychological control, which was represented using parent and adolescent reports as separate indicators of the underlying latent variable, all variables were represented by parcels (Marsh, Hau, Balla, & Grayson, 1998). Three randomly created parcels were computed for each construct and the same parceling procedure was used to represent maternal and paternal constructs. With respect to well-being, parceling consisted of averaging three randomly selected (and reversed) loneliness items, six or seven randomly selected (and reversed) depression items, and one or two randomly selected self-esteem items. Data screening of the observed indicators (i.e., the parcels and the psychological control scores) indicated partial data nonnormality, both at the univariate and the multivariate level. Therefore, in all subsequent models we used the asymptotic covariance matrix between all indicators as input and inspected the Satorra-Bentler Scaled chi-square (SBS- $\chi^2$ , Satorra & Bentler, 1994). To evaluate model goodness of fit, the standardized root mean square residual (SRMR)

and the root mean squared error of approximation (RMSEA) were selected. According to Hu and Bentler (1999), the combined cut-off values close to .08 for SRMR and close to .06 for RMSEA indicate a good model fit.

We addressed our hypotheses in two steps. First, we examined the relative contribution of the separation anxiety dimensions and maladaptive perfectionism in the prediction of psychological control. Second, we investigated the possible mediating or intervening role of psychological control in relations between the parent characteristics and adolescent well-being. We first tested a direct effects model that includes parent characteristics only as well-being predictors (i.e., without the mediator). Next, we tested a mediation model in which the parent characteristics are indirectly related to well-being through psychological control. For characteristics that showed a significant effect on well-being in the first model, it was tested whether this direct effect disappears after taking the mediator (psychological control) into account. According to Holmbeck (1997), mediation is shown when the addition of a direct path from the independent variable to the dependent variable does not improve model fit compared with the full mediation model. All primary analyses were performed separately for maternal and paternal variables.

**Confirmatory factor analyses (CFAs).** In the measurement phase, we conducted a CFA for the maternal and paternal models separately. Gender was indexed by a single indicator. Initially, no correlations between errors of indicators or cross-loadings were allowed. Initial estimation of the measurement model with 15 indicators and 6 latent variables (gender, AAD, CSBR, maladaptive perfectionism, psychological control, and adolescent well-being) indicated an acceptable model fit for both the maternal ( $SBS-\chi^2(76) = 246.33$ ; SRMR = .07; RMSEA = .07) and the paternal data ( $SBS-\chi^2(76) = 184.12$ ; SRMR = .06; RMSEA = .06). Careful inspection of residual covariances and modification indices as provided by Lisrel 8.54 (Jöreskog & Sörbom, 1996), however, suggested one modification to the initial model, namely a (negative) cross-loading of the third parcel of the CSBR construct on the AAD construct. Adding this cross-loading substantially improved the model fit for both the maternal ( $SBS-\chi^2(75) = 173.57$ ; SRMR = .04; RMSEA = .05) and the paternal data ( $SBS-\chi^2(75) = 141.08$ ; SRMR = .05; RMSEA = .04). Despite this improvement, correlations between the latent factors did not change substantially. Straightforward comparison of the two correlation matrices (with and without this cross-loading) by means of a  $\chi$  test indicated no overall differences, either for the maternal ( $\chi^2_{diff} = 4.13$  ( $df = 15$ ), NS) or for the paternal data ( $\chi^2_{diff} = 1.08$  ( $df = 15$ ), NS). In the final measurement models, all indicators had significant ( $p < .001$ ) and moderate to strong

loadings on the respective latent factors, ranging from .51 to .95 (mean  $\lambda = .78$ ) for the maternal data and ranging from .53 to .95 (mean  $\lambda = .79$ ) for the paternal data. In sum, reliable measurement models were obtained.

***Parent characteristics as predictors of psychological control.*** In the first structural model, psychological control was simultaneously predicted by the two separation anxiety dimensions and maladaptive perfectionism. Gender was entered as a control variable by allowing correlations between gender and each of the parent characteristics and by allowing a path from gender to psychological control. The results of the maternal model (SBS- $\chi^2(44) = 106.55$ ; SRMR = .04; RMSEA = .05) showed that each parent characteristic independently contributed to the prediction of psychological control. Whereas CSBR was negatively predictive of psychological control ( $\beta = -.65$ ;  $p < .001$ ), AAD and maladaptive perfectionism were positively predictive ( $\beta = .69$ ;  $p < .001$  and  $\beta = .15$ ;  $p < .01$ , respectively). Together, the maternal characteristics explained 54% of the variance in maternal psychological control. Virtually identical results were obtained in the paternal model (SBS- $\chi^2(44) = 54.21$ ; SRMR = .03; RMSEA = .02): CSBR was negatively predictive of psychological control ( $\beta = -.44$ ;  $p < .001$ ), and AAD and maladaptive perfectionism were positively predictive ( $\beta = .44$ ;  $p < .001$  and  $\beta = .29$ ;  $p < .001$ , respectively). Together, the paternal characteristics explained 43% of the variance in paternal psychological control.

***Parental psychological control as a mediating variable.*** Next, a set of models was estimated to test the mediating or intervening role of psychological control in the relation between the three parent characteristics and adolescent well-being. In a first model, the parent characteristics were entered as predictors of the well-being construct. Again, gender was included as an additional predictor. Estimation of the maternal model yielded an acceptable fit (SBS- $\chi^2(55) = 116.21$ ; SRMR = .03; RMSEA = .05). As expected, maternal AAD was predictive of lower well-being levels ( $\beta = -.17$ ;  $p < .01$ ). In contrast, both maternal CSBR and maladaptive perfectionism were not significantly related to adolescent well-being ( $\beta = .08$ ;  $p > .05$  and  $\beta = -.08$ ;  $p > .05$ , respectively). The results of the paternal "direct effects" model (SBS- $\chi^2(55) = 71.42$ ; SRMR = .04; RMSEA = .03) showed a similar negative effect of paternal AAD on adolescent well-being ( $\beta = -.17$ ;  $p < .01$ ). Contrary to the maternal data, paternal CSBR additionally positively predicted well-being ( $\beta = .14$ ;  $p < .05$ ). Similar to the maternal data, paternal maladaptive perfectionism was not significantly related to adolescent well-being ( $\beta = -.01$ ;  $p > .05$ ).

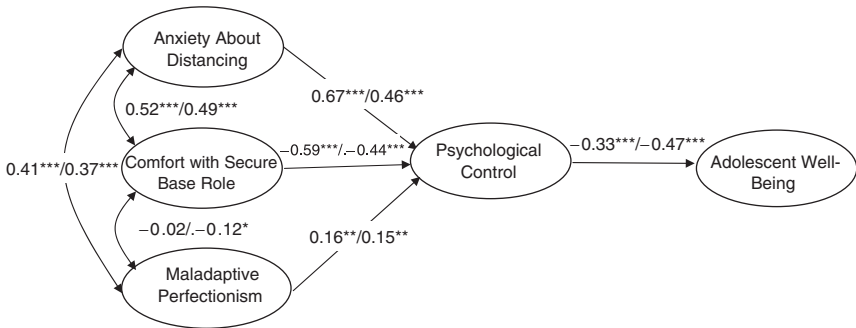


FIGURE 1 Structural model of the relationships between parental separation anxiety, maladaptive perfectionism, psychological control, and adolescent well-being. The first coefficient shown is for the mother model; the second coefficient shown is for the father model. For the sake of clarity, the effects of gender are not shown. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Next, a model was estimated in which psychological control functioned as an intervening variable between parent characteristics and adolescent well-being, that is, a model in which each of the parental characteristics were only indirectly related to well-being through psychological control. Adolescent gender was again entered as a control variable. Estimation of this model yielded an acceptable fit for the maternal data ( $SBS-\chi^2(77) = 182.29$ ;  $SRMR = .05$ ;  $RMSEA = .05$ ) and each of the hypothesized coefficients was significant ( $p < .01$ ). The mediation model is depicted in Figure 1. Because maternal AAD showed an initial negative effect on adolescent well-being, we tested whether this effect would be reduced to non-significance after including psychological control as a mediator. Consistent with the hypothesis, adding a direct path from maternal AAD to adolescent well-being did not result in a significantly improved fit ( $\Delta SBS-\chi^2(1) = 1.02$ ;  $p > .05$ ). Moreover, the initial significant effect of mothers' AAD on well-being ( $\beta = -.17$ ;  $p < .01$ ) was reduced to  $-.05$ ,  $p > .05$  after taking psychological control into account. The indirect effect of AAD on well-being through psychological control, however, was highly significant ( $z = -3.70$ ;  $p < .001$ ).<sup>1</sup> Although neither maternal CSBR nor maternal maladaptive perfectionism were significantly related to adolescent well-being in the initial model (i.e., without mediator), they did show a

<sup>1</sup> The test for indirect effects provided by LISREL is a Sobel (1982) test. This test-statistic, which is commonly denoted by means of the symbol  $z$ , is calculated as the product of the path from the independent variable to the mediator (i.e.,  $\alpha$ ) and the path from the mediator to the dependent variable, controlling for the independent variable (i.e.,  $\beta$ ), divided by the standard error of this indirect effect (i.e.,  $z = \alpha\beta / \sigma_{\alpha\beta}$ ).

significant indirect effect on well-being through psychological control in the mediation model, with CSBR showing a positive indirect effect on well-being ( $z = 4.74$ ;  $p < .001$ ) and maladaptive perfectionism showing a negative indirect effect ( $z = -1.99$ ;  $p < .05$ ).

Estimation of the mediation model on the paternal data yielded a good fit (SBS- $\chi^2(78) = 160.76$ ; SRMR = .05; RMSEA = .05) and all structural coefficients were significant ( $p < .01$ ). This model is depicted in Figure 1. Because both paternal AAD and CSBR showed significant effects on adolescent well-being in the initial model, mediation analyses were performed for both parent characteristics. Neither adding a direct path from paternal AAD to well-being ( $\Delta\text{SBS-}\chi^2(1) = .98$ ;  $p > .05$ ) nor adding a path from paternal CSBR to well-being ( $\Delta\text{SBS-}\chi^2(1) = 2.08$ ;  $p > .05$ ) significantly improved model fit. Moreover, the initial effect of paternal AAD on well-being ( $\beta = -.17$ ;  $p < .01$ ) was reduced to  $-.04$ ,  $p > .05$ , and the initial effect of paternal CSBR ( $\beta = .14$ ;  $p < .05$ ) was reduced to  $-.06$ ,  $p > .05$ . Both the indirect effects of paternal AAD ( $z = -3.07$ ;  $p < .01$ ) and CSBR ( $z = 2.93$ ;  $p < .01$ ) on adolescent well-being through psychological control were highly significant. Finally, although paternal maladaptive perfectionism was initially not significantly related to adolescent well-being, it was indirectly and negatively related to adolescent well-being through psychological control ( $z = -1.98$ ;  $p < .05$ ).<sup>2</sup>

In sum, mediation analyses demonstrate (a) that any direct effect of the paternal characteristics on adolescent well-being is reduced to nonsignificance after taking the effect of psychological control into account, and (b) that the parent characteristics only relate indirectly to adolescent well-

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<sup>2</sup> Ancillary analyses assessed whether the structural relations in the models are invariant across adolescent and parent gender. For this aim, a multi-group analysis was performed that compares a constrained model, that is, a model in which the structural coefficients are set equal across gender, and an unconstrained model, that is, a model in which these coefficients are allowed to vary across gender. Models are compared in terms of the  $\chi^2$  difference corresponding to the number of degrees of freedom. A significant difference implies that the model differs significantly across gender. In contrast, a non-significant difference implies that the model is invariant across gender. Multi-group analyses were performed on all models estimated in the primary analyses: the model including the three parent characteristics as predictors of psychological control, the model including these parent characteristics as predictors of adolescent well-being, and the final mediation model. No significant differences were found between the constrained and unconstrained models in either the maternal ( $\Delta\text{SBS-}\chi^2(3) = 1.56$ ; NS,  $\Delta\text{SBS-}\chi^2(3) = .14$ ; NS, and  $\Delta\text{SBS-}\chi^2(4) = 4.50$ ; NS, for the three models, respectively) or the paternal data ( $\Delta\text{SBS-}\chi^2(3) = 3.21$ ; NS,  $\Delta\text{SBS-}\chi^2(3) = 3.06$ ; NS, and  $\Delta\text{SBS-}\chi^2(4) = 5.67$ ; NS, for the three models, respectively). Hence, adolescent gender did not moderate the structural paths in any model. The same procedure was used to compare mother and father coefficients. Again, no significant differences were found between the constrained and the unconstrained models ( $\Delta\text{SBS-}\chi^2(3) = 4.91$ ; NS,  $\Delta\text{SBS-}\chi^2(3) = .67$ ; NS, and  $\Delta\text{SBS-}\chi^2(4) = 1.93$ ; NS, for the three models, respectively), indicating that parent gender did not moderate the relations in any of the models either.

being through psychological control. This demonstrates that psychological controls play a significant mediating or intervening role in relations between the parent characteristics and adolescent well-being.

## DISCUSSION

As predicted, the present study demonstrates that both parental maladaptive perfectionism and parental separation anxiety are predictive of psychological control. In addition, psychological control mediates the relationships between parent maladaptive perfectionism, parental separation anxiety, and adolescent well-being. These findings are discussed in more detail below.

First, although the parental separation anxiety dimensions were moderately positively correlated, which most likely reflects the fact that both dimensions pertain to a degree of parental involvement with separation and individuation issues, both dimensions displayed a differential and theoretically expected pattern of relations with the construct of psychological control. Parental feelings of comfort with their role as a secure base were related to comparatively less use of psychological control. As expected, parents who enjoy their children's increasing autonomy and who are ready to serve as a source of security to their children's expanding social world refrain from autonomy-inhibiting parenting tactics and, hence, show less psychological control. As such, parental CSBR can be considered a protective factor against the use of psychological control. In contrast, parental anxiety about distancing was strongly positively related to the use of psychological control. In line with our hypothesis, parents who interpret their children's increasing autonomy as a signal of an impending loss of the attachment relation are more likely to engage in possessive, guilt-inductive, and conditionally approving behavior presumably aimed at maintaining a close and dependent ("enmeshed") relationship with their child.

Second, apart from the separation anxiety dimensions, parental maladaptive perfectionism also predicted psychological control, thereby replicating recently reported findings by Soenens, Elliot, et al. (2005). The finding that parental separation anxiety and parental maladaptive perfectionism explain independent parts of the variance in psychological control suggests that there are at least two possible risk factors for psychological control. Whereas some parents may use psychological control because they feel anxious and insecure about their adolescent's increasing autonomy (i.e., anxiety about distancing), others may resort to psychologically controlling parenting as a means to get their children to comply

to their personal high standards (i.e., perfectionism). Future research should examine whether these two different sources of psychological control are related to two qualitatively different types of psychological control. For instance, it can be hypothesized that although both types of psychological control involve conditional approval, the contingencies that are communicated to the child are likely to differ. Whereas separation-anxious parents may communicate to the child that their love depends on whether he or she remains dependent and close to the parent, perfectionist parents may communicate that their love and approval depends on whether the child manages to achieve the standards and norms dictated by the parent.

Such a distinction between a separation-anxious type of psychological control and a perfectionist type of psychological control could be framed within current theorizing about the role of personality in the development of depression. In diverse theories, it is proposed that there are two fundamental personality dimensions that predispose individuals to maladjustment in general and depression in particular (e.g., Beck, 1983; Blatt, 1974, 2004). Blatt (1974, 2004) distinguished between dependency and self-criticism. Dependency pertains to individuals who have a strong need to obtain and secure close and nurturing interpersonal relations and are typically characterized by fears about abandonment and separation. Self-criticism, in contrast, describes individuals who tend to set unrealistically high (i.e., perfectionist) self-standards and who adopt a punitive stance toward the self.

It should be noted, however, that whereas perfectionism as assessed in this study strongly resembles the personality characteristic "self-criticism," parental separation anxiety cannot be considered as a personality characteristic. Rather, parental separation anxiety may be viewed as a specific manifestation of a more general trait (i.e., dependency) in parents' dealing with their adolescents' increasing autonomy. This difference in conceptual status between perfectionism and parental separation anxiety may explain why separation anxiety explains the largest part of the variance in psychological control in the present study. Parental separation anxiety, as a specific expression of parents' general dependency in the relation with their child, is a more proximal predictor of psychological control than the broader perfectionism construct. Future research about the antecedents of psychological control should include measurements of general parental level of dependency. This would allow making a fairer and more balanced comparison of the contribution of dependency-related and perfectionism-oriented parental traits in the prediction of psychological control.

Moreover, it would be interesting for future studies to examine not only whether perfectionism and separation-anxiety give rise to different types



of psychological control, but, also, to investigate whether these two different types of psychological control are associated with different child characteristics. It can be hypothesized that children of parents high on "separation anxiety psychological control" develop a dependent, clinging, or preoccupied attitude toward others. In contrast, children of parents high on "perfectionism psychological control" seem more likely to develop a self-critical, achievement-oriented, and harshly evaluative view of themselves. In other words, by distinguishing two qualitatively different types of psychological control, future research could make an important contribution to the search for the specific parental and familial factors that contribute to the two developmental pathways to depression and internalizing problems that are distinguished in the theory of Blatt (1974, 2004).

### **Psychological Control as a Mediator**

Another major finding of this study is that psychological control plays a mediating role in the relationships between parent characteristics and adolescent well-being. With one exception (i.e., the relation between maternal CSBR and adolescent well-being), each of the relations between the parental separation anxiety dimensions and adolescent well-being was significant, with AAD relating to lower well-being and CSBR relating to higher well-being. Mediation analyses demonstrated that each of these initial relations with well-being was reduced to non-significance after taking into account the role of psychological control. Moreover, the indirect effects from the separation anxiety dimensions to well-being were highly significant. As hypothesized, these findings suggest that high levels of parental anxiety about distancing influence adolescents' well-being indirectly by an increase in parental psychological control. Conversely, parents' comfort with a secure base role appears to be a protective factor against ill-being by decreasing the likelihood of psychologically controlling parenting.

With respect to parental maladaptive perfectionism, we did not find evidence for direct paths to adolescent well-being. As already noted, parental maladaptive perfectionism is a somewhat more distal predictor of parents' rearing style and adolescents' functioning compared with parental separation anxiety. Despite this, parental maladaptive perfectionism was found to relate indirectly to adolescent well-being through psychological control, a finding that is in line with recent evidence for the intervening role of psychological control in the intergenerational transmission of perfectionism and fear of failure (Elliot & Thrash, 2004; Soenens, Elliot, et al., 2005).

The present findings are in line with mounting evidence demonstrating that disturbances in parental and marital functioning (such as marital conflict, parental substance use, and family-related negative life events) tend to carry over to children's development through maladaptive parenting practices (Dmitrieva et al., 2004; Fauber et al., 1990; Krishnakumar et al., 2003). More generally, the evidence for the mediating role of psychological control obtained in this study may suggest a role for psychological control in the intergenerational transmission of attachment patterns (Van Ijzendoorn, 1995). Past research has demonstrated that parental anxiety about distancing, for instance, is rooted in disturbances in parents' own attachment history (Hock et al., 2001). The possibility exists that, at least for some parents, the experience of increasing autonomy in their child is reminiscent of their own past separation experiences and of the inconsistent or even neglecting parenting they experienced themselves. The negative parent-child experiences and insecure attachment representations associated with these experiences may, in turn, invoke feelings of separation anxiety and trigger the use of psychological control. Because psychological control, by definition, involves manipulations of the attachment relation and, hence, can be thought to result in a subsequent insecure attachment relationship, psychological control may be able to bridge the "attachment transmission gap."

### Limitations

Although the present study has a number of strengths (including the large sample size and the use of multiple informants), some limitations include participants' age range and the cross-sectional design of the study. Given that participants were middle adolescents, our findings also need replication among younger children. As children enter adolescence, issues of separation may be of particular import. As a consequence, parents' initial way of dealing with early manifestations of separation and individuation may be particularly crucial for the extent to which they will engage in psychological control.

Moreover, depending on the child's reaction to these early manifestations of psychological control, parental psychological control may be attenuated or diminished. Recent longitudinal research suggests that psychological control does not only increase adolescents' depressive feelings, but that depressive feelings also elicit higher psychological control levels over time (e.g., Barber, Stolz, & Olsen, 2005). Similarly, parents may react to their adolescent's disturbed functioning with increased feelings of worry and anxiety about the adolescent's process of becoming

autonomous. Apart from revealing such possible reciprocal effects, longitudinal research could also examine interactions between parent and child characteristics in predicting the development of their interactional style (see, e.g., Pomerantz & Eaton, 2001). It could be hypothesized that adolescents' disturbed functioning will elicit a particularly strong intrusive rearing style among parents who are highly anxious about distancing, because the negative functioning of their child is likely to activate their fears of abandonment. In sum, longitudinal research would allow drawing a more detailed picture of the interplay between parent characteristics, intrusive parenting, and adolescents' optimal growth and functioning.

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