The role of intrusive parenting in the relationship between peer management strategies and peer affiliation

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Abstract

The role of intrusive (i.e., psychologically controlling) parenting in the relationship between three peer management strategies (*prohibiting*, *guiding*, *supporting*) and adolescents' peer deviant behavior and peer group belongingness was examined. Three important findings emerged. First, consistent with previous research, *prohibiting* was positively related to adolescents' affiliations with deviant friends, whereas *support* was positively related to a sense of group belongingness. *Guiding* was negatively related to group belongingness. Second, the direct effect of *prohibiting* on adolescents' affiliations with deviant friends was substantially accounted for by perceived parental psychological control. Third, the effect of *guiding* was moderated by perceived psychological control, so that it negatively predicted a sense of group belongingness only under conditions of high psychological control. The findings indicate that parental peer management strategies are associated with lower deviant and more positive peer affiliations, if they are not perceived as intruding upon adolescents' private world.
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1. Introduction

Adolescents' involvement with deviant peers is generally viewed as a strong risk factor in the development of behavior problems and negative adjustment. Past research has consistently established linkages between adolescents' affiliation with deviant peers and their own levels of delinquency (e.g., Snyder, Dishion, & Patterson, 1986), drug use (e.g., Barrera, Biglan, Ary, & Li, 2001), and general maladjustment (e.g., Vitaro, Brendgen, & Wanner, 2005). Conversely, positive peer involvement and a sense of belonging to a peer group seem to protect against such problem behaviors (Lansford, Criss, Pettit, Dodge, & Bates, 2003) and to facilitate positive self-esteem and emotional adjustment (Parker & Asher, 1993).

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Given the implications of adolescents' peer affiliations for their own psychosocial development, previous research has devoted attention to the role of socialization figures, particularly parents, in adolescents' development of peer relations. One important line of research has focused on parents' direct attempts to manage and regulate their children's peer relationships, for instance by designing and structuring settings in which children can meet peers, by giving advice, or by supervising peer relations (Ladd & Pettit, 2002; Vernberg, Beery, Ewell, & Abwender, 1993). Another line of research has addressed the role of parents' general rearing style (Ladd & Pettit, 2002) and the role of intrusive parenting in particular (Barber & Harmon, 2002) in adolescents' social and behavioral development. The general aim of the present study was to integrate both strands of research by examining the role of intrusive (i.e., psychologically controlling) parenting in the relationship between parents' peer management strategies and adolescents' peer deviant behavior and peer group belongingness.

1.1. Peer management strategies and peer affiliations

A number of peer management strategies have been identified in the literature, including *prohibiting*, *guiding*, and *supporting* (Mounts, 2002; Tilton-Weaver & Galambos, 2003). *Prohibiting* pertains to the degree to which parents do not allow their adolescents to associate with particular peers. *Guiding* involves parental communication about their expectations, norms, and values concerning friendships and communication about possible consequences of friendships. *Supporting* refers to parents' encouragement of specific friendships and to the provision of an environment at home where adolescents can interact with their friends.

Previous research has shown that a *supporting* strategy for peer relations is generally associated with beneficial outcomes such as less affiliation with deviant and drug using friends (Tilton-Weaver & Galambos, 2003) and less own drug use (Mounts, 2002). As such, supporting peer relationships appears to protect adolescents against negative peer involvement. Unlike *supporting*, *guiding* was generally unrelated to adolescent problem behaviors (Mounts, 2002), whereas a strategy of prohibiting friendships or communicating disapproval of friendships was positively related to affiliation with deviant peers (Mounts, 2002; Tilton-Weaver & Galambos, 2003). Apparently, prohibiting adolescents to associate with particular peers may be counterproductive because it increases rather than decreases the likelihood that adolescents associate with disapproved peers. *Prohibiting* may also arise as a reaction to adolescents' affiliation with deviant friends, as parents may begin to prohibit certain peer relationships when their adolescents are in contact with deviant peers. These possibilities need not exclude each other, because the relation between peer management strategies and adolescent behavior is most likely a reciprocal one (Tilton-Weaver & Galambos, 2003).

The goal of the present study was to extend the research on the effects of peer management strategies on adolescent social development by examining how perceived parental rearing style might interact with peer management strategies in predicting two outcomes: association with deviant peers and a sense of group belongingness. We considered perceived parental style as both a mediator and a moderator of the relationship between parental peer management strategies and adolescent behavior.

There is research that illustrates the moderating role of parenting style in associations between parenting practices and adolescent behaviors (Darling & Steinberg, 1993; Mize and Pettit, 1997; Mounts, 2002). Mize and Pettit (1997), for instance, demonstrated an interaction between mothers' coaching of the child's peer relationships and the general affective quality of the mother–child relationship in predicting social competence, such that children were more socially competent in peer relations if mothers' coaching occurred within a highly synchronous and warm relationship. Analogously, Steinberg, Lamborn, Dornbusch, and Darling (1992) have shown that parental monitoring is more strongly related to school achievement within an authoritative parenting context.

The goal of the present study was to extend this relatively small body of research by focusing on the moderating and mediating roles of the rearing style of parental intrusiveness or psychological control (Barber & Harmon, 2002) on adolescent behavior. Parents who show psychological control do not empathize with their children's needs and pressure their children to comply with the parents' own wishes and demands through intrusive techniques. This parental style can undermine their children's sense of autonomy and volition (Grolnick, 2003), thereby putting the children at risk for a variety of emotional and behavioral problems including internalizing problems and deviant behavior (Barber, 1996; Conger, Conger, & Scaramella, 1997; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005).

In the following two sections, we elaborate on how perceived parental control might either serve as a mediator or moderator in the peer management–peer affiliation relationship. We consider this relation for three peer management strategies — *prohibiting*, *supporting* and *guiding*. We consider this relation on two outcomes —adolescents' affiliation

with deviant peers, and also their sense of belongingness experienced in peer relationships. These are two orthogonal dimensions. The type of peers with whom adolescents affiliate is not coincident with whether they feel secure in those affiliations (Lansford et al., 2003). Lansford et al. (2003), for instance, found that, although affiliating with deviant peers tends to correlate negatively with a sense of belongingness and security within the peer group, both constructs are relatively orthogonal. Moreover, unlike affiliations with deviant peers, a positive sense of peer group belongingness seems to serve as a protective or buffering factor against problem behaviors (Lansford et al., 2003). Because affiliation with deviant friends and peer group belongingness represent two qualitatively different indicators of adolescents' social development, both were considered as outcomes in the present study.

1.2. Psychological control as a mediator

The possibility that psychological control mediates associations between peer management strategies and adolescent behavior implies that adolescents' perceptions of parental control may explain why peer management strategies are more or less effective in producing desired social behaviors. In other words, the association between peer management strategies and indicators of social development would be substantially accounted for by the degree to which these strategies are experienced as controlling. This possibility is discussed for each of the three peer management strategies.

1.2.1. Prohibiting

As noted, the parental strategy of *prohibiting* is positively related to deviant peer affiliations. This rather paradoxical finding may indicate that *prohibiting* backfires and elicits rather than diminishes involvement with deviant peers, or that an adolescent's involvement with deviant peers may elicit parental concern about their adolescents' peers, which results in *prohibiting* as a means to manage their adolescents' peer relationships. In either case, adolescents of parents who use a *prohibiting* peer management strategy would be likely to perceive their parents as intrusive, which would increase the likelihood of defying parental norms.

This hypothesis is consistent with work on the legitimacy of parental authority. For example, Smetana and Daddis (2002) demonstrated that parents' attempts to exercise control over ambiguously personal issues, such as friendships and peer affiliations (Smetana, 1995), are perceived as highly psychologically controlling and thus intrusive by adolescents. Friendships represent ambiguous personal issues, because adolescents regard them as falling under their personal jurisdiction, whereas parents consider them as subject to their authority. Thus parents may find it legitimate to exert control over these issues. However, because of its ambiguous character, parental intervention in adolescents' peer relations is likely to be perceived as intrusive. As suggested by self-determination theory (Deci & Ryan, 2000), individuals can respond to such intrusive and controlling instances by complying with the imposed rules and norms or by defying them and acting in a rebellious fashion. Research on parental psychological control and problem behaviors has shown that associations with externalizing problems, if any, are positive (Barber, 1996; Conger et al., 1997). Hence, intrusive parenting and parenting practices that are perceived as intrusive are more likely to be related to defiance of parental norms than to compliance.

We also expected that the association between *prohibiting* and group belongingness would be negative and that psychological control may mediate this negative association. This expectation is consistent with theories on the development of secure peer relationships and social competence (e.g., Ladd & Pettit, 2002), which suggest that whereas nurturant and supportive parenting strategies foster a sense of security in peer groups, intrusive and autonomy-inhibiting parenting strategies would inhibit group belongingness and social competence (Grolnick, 2003; Karavasilis, Doyle, & Markiewicz, 2003; Nelson & Crick, 2002; Soenens, Vansteenkiste, Duriez, & Goossens, 2006).

1.2.2. Supporting

In contrast to *prohibiting*, *supporting* refers to a more encouraging and understanding stance by parents that can be expected to be negatively related to affiliations with deviant friends and positively to a sense of group belongingness (Mounts, 2002; Tilton-Weaver & Galambos, 2003). At first sight, one might expect that *supporting* is inconsistent with a psychologically controlling rearing style. However, examination of the items intended to measure '*supporting*' peer management strategies reveals an element of control. For instance, the item "my parents encourage me to do activities with kids they like" (Mounts, 2002) contains a supportive component (i.e., 'encourage') as well as a controlling, non-empathic component ('kids they like'). Because the strategy of *supporting* contains both elements of support and control, it was expected that *supporting* would be unrelated to psychological control. As a consequence, the lack of a

relationship between *supporting* and psychological control precludes the possibility that psychological control mediates the associations between *supporting* and the outcomes.

1.2.3. Guiding

Previous research has found that *guiding* does not yield independent effects on deviant behavior and deviant peer affiliation beyond support and *prohibiting* (e.g., Mounts, 2001). It was expected, therefore, that *guiding* would not be directly related to the peer affiliation outcomes and, hence, that psychological control will not mediate associations between *guiding* and the outcomes. However, herein we suggest a different possibility, namely that psychological control would moderate associations between *guiding* and the peer affiliation outcomes. This possibility is outlined in greater detail in the next section.

1.3. Psychological control as a moderator

The hypothesis that the effect of *guiding* on deviant and positive peer affiliation is moderated by psychological control is consistent with Darling and Steinberg's (1993) model, which posits that parenting style dimensions (such as psychological control) may alter the effectiveness of more specific parenting practices (such as peer management strategies) in producing desired child behavior outcomes. On the basis of this model, it can be expected that peer management strategies will be more positively related to affiliations with deviant peers and more negatively related to group belongingness with increasing levels of psychological control.

Such a hypothesis is also consistent with Grolnick's (2003) and Reeve, Deci, and Ryan's (2004) suggestion that the effect of a social context that provides structure and guidelines will depend on the way these structuring and *guiding* elements are brought about. Specifically, guidelines are more likely to be fully endorsed and followed up when they are provided in a non-controlling fashion. Because perceived parental control would interfere with the acceptance of parental guidance (as evidenced by the positive associations obtained between psychological control and externalizing problems; e.g., Barber, 1996), it would result in more rather than less deviant peer affiliation and deviant peer behavior. Similarly, to the extent that a particular parenting practice (such as *guiding*) would be experienced as controlling, one can expect that this parenting practice will relate to lower levels of group belongingness. As argued earlier, controlling and intrusive parenting most likely undermines feelings of security within friendships and peer relationships and may therefore undermine the effectiveness of peer management strategies (and *guiding* in particular) in fostering a sense of group belongingness.

Some evidence for the moderating role of parenting style in the relation between peer management strategies and adolescent behavior was obtained by Mounts (2002), who found that *guiding* was negatively related to drug use in authoritative families but positively related to drug use in uninvolved families. In general, however, the number of significant moderation effects in that study was relatively small and emerged primarily for *guiding*. The present research examined whether the effect of *guiding* would be moderated by one particular parenting dimension (i.e., psychological control) rather than by a constellation of parenting dimensions (i.e., authoritative parenting), and whether these effects would emerge for indices of both deviant peer involvement and positive group belongingness (see also Lansford et al., 2003).

1.4. Present study

This study was guided by three hypotheses. First, on the basis of past research (Mounts, 2001, 2002; Tilton-Weaver & Galambos, 2003), we predicted that *prohibiting* would be positively related to affiliation with deviant peers and negatively related to a positive sense of group belongingness. We predicted that this relation would be mediated by perceived parental control. Second, we predicted the opposite pattern of relationships for the peer management strategy *supporting*. We did not expect the effects of this strategy to be mediated by perceived parental control, however. Third, we predicted that the relation between the peer management strategy of *guiding* and peer affiliation would be moderated by perceived parental control such that adolescents who feel that their parents provide guidance and structure in a controlling fashion may become more likely to affiliate with deviant friends.

In addition we explored age effects in the associations between peer management strategies, psychological control, and peer affiliation outcomes. Smetana (1995) has suggested that young people, especially during adolescence, increasingly view their friendships and peer relations as falling within their personal domain. As a result, adolescents

may perceive their parents' intervention in the domain of friendships as increasingly illegitimate with increasing age so that associations between *prohibiting* and parental control and between prohibiting and affiliation with deviant friends may be more pronounced for older than for younger adolescents.

2. Method

2.1. Participants

Participants were 690 tenth to twelfth grade students from three secondary schools in Flanders (Belgium). The sample contained 348 boys and 342 girls, with an age range of 15 to 21 years with a mean of 17 years ($SD = 0.97$). Two hundred forty-seven students (36%) were in 10th grade, 230 (33%) in 11th grade, and 213 (31%) were in 12th grade. Most students (426—62%) attended a regular high school (academic track) and the rest (264—38%) attended a trade/vocational school. Most (86%) of the adolescents came from two-parent families (parents were married and living together), 12% had divorced parents, and 2% came from a family in which one of the parents was deceased. All participants were White and had Belgian nationality.

2.2. Procedure

Active informed consent was obtained from the adolescents and passive informed consent was obtained from parents. Parents received a letter about the general purpose and method of the study two weeks before the beginning of data collection and were asked to fill out a form if they did not want their child to participate in this study. Fewer than 3% of the parents refused permission. All of the students with parental permission agreed to participate. Questionnaire surveys were administered to the students during a class period. At least one of the researchers was always present during data collection. The students had approximately 45 min to complete the surveys.

2.3. Measures

All questionnaires included in the present study were translated from English to Dutch, the participants' mother tongue, according to the guidelines of the International Test Commission (Hambleton, 1994). Items were scored on 5-point Likert scales, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

2.3.1. Peer management strategies

Participants completed three scales from the Parental Management of Peers Inventory (PMPI; Mounts, 2002), namely *Prohibiting* (6 items, e.g., "My parents tell me if they don't want me to hang around with certain kids"), *Guiding* (9 items, e.g., "My parents talk to me about the pros and cons of hanging around with certain people"), and *Supporting* (5 items, e.g., "My parents encourage me to do activities with kids they like"). Although the original PMPI contained a fourth scale, Neutrality, we did not use this scale (a) because it does not refer to an active parental strategy and (b) because the items of this scale have been shown to load on a different factor than the other three (active) peer management strategies (Mounts, 2004). In order to examine the hypothesized three-factor structure of the questionnaire, a Principal Components Analysis (PCA) was performed. Five factors had an eigenvalue larger than 1. On the basis of the scree-plot, however, three components were retained, together explaining 43% of the variance. The eigenvalues of the first five components were 4.88, 1.91, 1.83, 1.19, and 1.04. After oblique rotation (PROMAX), these three factors could be clearly identified as *Prohibiting*, *Guiding*, and *Supporting*. On the basis of the PCA-solution, scale scores were computed for the three strategies by taking the mean of the items defined by each component. Those items, which did not load substantially (> .40) on their corresponding component or which had cross-loadings, were removed from the scales, resulting in a 5-item *Prohibiting* scale (Cronbach's alpha = 67), a 6-item *Guiding* scale (Cronbach's alpha = .66), and 4-item *Supporting* scale (Cronbach's alpha = .70). *Prohibiting* was positively correlated with *Guiding* ($r = .44$; $p < .001$) and *Supporting* ($r = .24$; $p < .001$). Similarly, a positive correlation was found between *Guiding* and *Supporting* ($r = .28$; $p < .001$).

2.3.2. Psychological control

Participants completed the 8-item Psychological Control Scale-Youth Self Report (PCS-YSR; Barber, 1996), which is an adaptation of Schaefer's (1965) original CRPBI. Barber (1996) provided evidence for the unidimensional factor

Table 1
Means, standard deviations, and correlations among study variables

Measure	N	M	SD	1	2	3	4	5	6
1. Prohibiting	689	2.56	0.75						
2. Guiding	689	1.70	0.59	.44*					
3. Supporting	689	2.67	0.83	.24*	.28*				
4. Psychological control	687	2.04	0.65	.43*	.32*	.07			
5. Best friend deviant behavior	689	1.91	0.75	.21*	.11†	.02	.26*		
6. Group deviant behavior	613	2.10	0.75	.23*	.12†	− .01	.28*	.73*	
7. Group belongingness	613	4.00	0.68	.04	− .10†	.13*	− .01	− .04	− .09

Note. †$p < .01$. *$p < .001$.

structure of this scale and reported Cronbach's alpha's ranging from .72 to .86. A sample item reads: "My mother/father is always trying to change how I feel or think about things". In the present study, Cronbach's alphas were .84 and .82 for maternal and paternal ratings, respectively. Although participants completed this scale for mothers and fathers separately, maternal and paternal scores were averaged to obtain a composite psychological control score. This procedure was followed because the peer management strategies were rated for both parents together. Moreover, averaging across mothers' and fathers' ratings was deemed justified by the highly significant correlation between both ratings ($r = .51$; $p < .001$).

2.3.3. Peer relations

Three scales were administered, one tapping best friend antisocial behavior, one tapping peer group antisocial behavior, and one tapping group affiliation or a sense of group belongingness. These scales were taken from the research by Lansford et al. (2003). Best friend antisocial behavior was assessed with 5 items (e.g., "My best friend gets in trouble at school"; "My best friend gets into fights at school"). Cronbach's alpha for this scale was .76. Next, adolescents were asked whether they spend most of their free time at school (a) alone, (b) hanging out with a group of friends, or (c) alone with a best friend. Most adolescents (84%) reported hanging out with a group of friends and were subsequently asked a series of questions about this peer group. Five items parallel to those asked regarding one's best friend were asked in reference to one's peer group (e.g., "Members of my group get in trouble at school"; Cronbach's alpha = .79). Four items were used to assess adolescents' sense of belongingness to a peer group (e.g., "When my group does something together, others are sure to let me know"; Cronbach's alpha = .73). The scales 'best friend deviant behavior' and 'peer group deviant behavior' were strongly positively intercorrelated ($r = .73$; $p < .001$) and were not related to group belongingness ($r = − .04$; *ns* and $r = − .09$; *ns*, respectively).

3. Results

3.1. Descriptive statistics

Due to the large sample size, our analyses attained high power. To preclude that small effects were flagged as significant, an alpha-level of .01 was used in our analyses. The means and standard deviations of the study variables are presented in Table 1.

A set of preliminary analyses examined the effects of participant sex, age, and type of education (academic track versus trade/vocational school) on the study variables because past research has documented relations between these characteristics and both the parenting constructs and the peer affiliation outcomes under study. A significant multivariate effect for participant sex was found, Wilk's lambda = 0.81; $F(7, 604) = 19.78$; $p < .001$; $\eta^2 = .19$. In line with past research, girls scored lower on best friend deviant behavior ($M = 1.67$; $SD = 0.59$) and peer group deviant behavior ($M = 1.82$; $SD = 0.61$) than did boys ($M = 2.12$; $SD = 0.80$ and $M = 2.37$; $SD = 0.76$) Fs$(1, 610) = 61.90$ and 96.64, respectively; ps $< .001$. Conversely, girls obtained higher group belongingness scores ($M = 4.08$; $SD = 0.66$) than did boys ($M = 3.92$; $SD = 0.69$); $F(1, 610) = 8.64$; $p < .01$. Whereas girls reported higher levels of parental *supporting* ($M = 2.76$; $SD = 0.82$) than did boys ($M = 2.59$; $SD = 0.82$), $F(1, 610) = 6.88$; $p < .01$, boys reported higher levels of *guiding* ($M = 1.77$; $SD = 0.62$) than did girls ($M = 1.61$; $SD = 0.52$), $F(1, 610) = 11.78$; $p < .001$.

A significant multivariate effect of type of education was found, Wilk's lambda = 0.95; $F(7, 604) = 4.15$; $p < .001$; $\eta^2 = .05$. Adolescents from academic track schools reported lower scores on the best friend deviant behavior ($M = 1.81$;

Table 2
Summary of regression analyses predicting adolescents' peer relations

	Best friend deviant behavior		Peer group deviant behavior		Group belongingness	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
	β	β	β	β	β	β
Sex	− .29*	− .28*	− .35*	− .35*	.11†	.08
Age	− .10	− .08	− .09	− .07	− .04	− .04
Type of education	.10	.09	.12†	.11†	− .01	− .01
Prohibiting		.21*		.22*		.07
Guiding		−.03		− .04		− .16*
Supporting		.00		− .01		.15*
ΔR^2	.11*	.04*	.16*	.04*	.02	.03*

Note. †$p < .01$. *$p < .001$.

$SD = 0.71$) and peer group deviant behavior ($M = 1.99$; $SD = 0.69$) scales than did adolescents from trade/vocational schools ($M = 2.06$; $SD = 0.78$ and $M = 2.28$; $SD = 0.80$); $F(1, 610) = 16.44$ and 22.56, respectively; ps $< .001$. Adolescent age was negatively correlated with *prohibiting* ($r = − .13$; $p < .001$) and *guiding* ($r = − .11$; $p < .01$), indicating that with increasing age, adolescents report less parental use of these peer management strategies. Given that participant sex, education, and age differences were evident in most of the study variables, we controlled for the effects of these variables in all primary analyses.

Correlations between the peer management strategies, psychological control, and the peer relation variables are presented in Table 1. Positive correlations were obtained among the three peer management strategies, with *guiding* and *prohibiting* showing the strongest correlation. As expected, both *prohibiting* and *guiding* were positively correlated with perceptions of parents as psychologically controlling and *supporting* was unrelated to psychological control. Psychological control, in turn, was negatively related to best friend deviant behavior and peer group deviant behavior but unrelated to group belongingness.

3.2. Main effects

In order to investigate the main effects of the peer management strategies on the peer relation variables, thereby controlling (a) for the variance shared by the strategies and (b) for the background variables, a number of regression analyses were performed. Each of the peer relation outcomes was regressed on the background variables (sex, age, and educational level) in Step 1 and on the three peer management strategies in Step 2. These results can be found in Table 2. *Prohibiting* positively predicted best friend deviant behavior and peer group deviant behavior, whereas *guiding* and *supporting* were unrelated to these outcomes. *Guiding* negatively predicted peer group belongingness and *supporting* positively predicted group belongingness. *Prohibiting* was unrelated to belongingness.

3.3. Mediation analyses

In a next step, we examined whether the direct effect of *prohibiting* on best friend and peer deviant behavior would be mediated by psychological control. For mediation to be established, the effect of the independent variable (i.e., *prohibiting*) on the outcome (e.g., best friend deviant behavior) needs to be substantially reduced in strength or even become non-significant after entering the mediator (i.e., psychological control) in the equation on Step 3, whereas the mediator needs to be a significant predictor of the outcome. Because *prohibiting* did not predict peer group belongingness, no mediation analyses could be conducted for that particular outcome. After entering psychological control into the equation, the initial direct effect (β) of *prohibiting* on best friend deviant behavior was reduced from .21 to .12 ($p < .05$) (i.e., a reduction of 43% of the initial effect) and the effect of psychological control on best friend deviant behavior was significant (β $= .22$; $p < .001$). Similarly, the initial direct effect (β) of *prohibiting* on group deviant behavior was reduced from .22 to .13 ($p < .05$) (i.e., a reduction of 41% of the initial effect) after entering psychological control into the equation and the effect of psychological control on group deviant behavior was significant (β $= .23$; $p < .001$). Moreover, a Sobel-test (Sobel, 1982) indicated that the indirect effects of *prohibiting* on best friend deviant behavior and

group deviant behavior through psychological control were strongly significant ($z = 4.73$; $p < .001$ and $z = 4.56$; $p < .001$, respectively).

3.4. Moderation analyses

In a final set of analyses, it was examined whether the three peer management strategies and psychological control interact to predict the peer relation constructs. We were particularly interested in examining whether the effect of *guiding* would depend on the level of perceived psychological control. Peer management strategy scores and the psychological control scores were centered and interaction terms were computed by multiplying the centered means (Aiken & West, 1991). One interaction reached significance, that is, the interaction between *guiding* and psychological control in the prediction of positive group belongingness ($\beta = - .12$; $p < .01$). To interpret this interaction, the regression slope of *guiding* predicting group belongingness was examined at low (mean − 1 *SD*) and high levels (mean + 1 *SD*) of the moderator (i.e., psychological control). Whereas *guiding* did not significantly predict group belongingness at low levels of psychological control ($\beta = - .03$; *ns*), *guiding* did significantly predict group belongingness at high levels of psychological control ($\beta = - .28$; $p < .01$). *Guiding* relates to lower levels of positive peer group affiliation under conditions of high psychological control only.

3.5. Age effects

To examine whether adolescents' age moderated any of the relations between peer management strategies and psychological control and between peer management strategies and peer relation outcomes, four regression analyses were conducted with the peer management strategies, age, and the interactions between each strategy and age as independent variables and with psychological control, best friend deviant behavior, peer group deviant behavior and group belongingness as dependent variables. None of the interaction terms with age reached significance ($ps > .05$), indicating that age did not moderate any of the associations between peer management, psychological control, and peer affiliation.[1,2]

4. Discussion

The present research revealed a number of interesting findings. First, as predicted, two out of the three most commonly studied peer management strategies, *prohibiting* and *guiding*, are positively associated with perceived parental psychological control, whereas *supporting* was unrelated to psychological control. To the extent that parents prohibit their children from engaging in particular friendships or prescribe rules and expectations concerning their adolescent children's friendships, they are, on average, likely to be experienced as intruding upon the psychological world of the child. These findings are consistent with the research of Smetana and colleagues (Smetana, 1995; Smetana & Daddis, 2002), who demonstrated that parents are viewed as more psychologically controlling if they exert control and authority over ambiguously personal issues.

Although Smetana and Daddis (2002) have suggested that adolescents are increasingly likely to view their friendships and peer relations as falling within their personal domain and, hence, perceive their parents' intervention in the domain of friendships as increasingly intrusive with age, supplementary analyses in the current sample did not yield evidence for a moderating effect of age in these relations. However, the age range of the participants in the current study was rather limited (with the large majority of the sample ranging between 15 and 18 years of age) and future research might want to examine Smetana and Daddis' (2002) hypothesis by examining a broader age range than the one sampled in the current study.

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[1] In addition to the moderating effect of age, we also tested whether adolescents' sex and educational level moderated the relations between psychological control, the peer management strategies, and the peer relation constructs. None of the interaction terms involving these additional background variables, however, reached significance ($ps > .05$), indicating that the relations among the parenting constructs and the peer relation constructs are not moderated by these background variables.

[2] Because Mounts (2001) found some evidence for curvilinear associations between *prohibiting* and adolescent drug use, it was additionally tested whether adding a quadratic term for each of the three peer management strategies would add to the prediction of the dependent variables. None of the quadratic terms were significant ($ps > .05$), indicating that the associations obtained in this study were linear rather than curvilinear.

The lack of a relation between support and psychological control may arise because the items tapping this peer management style contain both supportive aspects and also more controlling aspects. Future research might want to use items that do not contain relatively controlling statements. Items such as "When I have difficulties choosing or making friends, I can count on my parents" or "My parents are supportive of the friends I choose" represent, in our view, more direct and accurate assessments of the concept of supportive peer management. We would expect such a measure of supportive peer management to be negatively related (instead of unrelated) to psychological control.

Results concerning the direct effects of peer management strategies were generally consistent with previous research (Lansford et al., 2003; Mounts, 2002): *Prohibiting* is positively related to deviant friend behavior, and *supporting* is positively related to peer group belongingness. Thus, negative peer management strategies (i.e., *prohibiting*) predict negative outcomes, but do not affect positive peer interactions, whereas positive peer management strategies (i.e., support) facilitate the development of a positive sense of group belongingness, but do not affect whether adolescents engage in deviant peer interactions.

The positive association between *supporting* and group belongingness is consistent with the literature on the socialization of social competence in which it is generally assumed that nurturing and supportive parenting strategies foster a sense of security in peer relations (Ladd & Pettit, 2002). As in previous research, *guiding* had little if any independent effect beyond *prohibiting* and *supporting*; and was negatively related to a sense of group belongingness, a relation that was qualified by a significant interaction with psychological control. Specifically, the negative relationship between *guiding* and group belongingness was only evident under conditions of high psychological control. In other words, *guiding* is related to a less adaptive outcome (i.e., a lower sense of group belongingness) when parents are perceived to be psychologically controlling, that is, when parents communicate their preferences and expectations for the child's friendships in an internally controlling and intrusive fashion.

This moderating role of psychological control in the relationship between *guiding* and positive peer interactions represents the third important finding of this research. This finding is in line with the model of Darling and Steinberg (1993), which posits that a particular parenting practice (such as guiding friendships) will be less effective within a general negative emotional family climate, such as one characterized by high levels of psychological control. The interaction is also consistent with Grolnick's (2003) claim that the provision of structure and guidelines for conduct behavior will be forestalled when they are provided in a controlling fashion. Children of controlling parents can be expected to merely "swallow" parental rules and expectations without genuinely identifying with them because controlling parents impose rules in an intrusive fashion without clarifying their relevance or importance. In other words, psychological control interferes with a full acceptance and self-endorsement (i.e., internalization) of parental guidelines (e.g., Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005) and promotes a controlled regulation of parental guidelines, which may hinder the development of a sense of group belongingness (Grolnick & Farkas, 2002). This finding also adds to evidence that psychological control undermines adolescents' sense of security within friendships and peer relationships (Nelson & Crick, 2002; Soenens et al., 2006). In the present study, guidelines that were provided in a psychologically controlling climate affected adolescents' sense of belongingness, but did not put adolescents at risk for affiliation with deviant peers. Thus, as in previous research (Mounts, 2002), the interaction between *guiding* and broader parenting dimensions was not consistent.

The present research provides some insight into why *prohibiting* yields counterproductive effects in adolescent behavior. Mediation analyses indicated that the positive relation between parents' *prohibiting* of peer relationships and adolescents' deviant peer behavior is mediated by perceived parental control. Entering psychological control as a mediator reduced the effect of *prohibiting* on affiliation with deviant friends to about half its original size. Thus, *prohibiting* may result in adverse outcomes because the perceived intrusiveness implied by this strategy provokes rebellion against parental authority instead of compliance with parental norms.

Although controlling for psychological control substantially reduced the relation between *prohibiting* and affiliation with deviant friends, it did not remove it. One reason for this may be that the assessment of psychological control was a general measure of the extent to which parents were perceived as intruding upon the psychological world of the child whereas the peer affiliations outcome was very specific. It would be worthwhile for future research to include a more specific measure of the extent to which parents are perceived to be intruding in the relationships of adolescents (rather than intruding in general). Most likely, such a measure would be a more proximal and stronger predictor of relational outcomes and might serve a stronger mediator role in the relationship between *prohibiting* and involvement with deviant peers. Future research could also look at a broad range of control (e.g., overt and external control in addition to psychological control) and at adolescents' internalization of parental norms for conduct as other mediators between parental peer management strategies and adolescent behavior.

4.1. Limitations and applications

Despite the limitations of the current research, including its correlational and cross-sectional design, reliance on self-report, and restricted age range, there are a number of pragmatic implications.

First, parental peer management strategies that are perceived as controlling by their very nature (e.g., *prohibiting*) or that are provided in a controlling fashion (e.g., guiding) yield the opposite effects of what parents intend them to do. This suggests that parents should be cautious in their attempts to intervene in the peer relations of their adolescent children. Our data suggest that adolescents may easily perceive such interventions as an intrusion upon their personal world and, hence, as controlling. Such perceptions, in turn, provoke rebellion and decrease the effectiveness of parents' attempts to regulate children's type of peer affiliation. By contrast, the peer management strategy of *supporting* friendships does not elicit such perceptions, and is associated with a positive sense of group belongingness rather than affiliation with deviant friends. Hence, to the extent that parents wish to intervene in their children's peer relations, they can be advised to do so by encouraging children to invite their friends over and by creating a home environment in which this can be easily accomplished, rather than by restricting or prohibiting behavior. This is in line with a general model whereby parents communicate their expectations and rules about friendships, explain the relevance of particular rules, and offer as much choice as possible regarding their adolescents peer affiliations (Deci, Eghrari, Patrick, & Leone, 1994; Grolnick & Farkas, 2002).

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