

Adolescents' and mothers' conflict management constellations: Links with individual and relational functioning

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Abstract

In the present multi-informant study, we examined dyadic combinations of adolescent and maternal conflict management styles through stepwise latent class analysis. We investigated how these dyadic conflict classes related to adolescents' and mothers' perceptions of individual and relational functioning (depressive symptoms, self-esteem, conflict frequency, relationship satisfaction, parenting), both concurrently and over time. Four conflict styles were investigated: positive problem solving, withdrawal, conflict engagement, and compliance. Questionnaires were completed by 526 adolescents and mothers. Findings pointed to four meaningful conflict management constellations: Dyadic Positive Management, Unbalanced Management, Adolescent Negative Management and Dyadic Negative Management. These constellations were differentially related to individual and relational factors. This study emphasized the importance of a typological dyadic approach in examining conflict management.

“Where on earth were you? Why didn't you answer your phone?” “It was on silent mode, mum! I was watching a movie.” “You could have called me back afterwards!” “Jesus, mum, I'm not a child anymore!”

OR

“Where on earth were you? Why didn't you answer your phone?” “It was on silent mode, mum! I was watching a movie.” “Ooh, I didn't know that... I was really worried about you. Could you send me a

quick text next time just to let me know you're ok?” “Sure, mum, I'll try to keep it in mind, but you also got to realize I'm not a child anymore.” “That's true.”

Both of these interactions are quite common between adolescents and their mothers. In adolescence, parent–adolescent relationships undergo important changes resulting in a potential increase in conflicts about everyday issues, especially with mothers (Chung, Flook, & Fuligni, 2009; Collins & Laursen, 2004). Some theorists argue that conflicts are not necessarily detrimental for adolescent development and may be functional because they stimulate adolescents' autonomy and identity development (Collins & Steinberg, 2006). In contrast, other theorists stress the long-term negative impact of intense, reoccurring, and dysfunctional conflicts on adolescents' and parents' individual and relational functioning (Moed et al., 2014; Tucker, McHale, & Crouter, 2003). The positive or negative consequences of conflicts may depend on the way

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conflicts are handled, as conflict management is potentially more important than conflict frequency (Adams & Laursen, 2007). With regard to the two examples previously mentioned, the first interaction between mother and teenager evolves in a more dysfunctional way as the mother and teenager argue with little mutual understanding. In the second example, the mother explains her concerns and the teenager expresses his or her need to act independently in a more constructive dialogue.

Conflict management is defined as the behaviors people enact during a conflict. The dual-concern model (Pruitt & Carnevale, 1993) states that conflict management behaviors can be situated along two dimensions, namely, concern for the self and for others. Based on this theoretical framework and the empirical literature on marital and parent–adolescent conflict management (Kurdek, 1994; Rubenstein & Feldman, 1993; Van Doorn, Branje, & Meeus, 2008), we focused on four conflict management styles that adolescents and parents use when they have disputes with each other. Positive problem solving involves trying to understand the other's point of view and negotiating the conflict effectively to find a compromise, reflecting high concern for the self and others. Conflict engagement involves destructive behaviors, including attacking the other verbally, being defensive, or losing self-control, reflecting high concern for the self and low concern for the other. Withdrawal involves avoiding the problem, avoiding talking, and becoming distant, reflecting low concern for the self and the other. Compliance involves giving in to the other party without expressing one's point of view, reflecting low concern for the self and high concern for the other.

The majority of studies on parent–adolescent conflict management examined the associations between different conflict styles and several correlates using a variable-centered approach and with an almost exclusive focus on adolescents' conflict styles. These studies have provided valuable information on how adolescents' conflict styles are related to their psychosocial functioning (e.g., Van Doorn et al., 2008), but their analytical approach assumes that similar mean-level effects apply

to all individuals in the sample. However, we know from family system theories (e.g., Minuchin, 1985) that conflict styles are not used in isolation (Branje, Van Doorn, Van der Valk, & Meeus, 2009), that family members influence each other during conflict interactions, and that families differ from one another in their ways of dealing with conflicts. Drawing from this systemic perspective, the main aim of this study was to identify types of naturally occurring mother–adolescent dyads that have a similar pattern of conflict styles and that differ systematically from other types of dyads. This study adds to the current literature in at least two ways. First, by incorporating four different conflict management styles from both adolescents and mothers, we introduce a dyadic typological approach instead of focusing on separate styles from one partner only, hereby complementing the current knowledge of mother–adolescent conflict management based on variable-centered approaches. A typological approach groups individuals, or in this case dyads, into different clusters based on differences on a set of constructs. Each cluster contains dyads who are similar to each other on these constructs and different from dyads in other clusters (Muthén & Muthén, 2000). Second, we link these dyadic conflict management constellations to relational and individual aspects of adolescents' and mothers' functioning, from both the adolescent and the mother perspective. In addition, adolescents' individual and relational functioning was assessed at two yearly time points, allowing us to examine possible over-time changes in these variables in the different dyadic conflict constellations. By doing so, we aim to gain a better understanding of the conflict management constellations in terms of differential mother and adolescent functioning. The vast majority of studies on this topic have primarily focused on the impact of conflict variables on adolescent adjustment, but have neglected the impact on mothers' adjustment (Caughlin & Malis, 2004a). Because conflict management is a dyadic process, conflict management is related not only to adolescents' perceptions of individual and relational functioning, but also to mothers' functioning and perceived relationship quality. Several scholars have argued

that mothers suffer more from conflictual interactions than their adolescents (Steinberg, 2001).

Constellations of adolescents' and mothers' conflict management styles

Conflict management is a dyadic process wherein both partners interact and use different strategies to deal with conflicts. Most research on conflict management has focused on the unique effects of management styles on adolescents' functioning from the perspective of the adolescent. However, a few studies have adopted a dyadic perspective using a typological approach or by combining specific adolescent and parental conflict styles. For instance, a study by Van Doorn et al. (2008) used a priori theorized conflict combinations in relation to adolescent delinquency, namely, adolescent and parental conflict engagement (reciprocal hostility), and adolescent withdrawal and parental conflict engagement (demand-withdraw). In this study, the combinations were constructed as interaction terms in a regression analysis. Another study by Branje et al. (2009) identified five clusters based on the conflict styles adolescents used with their mothers and fathers. This latter study demonstrated that conflict styles are not used in isolation and that the effect of a specific conflict management strategy might depend on the constellation of strategies in which it is used. When withdrawal was the only strategy used to resolve conflicts with parents, conflict frequency was more strongly related to externalizing problems, but when withdrawal was used in combination with other styles, conflict frequency was more strongly related to internalizing problems (Branje et al., 2009). In addition, according to family system theories (Cook & Kenny, 2005; Lollis & Kuczynski, 1997), both partners in a dyadic relationship influence each other and contribute to personal and relationship adjustment. Thus, adolescents' ways of dealing with conflicts evoke certain maternal conflict styles and vice versa.

Based on previous work on parent-adolescent and marital relationships, we can expect at least three constellations to emerge when combining conflict management

styles of adolescents and mothers. First, Patterson's coercion theory (1982) emphasizes the bidirectional nature of parent-adolescent interactions and has revealed a constellation of mutual hostility between parents and children characterized by angry and coercive interactions. Negative and hostile interactions from one partner can elicit similar interactions from the other party. Gottman (1994) also identified these negative reciprocal interactions in couples and argued that couples who often get stuck in these types of interactions might end up in an "absorbing state" that hinders constructive outcomes. In the recent parent-adolescent conflict literature, evidence was found for a coercive cycle between parents and adolescents characterized by high levels of angry affect and conflict escalation (Moed et al., 2014; Van Doorn et al., 2008).

Second, the demand-withdraw pattern has received substantial attention in the literature on marital relationships (Sillars, Canary, & Tafoya, 2004) and has been related to poor marital adjustment (Caughlin & Huston, 2002). This interaction sequence refers to conflict situations wherein one partner is criticizing or demanding and the other partner reacts with avoiding behaviors. This sequence has also been described in a small number of studies on parent-adolescent conflicts (Caughlin & Malis, 2004a, 2004b; Van Doorn et al., 2008). Third, given that many families function well and this remains the case during adolescence (Eisenberg et al., 2008; Smetana, Campione-Barr, & Metzger, 2006), a constellation characterized by relatively high levels of mutual positive problem solving and moderate to low levels on the other three conflict styles might also emerge. According to the social problem-solving model (Jaffee & D'Zurilla, 2003), adolescents and parents with adequate problem-solving skills deal with interpersonal conflicts in a more appropriate and constructive manner and this is hypothesized to relate to various domains of psychosocial adjustment (Van Doorn et al., 2008).

Because this is the first study including the four conflict styles mentioned above of both adolescents and mothers in a typological approach, other constellations of adolescent and maternal conflict management might

emerge as well. For instance, based on the finding that early adolescents have a tendency to comply or be avoidant during conflicts with mothers (Laursen, 1993), we might also discover a conflict management constellation characterized by moderate to high scores on maternal problem solving and adolescent compliance and/or withdrawal.

Conflict management constellations and relational and individual functioning

The social relational model considers conflicts as important catalysts for relationship and autonomy development (Collins, Laursen, Mortensen, Luebker, & Ferreira, 1997). This theory also states that the quality of parent–adolescent conflict interactions plays a crucial role in this development. Positive and constructive conflict interactions represent an open climate wherein several options are explored and relate to more satisfying relationships and individual well-being. Negative and hostile interactions hinder autonomous exploration and relate to dissatisfying relationships and reduced well-being (Laursen & Collins, 2009). Therefore, the dyadic constellation of conflict management behaviors is thought to have important implications for parent–child relationship quality and individual psychosocial adjustment. Drawing from this social relational model, we distinguish three important markers of relationship functioning (i.e., parenting dimensions, conflict frequency, and relationship satisfaction) and two markers of individual functioning (i.e., depressive symptoms and self-esteem).

Conflict management behaviors of adolescents and mothers are embedded in their relationship functioning. A first factor that might be related to mother–adolescent conflict management constellations is maternal parenting. Because conflicts are emotional events (Jones, 2001), we focus on three parenting dimensions that reflect the affective quality of parent–adolescent relationships (Duriez, Soenens, & Vansteenkiste, 2007). The first dimension, responsiveness, is the parents' capacity to attune to children's needs and to react in a warm and involved manner in times of distress. The second dimension,

psychological control, can be described as the use of manipulative techniques, such as guilt induction, conditional loving, or shaming, that intrude in the child's psychological world (Barber, 1996). The third dimension, autonomy support, refers to parents' sensitivity to and support for adolescents' own values and interests (Grolnick, 2002).

To date, no study has addressed the associations between the constellations of adolescent and maternal conflict management styles described earlier and these three parenting dimensions. However, some studies have investigated associations between similar parent–child relationship variables and conflict-related behaviors. Adequate family problem-solving skills, characterized by compromise and low avoidance, have been positively associated with responsive and consistent parenting. Maladaptive family problem-solving skills, characterized by hostile behaviors, have been related to rejecting and controlling parenting (Capaldi, Forgatch, & Crosby, 1994; Rubenstein & Feldman, 1993; Rueter & Conger, 1995; Tucker et al., 2003). Autonomy supportive parenting has not been empirically related to parent–adolescent conflict management behaviors, but it has been linked to more social competence in the peer context (Soenens & Vansteenkiste, 2005). As conflict management in the parent–child relationship has been found to be related to conflict management in friendships (Van Doorn, Branje, VanderValk, De Goede, & Meeus, 2011), we might expect a positive association between mutual problem solving and autonomy supportive parenting. When mothers respect and promote their children's decision making, conflicts may be dealt with in a more constructive dialogic manner. In general, positive parenting may create a trustful relational context, which allows adolescents and mothers to handle their conflicts constructively (Van der Giessen et al., 2015).

Conflict frequency, a second important aspect of the parent–adolescent relationship, may also be related to conflict management of mothers and adolescents. Conflict frequency has often been considered a predictor for adolescent internalizing and externalizing problems (Shek, 1997; Tucker et al., 2003).

Adolescents and mothers who use more positive problem solving may be better able to reduce conflicts and cultivate a more egalitarian relationship (Collins & Laursen, 2004). In the relatively few studies that addressed the associations between conflict frequency and management styles, a positive association was found between conflict frequency and negative management tactics between adolescents and mothers (Branje et al., 2009; Eisenberg et al., 2008). Similarly, Rueter and Conger (1995) demonstrated that effective family conflict management was predictive of fewer conflicts. Further research is needed to examine how conflict management by both dyad members is related to conflict frequency.

A third important contextual factor is relationship satisfaction. In the literature on marital relationships, there is strong support for a link between conflict styles and marital satisfaction (Cramer, 2000; Driver, Tabares, Shapiro, Nahm, & Gottman, 2003). In the parent–adolescent literature, some studies showed links between family communication quality, being broader than conflict styles, and relationship satisfaction (e.g., Sillars, Koerner, & Fitzpatrick, 2005). Only a few studies have examined specific conflict styles in relation to parent–adolescent relationship satisfaction. Children were more satisfied with the quality of the relationship when using a compromising or complying conflict style (Zhang, 2007), whereas destructive styles characterized by a demand–withdraw interaction were associated with lower relationship satisfaction for both parents and adolescents (Caughlin & Malis, 2004b; La Valley & Guerrero, 2012). In a daily diary study by Van Doorn, Branje, Hox, and Meeus (2009), adolescents' relationship satisfaction with mothers was greater on days with constructive conflicts than on days with destructive conflicts. Thus, our study can provide insight into how naturally occurring dyadic conflict management constellations relate to maternal and adolescent relationship satisfaction.

In addition to relational aspects of adolescents' and mothers' functioning, two aspects of individual adjustment were examined in this study: depressive complaints of adolescents and mothers and adolescents' self-esteem.

Several studies have focused on the associations between conflict styles and internalizing problems, predominantly focusing on adolescent adjustment. Higher levels of conflict avoidance and attack were positively associated with adolescents' internalizing problems, whereas compromise was related to fewer problems (Rubenstein & Feldman, 1993). Effective conflict management with mothers was associated with lower levels of adolescent depression and higher levels of self-esteem (Tucker et al., 2003). According to Leary's (2005) sociometer theory of self-esteem, rejection by significant others is related to lowered self-esteem. Caughlin and Malis (2004b) indeed found inverse associations between demand–withdraw patterns in the parent–adolescent relationship and adolescent and parental self-esteem. The authors argued that withdrawing and demanding (i.e., criticizing and nagging) behaviors during conflicts can be interpreted as a form of rejection and, hence, have an impact on the partner's self-esteem. Drawing from findings in the marital literature indicating that avoiding conflict strategies are related to wives' depressive symptoms (Marchand & Hock, 2000), it is reasonable to expect that destructive conflict management constellations between mothers and adolescents are associated with mothers' depressive symptoms.

The present study

To summarize, the following research questions were addressed in the present multi-informant study. First, we aimed at identifying dyadic combinations or constellations of adolescent and maternal conflict management styles. Second, we expected that these dyadic conflict style combinations would relate differentially to adolescents' and mothers' perceptions of individual and relational functioning. Based on the above-mentioned literature, we tentatively expected the following combinations and associations with adolescents' and maternal functioning (see Table 1 for an overview of the hypothesized combinations). First, we expected a combination characterized by high levels of mutual problem solving and moderate to low levels on all other

Table 1. Hypothesized classes based on adolescents' and mothers' conflict management styles

Conflict style	Dyadic Positive Management	A demand/M withdraw	Dyadic Hostile Management
Positive problem solving A	High	Low	Low
Conflict engagement A	Low to moderate	High	High
Withdrawal A	Low to moderate	Low to moderate	Moderate
Compliance A	Low to moderate	Low to moderate	Low to moderate
Positive problem solving M	High	Low	Low
Conflict engagement M	Low to moderate	Moderate	High
Withdrawal M	Low to moderate	High	Moderate
Compliance M	Low to moderate	Low to moderate	Low to moderate

Note. A = adolescent; M = mother. The A demand/M withdraw might also appear in the opposite direction (M demand/A withdraw).

conflict styles (Dyadic Positive Management). This constellation would be associated with the most favorable profile, namely, higher scores on responsive and autonomous parenting, relationship satisfaction, and self-esteem and lower scores on psychological control, conflict frequency, and depressive symptoms. Second, we expected a combination of high scores on adolescent conflict engagement and maternal withdrawal (Adolescent Demand/Maternal Withdraw) and moderate to low scores on compliance and problem solving. The opposite pattern might also emerge, namely, high scores on maternal conflict engagement and adolescent withdrawal. This demand–withdraw constellation is expected to relate positively to psychological control, conflict frequency, and depressive symptoms and negatively to warm and autonomous parenting, relationship satisfaction, and self-esteem. Third, a constellation characterized by high levels of mutual conflict engagement (Dyadic Hostile Management) and low scores on problem solving, and low to moderate scores on compliance and withdrawal was expected. This constellation might be associated with the least favorable outcome pattern, due to negative and angry escalation. Therefore, we expected the highest scores on conflict frequency and psychological control and the lowest scores on relationship satisfaction in this hostile conflict constellation. It is noteworthy to mention that these hypotheses remain exploratory and that other conflict management constellations can emerge as well.

To assess both the concurrent and prospective implications of the dyadic conflict constellations toward adolescents' individual and relational variables, the latter variables were assessed at two yearly time points. In doing so, we were able to investigate the extent to which the dyadic conflict constellations would be differentiated by the level of the outcome variables at the two measurement points. Finally, we also assessed mothers' perceptions of conflict frequency, relationship satisfaction, and depressive complaints, but we do not have concrete hypotheses about potential differences between adolescents and mothers based on conflict management constellations.

Method

Participants and procedure

Participants were drawn from the first two time points of the Leuven CoMPASS study (Conflict with Mothers and Personality in Adolescence: Study of Management Styles), an ongoing longitudinal study of Dutch-speaking high school students from three schools in Flanders, Belgium. The first time point was collected in 2013 and consisted of 819 adolescents from Grades 7–9. Mothers were also invited to participate at Time 1 (T1). A total of 625 mothers participated. The second time point was collected 1 year later in 2014, and 724 adolescents participated ($M_{\text{age}} = 13.83$ years, $SD_{\text{age}} = 0.96$, range = 12 to 17 years; 54% girls). Mothers were not assessed at Time 2 (T2).

Our final sample consisted of 525 adolescent–mother dyads (T1). The final sample was obtained in two steps. First, we matched the adolescents and mothers at T1. This resulted in a match of 563 adolescent–mother dyads. A total of 62 mothers filled out the questionnaire without their child participating in the study and were not included. Second, we matched this sample of 563 adolescent–mother dyads with the adolescents who participated at T2. This resulted in the final sample of 525 adolescent–mother dyads (with 525 adolescents participating on two time points). The mean age of the adolescents was 12.90 years ($SD_{\text{age}} = 0.97$, range = 11–15 years; 52% girls) at T1 and 13.83 years ($SD_{\text{age}} = 0.96$, range = 12–16 years; 54% girls) at T2. A total of 86.4% of the adolescents lived in intact families. Mothers' mean age was 43.02 years ($SD_{\text{age}} = 3.82$, range = 30–55 years). About 65% of the mothers held a degree of higher education.

Missing values were estimated in SPSS, using the EM procedure. Little's missing completely at random test (Little, 1988) revealed a normed $\chi^2(\chi^2/df)$ of 1.20, which indicates a good fit between scores with and without imputation (Bollen, 1989). Attrition analyses revealed some significant differences between 525 adolescents from the final sample and 294 adolescents who participated at T1 but who were not included in the final sample, Wilks's $\lambda = .97$, $F(11, 745) = 2.13$, $p < .05$. More specifically, adolescents from the final sample scored lower on conflict frequency, depressive complaints, and psychological control and higher on relationship quality, responsiveness, and self-esteem than adolescents who were not included.

Prior to the study, all parents received an information letter, wherein they could refuse their child's participation. This resulted in exclusion of about 20% of the potential sample. On the day of the data collection, all adolescents received an informed consent letter. About 5% of the adolescents did not give their assent to participate and were excluded. All participants filled out the questionnaire on the computer in a classroom under supervision of a research assistant. At T1, the participants

were asked to give an envelope to their mother, including the questionnaire and an informed consent letter. Enclosed envelopes with the completed questionnaires and informed consent of the mothers were returned within 2 weeks. This procedure was approved by our university's Institutional Review Board.

Measures

All questionnaires detailed below were filled out by the adolescents at T1 and T2. Mothers filled out questionnaires on conflict management styles, conflict frequency, relationship satisfaction, and depressive symptoms at T1.

Conflict management styles

Adolescents and mothers completed the Conflict Resolution Style Inventory (CRSI; Kurdek, 1994). This questionnaire was originally designed to measure conflict management in couples, but was adapted for the parent–child context (Branje et al., 2009). The validity of this adapted measure has been demonstrated in various studies (e.g., Van Doorn et al., 2008). This questionnaire measures four conflict management styles (five items each): positive problem solving, conflict engagement, withdrawal, and compliance. On a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*), mothers and adolescents rated how often they personally used particular conflict management strategies when they had a quarrel. Sample items included the following: “Trying to find solutions that are acceptable for both of us” (positive problem solving), “Letting myself go, and saying things I don't really mean” (conflict engagement), “Not listening to her anymore” (withdrawal), and “Not defending my opinion” (compliance). Cronbach's alphas for adolescent reports at T1 and T2 were, respectively, positive problem solving ($\alpha = .82$ and $.84$), conflict engagement ($\alpha = .81$ and $.84$), withdrawal ($\alpha = .76$ and $.77$), and compliance ($\alpha = .69$ and $.71$). Cronbach's alphas for mother reports at T1 were positive problem solving ($\alpha = .83$), conflict engagement ($\alpha = .75$), withdrawal ($\alpha = .74$), and compliance ($\alpha = .70$).

Conflict frequency

The frequency of conflicts between adolescents and mothers was measured with an adapted version of the Interpersonal Conflict Questionnaire (ICQ; Laursen, 1993). This questionnaire consists of 12 items covering potential conflict topics that were rated on a 5-point Likert scale ranging from 1 (*never*) to 5 (*often*). Adolescents and mothers rated for each item how often they had conflicts, disagreements, or quarrels with each other about a specific topic during the last week. All conflict topics refer to only the adolescent's behavior and do not include the mother's behavior. Items included issues, such as "sleeping during the weekends" and "spending time with friends." Scores were averaged across the 12 items, providing us with an average weekly conflict score. Cronbach's alphas were .89 and .88 for adolescent reports at T1 and T2, respectively, and .87 for mother reports at T1.

Parenting dimensions

Adolescents' perceptions of maternal responsiveness were assessed with a seven-item scale of the Child Report on Parent Behavior Inventory (CRPBI; Schaefer, 1965; Schludermann & Schludermann, 1988). A sample item reads, "My mother often smiles to me." Perceived autonomy support was measured with the seven-item Autonomy Support Scale of the Perceptions of Parents Scale (POPS; Grolnick, Ryan, & Deci, 1991). A sample item reads, "My mother allows me to make my own decisions." Perceived psychological control was assessed with the eight-item Psychological Control Scale–Youth Self-Report (PCS–YSR; Barber, 1996). A sample item reads, "My mother is less friendly to me if I don't see things as she does." All items were rated on a 5-point Likert scale ranging from 1 (*does not apply at all*) to 5 (*applies strongly*). The Dutch translations of these scales have been validated in several empirical studies (e.g., Soenens, Vansteenkiste, Luyckx, & Goossens, 2006). Cronbach's alphas for adolescent reports at T1 and T2 were, respectively, responsiveness ($\alpha = .89$ and $.90$), autonomy support ($\alpha = .74$ and $.77$), and psychological control ($\alpha = .76$ and $.80$).

Relationship satisfaction

Mothers and adolescents rated relationship satisfaction and affiliation with three items on a 5-point Likert scale ranging from 1 (*does not apply to me at all*) to 5 (*applies strongly to me*). Items were "I like to spend time with my mother/child," "I am satisfied with the relationship with my mother/child," and "I like to be in the company of my mother/child." Cronbach's alphas were .81 and .90 for adolescent reports at T1 and T2, respectively, and .87 for mother reports at T1.

Depressive symptoms

Both mothers and adolescents completed a 12-item version (Roberts & Sobhan, 1992) of the Center for Epidemiologic Studies Depression Scale (CES–D; Radloff, 1977). This questionnaire taps into cognitive, somatic, and psychological symptoms of depression and was translated into Dutch by Hooge, Decaluwé, and Goossens (2000). Adolescents and mothers had to indicate on a 4-point Likert scale ranging from 0 (*seldom*) to 3 (*most of the time or always*) how often they have experienced depressive symptoms during the week prior to the assessment. A sample item reads, "During the last week, I felt sad." Cronbach's alphas were .81 and .84 for adolescent reports at T1 and T2, respectively, and .85 for mother reports at T1.

Self-esteem

Self-esteem was assessed with the Dutch version (Van der Linden, Dijkman, & Roeders, 1983) of the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Adolescents had to rate this 10-item scale on a 4-point Likert scale ranging from 1 (*does not apply to me at all*) to 4 (*applies to me very well*). A sample item reads, "I feel that I have a number of good qualities." Cronbach's alphas were .76 and .90 at T1 and T2, respectively.

Plan of analyses

We conducted latent class analysis (LCA) using Mplus 7.3 (Muthén & Muthén, 1998–2012) to identify different typologies of adolescent and maternal conflict styles.

LCA (Collins & Lanza, 2011), also referred to as finite mixture modeling, groups similar individuals into latent groups based on common patterns on manifest variables. We tested several models with an increasing number of classes and used the following criteria to decide on the final number of latent classes (Nylund, Asparouhov, & Muthén, 2007). First, the Bayesian information criterion (BIC) statistic for a solution with k classes should be lower than that for a solution with $k-1$ classes, suggesting that adding additional classes improves model fit. The drop in BIC should at least be 10 points to conclude that a model with k classes is substantially better than a $k-1$ class model (Kass & Raftery, 1995). Second, classification quality was assessed by entropy (E), a standardized summary measure of the classification accuracy of placing individuals into trajectory classes based on the posterior probabilities of classification. Entropy ranges from .00 to 1.00, with values of .70 or higher indicating more accurate classification (Reinecke, 2006). Third, we utilized the bootstrapped likelihood ratio test (BLRT; McLachlan, 1987), which provides a p value that can be used to determine whether there is a statistically significant improvement in fit through the inclusion of an additional class. Finally, all classes had to represent more than 5% of the sample to be able to make meaningful comparisons.

Next, we examined whether the profiles of maternal and adolescent conflict styles could distinguish between individual and relational variables. We used the Mplus AUXILIARY (BCH) approach, as recommended by Asparouhov and Muthén (2014a, 2014b), to test the equality of means on these distal outcomes across the different conflict style profiles. The auxiliary command has been recommended as the most preferable way to examine the associations between latent classes and outcome variables, because it takes into account classification uncertainty rather than assigning individuals to their most likely class membership (Asparouhov & Muthén, 2014a, 2014b). Including the correlates with the auxiliary command does not alter the nature of the

classes. The nonindependence of adolescents' and mothers' reports, or the correlations between these reports, is accounted for by this analytical approach.

Results

Preliminary analyses

As a set of preliminary analyses, we conducted two multivariate analyses of variance (MANOVAs) to investigate gender differences. First, a MANOVA with gender as a fixed factor and the study variables at T1 as dependent variables (i.e., conflict frequency, conflict management styles, responsiveness, autonomy support, psychological control, relationship satisfaction, self-esteem, and depressive symptoms) yielded a significant multivariate effect of gender, Wilks's $\lambda = .95$, $F(11, 492) = 2.38$, $p = .007$, $\eta^2 = .05$. Inspection of follow-up univariate effects revealed that boys and girls differed significantly only in their levels of self-esteem, $F(1, 502) = 2.94$, $p < .001$, $\eta^2 = .03$. Girls reported lower levels of self-esteem than boys ($M_{\text{girls}} = 2.92$, $SD_{\text{girls}} = .45$; $M_{\text{boys}} = 3.07$, $SD_{\text{boys}} = .42$). Second, a MANOVA with gender as a fixed factor and mother-reported conflict frequency and management styles, relationship satisfaction, and depressive complaints as dependent variables indicated no significant multivariate effect of adolescent gender, Wilks's $\lambda = .98$, $F(7, 513) = 1.83$, $p = .08$, $\eta^2 = .02$. As there were no gender differences in adolescent and maternal conflict styles, gender was not included as a covariate in the latent class analyses.

Correlations between the study variables at T1 are depicted in Table 2. Paired-sample t tests revealed significant mean-level differences between adolescents and mothers in their use of conflict management styles at T1. More specifically, mothers reported significantly higher levels of positive problem solving than adolescents, $t(524) = -23.801$, $p < .001$. Adolescents reported higher levels of conflict engagement, withdrawal, and compliance than mothers, $t(524) = 2.32$, $p = .021$; $t(524) = 16.64$, $p < .001$; and $t(524) = 6.53$, $p < .001$, respectively. Means and standard

Table 2. Correlations between the study variables at T1

Variable	1	2	3	4	5	6	7	8
1. Problem solving A	-0.23***							
2. Conflict engagement A	-0.31***	0.36***						
3. Withdrawal A	0.16***	-0.07	0.23***					
4. Compliance A	0.20***	-0.25***	-0.19***	0.08				
5. Problem solving M	-0.09*	0.23***	0.09*	0.01	-0.24***			
6. Conflict engagement M	-0.09*	0.21***	0.07	-0.01	-0.26***	0.31***		
7. Withdrawal M	-0.07	0.13**	0.04	-0.03	-0.11*	0.24***	0.43***	
8. Compliance M	-0.20***	0.36***	0.28***	0.00	-0.15***	0.08	0.13**	0.09*
9. Conflict frequency A	0.43***	-0.17***	-0.28***	0.08	0.22***	-0.12**	-0.08	-0.05
10. Responsiveness A	0.41***	-0.29***	-0.34***	0.00	0.18***	-0.14**	-0.14**	-0.07
11. Autonomy support A	-0.30***	0.41***	0.41***	0.05	-0.25***	0.16***	0.11*	0.05
12. Psychological control A	0.25***	-0.21***	-0.28***	0.09*	0.19***	-0.06	-0.04	-0.04
13. Relationship satisfaction A	-0.13**	0.26***	0.21***	0.07	-0.07	0.07	0.08	0.08
14. Depressive symptoms A	0.15**	-0.19***	-0.18***	-0.11*	0.06	-0.07	-0.10*	-0.06
15. Self-esteem A	-0.13**	0.26***	0.14**	-0.03	-0.19***	0.32***	0.30***	0.25***
16. Conflict frequency M	0.14**	-0.31***	-0.14**	0.14*	0.32***	-0.31***	-0.28***	-0.14**
17. Relationship satisfaction M	-0.04	0.10*	0.02	-0.05	-0.21***	0.34***	0.31***	0.25***
18. Depressive symptoms M								

Notes: A = adolescent report; M = mother report. The upper part of the table represents the correlations between adolescent and maternal conflict styles, and the lower part of the table represents the correlations between the conflict styles and the individual and relational factors.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

errors of adolescent and maternal conflict styles are shown in Table 3.

Latent class analysis

To select a typology of dyadic management styles, models with one to five classes were compared. Because latent class analysis is sensitive to outliers in the data, univariate (i.e., $|z$ scores > 3) and multivariate outliers (i.e., high Mahalanobis distance values) were removed ($n = 24$). Table 4 presents an overview of the selection criteria for all solutions estimated. The four-class solution was the optimal solution because it had a considerably lower BIC value than the three-class solution and an adequate value for entropy

($E = .73$). When comparing the four-class solution with the five-class solution, the four-class solution was favored because the drop in BIC was very minor ($\Delta BIC = 1.89$). Average latent class probabilities for the four-class solution ranged from .82 to .90, which indicates good classification accuracy.

Figure 1 presents the four-class solution. The y-axis represents z scores. In line with Cohen (1988), $d = .2 SD$ is considered a small effect, $d = .5 SD$ is a medium or moderate effect, and $d = .8 SD$ is a large effect. The first class, Dyadic Positive Management (39%), was characterized by moderately high levels of positive problem solving for both mothers and adolescents and moderate to low scores on the other resolution styles.

Table 3. Comparison of means of the conflict styles across classes

Variables	Classes					Overall effect
	Total sample	Dyadic Positive Management	Unbalanced Management	Adolescent Negative Management	Dyadic Negative Management	
Adolescent report						
Problem solving	2.97 (0.03)	3.19 (0.06) _a	3.13 (0.07) _a	2.57 (0.07) _b	2.56 (0.10) _b	70.330***
Conflict engagement	1.83 (0.03)	1.42 (0.03) _c	1.60 (0.04) _b	2.52 (0.07) _a	2.49 (0.09) _a	281.797***
Withdrawal	2.33 (0.03)	2.06 (0.05) _c	2.15 (0.06) _c	2.87 (0.06) _a	2.64 (0.09) _b	136.426***
Compliance	2.16 (0.03)	2.19 (0.05)	2.16 (0.05)	2.10 (0.06)	2.15 (0.08)	1.504
Mother report						
Problem solving	3.86 (0.02)	4.10 (0.04) _a	3.85 (0.04) _a	3.66 (0.05) _b	3.45 (0.06) _c	66.131***
Conflict engagement	1.75 (0.02)	1.53 (0.03) _c	1.81 (0.04) _b	1.83 (0.05) _b	2.22 (0.07) _a	40.841***
Withdrawal	1.71 (0.02)	1.29 (0.02) _d	2.06 (0.03) _b	1.54 (0.04) _c	2.57 (0.05) _a	184.748***
Compliance	1.93 (0.02)	1.69 (0.03) _d	2.13 (0.04) _b	1.91 (0.05) _c	2.32 (0.07) _a	31.420***

Notes. Equality of means between classes was tested with the BCH command in Mplus 7.3. A class mean is significantly different from another mean if they have different subscripts. A mean without a subscript is not significantly different from any other mean. Standard errors are in parentheses.

*** $p < .001$.

Table 4. Results of latent class analyses

Solution	BIC	Entropy	Class counts					p value, BLRT test
			1	2	3	4	5	
2-class	11,403.322	.67	206	320				.000
3-class	11,377.840	.70	310	101	115			.000
4-class	11,340.924	.73	207	148	114	57		.000
5-class	11,338.974	.73	118	179	38	132	59	.000

Note. $N = 526$. BIC = Bayesian information criterion; BLRT = bootstrapped likelihood ratio test. The solution in bold was selected.

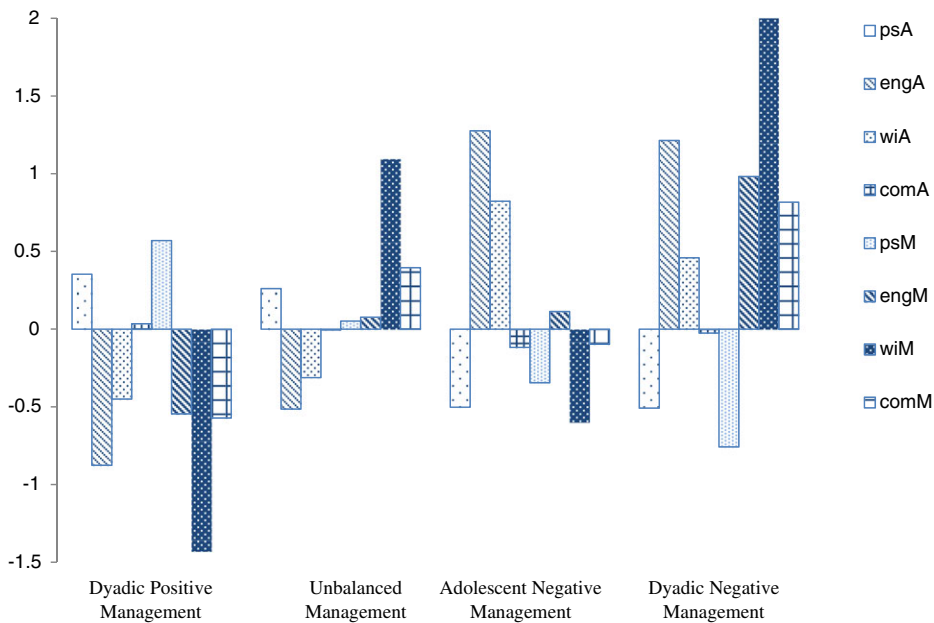


Figure 1. Final latent class solution for maternal and adolescent conflict styles.

Note. Z scores for positive problem solving (ps), conflict engagement (eng), withdrawal (wi), and compliance (com). A = adolescent; M = mother.

The second class, Unbalanced Management (28%), was characterized by average levels of adolescent problem solving and maternal compliance. Adolescents' engagement and withdrawal were moderately low. Mothers scored high on withdrawal. The third class, Adolescent Negative Management (22%), was characterized by moderately low levels of adolescent problem solving and high levels of adolescent withdrawal and conflict engagement. Mothers scored average to low on all conflict styles. The fourth class, Dyadic Negative Management (11%), was characterized by low levels of adolescent and maternal problem solving and high levels of adolescent and maternal engagement and moderately high levels of adolescent withdrawal. Mothers also scored high on withdrawal and compliance.

To assess mean-level differences of the classes on the maternal and adolescent conflict styles, we modeled the eight conflict styles as auxiliary variables of the four conflict constellations using the BCH command in Mplus (see Table 3). In general, mothers' conflict styles differentiated more among

the four conflict constellations than did adolescents' conflict styles. For adolescents, in the Dyadic Positive Management and Unbalanced Management constellations, only conflict engagement was significantly lower in the Dyadic Positive Management constellation than in the Unbalanced Management constellation. For the Adolescent Negative Management and Dyadic Negative Management constellations, the means of the conflict styles were also very similar, except for withdrawal, which was significantly higher in the Adolescent Negative Management constellation than in the Dyadic Negative Management constellation. Adolescents' compliance was the only conflict style that did not differentiate among any of the four constellations. For mothers, all conflict styles showed significantly different means in the four constellations.

Between-class differences in conflict frequency, parenting, relationship satisfaction, depressive symptoms, and self-esteem were also modeled with the BCH command in Mplus. This revealed significant class differences at both time points and for both informants (see Table 5). Both adolescents

and mothers reported lower levels of conflicts in the Dyadic Positive Management and Unbalanced Management classes than in the other two classes at T1. Identical results were obtained for adolescent-reported conflict frequency at T2.

Adolescents reported significantly higher levels of maternal responsiveness in the Dyadic Positive Management and Unbalanced Management classes than in the other two classes at T1. At T2, the results were almost identical, except that the Unbalanced Management class did not differ significantly from the Adolescent Negative Management and Dyadic Negative Management classes. Concerning maternal autonomy support, adolescents reported the highest levels in the Dyadic Positive Management class, followed by the

Unbalanced Management class, and the lowest levels in the Adolescent Negative Management and Dyadic Negative Management classes. At T2, the results were almost identical, except that the Dyadic Negative Management class did not differ significantly from the Unbalanced Management and Adolescent Negative Management classes. Adolescents reported the highest levels of maternal psychological control in the Adolescent Negative Management and Dyadic Negative Management classes and the lowest levels in the Dyadic Positive Management and Unbalanced Management classes at T1 and T2.

Concerning adolescent-reported relationship satisfaction at T1, adolescents appeared most satisfied in the Dyadic Positive Management class and least satisfied in the Adolescent

Table 5. Comparison of means of individual and relational correlates across classes

Variables	Classes					Overall effect
	Total sample	Dyadic Positive Management	Unbalanced Management	Adolescent Negative Management	Dyadic Negative Management	
<i>Time 1</i>						
Adolescent report						
Conflict frequency	2.09 (0.03)	1.82 (0.05) _a	2.00 (0.07) _a	2.51 (0.08) _b	2.47 (0.12) _b	57.805 ^{***}
Responsiveness	4.09 (0.03)	4.26 (0.05) _b	4.17 (0.08) _b	3.82 (0.08) _a	3.83 (0.09) _a	31.940 ^{***}
Autonomy support	3.65 (0.02)	3.87 (0.04) _c	3.70 (0.06) _b	3.35 (0.07) _a	3.36 (0.09) _a	57.798 ^{***}
Psychological control	1.98 (0.03)	1.71 (0.04) _a	1.85 (0.06) _a	2.41 (0.07) _b	2.36 (0.09) _b	99.718 ^{***}
Relationship satisfaction	4.42 (0.03)	4.60 (0.05) _c	4.48 (0.08) _{bc}	4.08 (0.10) _a	4.27 (0.12) _{ab}	23.785 ^{***}
Depressive symptoms	0.64 (0.02)	0.51 (0.03) _a	0.63 (0.05) _b	0.83 (0.05) _c	0.76 (0.07) _{bc}	33.657 ^{***}
Self-esteem external	3.07 (0.02)	3.28 (0.04) _b	3.00 (0.06) _a	2.83 (0.07) _a	3.01 (0.08) _a	38.565 ^{***}
Mother report						
Conflict frequency	2.01 (0.03)	1.72 (0.04) _a	2.13 (0.06) _b	2.16 (0.06) _b	2.44 (0.09) _c	80.792 ^{***}
Relationship satisfaction	4.67 (0.02)	4.89 (0.02) _c	4.62 (0.05) _b	4.52 (0.07) _{ab}	4.32 (0.08) _a	77.325 ^{***}
Depressive symptoms	0.44 (0.02)	0.31 (0.03) _a	0.52 (0.04) _{bc}	0.44 (0.04) _b	0.70 (0.08) _c	37.600 ^{***}
<i>Time 2</i>						
Adolescent report						
Conflict frequency	1.99 (0.03)	1.78 (0.05) _a	1.98 (0.07) _b	2.27 (0.10) _c	2.26 (0.11) _c	30.348 ^{***}
Responsiveness	4.06 (0.03)	4.26 (0.05) _b	4.06 (0.09) _{ab}	3.76 (0.11) _a	3.90 (0.12) _a	22.571 ^{***}
Autonomy support	3.78 (0.03)	4.00 (0.05) _c	3.74 (0.06) _b	3.49 (0.08) _a	3.53 (0.11) _{ab}	38.429 ^{***}
Psychological control	1.95 (0.03)	1.76 (0.05) _a	1.88 (0.06) _a	2.23 (0.08) _b	2.34 (0.10) _b	43.809 ^{***}
Relationship satisfaction	4.42 (0.04)	4.58 (0.05) _b	4.49 (0.09) _b	4.03 (0.12) _a	4.32 (0.13) _{ab}	15.581 ^{***}
Depressive symptoms	0.65 (0.02)	0.52 (0.03) _a	0.62 (0.05) _{ab}	0.98 (0.07) _c	0.67 (0.07) _b	33.521 ^{***}
Self-esteem external	3.00 (0.02)	3.15 (0.04) _c	2.94 (0.06) _{ab}	2.79 (0.06) _a	2.97 (0.06) _b	27.405 ^{***}

Notes. Equality of means between classes was tested with the BCH command in Mplus 7.3. A class mean is significantly different from another mean if they have different subscripts. A mean without a subscript is not significantly different from any other mean. Standard errors are in parentheses.

*** $p < .001$.

Negative Management class. However, the Unbalanced Management class did not differ significantly from the Dyadic Positive Management and Dyadic Negative Management classes, and the Adolescent Negative Management class did not differ significantly from the Dyadic Negative Management class. At T2, adolescents were least satisfied in the Adolescent Negative Management class and most satisfied in the Dyadic Positive Management and Unbalanced Management classes. The Dyadic Negative Management class did not differ significantly from the other three classes. Mothers were most satisfied with the relationship in the Dyadic Positive Management class and least satisfied in the Dyadic Negative Management class. The other two classes scored in between.

Adolescents' self-esteem appeared to be significantly higher in the Dyadic Positive Management class than in the other three classes at T1. At T2, adolescents reported the highest level of self-esteem in the Dyadic Positive Management class and the lowest level in the Adolescent Negative Management class; the Unbalanced Management and Dyadic Negative Management classes did not differ significantly from each other. Adolescents reported the highest level of depressive symptoms in the Adolescent Negative Management class and the lowest level in the Dyadic Positive Management and Unbalanced Management classes at T1. However, the Unbalanced Management class did not differ significantly from the Dyadic Negative Management class, and the Adolescent Negative Management class did not differ significantly from the Dyadic Negative Management class. At T2, adolescents also reported the highest levels of depressive symptoms in the Adolescent Negative Management class and the lowest levels in the Dyadic Positive Management class. The Dyadic Negative Management class scored in between, and the Unbalanced Management class did not differ significantly from the Dyadic Positive Management and Dyadic Negative Management classes. Mothers reported the highest level of depressive symptoms in the Dyadic Negative Management class and the lowest level in the Dyadic Positive Management class. The

Adolescent Negative Management class scored in between, and the scores in the Unbalanced Management class did not differ significantly from the Dyadic Positive Management and Adolescent Negative Management classes.

Ancillary analyses

To determine whether different over-time changes would occur for the correlates in the different classes, separate repeated measures analyses of variance (ANOVAs) were conducted with time as the repeated measure factor, class membership as the between-subjects factor, and the correlates as dependent variables. These analyses revealed three significant time effects and one significant Time \times Class interaction effect. In the total sample, conflict frequency and self-esteem decreased over time, Wilks's $\lambda = .98$, $F(1, 522) = 11.04$, $p = .001$, $\mu^2 = .02$; Wilks's $\lambda = .98$, $F(1, 522) = 10.89$, $p = .001$, $\mu^2 = .02$, and maternal autonomy support increased, Wilks's $\lambda = .96$, $F(1, 522) = 20.96$, $p < .001$, $\mu^2 = .04$. There was limited support for differential time effects between the classes. In the Adolescent Negative Management class only, psychological control decreased over time, Wilks's $\lambda = .93$, $F(1, 113) = 8.35$, $p = .005$, $\mu^2 = .07$.

Discussion

Most research on parent-adolescent conflict management styles has focused on the unique effects of adolescents' conflict styles on adolescents' functioning using a variable-centered approach. However, family system theories argue that conflict styles of different interaction partners often co-occur (Branje et al., 2009). In this multi-informant study, we aimed at contributing to the extant literature on parent-adolescent conflict interactions by including both maternal and adolescent conflict styles in a typological approach. This provides a more complete and realistic picture of adolescent-mother conflict behaviors. More specifically, through LCA, we identified four meaningful conflict management constellations that were associated with differential mean levels on several individual and relational

factors for both mothers and adolescents. In addition, the mean differences in adolescents' perceptions of individual and relational factors among the conflict management constellations remained relatively stable over time.

Four conflict management constellations

Based on our literature review, we expected to find at least three conflict management profiles. LCA identified four insightful conflict management profiles. The first constellation, Dyadic Positive Management, represented the largest group of dyads in the present sample (39%). This constellation was characterized by high levels of problem solving and low levels of conflict engagement and withdrawal by both interaction partners. With regard to compliance, mothers displayed low levels and adolescents scored closer to the mean. Positive problem solving appeared to be the prevailing strategy in these dyads. This was in line with our expectations and an observational study by Branje (2008), who found that during a conflict interaction task, mothers and daughters displayed significantly more positive interactions than negative ones. This also corresponds with the idea that most families with adolescents have satisfying and positive interactions (Eisenberg et al., 2008).

In the second conflict management constellation, Unbalanced Management (22%), adolescents showed moderately high levels of problem solving and moderately low levels of engagement and withdrawal, whereas mothers showed relatively high levels of withdrawal and compliance and moderate scores on problem solving and conflict engagement. In these dyads, adolescents seem to make attempts to handle the conflict constructively, whereas mothers mainly react in a more passive way by withdrawing from the conflict or giving in to their adolescent. We did not anticipate this constellation and it does not represent a classical demand-withdraw pattern, where one interaction partner nags or criticizes and the other partner withdraws. It seems to represent a more positive constellation with a positive adolescent conflict approach and a more passive maternal approach.

In the third conflict management constellation, Adolescent Negative Management (28%), adolescents showed high levels of conflict engagement and withdrawal, moderate levels of compliance, and moderately low levels of problem solving, whereas mothers scored moderate to low on all four conflict styles. This pattern is characterized by the adolescents' use of destructive management strategies, whereas mothers rely on different conflict styles, as if mothers are trying out different ways of dealing with their adolescents' negative conflict behaviors.

In the fourth constellation, Dyadic Negative Management (11%), both adolescents and mothers displayed low levels of problem solving and high levels of conflict engagement. Further, adolescents displayed moderately high levels of withdrawal and mean levels of compliance. In addition, mothers displayed very high levels of withdrawal and high levels of compliance. This constellation is a combination of two of our hypothesized conflict management constellations (i.e., Adolescent Demand/Mother Withdraw and Dyadic Hostile Management). On the one hand, this constellation resembles a demand-withdraw pattern because adolescents' dominant strategy seems to be fighting and yelling, whereas mothers seem to rely mainly on withdrawal and compliance. This constellation was also found in the work of Caughlin and Malis (2004a, 2004b). On the other hand, Dyadic Negative Management also resembles a pattern of mutual hostility because adolescents and mothers both use conflict engagement at relatively high levels, combined with low levels of constructive conflict management. Neither adolescents nor mothers seem to use negotiation or compromise as a means to solve the conflict; therefore, this constellation corresponds with Patterson's (1982) vicious cycle of angry, coercive interactions. However, mothers also seem to be intimidated by their adolescents' high levels of conflict engagement, which might explain their high use of the more passive conflict styles of withdrawal and compliance. Kerr and Stattin (2003) indeed argued that some parents withdraw from their aggressive children because they feel intimidated and do not have adequate response

mechanisms to de-escalate the conflict. This withdrawing maternal behavior further reinforces adolescents' aggressive conflict styles (Patterson, Reid, & Dishion, 1992).

Readers should note that we found a substantial difference between adolescents' and mothers' use of compliance in the four conflict constellations. Adolescents' use of compliance did not differ among the four conflict constellations, meaning that adolescents showed near-mean levels of compliance in all four constellations. However, mothers' use of compliance differed significantly among all four constellations. Mothers showed the highest level of compliance in the Dyadic Negative Management constellation and the lowest level in the Dyadic Positive Management constellation. In addition, the correlations also revealed that maternal compliance was positively related to mothers' depressive symptoms and conflict frequency and negatively related to relationship satisfaction, whereas for adolescents the associations with compliance were less pronounced. From these findings, we can conclude that compliance has a different meaning for mothers than it does for adolescents. Giving in to your mother seems to be a rather normal strategy for adolescents (Laursen, 1993), whereas mothers who give in to their teenager seem to feel uncomfortable. This maternal tendency to comply might indicate a submissive parenting position and a rather turbulent relationship with the adolescent (Kerr & Stattin, 2003).

Differential associations with relational and individual factors

To obtain a clearer understanding of these four conflict management constellations, we explored whether these constellations would be differentially associated with several relational and individual factors. In line with our expectations, the Dyadic Positive Management constellation generally seems to be the most beneficial for both mothers and adolescents, whereas the Dyadic Negative Management constellation was associated with the least favorable pattern of individual and relational functioning. However, mothers and adolescents seemed to

have differential experiences in some of the constellations.

With regard to conflict frequency, adolescents reported lower levels of conflicts in the Dyadic Positive Management and Unbalanced Management constellations than in the two more destructive constellations. Therefore, adolescents' perceptions of conflict frequency seem to be primarily associated with their own conflict behavior because there was no significant difference between the Dyadic Positive Management and Unbalanced Management constellations. Both constellations display virtually identical manifestations of adolescents' conflict behaviors, whereas mothers show a different profile in both constellations (i.e., high problem solving in Dyadic Positive Management vs. more passive withdrawing behaviors in Unbalanced Management). We expected to find the highest levels of conflict frequency in the constellation where both parties used high levels of the more maladaptive styles (Dyadic Negative Management); however, this was not the case. No significant difference emerged in conflict frequency between Adolescent Negative Management and Dyadic Negative Management, suggesting that adolescents' equally high perceptions of conflict frequency in both negative constellations were mainly driven by their own negative conflict behavior. La Valley and Guerrero (2012) also found that conflict frequency was positively associated with reports of more destructive conflict management styles. Concerning relationship satisfaction, a similar pattern of findings emerged. Adolescents were most satisfied with the relationship with their mother in the Dyadic Positive Management constellation and least satisfied in the Adolescent Negative Management constellation, indicating that their own conflict behaviors are associated with their perceptions of the relationship quality.

With regard to conflict frequency and relationship satisfaction as perceived by mothers, a slightly different picture emerged. Mothers' perceptions of conflict frequency were the lowest in the Dyadic Positive Management constellation and the highest in the Dyadic Negative Management constellation. Thus, when mothers and adolescents both engaged

in positive problem solving, mothers reported the lowest conflict levels, whereas when both parties engaged in negative conflict styles, mothers reported the highest conflict levels. This finding indicates that dyadic aspects of the conflict interaction, rather than one's own conflict behavior, are associated with mothers' perceptions of conflict frequency. In contrast, adolescents' own conflict behavior was related to their perception of conflict frequency. The same pattern of results emerged for mothers' perception of relationship satisfaction. Mothers were most satisfied in the Dyadic Positive Management constellation and least satisfied in the Dyadic Negative Management constellation. It seems that mothers are more sensitive to the potential harmful effects of a vicious cycle of negative conflict interactions. This is in line with the view that mothers are more strongly affected by negative parent-child interactions than adolescents and that the affective intensity of negative interactions is more troublesome to them (Steinberg, 2001). Mothers in the Dyadic Negative Management constellation might perceive this negative interaction cycle as a personal failure (Laursen & Collins, 2004; Vuchinich, 1987).

We were also interested in how adolescents' perceptions of parenting would be associated with the four conflict management constellations. The parenting context can be regarded as an important affective climate that shapes adolescents' social behavior (Steinberg, 2001). Therefore, we focused on the parenting dimensions that are relevant in the context of conflict management. Adolescents experienced more warmth and less psychological control in the Dyadic Positive Management and Unbalanced Management than in the Adolescent Negative Management and Dyadic Negative Management constellations. Concerning autonomy support, the differences between the management constellations were more distinct. Adolescents perceived the highest levels of autonomy support in the Dyadic Positive Management constellation and the lowest levels in the two maladaptive management constellations (the Unbalanced Management constellation was in between). This suggests that when adolescents feel accepted for who they are and feel encouraged to take initiative,

it may result in a dyadic constructive way of dealing with conflicts. This is in line with a recent study that showed that maternal autonomy support is related to adaptive emotion regulation strategies in adolescents (Brenning, Soenens, Van Petegem, & Vansteenkiste, 2015). Indeed, constructive conflict management requires adequate capacities to regulate emotions experienced during the conflict in order to negotiate a compromise.

In addition to these relational aspects, we also considered mean-level differences in the conflict constellations for adolescents' and mothers' individual functioning because previous studies have demonstrated that conflict management behaviors are related to internalizing problems (Branje et al., 2009; Caughlin & Malis, 2004a). Adolescents experienced the highest level of self-esteem in the Dyadic Positive Management constellation, whereas self-esteem levels were similar in the other three constellations. Thus, constructive mutual conflict behaviors seem to boost adolescents' self-esteem. This finding is in line with earlier findings of Caughlin and Malis (2004a), showing that demand-withdraw interactions between adolescents and parents are negatively associated with adolescents' self-esteem. However, our study also extends their finding by demonstrating that a constellation characterized by high levels of constructive problem solving and low levels of fighting and withdrawing is associated with higher self-esteem as compared to the more destructive interaction constellations. This relationship be true in the opposite direction, namely, that self-confident adolescents are better equipped to constructively engage in conflicts with their mothers (D'Zurilla, Chang, & Sanna, 2003). Further, a reciprocal association between self-esteem and constructive conflict management might also be at work in these dyads and might be reflective of a healthy family climate with a good balance between autonomy and relatedness (Allen, Hauser, Bell, & O'Connor, 1994).

The finding that both mothers and adolescents reported the least depressive symptoms in the Dyadic Positive Management constellation and the most in the Dyadic Negative Management constellation suggests that mothers and

adolescents benefit most from an interaction pattern characterized by mutual attempts to handle conflicts constructively. These results can also be interpreted in several ways. Constructive conflict interactions between mothers and adolescents can be an indication of a positive family climate, and this has been extensively related to positive outcomes (Steinberg, 2001). Depressive complaints might also hinder effective communication (Segrin, 2000) and explain why mothers and adolescents turn to more negative conflict interactions.

Strengths, limitations, and suggestions for future research

Our study has a number of strengths. Four well-established conflict management styles by both mother and adolescent were used to identify dyadic constellations of conflict behavior in a large sample. We were also able to replicate these four constellations in an independent sample of Belgian adolescents and their mothers, bolstering the confidence in our findings. Furthermore, these dyadic constellations were meaningfully related to adolescents' and mothers' perceptions of their individual and relational functioning over time.

However, several limitations also need to be mentioned. First, the four constellations of adolescents' and mothers' conflict styles give us insight into which conflicts styles generally co-occur. However, our data do not allow us to make inferences about how mothers and adolescents interact with each other during a specific conflict, nor can we conclude anything about the temporal sequence of the conflict strategies. For instance, we cannot derive from our data whether adolescents' conflict engagement evoked mothers' withdrawal or vice versa. Observations of real-time conflict interactions or dyadic diary studies would give us more insight into the natural course of mother–adolescent conflict interactions. In addition, variable-centered approaches, such as the actor–partner interdependence model, could also give insight into which of the conflict styles (maternal vs. adolescent) would be the most predictive of certain outcomes. Future research should adopt these methods to answer

more specific questions concerning the potentially differential impact of maternal and adolescent conflict styles.

Second, we were only able to speak in terms of associations between the conflict management constellations and the individual and contextual factors because the current design does not allow for inferences to be made about the direction of effects. Given the complexity of parent–adolescent interactions and their embeddedness in a wider family context, it is very likely that transactional processes are at work. For instance, responsive parenting and constructive conflict management will probably reinforce each other over time. Future studies should investigate the possible bidirectional nature of these associations. Third, although we replicated our conflict style constellations in an independent sample of Belgian adolescents and mothers, future studies should also try to replicate the present findings in samples that include families of diverse socioeconomic and ethnic backgrounds. The shape and impact of parent–child interactions on adolescent and maternal functioning could vary depending on the social environment in which families are embedded (Mandara & Murray, 2002). Finally, this study focused on mother–adolescent relationships, but future studies should include fathers' conflict management styles to gain a more complete picture of family relationship functioning.

Conclusion

Conflicts are an inevitable feature of mother–adolescent relationships and they are believed to play a functional role in adolescents' autonomy development (Laursen & Collins, 2004). However, the way adolescents and mothers handle these conflicts is of crucial importance. Moreover, conflict behaviors do not occur in isolation, but often co-occur (Branje et al., 2009). This study revealed four constellations of adolescent and maternal dyadic conflict strategies. In general, we can conclude that a constellation characterized by mutual problem solving is the most beneficial for both mothers' and adolescents' functioning, whereas a constellation characterized by mutual negative conflict interactions appeared

to be most maladaptive. Our results further suggested that adolescents were more impacted by their own conflict behaviors, whereas mothers were more impacted by the dyadic nature of the conflict interaction.

References

- Adams, R. E., & Laursen, B. (2007). The correlates of conflict: Disagreement is not necessarily detrimental. *Journal of Family Psychology, 21*, 445–458.
- Allen, J. P., Hauser, S. T., Bell, K. L., & O'Connor, T. G. (1994). Longitudinal assessment of autonomy and relatedness in adolescent-family interactions as predictors of adolescent ego development and self-esteem. *Child Development, 65*, 179–194.
- Asparouhov, T., & Muthén, B. (2014a). Auxiliary variables in mixture modeling: Three-step approaches using M plus. *Structural Equation Modeling: A Multidisciplinary Journal, 21*, 329–341.
- Asparouhov, T., & Muthén, B. (2014b). Auxiliary variables in mixture modeling: Using the BCH method in Mplus to estimate a distal outcome model and an arbitrary secondary model. *Mplus Web Notes, 21*(2). Retrieved from <https://www.statmodel.com/examples/webnotes/webnote21.pdf>
- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*, 3296–3319.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York, NY: Wiley.
- Branje, S. J. T. (2008). Conflict management in mother-daughter interactions in early adolescence. *Behaviour, 145*, 1627–1651.
- Branje, S. J. T., Van Doorn, M., Van der Valk, I., & Meeus, W. (2009). Parent-adolescent conflicts, conflict resolution types, and adolescent adjustment. *Journal of Applied Developmental Psychology, 30*, 195–204.
- Brenning, K., Soenens, B., Van Petegem, S., & Vansteenkiste, M. (2015). Perceived maternal autonomy support and early adolescent emotion regulation: A longitudinal study. *Social Development, 24*, 561–578.
- Capaldi, D. M., Forgatch, M. S., & Crosby, L. (1994). Affective expression in family problem solving discussions with adolescent boys. *Journal of Adolescent Research, 9*, 28–49.
- Caughlin, J. P., & Huston, T. L. (2002). A contextual analysis of the association between demand/withdraw and marital satisfaction. *Personal Relationships, 9*, 95–119.
- Caughlin, J. P., & Malis, R. S. (2004a). Demand/withdraw communication between parents and adolescents: Connections with self-esteem and substance use. *Journal of Social and Personal Relationships, 21*, 125–148.
- Caughlin, J. P., & Malis, R. S. (2004b). Demand/withdraw communication between parents and adolescents as a correlate of relational satisfaction. *Communication Reports, 17*, 59–71.
- Chung, G. H., Flook, L., & Fuligni, A. J. (2009). Daily family conflict and emotional distress among adolescents from Latin American, Asian, and European backgrounds. *Developmental Psychology, 45*, 1406–1415.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Collins, L. M., & Lanza, S. T. (2011). *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. New York, NY: Wiley.
- Collins, W. A., & Laursen, B. (2004). Changing relationships, changing youth: Interpersonal contexts of adolescent development. *Journal of Early Adolescence, 24*, 55–62.
- Collins, W. A., Laursen, B., Mortensen, N., Luebker, C., & Ferreira, M. (1997). Conflict processes and transitions in parent and peer relationships: Implications for autonomy and regulation. *Journal of Adolescent Research, 12*, 178–198.
- Collins, W. A., & Steinberg, L. (2006). Adolescent development in interpersonal context. In W. Damon & R. Lerner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Social, emotional, and personality development* (Vol. 3, pp. 1003–1067). New York, NY: Wiley.
- Cook, W. L., & Kenny, D. A. (2005). The actor-partner interdependence model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development, 29*, 101–109.
- Cramer, D. (2000). Relationship satisfaction and conflict style in romantic relationships. *Journal of Psychology, 134*, 337–341.
- D'Zurilla, T. J., Chang, E. C., & Sanna, L. J. (2003). Self-esteem and social problem solving as predictors of aggression in college students. *Journal of Social and Clinical Psychology, 22*, 424–440.
- Driver, J., Tabares, A., Shapiro, A., Nahm, E. Y., & Gottman, J. M. (2003). Interactional patterns in marital success and failure: Gottman laboratory studies. In F. Walsh (Ed.), *Normal family processes: Growing diversity and complexity* (3rd ed., pp. 493–513). New York, NY: Guilford Press.
- Duriez, B., Soenens, B., & Vansteenkiste, M. (2007). In search of the antecedents of adolescent authoritarianism: The relative contribution of parental goal promotion and parenting style dimensions. *European Journal of Personality, 21*, 507–527.
- Eisenberg, N., Hofer, C., Spinrad, T. L., Gershoff, E. T., Valiente, C., Losoya, S., ... Darling, N. (2008). Understanding mother-adolescent conflict discussions: Concurrent and across-time prediction from youths' dispositions and parenting. *Monographs of the Society for Research in Child Development, 73*(2), 1–180.
- Gottman, J. (1994). *Why marriages succeed or fail . . . and how you can make yours last*. New York, NY: Simon & Schuster.
- Grolnick, W. S. (2002). *The psychology of parental control: How well-meant parenting backfires*. Mahwah, NJ: Erlbaum.
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational

- mediators of children's perceptions of their parents. *Journal of Educational Psychology*, 83, 508–517.
- Hooge, J., Decaluwé, L., & Goossens, L. (2000). Identiteit en psychisch welbevinden [Identity and well-being]. In H. De Witte, J. Hooge & L. Walgrave (Eds.), *Jongeren in Vlaanderen: Gemeten en geteld. 12- tot 18-jarigen over hun leefwereld en toekomst* (pp. 35–58). Leuven, Belgium: Universitaire Pers Leuven.
- Jaffee, W. B., & D'Zurilla, T. J. (2003). Adolescent problem solving, parent problem solving, and externalizing behavior in adolescents. *Behavior Therapy*, 34, 295–311.
- Jones, T. S. (2001). Emotional communication in conflict. In F. Eadie & P. E. Nelson (Eds.), *The language of conflict resolution*. (pp. 81–104). Thousand Oaks, CA: Sage.
- Kass, R. E., & Raftery, A. E. (1995). Bayes factors. *Journal of the American Statistical Association*, 90(430), 773–795.
- Kerr, M., & Stattin, H. (2003). Parenting of adolescents: Action or reaction? In A. Booth & A. Crouter (Eds.), *Children's influence on family dynamics: The neglected side of family relationships* (pp. 121–151). Mahwah, NJ: Erlbaum.
- Kurdek, L. A. (1994). Conflict-resolution styles in gay, lesbian, heterosexual nonparent, and heterosexual parent couples. *Journal of Marriage and the Family*, 56, 705–722.
- La Valley, A. G., & Guerrero, L. K. (2012). Perceptions of conflict behavior and relational satisfaction in adult parent-child relationships: A dyadic analysis from an attachment perspective. *Communication Research*, 39, 48–78.
- Laursen, B. (1993). The perceived impact of conflict on adolescent relationships. *Merrill-Palmer Quarterly*, 39, 535–550.
- Laursen, B., & Collins, W. A. (2004). Parent-child communication during adolescence. In A. L. Vangelisti (Ed.), *Handbook of family communication*. (pp. 333–348). Mahwah, NJ: Erlbaum.
- Laursen, B., & Collins, W. A. (2009). Parent-child relationships during adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology: Vol. 2. Contextual influences on adolescent development* (3rd ed., pp. 3–42). Hoboken, NJ: Wiley.
- Leary, M. R. (2005). Sociometer theory and the pursuit of relational value: Getting to the root of self-esteem. *European Review of Social Psychology*, 16, 75–111.
- Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83, 1198–1202.
- Lollis, S., & Kuczynski, L. (1997). Beyond one hand clapping: Seeing bidirectionality in parent-child relations. *Journal of Social and Personal Relationships*, 14, 441–461.
- Mandara, J., & Murray, C. B. (2002). Development of an empirical typology of African American family functioning. *Journal of Family Psychology*, 16, 318–337.
- Marchand, J. F., & Hock, E. (2000). Avoidance and attacking conflict-resolution strategies among married couples: Relations to depressive symptoms and marital satisfaction. *Family Relations*, 49, 201–206.
- McLachlan, G. J. (1987). On bootstrapping the likelihood ratio test statistic for the number of components in a normal mixture. *Applied Statistics*, 36, 318–324.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, 56, 289–302.
- Moed, A., Gershoff, E. T., Eisenberg, N., Hofer, C., Losoya, S., Spinrad, T. L., & Liew, J. (2014). Parent-adolescent conflict as sequences of reciprocal negative emotion: Links with conflict resolution and adolescents' behavior problems. *Journal of Youth and Adolescence*, 44, 1607–1622.
- Muthén, B., & Muthén, L. K. (2000). Integrating person-centered and variable-centered analyses: Growth mixture modeling with latent trajectory classes. *Alcoholism: Clinical and Experimental Research*, 24, 882–891.
- Muthén, L. K., & Muthén, B. O. (1998-2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling*, 14, 535–569.
- Patterson, G. R. (1982). *A social learning approach: Vol. 3. Coercive family process*. Eugene, OR: Castalia.
- Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Anti-social boys: A social interactional approach*. Eugene, OR: Castalia.
- Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Pacific Grove, CA: Brooks/Cole.
- Radloff, L. S. (1977). The CES-D scale a self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401.
- Reinecke, J. (2006). Longitudinal analysis of adolescent's deviant and delinquent behavior. *Methodology*, 2, 100–112.
- Roberts, R. E., & Sobhan, M. (1992). Symptoms of depression in adolescence: A comparison of Anglo, African, and Hispanic Americans. *Journal of Youth and Adolescence*, 21, 639–651.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rubenstein, J., & Feldman, S. (1993). Conflict-resolution behavior in adolescent boys: Antecedents and adaptational correlates. *Journal of Research on Adolescence*, 3, 41–66.
- Rueter, M. A., & Conger, R. D. (1995). Interaction style, problem-solving behavior, and family problem solving effectiveness. *Child Development*, 66, 98–115.
- Schaefer, E. S. (1965). Children's reports of parental behavior: An inventory. *Child Development*, 36, 413–424.
- Schludermann, E. H., & Schludermann, S. M. (1988). *Children's report on parent behavior (CRPBI-108, CRPBI-30) for older children and adolescents* (Tech. Rep.). Winnipeg, Canada: University of Manitoba, Department of Psychology.

- Segrin, C. (2000). Social skills deficits associated with depression. *Clinical Psychology Review, 20*, 379–403.
- Shek, D. T. (1997). Family environment and adolescent psychological well-being, school adjustment, and problem behavior: A pioneer study in a Chinese context. *Journal of Genetic Psychology, 158*, 113–128.
- Sillars, A., Canary, D. J., & Tafoya, M. (2004). Communication, conflict, and the quality of family relationships. In A. L. Vangelisti (Ed.), *Handbook of family communication*. (pp. 413–446). Mahwah, NJ: Erlbaum.
- Sillars, A., Koerner, A., & Fitzpatrick, M. A. (2005). Communication and understanding in parent-adolescent relationships. *Human Communication Research, 31*, 102–128.
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology, 57*, 255–284.
- Soenens, B., & Vansteenkiste, M. (2005). Antecedents and outcomes of self-determination in 3 life domains: The role of parents' and teachers' autonomy support. *Journal of Youth and Adolescence, 34*, 589–604.
- Soenens, B., Vansteenkiste, M., Luyckx, K., & Goossens, L. (2006). Parenting and adolescent problem behavior: An integrated model with adolescent self-disclosure and perceived parental knowledge as intervening variables. *Developmental Psychology, 42*, 305–318.
- Steinberg, L. (2001). We know some things: Parent-adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence, 11*, 1–19.
- Tucker, C. J., McHale, S. M., & Crouter, A. C. (2003). Conflict resolution: Links with adolescents' family relationships and individual well-being. *Journal of Family Issues, 24*, 715–736.
- Van der Giessen, D., Hollenstein, T., Hale, W. W., III, Koot, H. M., Meeus, W., & Branje, S. (2015). Emotional variability in mother-adolescent conflict interactions and internalizing problems of mothers and adolescents: Dyadic and individual processes. *Journal of Abnormal Child Psychology, 43*, 339–353.
- Van der Linden, F. J., Dijkman, T. A., & Roeders, P. J. B. (1983). *Metingen van kenmerken van het persoonssysteem en sociale systeem* [Measuring characteristics of the person system and the social system]. Nijmegen, Netherlands: Hoogveld Instituut.
- Van Doorn, M. D., Branje, S. J., Hox, J. J., & Meeus, W. H. (2009). Intraindividual variability in adolescents' perceived relationship satisfaction: The role of daily conflict. *Journal of Youth and Adolescence, 38*, 790–803.
- Van Doorn, M. D., Branje, S. J., VanderValk, I. E., De Goede, I. H., & Meeus, W. H. (2011). Longitudinal spillover effects of conflict resolution styles between adolescent-parent relationships and adolescent friendships. *Journal of Family Psychology, 25*, 157–161.
- Van Doorn, M. D., Branje, S. J. T., & Meeus, W. H. J. (2008). Conflict resolution in parent-adolescent relationships and adolescent delinquency. *Journal of Early Adolescence, 28*, 503–527.
- Vuchinich, S. (1987). Starting and stopping spontaneous family conflicts. *Journal of Marriage and the Family, 49*, 591–601.
- Zhang, Q. (2007). Family communication patterns and conflict styles in Chinese parent-child relationships. *Communication Quarterly, 55*, 113–128.