

Longitudinal Transmission of Conflict Management Styles Across Inter-Parental and Adolescent Relationships

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This study longitudinally investigated transmission of conflict management styles across inter-parental, adolescent-parent, adolescent-friend, and adolescent-partner relationships. During four waves, 799 middle-to-late adolescents ($M_{\text{age-t1}} = 15.80$; 54% boys) and their parents completed the Conflict Resolution Style Inventory. Cross-lagged path analyses indicated transmission of adolescent conflict management styles in relationships with parents to relationships with friends and romantic partners: Positive problem solving and conflict engagement utilized by adolescents in conflicts with parents were significantly, positively related to, respectively, adolescent positive problem solving and conflict engagement in relationships with friends 1 year later and relationships with partners 2 years later. Thus, the study showed that the way adolescents manage conflicts with parents predicts how they handle conflicts later in relationships outside the family.

Learning how to manage conflicts appropriately is an important developmental task for adolescents, and is related to their psychosocial functioning (e.g., Branje, Van Doorn, Van der Valk, & Meeus, 2009; Tucker, McHale, & Crouter, 2003). The main context for adolescents to learn and practice effective conflict management skills is the family (Parke & Buriel, 2006). Especially, inter-parental and parent-adolescent relationships are considered important sources from which adolescents learn how to manage conflicts in other relationships, such as those with friends and romantic partners (e.g., Cui, Donnellan, & Conger, 2007; Kinsfogel & Grych, 2004; Van Doorn, Branje, Van der Valk, De Goede, & Meeus, 2011). Adolescents can observe conflict management styles that are used during inter-parental disputes and practice conflict management styles in relationships with their parents (Reese-Weber & Kahn, 2005), and subsequently use these observed and practiced styles in conflicts with friends and romantic partners (Reese-Weber & Bartle-Haring, 1998). However, the processes according to which this transmission of conflict management takes place are understudied in research to date. Therefore, the aim of this study was to longitudinally investigate associations between conflict management styles used in inter-

parental, adolescent-parent, adolescent-friend, and adolescent-partner relationships.

The Importance of Conflict Management Styles

Three conflict management styles that can be distinguished are positive problem solving, conflict engagement, and withdrawal. These conflict management styles have been identified based on behavioral observations of marital relationships (Gottman & Krokoff, 1989) and are also found in relationships of adolescents with parents and friends (Van Doorn, Branje, & Meeus, 2007; Van Doorn et al., 2011). Positive problem solving involves negotiation, trying to understand the other's position, and using constructive reasoning tactics to work out compromises. Conflict engagement implicates being verbally abusive, angry, defensive, attacking, or losing self-control. Finally, withdrawal comprises refusing to discuss the issue further, tuning the other partner out, avoiding the problem, avoiding talking, and becoming distant (Kurdek, 1994; Van Doorn et al., 2007).

Although conflict management differs across dyads or relationships because both members determine the way conflicts are handled, individuals also develop a certain style of conflict management which they transfer across relationships (e.g., Van

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Doorn et al., 2011). Developmentally, middle-to-late adolescence is an important phase with regard to this transmission of conflict management. That is, cognitive representations regarding relationships seem to become more mature in middle adolescence. Perspective taking develops (Van der Graaff et al., 2014), which ensures that adolescents are usually better able to handle conflicts and differences in perspective taking in friendships (Selfhout, Branje, & Meeus, 2009; Selman, 1990; Van Doorn et al., 2007). This could therefore be the developmental phase in which adolescents are especially susceptible for how conflicts are managed in the family. Another reason for why transmission of conflict management could be particularly likely in middle-to-late adolescence is that relationships within and outside the family become more alike. That is, adolescent relationships with friends and romantic partners become more similar to inter-parental relationships due to increasing mutual intimacy, mutual support, and interdependence in adolescent relationships (Selman, 1981). Furthermore, relationships with parents grow into more egalitarian relationships over the course of adolescence (De Goede, Branje, & Meeus, 2009), and therefore become more analogous to inter-parental relationships, but are also more likely to serve as a model for romantic relationships (Seiffge-Krenke, 2003). As friendships and romantic relationships attain real attachment qualities in late adolescence, parent-adolescent relationships and adolescent relationships with friends and romantic partners become more similar toward late adolescence (Nieder & Seiffge-Krenke, 2001). Studying transmission of conflict management styles across the aforementioned relationships is thus particularly interesting in this developmental phase.

The conflict management styles adolescents use are important predictors of their psychosocial functioning. For instance, adolescents who used higher levels of conflict engagement or withdrawal and less positive problem solving in conflicts with their parents reported higher levels of problem behaviors (Branje et al., 2009; Rubenstein & Feldman, 1993). Furthermore, adolescents who lacked the ability to manage conflicts positively and constructively with friends were found to be at risk for maladjustment and social rejection (Newcomb, Bukowski, & Pattee, 1993). Appropriately managing everyday conflicts is also essential in maintaining healthy friendships (Van Doorn et al., 2011) and romantic relationships (Larsen, Branje, Van der Valk, & Meeus, 2007; Simon & Furman, 2010). Because utilizing effective conflict management styles is important for psychosocial

and relational adjustment, it is essential to examine what influences the conflict management styles adolescents use.

Direct Effects of Inter-Parental Conflict Management

The way parents manage conflicts with each other is suggested to be directly related to the way adolescents manage conflicts. According to family systems theory (Minuchin, 1985), the family is a social system, consisting of several interconnected subsystems (e.g., the parental subsystem, the parent-child subsystem), which influence one another. The inter-parental relationship is considered most important and would influence the adolescent-parent relationship rather than the other way around (Erel & Burman, 1995; Minuchin, 1985). In addition, social learning theory (Bandura, 1977) emphasizes the role of parents as important socialization agents for their children and suggests intergenerational transmission of inter-parental conflict management to adolescents' conflict management with parents, as well as with friends and romantic partners through a process of modeling. That is, adolescents might observe the way parents manage conflicts in the marital relationship and subsequently imitate those behaviors in their own conflicts.

Empirically, the way parents manage conflicts in the marital relationship was found to be correlated with adolescent conflict management in the relationship with parents (e.g., Reese-Weber, 2000; Reese-Weber & Kahn, 2005; Rinaldi & Howe, 2003), suggesting intergenerational transmission of conflict management styles. However, only one study used a longitudinal design and found transmission from the way parents manage inter-parental conflicts to the way early-to-middle adolescents manage conflicts with their parents, and not the other way around. The use of positive problem solving and conflict engagement in inter-parental relationships predicted the use of positive problem solving and conflict engagement, respectively, by adolescents in parent-adolescent relationships over time. However, for withdrawal, only concurrent associations were found (Van Doorn et al., 2007).

Exposure to inter-parental conflict management has also been shown to be concurrently related to the way adolescents manage conflicts with friends (e.g., Dadds, Atkinson, Turner, Blums, & Lendich, 1999) and romantic partners (e.g., Darling, Cohan, Burns, & Thompson, 2008; Simon & Furman, 2010). However, longitudinal evidence for these relations is lacking. We examined the hypothesis that inter-

parental conflict management predicts later adolescent conflict management in various relationships from middle adolescence to young adulthood using a longitudinal design.

Direct Effects of Adolescent–Parent Conflict Management

Adolescents' conflict management with parents can also affect the way adolescents handle conflicts with friends and romantic partners. Attachment theory (Bowlby, 1969) suggests that adolescents have constructed internal working models of relationships and developed skills based on experiences with parents, which they use to understand and construct relationships with friends and romantic partners. This implies that adolescents will transfer the conflict management styles they use in conflicts with parents to conflicts with friends and romantic partners. This process has been labeled *spillover* (Erel & Burman, 1995; Larson & Almeida, 1999), which refers to the direct transfer of mood, affect, or behavior within one person from one setting to another (Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti, 1987).

Indeed, adolescent self-reported conflict management with parents was found to be related to adolescent self-reported conflict management with friends (Van Doorn et al., 2011) and romantic partners (Reese-Weber & Bartle-Haring, 1998). When positive problem solving, conflict engagement, or withdrawal was used more within the adolescent–parent relationship, the adolescent was more likely to use the respective style later on in friendships (Van Doorn et al., 2011) and concurrently in romantic relationships (Reese-Weber & Bartle-Haring, 1998; Reese-Weber & Kahn, 2005). Despite consistent findings showing that the quality of parent–adolescent relationships prospectively predicts the quality of romantic relationships (e.g., Cook, Buehler, & Blair, 2013; Cui, Durtschi, Donnellan, Lorenz, & Conger, 2010; Cui & Fincham, 2010), associations between adolescent conflict management with parents and romantic partners have not been examined over time. Therefore, we used a longitudinal design and expected that adolescent–parent conflict management predicts *later* adolescent–friend and adolescent–partner conflict management.

Mediation of Adolescent–Parent Conflict Management

Although theory and research suggest a transmission from both inter-parental and adolescent–parent conflict management to adolescent conflict

management with friends and romantic partners, longitudinal studies have only examined the effect of either inter-parental or adolescent–parent conflict management. By including both dyads within one model, we investigated the relative importance of the two over time. On the one hand, family systems theory (Erel & Burman, 1995; Minuchin, 1985) argues that the marital relationship is the most important family subsystem and influences adolescents' relational functioning. On the other hand, it can also be argued that the direct effect of adolescent–parent conflict management on adolescent conflict management with friends and romantic partners would be more prominent than the direct effect of inter-parental conflict management. First, adolescent interpersonal functioning is considered not to be just a function of modeling relationships observed in the family, like inter-parental relationships; experiences in one's own reciprocal relationships would also be necessary for the development of interpersonal skills, such as conflict management skills, in relationships with friends and romantic partners (Cook et al., 2013). Second, as many parents prefer not to argue in front of their children to spare them from anxiety (Reese-Weber & Bartle-Haring, 1998), adolescents may not always have the opportunity to observe, and subsequently imitate, inter-parental conflict management styles. Third, transmission from adolescent conflict management with parents to relationships with friends and romantic partners concerns a within-person transmission (or spillover; Bolger et al., 1989), which is more likely to occur than a between-person transmission, such as from inter-parental to adolescent conflict management.

It is also possible that the effect of inter-parental conflict management on adolescent conflict management with friends and romantic partners is mediated by adolescent–parent conflict management. That is, the direct influence of the inter-parental relationship on adolescent relational functioning might be limited to within-family relationships, such as the adolescent–parent relationship (Erel & Burman, 1995; Minuchin, 1985). This implies that inter-parental conflict management influences adolescent–parent conflict management, which in turn might affect adolescents' conflict management in relationships outside the family (e.g., Van Doorn et al., 2011). A *cross-sectional* mediation effect of adolescent–parent conflict management was indeed found for the relation between inter-parental and adolescent–partner conflict management (Reese-Weber & Bartle-Haring, 1998; Reese-Weber & Kahn, 2005). By using a

longitudinal design (Cole & Maxwell, 2003), we further explored whether there is (partial) mediation of adolescent–parent conflict management between inter-parental conflict management and adolescent conflict management in relationships with friends and romantic partners.

Direct Effects of Adolescent–Friend Conflict Management

Experiences with friends become increasingly influential over the course of adolescence and might even affect interactions with parents (Brown, 2004; Van Doorn et al., 2011). Therefore, we also took into account bidirectional relationships between inter-parental and adolescent–parent conflict management on the one hand and adolescent–friend conflict management on the other hand. Moreover, friendships might have distinct associations with later romantic relationships because friendships are adolescents' first voluntary, intimate relationships (Furman, Simon, Shaffer, & Bouchev, 2002). Sullivan (1953) proposed that friendships are vital to later romantic relationships because friends and romantic partners can experience intimacy and reciprocity in ways that are not possible in hierarchical relationships such as those with parents. Although, to our knowledge, no studies have directly examined the association between adolescent–friend and adolescent–partner conflict management, adolescents' interactions with friends have been shown to predict later interactions and conflict in romantic relationships (e.g., Linder & Collins, 2005; Simpson, Collins, Tran, & Haydon, 2007). Therefore, we also examined whether adolescent–friend conflict management predicts later adolescent–partner conflict management.

The Current Study

In sum, we longitudinally investigated (1) whether the way parents manage conflicts with each other predicts the way adolescents manage conflicts with parents, friends, and romantic partners and (2) whether the way adolescents manage conflicts with parents predicts adolescent conflict management with friends and romantic partners, while taking into account all other concurrent and over time relations. Moreover, we examined (3) whether adolescent–parent conflict management mediates the relation between inter-parental conflict management and adolescent conflict management with both friends and romantic partners. Lastly, we explored (4) whether the way adolescents manage

conflicts with friends predicts adolescent conflict management with romantic partners. The use of a 4-year longitudinal design enabled us to examine transmission processes for positive problem solving, conflict engagement, and withdrawal among inter-parental, adolescent–parent, and adolescent–friend relationships in middle-to-late adolescence, and adolescent–partner relationships in late adolescence. We focused solely on romantic relationships in late adolescence, as romances are more common and stable in this developmental phase than at earlier ages (Collins, Welsh, & Furman, 2009).

METHODS

Participants

This study used four waves of data from the ongoing longitudinal study Research on Adolescent Development and Relationships (RADAR)—Young and Old. We used data from 472 adolescents in RADAR Young and 327 adolescents in RADAR Old. The first assessment of RADAR Old took place in 2001 and the first assessment of RADAR Young took place in 2005. In both samples, adolescents attended the first year of high school at Wave 1. For this study, we used measurement waves for which we had identical data in both samples, that is, from Wave 4 to Wave 7. From now on, Wave 4, 5, 6, and 7 will be referred to as Time 1, 2, 3, and 4 in this study.

In total, we utilized data from 799 adolescents (54% boys) and their parents. These adolescents attended the fourth year of secondary education and were on average 15.80 years old ($SD = .57$, range: 14–19 years) at Time 1. Adolescents in the RADAR Young subsample (57% boys) and the RADAR Old subsample (49% boys) were on average 16.03 years old ($SD = .45$, range: 15–19 years) and 15.45 years old ($SD = .56$, range: 14–17 years), respectively. Regarding the complete sample, adolescents' mothers were on average 46.96 years old ($SD = 4.45$, range: 33–67 years) and their fathers were on average 49.35 years old ($SD = 5.11$, range: 36–71 years). The majority of the best friends (95%) were of the same sex as the target adolescent. At Time 4 (age 20), 259 adolescents (32.4%) reported to have a romantic partner ($M_{age} = 20.70$, $SD_{age} = 2.65$, range: 15–32 years), of which 98% was an opposite-sex partner. Regarding ethnicity, 97% of the adolescents were of Dutch origin. Furthermore, 50% of the mothers and 58% of the fathers had a college or university degree. Information regarding socioeconomic status (SES) was only

available for 464 adolescents from the RADAR Young sample, of which 90% came from families with a medium or high SES. Both intact and separated (16%) families participated in the study, as family conflicts and conflict management have shown to be related to late adolescents' relationships regardless of the family structure (Reese-Weber & Kahn, 2005).

Of the initial 799 adolescents, 127 participants (16%) were no longer involved in the study at Time 3 and Time 4. These adolescents were significantly younger, $F(1, 771) = 6.37, p = .012$, were significantly more often of Surinamese or Antillean origin, $\chi^2(2) = 6.22, p = .045$, and had fathers with a significantly lower mean level of the use of withdrawal in conflicts with their mother, $F(1, 700) = 3.92, p = .048$, compared to adolescents who continued to participate. No other statistically significant differences were found between adolescents who dropped out and adolescents who continued participating in the study.

Procedure

Participants were recruited in the western and central parts of the Netherlands. Both adolescents and their parents received written information about the study. After assurance of confidentiality, parents provided active written informed consent to participate. Adolescents and their parents filled out questionnaires independently from one another during annual home visits, and research assistants provided additional verbal instructions.

We used annual data of adolescents and parents from the first three waves, in which adolescents reported on conflict management with their parents and best friend, and parents reported on conflict management with their partner. After a gap of 2 years (i.e., 2 years after Time 3), we adopted a partner design. During this fourth wave, adolescents reported on conflict management with their romantic partner instead of family members. In each wave, every participant received a monetary reward (approximately €25 each) for participating. A university medical ethics committee approved the study.

Measures

Using the Dutch adaptation of the Conflict Resolution Style Inventory (CRSI; Kurdek, 1994; Van Doorn et al., 2007), adolescents reported on the conflict management styles they used in conflicts with their father, mother, best friend, and romantic

partner, and both mothers and fathers reported on the conflict management styles they utilized in conflicts with their partner. We used the scores on three conflict management styles for this study: positive problem solving, conflict engagement, and withdrawal, with five items for each conflict management style. All items were rated on a 5-point Likert-type scale with response options ranging from 1 (*never*) to 5 (*always*). Items were averaged per scale, whereby high scores indicated frequent use of that conflict management style. Positive problem solving involved making compromises (e.g., "negotiating and trying to find a solution that is mutually acceptable") and discussing the conflict effectively (e.g., "sitting down and discussing the differences of opinion"). Conflict engagement was measured by items such as "getting furious and losing my temper" and "letting myself go and saying things I do not really mean." Example items used to measure withdrawal are "not listening anymore" and "refusing to talk any longer." Reliability, criterion validity, and external validity of the CRSI were established (Branje et al., 2009; Kurdek, 1994; Van Doorn et al., 2007). Across all reporters and all waves of this study, the internal consistencies (Cronbach's α) of positive problem solving, conflict engagement, and withdrawal ranged from .78 to .91 ($M = .85$), indicating high internal consistency (Field, 2009).

Analytic Strategy

Data from RADAR Old and RADAR Young were merged to perform analyses across the entire sample of adolescents ($N = 799$) and their parents. To assess the transmission of conflict management styles across inter-parental and adolescent relationships over 4 years, we used structural equation modeling (SEM) in Mplus Version 7.4 (Muthén & Muthén, 1998–2012). Across all waves, on average 14% of the responses were missing per subscale (ranging from 4.6% to 26.9%). Little's Missing Completely At Random test (MCAR; Little, 1988) revealed a normed χ^2 ($\frac{\chi^2}{df}$) value of 1.27, indicating a good fit between the sample scores with and without imputation (Bollen, 1989). Therefore, cases with missing data could be used in Mplus using the full information maximum likelihood approach (FIML), allowing information of all 799 participants to be used in all waves (Muthén & Muthén, 1998–2012; Widaman, 2006).

For each conflict management style separately, we performed path analyses with cross-lagged effects (see Figure 1). Conflict management in

inter-parental relationships was measured as a latent variable with fathers' conflict management style with mothers and mothers' conflict management style with fathers as indicators. To ensure equal influence of fathers' and mothers' style on the construct, we fixed all factor loadings to 1. Conflict management of adolescents with parents was measured as a latent construct with adolescents' conflict management style with mothers and fathers as indicators. Again, we fixed all factor loadings to 1. Target adolescent's conflict management styles in friendships and romantic relationships were represented by an observed variable, which is the scale score on the concerned conflict management style. We tested cross-lagged effects among inter-parental, adolescent-parent, and adolescent-friend conflict management across the first three waves, while taking into account both between-wave stability of and within-wave associations between all variables. Furthermore, we assessed cross-lagged effects from inter-parental, adolescent-parent, and adolescent-friend conflict management at Time 3 to adolescent-partner conflict management at Time 4. For the latent factors, corresponding measurement errors of each

observed variable were allowed to correlate across the first three waves. For example, the error of adolescents' conflict management style with mothers at Time 1 was allowed to correlate with the error of adolescents' conflict management style with mothers at Time 2.

To examine longitudinal mediation of adolescent-parent conflict management in the association of inter-parental conflict management and adolescent conflict management with both friends and romantic partners, we used bootstrapping (Preacher & Hayes, 2008; Preacher, Zyphur, & Zhang, 2010). In bootstrapping, random samples (1,000 in this study) are generated based on the original data, leading to a distribution of 1,000 estimates of direct and indirect effects (Preacher & Hayes, 2004, 2008). We examined mediation of adolescent-parent conflict management between inter-parental and adolescent-friend conflict management across Time 1 to Time 3, and between inter-parental and adolescent-partner conflict management across Time 2 to Time 4 (see Figure 1). To investigate gender differences in the transmission of conflict management, we analyzed models for fathers and mothers separately because fathers and

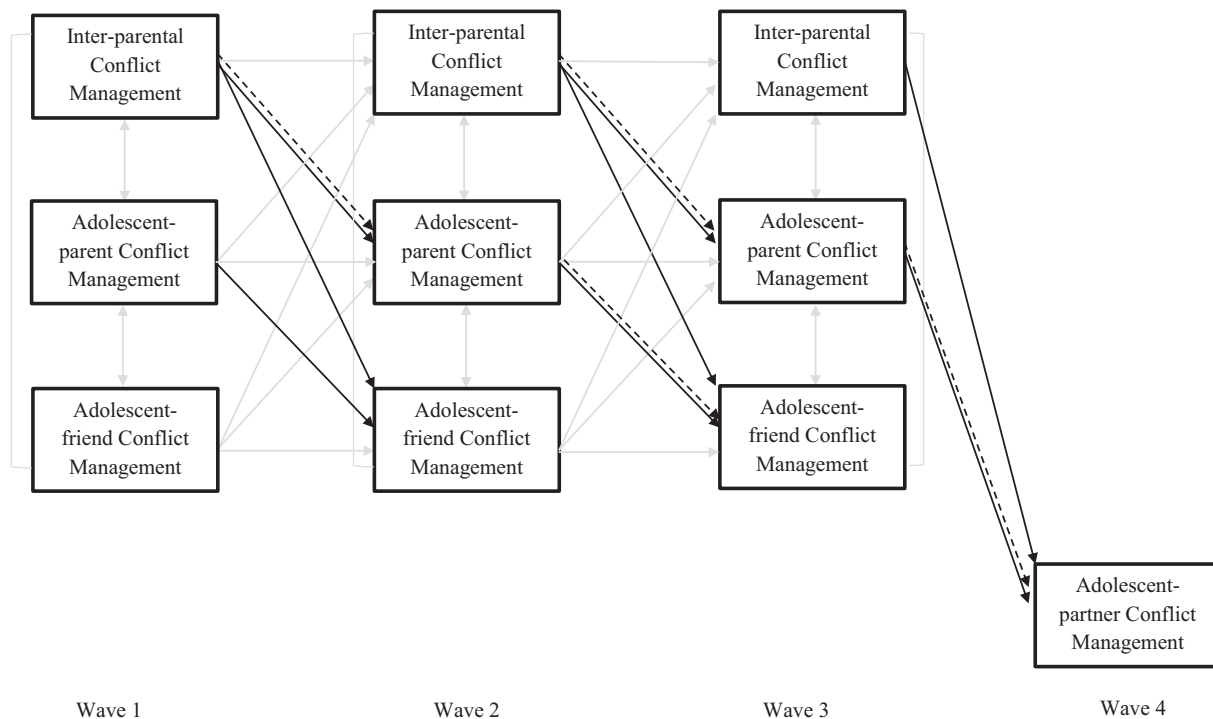


FIGURE 1 Fully recursive cross-lagged model. *Note.* This figure is repeated for each conflict management style (positive problem solving, conflict engagement, and withdrawal). Arrows in black represent hypothesized direct cross-lagged effects, dotted arrows represent hypothesized indirect effects, and arrows in gray represent stability paths, within-wave correlations, and bidirectional cross-lagged paths across inter-parental, adolescent-parent, adolescent-friend, and adolescent-partner conflict management.

mothers are nested in the same family. Consequently, we were unable to test for differences between transmission of, and to, adolescent–father and adolescent–mother conflict management. Therefore, we compared associations across the father and mother models on significance. Within these models for fathers and mothers, we performed multiple-group analyses to compare boys and girls.

To evaluate the fit of each model, we used the comparative fit index (CFI), Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA). The model fit is considered to be good if CFI and TLI are .95 or higher and RMSEA is .05 or lower (Byrne, 2013). To compare nested models, we used Δ CFI and Δ RMSEA in addition to $\Delta\chi^2$, as they are suggested to be sample size-insensitive means of comparing different models (Chen, 2007). Two of three of the following conditions should be met to indicate a better model fit: a significant $\Delta\chi^2$ (with $p < .05$); a Δ CFI $\geq .010$; a Δ RMSEA $\geq -.015$.

RESULTS

Descriptive Statistics

Means and variances per conflict management style, dyad, and time point are specified in Table 1. Bivariate Pearson correlations among indicators are presented per conflict management style in Table 2, but only across Time 1 and Time 2 for reasons of

parsimony. Within-wave correlations of the indicators at Time 3 and between-wave correlations of the indicators at Time 3 with the indicators at Time 1 and Time 2 were comparable to the results for Time 1 and Time 2 presented in Table 2. The temporal stability of the conflict management styles in the inter-parental, adolescent–parent, and adolescent–friend relationship was moderately high, ranging from .49 to .78. The stability coefficients found in the inter-parental and adolescent–parent relationship are comparable to previous findings (Kurdek, 1994; Van Doorn et al., 2007).

Model Construction

A model in which all stability paths, cross-lagged paths, and within-wave correlations were constrained over time showed good model fit for all three conflict management styles, with CFI = .99, TLI = .99, RMSEA = .03, $\chi^2(84) = 126.51$, $p = .002$ for positive problem solving, CFI = .99, TLI = .98, RMSEA = .04, $\chi^2(84) = 179.43$, $p < .001$ for conflict engagement, and CFI = .99, TLI = .99, RMSEA = .03, $\chi^2(84) = 142.14$, $p < .001$ for withdrawal. Tests for time invariance showed that stability paths, cross-lagged paths, and within-wave correlations could be constrained over time for all three conflict management styles. That is, releasing each individual stability path and cross-lagged path separately did not result in a significantly better model fit, with both Δ CFI and Δ RMSEA consistently far below .010 and .015, respectively. The same holds for

TABLE 1
Descriptive Statistics of Conflict Management Styles in Inter-Parental, Adolescent–Parent, Adolescent–Friend, and Adolescent–Partner Relationships

	<i>Positive Problem Solving</i>		<i>Conflict Engagement</i>		<i>Withdrawal</i>	
	<i>Mean</i>	<i>Variance</i>	<i>Mean</i>	<i>Variance</i>	<i>Mean</i>	<i>Variance</i>
Mothers with fathers, T1	3.86	.39	1.74	.35	1.90	.45
Fathers with mothers, T1	3.70	.40	1.52	.26	1.95	.44
Adolescents with mothers, T1	3.17	.75	1.49	.37	2.01	.58
Adolescents with fathers, T1	3.03	.84	1.50	.38	2.03	.60
Adolescents with friend, T1	3.26	.97	1.28	.21	1.53	.39
Mothers with fathers, T2	3.88	.36	1.71	.38	1.90	.48
Fathers with mothers, T2	3.72	.39	1.53	.29	1.98	.51
Adolescents with mothers, T2	3.24	.73	1.44	.33	1.94	.57
Adolescents with fathers, T2	3.13	.82	1.46	.34	1.99	.60
Adolescents with friend, T2	3.32	.98	1.25	.18	1.52	.38
Mothers with fathers, T3	3.83	.42	1.72	.35	1.94	.52
Fathers with mothers, T3	3.71	.40	1.52	.26	2.01	.52
Adolescents with mothers, T3	3.25	.69	1.46	.38	1.98	.63
Adolescents with fathers, T3	3.12	.79	1.54	.38	2.09	.64
Adolescents with friend, T3	3.36	.92	1.28	.23	1.58	.49
Adolescents with partner, T4	3.85	.52	1.42	.29	1.74	.48

TABLE 2
 Bivariate Pearson Intercorrelations Between Conflict Management Styles in Inter-Parental, Adolescent-Parent, and Adolescent-Friend Relationships at Time 1 (T1) and Time 2 (T2)

Variable	1	2	3	4	5	6	7	8	9	10
Positive problem solving										
1. Mothers with fathers, T1	—									
2. Fathers with mothers, T1	.31**	—								
3. Adolescents with mothers, T1	.21**	.14**	—							
4. Adolescents with fathers, T1	.18**	.19**	.70**	—						
5. Adolescents with friend, T1	.11**	.04	.57**	.49**	—					
6. Mothers with fathers, T2	.71**	.24**	.17**	.16**	.11**	—				
7. Fathers with mothers, T2	.30**	.69**	.12**	.16**	.04	.29**	—			
8. Adolescents with mothers, T2	.19**	.09*	.66**	.56**	.47**	.18**	.14**	—		
9. Adolescents with fathers, T2	.19**	.15**	.57**	.68**	.43**	.17**	.16**	.74**	—	
10. Adolescents with friend, T2	.12**	.01	.45**	.37**	.59**	.14**	.09*	.59**	.55**	—
Conflict engagement										
1. Mothers with fathers, T1	—									
2. Fathers with mothers, T1	.25**	—								
3. Adolescents with mothers, T1	.13**	.10**	—							
4. Adolescents with fathers, T1	.08*	.09*	.74**	—						
5. Adolescents with friend, T1	.10*	.03	.52**	.51**	—					
6. Mothers with fathers, T2	.75**	.25**	.14**	.06	.05	—				
7. Fathers with mothers, T2	.24**	.78**	.06	.05	-.01	.28**	—			
8. Adolescents with mothers, T2	.16**	.11*	.71**	.56**	.42**	.13**	.09*	—		
9. Adolescents with fathers, T2	.12**	.15**	.61**	.70**	.42**	.09*	.10*	.75**	—	
10. Adolescents with friend, T2	.15**	.08*	.41**	.35**	.49**	.10*	.00	.48**	.46**	—
Withdrawal										
1. Mothers with fathers, T1	—									
2. Fathers with mothers, T1	.28**	—								
3. Adolescents with mothers, T1	.21**	.12**	—							
4. Adolescents with fathers, T1	.19**	.11**	.69**	—						
5. Adolescents with friend, T1	.19**	.10*	.45**	.44**	—					
6. Mothers with fathers, T2	.73**	.22**	.23**	.25**	.24**	—				
7. Fathers with mothers, T2	.25**	.75**	.13**	.13**	.10*	.21**	—			
8. Adolescents with mothers, T2	.19**	.12**	.61**	.48**	.38**	.20**	.13**	—		
9. Adolescents with fathers, T2	.22**	.11**	.50**	.58**	.36**	.21**	.11**	.72**	—	
10. Adolescents with friend, T2	.20**	.11**	.36**	.34**	.49**	.21**	.10**	.52**	.50**	—

* $p < .05$; ** $p < .01$.

releasing all within-wave correlations simultaneously. Therefore, we used the fully constrained models for all three conflict management styles to examine transmission of conflict management.

Transmission of Positive Problem Solving Across Relationships

The results of the model for positive problem solving are displayed in Table 3. The stability of positive problem solving across the first three measurement waves was very high in inter-parental relationships, high in adolescent-parent relationships, and moderately high in adolescent-friend relationships. At Time 1, inter-parental positive problem solving was significantly and positively correlated with adolescent positive problem solving in relationships with parents and friends.

These relations were medium and small in size, respectively. A significant and strong positive correlation was also found between adolescent-parent and adolescent-friend positive problem solving at Time 1. Changes in inter-parental positive problem solving were not significantly correlated with changes in adolescent-parent positive problem solving and changes in adolescent-friend positive problem solving. However, we found a significantly positive and strong correlation between changes in adolescent-parent positive problem solving and changes in adolescent-friend positive problem solving.

There were no significant effects over time between inter-parental positive problem solving on the one hand, and adolescent-parent and adolescent-friend positive problem solving on the other hand, nor did inter-parental positive problem

TABLE 3
Final Model Parameter Estimates for Positive Problem Solving

Regression path/covariance	B	SE of B	p of B	β_1	β_2	β_3	β_4
Stability paths							
Stability inter-parental	1.03	0.09	<.001		.99**	1.00**a	
Stability adolescent-parent	0.71	0.04	<.001		.73**	.72**	
Stability adolescent-friend	0.42	0.05	<.001		.42**	.42**	
Within-wave correlations/correlated changes							
Inter-parental \leftrightarrow Adolescent-parent _{t1}	0.10	0.02	<.001	.37**			
Inter-parental \leftrightarrow Adolescent-parent _{t2/3}	0.01	0.01	.058		.26	.36	
Inter-parental \leftrightarrow Adolescent-friend _{t1}	0.05	0.02	.020	.13*			
Inter-parental \leftrightarrow Adolescent-friend _{t2/3}	0.03	0.01	.008		.36	.48	
Adolescent-parent \leftrightarrow Adolescent-friend _{t1}	0.47	0.03	<.001	.64**			
Adolescent-parent \leftrightarrow Adolescent-friend _{t2/3}	0.19	0.02	<.001		.54**	.52**	
Cross-lagged paths							
Inter-parental \rightarrow Adolescent-parent	0.12	0.08	.132		.06	.06	
Inter-parental \rightarrow Adolescent-friend	-0.08	0.24	.733		-.03	-.03	
Inter-parental \rightarrow Adolescent-partner	0.29	0.20	.146				.14
Adolescent-parent \rightarrow Inter-parental	-0.04	0.03	.178		-.08	-.08	
Adolescent-parent \rightarrow Adolescent-friend	0.29	0.08	<.001		.23**	.22**	
Adolescent-parent \rightarrow Adolescent-partner	0.30	0.11	.007				.31**
Adolescent-friend \rightarrow Inter-parental	0.01	0.01	.649		.02	.02	
Adolescent-friend \rightarrow Adolescent-parent	0.03	0.03	.264		.04	.04	
Adolescent-friend \rightarrow Adolescent-partner	0.11	0.07	.099				.15
Mediation effects							
Inter-parental \rightarrow Adolescent-parent \rightarrow Adolescent-friend	0.04	0.04	.377	.01			
Inter-parental \rightarrow Adolescent-parent \rightarrow Adolescent-partner	0.04	0.03	.192	.02			

Note. β_1 = Correlation/standardized indirect effect; β_2 = Standardized effect between Time 1-2/correlated change Time 2; β_3 = Standardized effect Time 2-3/correlated change Time 3; β_4 = Standardized effect Time 3-4.

^aThis is 1 because, as Jöreskog (1999) described, these are structural coefficients and can incidentally be 1 or larger than 1 in magnitude in the completely standardized solution.

* $p < .05$; ** $p < .01$.

solving predict adolescent-partner positive problem solving 2 years later. However, adolescent-parent positive problem solving was significantly, positively related to adolescent-friend positive problem solving 1 year later and adolescent-partner positive problem solving 2 years later. These effects were small and medium in size, respectively. This means that adolescents' use of positive problem solving in their relationship with parents predicted their later use of this conflict management style in relationships with friends and romantic partners. The path from adolescent-friend positive problem solving to adolescent-parent positive problem solving 1 year later was not significant. Critical ratio (CR) comparisons showed that the path from adolescent-parent to adolescent-friend relationships was significantly stronger than the reverse path (CR = 2.564, $p = .010$). Furthermore, the path from adolescent-friend to adolescent-partner relationships was not significant. Finally, no significant mediation effect was found for adolescent-parent positive problem solving between inter-parental positive problem solving on

the one hand, and adolescent-friend and adolescent-partner positive problem solving on the other hand.

Transmission of Conflict Engagement Across Relationships

The results of the model for conflict engagement are displayed in Table 4. The stability of conflict engagement across the first three measurement waves was very high in inter-parental relationships, high in adolescent-parent relationships, and moderately high in adolescent-friend relationships. At Time 1, inter-parental conflict engagement showed to be significantly positively, although weakly, correlated with adolescent conflict engagement in relationships with parents, but not with adolescent conflict engagement with friends. However, we found a significant and strong positive correlation between adolescent-parent and adolescent-friend conflict engagement at Time 1. Again, we only found a significant positive and moderate correlation between changes in adolescent-parent

TABLE 4
Final Model Parameter Estimates for Conflict Engagement

Regression path/covariance	B	SE of B	p of B	β_1	β_2	β_3	β_4
Stability paths							
Stability inter-parental	0.94	0.08	<.001		.95**	.95**	
Stability adolescent-parent	0.80	0.06	<.001		.81**	.80**	
Stability adolescent-friend	0.38	0.06	<.001		.39**	.38**	
Within-wave correlations/Correlated changes							
Inter-parental \leftrightarrow Adolescent-parent _{t1}	0.04	0.01	<.001	.24**			
Inter-parental \leftrightarrow Adolescent-parent _{t2/3}	0.00	0.00	.972		.00	.00	
Inter-parental \leftrightarrow Adolescent-friend _{t1}	0.02	0.01	.051	.12			
Inter-parental \leftrightarrow Adolescent-friend _{t2/3}	0.00	0.00	.299		-.11	-.10	
Adolescent-parent \leftrightarrow Adolescent-friend _{t1}	0.15	0.02	<.001	.60**			
Adolescent-parent \leftrightarrow Adolescent-friend _{t2/3}	0.04	0.01	<.001		.35**	.34**	
Cross-lagged paths							
Inter-parental \rightarrow Adolescent-parent	0.12	0.40	.766		.06	.06	
Inter-parental \rightarrow Adolescent-friend	0.07	0.40	.860		.04	.04	
Inter-parental \rightarrow Adolescent-partner	0.20	0.48	.680				.10
Adolescent-parent \rightarrow Inter-parental	0.02	0.03	.424		.04	.04	
Adolescent-parent \rightarrow Adolescent-friend	0.20	0.06	.001		.23**	.22**	
Adolescent-parent \rightarrow Adolescent-partner	0.39	0.12	.002				.36**
Adolescent-friend \rightarrow Inter-parental	-0.01	0.02	.494		-.02	-.02	
Adolescent-friend \rightarrow Adolescent-parent	-0.02	0.04	.684		-.02	-.02	
Adolescent-friend \rightarrow Adolescent-partner	0.14	0.13	.304				.12
Mediation effects							
Inter-parental \rightarrow Adolescent-parent \rightarrow Adolescent-friend	0.02	0.16	.885	.01			
Inter-parental \rightarrow Adolescent-parent \rightarrow Adolescent-partner	0.05	0.14	.750	.02			

Note. β_1 = Correlation/standardized indirect effect; β_2 = Standardized effect between Time 1-2/correlated change Time 2; β_3 = Standardized effect Time 2-3/correlated change Time 3; β_4 = Standardized effect Time 3-4.

* $p < .05$; ** $p < .01$.

conflict engagement and changes in adolescent-friend conflict engagement.

Similar to the findings for positive problem solving, the only significant longitudinal paths were from adolescent-parent conflict engagement to adolescent-friend conflict engagement 1 year later and adolescent-partner conflict engagement 2 years later. These paths were both positive, with small and medium-effect sizes, respectively. Thus, adolescents' use of conflict engagement in their relationship with parents predicted their later use of this conflict management style in relationships with friends and romantic partners. Indeed, critical ratio comparisons showed that the path from adolescent-parent to adolescent-friend relationships was significantly stronger than the reverse path ($CR = 3.774$, $p < 0.001$). Again, no significant mediation effects were found.

Transmission of Withdrawal Across Relationships

The results of the model for withdrawal are displayed in Table 5. The stability of withdrawal across the first three measurement waves was very high in inter-parental relationships, high in

adolescent-parent relationships, and moderately high in adolescent-friend relationships. At Time 1, inter-parental withdrawal showed to be significantly and positively correlated with adolescent withdrawal in relationships with parents and friends. These relations were both medium in size. A significant and strong positive correlation was also found between adolescent-parent and adolescent-friend withdrawal at Time 1. We only found a significant positive and moderate correlation between changes in adolescent-parent withdrawal and changes in adolescent-friend withdrawal.

Over time, there were no significant effects between inter-parental withdrawal on the one hand and adolescent-parent and adolescent-friend withdrawal on the other hand, or did inter-parental withdrawal predict adolescent-partner withdrawal 2 years later. Furthermore, adolescent-parent withdrawal was not significantly related to adolescent-friend withdrawal 1 year later and adolescent-partner withdrawal 2 years later, even though the effect sizes were small to medium. The paths from adolescent-friend withdrawal to adolescent-parent withdrawal 1 year later and adolescent-partner withdrawal 2 years later were also not

TABLE 5
Final Model Parameter Estimates for Withdrawal

Regression path/covariance	B	SE of B	p of B	β_1	β_2	β_3	β_4
Stability paths							
Stability inter-parental	0.93	0.23	<.001		.93**	.88**	
Stability adolescent-parent	0.63	0.21	.003		.61**	.61**	
Stability adolescent-friend	0.39	0.09	<.001		.38**	.37**	
Within-wave correlations/correlated changes							
Inter-parental \leftrightarrow Adolescent-parent _{t1}	0.09	0.01	<.001	.44*			
Inter-parental \leftrightarrow Adolescent-parent _{t2/3}	0.00	0.01	.830		-.04	-.02	
Inter-parental \leftrightarrow Adolescent-friend _{t1}	0.07	0.01	<.001	.35*			
Inter-parental \leftrightarrow Adolescent-friend _{t2/3}	-0.01	0.01	.330		-.12	-.08	
Adolescent-parent \leftrightarrow Adolescent-friend _{t1}	0.21	0.02	<.001	.54**			
Adolescent-parent \leftrightarrow Adolescent-friend _{t2/3}	0.11	0.03	<.001		.45**	.41**	
Cross-lagged paths							
Inter-parental \rightarrow Adolescent-parent	0.30	1.17	.801		.15	.14	
Inter-parental \rightarrow Adolescent-friend	0.25	1.15	.826		.13	.12	
Inter-parental \rightarrow Adolescent-partner	0.58	0.94	.541				.28
Adolescent-parent \rightarrow Inter-parental	0.02	0.05	.627		.05	.05	
Adolescent-parent \rightarrow Adolescent-friend	0.17	0.19	.369		.17	.17	
Adolescent-parent \rightarrow Adolescent-partner	0.23	0.20	.256				.23
Adolescent-friend \rightarrow Inter-parental	0.00	0.03	.903		.01	.01	
Adolescent-friend \rightarrow Adolescent-parent	0.06	0.09	.460		.06	.06	
Adolescent-friend \rightarrow Adolescent-partner	0.13	0.11	.206				.13
Mediation effects							
Inter-parental \rightarrow Adolescent-parent \rightarrow Adolescent-friend	0.05	0.57	.930	.02			
Inter-parental \rightarrow Adolescent-parent \rightarrow Adolescent-partner	0.07	0.50	.893	.03			

Note. β_1 = Correlation/Standardized indirect effect, β_2 = Standardized effect between Time 1-2/Correlated change Time 2, β_3 = Standardized effect Time 2-3/Correlated change Time 3, β_4 = Standardized effect Time 3-4.
* $p < .05$; ** $p < .01$.

significant. Finally, no significant mediation effects were found for adolescent-parent withdrawal between inter-parental withdrawal and adolescent-friend and adolescent-partner withdrawal.

Gender Differences

The analyses on gender differences between fathers and mothers and between boys and girls showed that cross-lagged paths could be constrained across boys and girls in both the model for mothers and the model for fathers. That is, releasing these cross-lagged paths simultaneously did not result in a significantly better model fit, with ΔCFI and $\Delta RMSEA$ ranging between .000 and .004 and .000 and .005, respectively. Moreover, effects were highly similar for the models including fathers compared to the models including mothers, meaning that the same associations were significant across the models. We only found a difference in significance for positive problem solving: Adolescent-father positive problem solving was marginally, significantly related to adolescent-partner positive problem solving 2 years later ($B = .11$, SE of $B = 0.07$, $\beta = .14$, $p = .085$), whereas adolescent-mother positive

problem solving was significantly related to adolescent-partner positive problem solving 2 years later ($B = .20$, SE of $B = 0.08$, $\beta = .21$, $p = .012$). Thus, we found no significant differences between boys and girls in the transmission of conflict management for all three conflict management styles, and a minor difference in significance across the models for fathers and mothers for positive problem solving only.

Results for the Romantic Relationship Subsample

Because only 32.4% ($N = 259$) of our total sample of adolescents had a romantic relationship by Time 4, we used additional analyses to check whether our results for romantic relationships were accurate using FIML. That is, we estimated SEM models on the subsample with romantic partners only ($N = 259$) for each conflict management style separately, examining relations between Time 3 inter-parental conflict management and adolescent conflict management with parents and friends on the one hand and Time 4 adolescent conflict management with romantic partners on the other hand. We subsequently compared these results to

the results we found for the complete sample ($N = 799$). The pattern of findings from the analyses on the subsample of adolescents with a romantic partner was identical to the findings from analyses using the full sample of adolescents for all three conflict management styles, with rather small differences in β 's (range $\Delta\beta$: .005–.055). That is, as in the complete sample, the only statistically significant longitudinal paths we found were from adolescent–parent positive problem solving and conflict engagement to adolescent–partner positive problem solving ($B = .31$, SE of $B = 0.15$, $\beta = .31$, $p = .031$) and conflict engagement ($B = .41$, SE of $B = 0.17$, $\beta = .35$, $p = .019$), respectively, with both effects being medium in size. Thus, the findings in the subsample of adolescents with a romantic partner are comparable to the findings in the total sample of adolescents.

Subsample Differences

We conducted multiple-group analyses to test whether the effects were similar across the two subsamples: RADAR Young and RADAR Old. Prior to performing multiple-group analyses, we tested for measurement invariance for each conflict management style separately. Because we did not examine mean-level differences, a metric-invariant model in which loadings of the indicators are assumed to be equal across groups is considered to be sufficient. These metric-invariant models showed good model fit for all three conflict management styles, with $CFI = .99$, $TLI = .98$, $RMSEA = .03$, $\chi^2(186) = 256.34$, $p < .001$ for positive problem solving (residual variances of inter-parental positive problem solving at Time 2 and Time 3 were constrained to be >0 to prevent from non-significant negative residual variances), $CFI = .98$, $TLI = .97$, $RMSEA = .05$, $\chi^2(183) = 330.85$, $p < .001$ for conflict engagement, and $CFI = .98$, $TLI = .97$, $RMSEA = .04$, $\chi^2(183) = 296.28$, $p < .001$ for withdrawal. Subsequently, we performed multiple-group analyses using models assuming metric invariance.

For withdrawal, all paths were not statistically different between RADAR Young and RADAR Old. For both the model of positive problem solving and the model of conflict engagement, the path from adolescent–parent conflict management to adolescent–partner conflict management differed, with stronger effects in adolescents from RADAR Young as compared to adolescents from RADAR Old. Adolescent–parent positive problem solving and conflict engagement did not predict

adolescent–partner positive problem solving ($B = .20$, SE of $B = 0.20$, $\beta = .20$, $p = .311$) and conflict engagement ($B = .04$, SE of $B = 0.22$, $\beta = .06$, $p = .843$), respectively, in the RADAR Old subsample, whereas this path was significant and moderate for positive problem solving ($B = .34$, SE of $B = 0.15$, $\beta = .34$, $p = .020$) and not significant with a marginal p -value for conflict engagement ($B = .51$, SE of $B = 0.27$, $\beta = .42$, $p = .059$) in the RADAR Young subsample. Moreover, the path from adolescent–friend positive problem solving to adolescent–partner positive problem solving was significant and moderate in the RADAR Old subsample ($B = .22$, SE of $B = 0.11$, $\beta = .30$, $p = .049$), but not significant in the RADAR Young subsample ($B = .05$, SE of $B = 0.08$, $\beta = .07$, $p = .554$). There were no further differences in the pattern of findings across the two subsamples.

DISCUSSION

The purpose of this study was to examine longitudinally the transmission of conflict management styles among inter-parental, adolescent–parent, adolescent–friend, and adolescent–partner relationships. For the entire sample, we found that adolescents transmit the conflict management style used in conflicts with parents to their conflicts with friends and romantic partners for positive problem solving and conflict engagement. Although the majority of findings were replicated across the two RADAR subsamples, we found a few differences concerning the transmission of positive problem solving and conflict engagement, the reasons for which remain unclear. Overall, the results of this study underscore the relevance of adolescents' experiences in relationships with parents.

Transmission of Inter-Parental Conflict Management

Although we found a concurrent relation at Time 1 between inter-parental conflict management and adolescent conflict management with parents and friends for both positive problem solving and withdrawal, no significant correlated changes or effects over time emerged. That we did not find cross-lagged effects from inter-parental conflict management to later adolescent conflict management with parents, friends, and romantic partners is in contrast with our expectations based on social learning theory (Bandura, 1977) and family systems theory (Minuchin, 1985), as well as with some earlier findings (Van Doorn et al., 2007), which suggest that

adolescents observe their parents' attempts to manage conflicts in the marital relationship and then imitate those behaviors in their own conflicts.

A possible reason for why we did not find a transmission from inter-parental conflict management to adolescent conflict management is that many parents prefer not to argue in front of their children, assuming that this spares the children from becoming anxious or worried (Reese-Weber & Bartle-Haring, 1998). As a consequence, adolescents might not always have the opportunity to observe inter-parental conflict management styles and to imitate these styles later in their own relationships. However, this does not explain the discrepancy in findings between this study and previous research (e.g., Van Doorn et al., 2007). The difference in age between the study samples might be a more plausible account. That is, while we examined transmission of conflict management styles in middle-to-late adolescence, Van Doorn et al. (2007) focused on early-to-middle adolescence. As the influence of parents on adolescents declines with age (Collins & Steinberg, 2006), we might not have found transmission from inter-parental conflict management to adolescent conflict management in our sample with middle-to-late adolescents, as opposed to previous research in which adolescents were younger.

Transmission of Adolescent-Parent Conflict Management

In line with our expectations and in agreement with previous findings (Reese-Weber & Bartle-Haring, 1998; Van Doorn et al., 2011), the results of this study indicated spillover (Erel & Burman, 1995; Larson & Almeida, 1999) from adolescent-parent conflict management styles to adolescent-friend and adolescent-partner relationships, in addition to a concurrent relation at Time 1, and correlated changes, between adolescent conflict management with parents and friends. Adolescents' use of positive problem solving and conflict engagement in relationships with parents positively predicted their use of these respective styles in relationships with friends and romantic partners. These results suggest that adolescents transmit internal relationship models and conflict management skills learned based on experiences with their parents to their relationships with friends and romantic partners, as proposed by attachment theory (Bowlby, 1969).

However, in contrast to previous findings (Reese-Weber & Bartle-Haring, 1998; Van Doorn

et al., 2011), no significant longitudinal results emerged for withdrawal. We only found a concurrent relation at Time 1 and correlated changes between adolescent's use of withdrawal in relationships with parents and friends. An explanation for the nonsignificant longitudinal result might be that adolescents use a different form of withdrawal in their relationship with parents than in their relationship with friends and romantic partners. Adolescents tend to distance themselves from their parents and know their relationship with parents is not in danger by withdrawing from situations because of the unconditional nature of the relationship. The same form of withdrawal might, however, threaten their relationship with friends and romantic partners, and these relationships become increasingly important and valued in middle-to-late adolescence (Collins & Steinberg, 2006). Thus, withdrawal could take a different form and function in relationships with parents as opposed to relationships with friends and romantic partners, making a transmission of withdrawal from parents to friends and romantic partners less likely.

Mediation of Adolescent Conflict Management With Parents

Contrary to what we expected based on a combination of family systems theory (Minuchin, 1985) and attachment theory (Bowlby, 1969), we did not find a longitudinal mediation effect of adolescent-parent conflict management between inter-parental conflict management and adolescent conflict management with friends and romantic partners. Previous research found a *cross-sectional* mediation effect of adolescent-parent conflict management style for the relation between inter-parental and adolescent-partner conflict management style (Reese-Weber & Bartle-Haring, 1998). The current results also show strong concurrent associations between inter-parental and adolescent-parent conflict management, and between adolescent-parent and adolescent-friend conflict management, suggesting the possibility of a cross-sectional mediation. However, to test mediation properly and rigorously, longitudinal models are required (Cole & Maxwell, 2003).

The lack of a longitudinal mediation effect of adolescent-parent conflict management in this study is related to the absence of a direct effect from inter-parental conflict management to adolescent conflict management with parents, and might be a result of the declining influence of

parents in late adolescence (Collins & Steinberg, 2006). Furthermore, as we did not include parents' conflict management styles in relationships with adolescents, there is a chance that parents' use of a particular conflict management style in marital conflicts spills over to parents' use of this respective style in conflicts with adolescents (Van Doorn et al., 2007). Adolescents might subsequently reciprocate that same conflict management style in relationships with their parents, and eventually in relationships with their friends and romantic partners. Thus, there is still the possibility that there would be a full mediation of parental conflict management in relationships with adolescents between inter-parental conflict management and adolescent conflict management with parents. Future research should extend our study by examining the role of parent-adolescent conflict management in adolescent conflict management.

Transmission of Adolescent-Friend Conflict Management

As it is suggested that experiences with friends become increasingly influential over the course of adolescence and might even affect later interactions with parents (Brown, 2004; Van Doorn et al., 2011) and romantic partners (Furman et al., 2002), we also examined whether adolescent conflict management with friends predicted later inter-parental, adolescent-parent, and adolescent-partner conflict management. Nevertheless, we did not find longitudinal transmission of adolescent conflict management with friends to later conflict management in any of the other relationship contexts. It was especially surprising that we did not find transmission from adolescent-friend to adolescent-partner conflict management, given the relevance of friendships for future romantic relationships (Furman et al., 2002; Simpson et al., 2007).

Furthermore, the path from adolescent conflict management with parents to adolescent conflict management with friends was stronger than the other way around for positive problem solving and conflict engagement. Thus, our results seem to support the idea that the main context for adolescents to learn and practice conflict management skills is the family, and that the adolescent-parent relationship forms an important source from which adolescents learn how to manage conflicts in other relationships, such as those with friends and romantic partners (Cui et al., 2007; Kinsfogel & Grych, 2004; Van Doorn et al., 2011).

Strengths, Limitations, and Future Directions

This study makes an important contribution to the literature linking experiences within and across family relationships to interpersonal functioning in later friendships and romantic relationships. As we had a fairly large sample size, a longitudinal design, and two subsamples, we were able to assess and replicate analyses of associations between conflict management styles across several important within- and outside-family relationship contexts through adolescence over four waves. By using a longitudinal design, we were not only able to investigate concurrent associations between conflict management styles but also to draw conclusions about transmission of conflict management styles in developmental time.

Despite these strengths, the study also has a number of limitations. First, although we were able to report on parents' educational level for the total sample, information regarding SES was only available for a part of the sample—RADAR Young. Second, our sample consisted mainly of adolescents with a Dutch ethnicity, which limits the generalizability of our findings to the Dutch adolescent population. We suggest future studies to include a more ethnic representative sample. Third, we relied solely on self-reports to assess conflict management styles. The questionnaire we used has been shown to have good psychometric properties, but the CRSI was not validated against actual observations of conflict management styles. Nevertheless, correlations between CRSI self-ratings and partner ratings of marital couples have been examined for all three conflict management styles and indicated moderate self-partner report overlap (Kurdek, 1994). Despite the disadvantage that observational studies are limited by the use of small samples, using observations in addition to self-reports would result in more objective data and would address the implication of social learning theory that transmission of conflict management styles goes through a process of modeling rather than through the development of internal working models. Furthermore, although we utilized reports from both adolescents and parents, our data only contained reports of one's own conflict management styles, while partners might have different perspectives on how these adolescents and parents handle their conflicts. As adolescents were the only informants of their own conflict management style, reporter bias or shared method variance (Shadish, Cook, & Campbell, 2002) might partially explain why we found associations between adolescent's use of conflict

management styles across different relationship contexts and why inter-parental conflict management styles did not predict adolescent conflict management styles longitudinally in our study. These findings should thus be interpreted with caution and further research is advised to use a multiple-method design in which multiple informants report on one person's behavior. Fourth, as we were limited to data on adolescent conflict management with romantic partners at Time 4 and to data on the other relationship contexts during the first three waves only, we were unable to examine potential changes in conflict management within relationships from Time 3 ($M_{\text{age}} = 18$) to Time 4 ($M_{\text{age}} = 20$). Because of the possible transitions late adolescents could make in these 2 years, such as moving out of their parents' house, this might be an important period in life to investigate changes in conflict management styles. Furthermore, this design made it impossible to assess stability and change in adolescent conflict management with romantic partners or to investigate concurrent relations among inter-parental, adolescent-parent, and adolescent-friend conflict management on the one hand and adolescent-partner conflict management on the other hand. However, we do not expect the difference in age and time period for friendships and romantic relationships to affect our results a lot, as transmission of conflict management could be constrained over time at least for relationships with friends. However, we know that the function of romantic relationships changes over time, so effects earlier in adolescence might have been different. This is a challenge for future research, as romances are less common and stable earlier in adolescence (Collins et al., 2009). Finally, because the nature of relationships is partially determined by gender of both partners (Hawkins, Amato, & King, 2006), it would be interesting for future research to differentiate transmission of conflict management styles between same-sex friends or partners and opposite-sex friends or partners (Van Doorn et al., 2011). This was not feasible in this study due to the lack of opposite-sex friends and same-sex romantic partners.

Conclusion and Implications

In this longitudinal study, we examined whether transmission of conflict management styles occurred across inter-parental and adolescent relationships. Our findings showed that adolescent-parent conflict management predicts adolescent conflict management with friends and romantic

partners for positive problem solving and conflict engagement. These results suggest that adolescent interpersonal functioning in relationships with friends and romantic partners is not just a function of modeling relationships observed in the family, and underscore the relevance of experiences in adolescents' own reciprocal relationships with parents for the development of interpersonal skills, such as conflict management skills. As adolescents' conflict management style is prospectively related to their psychosocial and relational functioning, it is important to monitor and address adolescent conflict management in relationships with parents, so that constructive conflict management styles are utilized by adolescents in relationships with parents and in later friendships and romantic relationships.

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