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Conflict Resolution Between Mexican Origin Adolescent Siblings

SARAH E. KILLOREN, SHAWNA M. THAYER, and KIMBERLY A. UPDEGRAFF

Arizona State University

Abstract

We investigated correlates of adolescents' sibling conflict resolution strategies in 246, two-parent Mexican origin families. Specifically, we examined links between siblings' conflict resolution strategies and sibling dyad characteristics, siblings' cultural orientations and values, and sibling relationship qualities. Data were gathered during home interviews with adolescent siblings. Older siblings were more likely to use controlling strategies whereas younger siblings were more likely to use nonconfrontation strategies. Cultural orientations and familism values were positively linked to siblings' solution orientation. Solution orientation strategies were associated with sibling intimacy, and control strategies were related to sibling negativity. Discussion highlights the importance of considering the cultural context in which sibling relationships are embedded.

Keywords

adolescence; conflict resolution; culture; Mexican American families; sibling relationships

Relationships between sisters and brothers are frequently characterized by conflict (Furman & Buhrmester, 1985) and, because the sibling relationship is one of the longest lasting relationships most individuals experience (White, 2001), learning to manage this conflict may be important for future relationship quality. Further, sibling relationships provide an opportunity for children to learn conflict management skills that may be translated to other relationships outside the family (Kitzmann, Cohen, & Lockwood, 2002). Most studies are conducted with European American samples (Ross, Ross, Stein, & Trabasso, 2006), however, and little is known about how siblings in ethnic minority families resolve their differences. The goal of this study is to examine the nature and correlates of siblings' reports of conflict resolution strategies in Mexican origin families with adolescents.

Studying conflict resolution skills between sisters and brothers in Mexican origin families is important for several reasons. First, Mexican origin families include more siblings than families from other ethnic groups (U.S. Census Bureau, 2003), suggesting that sibling relationships are likely to be a prominent part of adolescents' daily lives. Given that siblings are salient companions for Mexican origin adolescents, resolving conflicts with sisters and brothers may be particularly important because they spend a significant amount of time together. Second, Latinos are one of the largest and fastest growing ethnic minority groups in the United States, and Mexicans comprise 67% of this group (U.S. Census Bureau, 2007). Despite the growth in the Latino population, Latino families are underrepresented in research on normative developmental processes, including conflict resolution, with fewer than 5% - 10% of developmental journal articles focusing on Latino children (McLoyd, 1998) and less than 2%

Correspondence to: SARAH E. KILLOREN.

Program in Family and Human Development, School of Social and Family Dynamics, PO Box 873701, Arizona State University, Tempe, AZ, 85287-3701(sarah.killoren@asu.edu).

examining normative family and developmental processes (Hagen, Nelson, & Velissaris, 2004).

The goals of this study were threefold. First, we provided descriptive information about the links between sibling and sibling dyad characteristics (e.g., gender constellation, age spacing) and conflict resolution between siblings. Second, we investigated associations between sibling conflict resolution and adolescents' cultural orientations and values using an ethnic-homogeneous design (García Coll et al., 1996; McLoyd, 1998). Ethnic-homogeneous designs allow researchers to study developmental and family processes within ethnic minority cultures rather than using a deficit model to compare majority and minority cultures and to examine unique characteristics or values that are specific to certain ethnic groups (e.g., familism in Mexican culture). We focused on how cultural orientations and values were related to the types of conflict resolution strategies that siblings reported using. Third, we explored potential links between sibling conflict resolution and sibling relationship quality in adolescence. This is an important developmental period to explore conflict resolution skills because social perspective-taking skills become more nuanced and adolescents are better able to understand another individual's perspective during conflicts and coordinate it with their own (Selman, 1980).

CONFLICT RESOLUTION STRATEGIES

Our work on sibling conflict resolution strategies was based on a contemporary three-dimensional model of conflict resolution (Laursen, Finkelstein, & Townsend Betts, 2001; Putnam & Wilson, 1982), adapted from the Dual Concern model (Pruitt & Carnevale, 1993). The three-dimensional model emphasizes that the resolution strategy a person uses is dependent on the level of concern for the self, the other dyad member, or the relationship. For instance, controlling resolution strategies (e.g., competition, negativity) result from a high degree of concern for self and a low degree of concern for other. In contrast, nonconfrontational resolution strategies (e.g., avoidance, withdrawal) occur when individuals demonstrate low concern for self and others. A third strategy labeled solution orientation, results when conflicts are resolved in mutually satisfying ways that reflect concern for the relationship (e.g., compromise, negotiation). In this study we examined siblings' reports of control, nonconfrontation, and solution orientation.

SIBLING CONFLICT RESOLUTION AND SIBLING CHARACTERISTICS

Our first goal was to examine the relation between characteristics of sibling relationships (e.g., gender constellation of the sibling dyad, age spacing) and the strategies siblings use to resolve conflicts. Due to the lack of research on sibling conflict resolution in Mexican origin families, the findings reviewed below are almost exclusively based on European Americans. Thus, investigating sibling conflict resolution in Mexican origin families may reveal different patterns because of the role of culture in gender dynamics and interpersonal relationship processes.

Gender socialization perspectives address the role of gender and gender constellation of the relationship dyad in interpersonal relationships (Maccoby, 1998); differences in girls' versus boys' interaction styles are likely to have implications for conflict resolution processes. For instance, the greater value girls as compared to boys place on closeness in dyadic relationships (Maccoby) may mean that girls are more likely to resolve conflicts in ways that preserve the relationship (e.g., compromise). In contrast, boys who have less experience in small social groups involving intimate conversation tend to use more restrictive interactive styles that work well in larger playgroups (e.g., control; Maccoby). Previous work on European American and Mexican origin youth is consistent with Maccoby's ideas finding that girls are more likely than boys to use solution-oriented conflict resolution strategies, whereas boys are more likely than girls to use control strategies (Thayer, Updegraff, & Delgado, 2008). Further, given the

demand/withdraw pattern found in the marital conflict resolution literature (i.e., wives issuing demands during conflicts and husbands withdrawing), males may be more likely to use nonconfrontational resolution styles (Christensen & Heavy, 1990).

Evidence of gender differences has been inconsistent with regard to the *frequency* of conflicts between European American sisters and brothers. Earlier work showed differences in the frequency of sibling conflicts that is based on the gender constellation of the sibling dyad in early childhood (Dunn & Kendrick, 1981), but more recent research in childhood and adolescence revealed no differences in sibling negativity as a function of dyad constellation (Kim, McHale, Osgood, & Crouter, 2006). The gender constellation of the sibling dyad has been associated with the frequency of conflict *resolution* in one study, however, such that boy-boy dyads resolved conflicts less often than girl-girl and boy-girl sibling dyads (Cole & Kerns, 2001).

In Mexican families, there is little research on the role of gender in sibling relationship dynamics (for an exception, see Jaramillo & Zapata, 1987), but gender is conceptualized more broadly as an organizing feature of family roles in this culture (Cauce & Domenech-Rodriguez, 2002); thus, sibling gender and gender constellation of the dyad may be linked to how conflicts are resolved between Mexican origin siblings. Drawing on a gender socialization perspective and ideas about gender dynamics in Mexican American culture, we expected to find that dyads including girls, particularly sister-sister pairs, would report using solution orientation strategies more than brother-brother pairs. Additionally, we predicted that boys, who are socialized in group-oriented play settings (Maccoby, 1998), would use more controlling strategies than would girls. Finally, in accordance with the demand/withdraw pattern demonstrated in Anglo adult populations suggesting that men tend to withdraw from conflict (Christensen & Heavy, 1990), we anticipated that boys would use more nonconfrontational strategies than would girls.

Age of siblings and birth position also may play a role in how sisters and brothers resolve conflicts. From a developmental perspective, Selman and Schultz (1989) hypothesized that adolescents may be more proficient in resolving conflicts than are younger children because of the greater knowledge of conflict resolution skills and greater maturity in perspective-taking skills that comes with age (Selman, 1980). Thus, predictions that are based on this perspective suggest that siblings who are chronologically older will use more solution orientation strategies than their younger counterparts due to their developmentally advanced interpersonal skills.

It is important to note that, in sibling relationships, age is confounded with sibling differences in birth position. Because of the hierarchical nature of the sibling relationship, older siblings typically have greater power and control in the relationship than do younger siblings (Dunn, 1993). Differences in birth position also may mean that older siblings exert more control in conflict resolution, and younger siblings, who are less powerful, use more avoidant strategies. Further, when siblings are further apart in age from one another, the relationship may be more hierarchical, in that older siblings take a more dominant role using more control when resolving conflicts, whereas younger siblings take a more avoidant role using nonconfrontation strategies. In contrast, when siblings are closer to one another, their relationship may resemble a relationship between peers, and siblings may be more likely to use solution orientation strategies than controlling and avoidant strategies. Together, perspectives on the sibling relationship highlight the potentially different patterns that may emerge as a function of sibling age, birth status, and age spacing between siblings. More specifically, chronological age may explain siblings' use of solution orientation strategies, birth order may predict siblings' use of nonconfrontation and control strategies, and age spacing may be associated with all three strategies.

SIBLING CONFLICT RESOLUTION AND CULTURAL ORIENTATIONS AND VALUES

We drew on a cultural-ecological perspective (García Coll et al., 1996; McAdoo, 1993) emphasizing the role that cultural and contextual factors play in the development of family processes to examine how cultural orientations and values (i.e., adolescents' orientations to Anglo and Mexican culture and their familism values) may be linked to sibling conflict resolution strategies in adolescence. This information is important in building a foundation of knowledge about Mexican origin families. In addition, using an ethnic-homogeneous design and examining how variability in cultural orientations and values are linked to family processes is an important step in understanding the role of culture in family relationships (McLoyd, 1998).

Cross-cultural researchers examining conflict management have focused on values such as individualism and collectivism to emphasize cultural group differences in resolution strategies (Gabrielidis, Stephan, Ybarra, Dos Santos Pearson, & Villareal, 1997). In individualistic cultures, the self is valued (Triandis, 1995), and individuals from such cultures may be more likely to use controlling resolution strategies because they highlight self-preservation. Collectivist cultures, in contrast, emphasize the value of relationships (Triandis), and individuals may be more likely to use solution orientation or nonconfrontational resolution in an effort to maintain harmony. Gabrielidis and colleagues, examining conflict resolution strategies selected by individuals from Mexico versus from the United States, found that Mexicans were more likely to use strategies that highlight concern for others, and that European Americans were more likely to use strategies that demonstrate concern for self. Drawing on these cross-cultural comparisons, we expected positive associations between adolescents' own and their siblings' orientations toward Anglo culture and their use of controlling strategies. Strong orientations to Mexican culture, and thus potentially stronger emphasis on preserving relationships with others, were expected to be linked to nonconfrontation and solution orientation strategies for adolescents and their siblings.

We also studied the role of familism values in adolescents' resolution strategies. Familism is a significant value in Mexican culture (Sabogal, Marín, Otero-Sabogal, Vanoss Marín, & Perez-Stable, 1987). According to Sabogal and colleagues, familism includes (1) feeling obligated to give financial and emotional support to family members, (2) relying on family members when in need, and (3) realizing that one's own behaviors and attitudes reflect on family members. Familistic individuals feel that they are responsible for contributing to the well-being of the family (Cauce & Domenech-Rodriguez, 2002); thus, adolescents and their siblings who are high in familism may seek to resolve conflicts using solution orientation or nonconfrontation strategies more frequently in an effort to preserve family harmony.

SIBLING CONFLICT RESOLUTION AND SIBLING RELATIONSHIP QUALITIES

Our final goal was to examine links between conflict resolution and sibling relationship qualities. For adolescents, intimacy and negativity are important dimensions of relationship quality (Furman & Buhrmester, 1985). Further, intimacy and negativity may be associated with conflict resolution strategies employed by siblings. Tucker, McHale, and Crouter (2003) found that European American siblings engaged in more effective conflict resolution when they reported positive sibling relationships. In contrast, sibling negativity is linked to disengagement, submission, and parental intervention (Raffaelli, 1992). We expected that adolescents' own and their siblings' use of solution orientation strategies would be positively associated with intimacy and inversely associated with negativity and that controlling strategies would be associated with more negativity and less intimacy in the sibling dyad.

There are two contrasting possibilities regarding the links between nonconfrontation strategies and sibling relationship quality. First, nonconfrontation may be associated with greater sibling intimacy and less sibling negativity because adolescents and their siblings may use this strategy to maintain relationship harmony (Triandis, 1995). Second, similar to what has been found in European American samples, adolescents' and siblings' nonconfrontation may be related to less intimacy and more negativity because siblings are not able to resolve conflicts in ways that benefit both members of the dyad (Laursen, 1993). Thus, the analyses investigating the links between nonconfrontation and relationship quality are exploratory.

METHOD

Participants

Two hundred forty-six families were recruited to participate in a study of gender, culture, and family socialization processes in Mexican origin families with adolescents (Updegraff, McHale, Whiteman, Thayer, & Delgado, 2005) through schools in and around a southwestern metropolitan area. Criteria for participation were as follows: (a) mothers were of Mexican origin; (b) seventh graders were living in the home and not learning disabled and an older sibling was living in the home (in all but two cases, the older sibling was the next oldest child in the family); (c) biological mothers and biological or long-term adoptive fathers lived at home (all nonbiological fathers had been in the home for a minimum of 10 years); and (d) fathers worked at least 20 hr/week. The majority (i.e., 93%) of fathers also were of Mexican origin. Importantly, our sampling criteria and our focus on a local population mean that our sample was not designed to be representative of Mexican American families in general.

To recruit families, letters and brochures describing the study (in both English and Spanish) were sent to families, and follow-up telephone calls were made by bilingual staff to determine eligibility and interest in participation. Families' names were obtained from junior high schools in five school districts and from five parochial schools. Schools were selected to represent a range of socioeconomic situations, with the proportion of students receiving free or reduced lunch varying from 8% to 82% across schools. See Updegraff et al. (2005) for additional information about sampling.

Families represented a range of education and income levels, from poverty to upper class. The percentage of families that met federal poverty guidelines was 18.3%, a figure similar to the 18.6% of two-parent Mexican American families living in poverty in the county from which the sample was drawn (U.S. Census Bureau, 2000). Median family income was \$40,000 for an average family size of 5.6 members. Mothers and fathers had completed an average of 10 years of education ($M = 10.34$, $SD = 3.74$ for mothers, and $M = 9.88$, $SD = 4.37$ for fathers). Parents who were born outside the United States (71% of mothers and 69% of fathers) had lived in the United States an average of 12.4 ($SD = 8.9$) and 15.2 ($SD = 8.9$) years for mothers and fathers, respectively. Older siblings were 50% female and 15.70 ($SD = 1.6$) years of age on average and 47% had been born outside the United States, and 82% were interviewed in English. Their younger siblings were 51% female ($n = 125$) and averaged 12.8 ($SD = 0.58$) years of age, with 38% being born outside the United States and 83% interviewing in English.

Procedures

Data were collected in home interviews lasting an average of 3 hr for parents and 2 hr for adolescents; family members reported on their family relationships and cultural experiences. Interviews were conducted individually using laptop computers by bilingual interviewers. Questions were read aloud due to variability in family members' reading levels.

Measures

Demographic information—Parents reported on family income, places of birth for parents and adolescents, number of years living in the United States, and levels of education.

Sibling conflict resolution—Both older and younger siblings reported on their conflict resolution strategies using the Resolving Conflict in Relationship Scale (RCR; Thayer et al., 2008). The 21-item RCR was developed to assess types of conflict resolution (i.e., solution orientation, nonconfrontation, and control) that Mexican American family members use within their relationships. The solution orientation subscale (7 items) taps conflict resolution strategies that involve cooperation and compromise (e.g., “I frequently give in a little if my [brother/sister] is willing to do the same.”). The nonconfrontation subscale (5 items) taps conflict resolution strategies that avoid conflict (e.g., “I keep quiet about my views to avoid disagreements with my [brother/sister].”). Finally, the control subscale (9 items) measures resolution strategies that are competitive and unyielding (e.g., “I argue with my [brother/sister] without giving up my position.”). Psychometric assessments of the RCR were conducted from pilot data, are reported in detail elsewhere (Thayer et al., 2008), and can be obtained from the third author. For younger siblings, alphas were .59, .78, and .78 for nonconfrontation, solution orientation, and controlling strategies, respectively. For older siblings, alphas were .57, .79, and .84 for nonconfrontation, solution-orientation, and controlling strategies, respectively. The interclass correlations for siblings were .57, .83, and .78 for their reports of nonconfrontation, solution orientation, and controlling strategies, respectively.

Cultural orientations—Adolescents rated their cultural orientations using the ARSMA-II (Cuéllar, Arnold, & Maldonado, 1995). The ARSMA-II includes two subscales capturing an individual's orientation to Mexican and Anglo culture. Adolescents responded to 30 items about their families and cultural backgrounds using a 1 = *not at all* to 5 = *extremely often or almost always* scale. Sample items included “I enjoy Spanish language TV” and “I think in English.” For younger siblings, alphas were .82 and .90, and for older siblings, alphas were .88 and .90 for Anglo and Mexican orientation, respectively.

Familism—Familism values were assessed using the familism scale of the Mexican American Cultural Values Scale (Knight et al., under review). Three conceptual domains are assessed on this 16-item measure: (a) support and emotional closeness, (b) obligations, and (c) family as referent. Adolescents responded on a 1 = *strongly disagree* to 5 = *strongly agree* scale. Five items were adapted from Sabogal et al. (1987), and the remaining items were developed through focus groups with Mexican origin families. For the overall familism scale, which combines the three subscales, alphas were above .86 for both siblings.

Sibling intimacy and negativity—The intimacy subscale was created by Blyth and Foster-Clark (1987), and the negativity subscale was measured with items from Furman and Buhrmester's (1985) Network Relationship Inventory. For sibling intimacy, alphas were .81 and .83 for younger and older siblings, respectively. For sibling conflict, alphas were .92 for both older and younger siblings. The interclass correlations between siblings were .86 for sibling intimacy and .88 for sibling conflict. Previous work reveals that these scales are reliable in Mexican origin youths' friendship (Thayer et al., 2008).

RESULTS

The results are organized around the three goals. First, we examined associations between sibling dyad characteristics and conflict resolution. Second, we analyzed connections between resolution strategies and siblings' cultural orientations and values. Third, we explored links

between conflict resolution and sibling relationship qualities (see Table 1 for descriptive information).

Sibling Characteristics and Sibling Conflict Resolution

A2 (Older Sibling Gender)×2 (Younger Sibling Gender)×2 (Sibling Order: older vs. younger) ×3 (Resolution Strategy: nonconfrontation, solution orientation and control) mixed-model analysis of variance (ANOVA) with siblings' gender as the between-groups factor and resolution strategies and sibling order as within-subjects factors was conducted. Dependent variables were siblings' reports of conflict resolution. Cohen's (1988) *d* was calculated as a measure of effect size; adjusted effect size measures were computed for within-group analyses (Cortina & Nouri, 2000).

A significant effect for strategy, $F(2, 241) = 22.89, p < .001$, and follow-up tests revealed that siblings reported control, $M = 3.06, SD = 0.52, d = .50$ and solution orientation, $M = 3.07, SD = 0.62, d = .47$, more frequently than nonconfrontation, $M = 2.80, SD = 0.51$. This main effect was qualified by a significant Sibling Order × Strategy interaction, $F(2, 241) = 10.39, p < .001$. Follow-up tests revealed that older siblings used more control than younger siblings, $d = .30$, whereas younger siblings used more nonconfrontation than older siblings, $d = .30$ (see Table 1).

Correlations were conducted to explore the relation between sibling age gap and older siblings' age and siblings' conflict resolution ratings. Age spacing and older siblings' age were negatively related to older siblings' use of nonconfrontation, $r = -.20, p < .01$, and $r = -.18, p < .01$, respectively, such that when there was a smaller age gap between siblings and when older siblings were younger, they were more likely to use nonconfrontational strategies.

Sibling Conflict Resolution and Cultural Orientations and Values

Actor-Partner Interdependence Models—The next step was to examine the links between cultural orientations and values and conflict resolution. Actor-Partner Interdependence Models (APIM; Kashy & Kenny, 2000) were tested using multilevel modeling via SAS PROC MIXED. APIM models use the dyad as the unit of analysis. This model suggests that a person's score on any dependent variable is associated with his or her own independent variable score (the “actor effect”) as well as the other dyad member's independent variable score (the “partner effect”). This model incorporates the correlations between dyad members' reports.

Three separate APIM models (one model for each conflict resolution strategy) were conducted to study actor and partner reports of the following independent variables: Anglo cultural orientation, Mexican cultural orientation, and familism. In addition, variables were included to test for the effects of birth order on siblings' use of each conflict resolution strategy ($-1 = \text{younger sibling}$, $1 = \text{older sibling}$). We also estimated models that included a gender effect ($-1 = \text{girls}$, $1 = \text{boys}$), but because gender was not significant, it was excluded from the final models.

As summarized in Table 2, for the *nonconfrontation* model, actor familism, and partner Mexican orientation were positively related to using nonconfrontational strategies, whereas partner Anglo orientation was negatively related to nonconfrontation. For *solution orientation*, there were significant positive effects for actor Mexican orientation, actor Anglo orientation, and actor and partner familism. There were significant negative effects for partner Anglo orientation. Finally, the *controlling* model revealed that actor Anglo cultural orientation was positively related to controlling strategies.

Sibling Conflict Resolution and Sibling Relationship Qualities

A second series of APIM models was estimated, with actors' and partners' reports of nonconfrontation, solution orientation, and control as independent variables and sibling intimacy and negativity as the dependent variables. Birth order and both actor and partner gender also were included in the models. As shown in Table 3, the model predicting sibling *intimacy* revealed that younger siblings reported more intimate relationships than did older siblings, that girls reported more intimate sibling relationships than did boys, and that sibling relationships were more intimate when the other dyad member was a sister. In addition, both actors' and partners' reports of solution orientation were positively related to sibling intimacy; actors' reports of nonconfrontation, in contrast, were negatively related to sibling intimacy. The model predicting sibling *negativity* revealed that boys reported more negativity with their siblings than did girls. Further, as predicted, both actors' and partners' reports of solution orientation were negatively related and control was positively associated with sibling negativity. Finally, actors' reports of nonconfrontation were positively related to sibling negativity.

Additional Analyses

Birth order versus age differences—Additional analyses were conducted to gain further insights about the role of birth order versus age in sibling differences in nonconfrontation and controlling strategies. Our descriptive analyses revealed that older siblings used more controlling strategies compared to their younger siblings and younger siblings used more nonconfrontation strategies as compared to their older siblings; these patterns may be attributed to differences in siblings' ages or birth positions, two factors that are confounded in our design. Therefore, we conducted follow-up analyses to test for differences between siblings, limiting the comparisons to families where siblings were relatively close in age. Specifically, paired *t* tests were conducted with 80 families that included older siblings who were 15 years of age and younger ($M = 14.46$, $SD = 0.58$) and younger siblings who were 13 years of age and older ($M = 13.01$, $SD = 0.33$) to test for sibling differences in nonconfrontation and control. No significant sibling differences were found for nonconfrontation, but sibling differences in control were significant, $t(79) = 2.56$, $p < .05$, $M = 0.24$, $SD = 0.85$, $d = .34$. As a follow-up to this analysis, we tested for differences in sibling control between older siblings who were below 15 years of age ($n = 62$) versus older siblings who were 15 years of age or above ($n = 184$) and found that the groups did not differ. This pattern of findings, in combination with our main analyses, suggests that birth order may play a role in control (given differences remain significant when siblings who differ in birth order but who were close in age were compared) but may be less important in nonconfrontation (given no differences were found for siblings close in age but different in birth order).

Bicultural adolescents and solution orientation strategy—Given that actor Anglo orientation and actor Mexican orientation both predicted use of solution-orientation strategies, we conducted follow-up analyses to test whether this effect may be attributed to a bicultural orientation. Adolescents were divided into two groups on the basis of their cultural orientations: (a) bicultural-oriented adolescents (i.e., adolescents who fell above the median on Anglo and Mexican orientations) and (b) adolescents who were not categorized as bicultural. Performing a univariate ANOVA, we found a significant cultural group effect, $F(1, 982) = 17.72$, $p < .01$, $d = .31$, with bicultural adolescents ($M = 3.25$, $SD = 0.75$) using solution orientation more than adolescents who were not bicultural ($M = 3.01$, $SD = 0.78$).

Nonconfrontation and relationship quality—A final set of follow-up analyses was conducted to test whether the connections between nonconfrontation and sibling relationship quality would differ for Anglo- versus Mexican-oriented adolescents. These analyses were conducted because of the different predictions for the associations between nonconfrontation

and relationship quality on the basis of research with Anglo populations versus expectations that are based on cultural values for group harmony in Mexican populations. The Actor-Partner Interdependence Models predicting intimacy and negativity from conflict resolution style were conducted separately for Anglo-oriented (i.e., those who fell above the median on Anglo orientation and below the median on Mexican orientation; $n = 217$) and Mexican-oriented (i.e., those who fell above the median on Mexican orientation and below the median on Anglo orientation; $n = 77$) adolescents. Adolescents who were not classified as Anglo-oriented or Mexican-oriented (e.g., bicultural) were not included in these analyses. Nonconfrontation predicted less intimacy ($\gamma = -.1714$, $SE = .0565$, $p < .01$) and more negativity ($\gamma = .3065$, $SE = .0736$, $p < .01$) *only* for Anglo-oriented adolescents. The results were not significant for Mexican-oriented adolescents.

DISCUSSION

Adolescents may learn valuable conflict management skills in their interactions with siblings, and these skills may be useful in other relationships (Kitzmann et al., 2002). Extant research examining sibling conflict resolution focuses almost exclusively on European Americans. The present study investigates sibling conflict resolution among Mexican origin adolescent siblings from a cultural-ecological perspective.

Sibling Conflict Resolution and Sibling Characteristics

Our first goal was to examine links between conflict resolution strategies and sibling relationship characteristics. Overall, our findings suggest that siblings reported using solution orientation and control more than nonconfrontation to resolve conflicts. Adolescents may realize that individual conflict episodes within the sibling dyad may have short-term negative effects but will most likely not have a long-term negative impact on the relationship (Collins & Laursen, 1992). This may be particularly true in Mexican origin families where familistic values are common (Sabogal et al., 1987) and siblings are a prominent part of adolescents' daily lives.

Resolution strategies also differed for younger versus older siblings, such that older siblings reported using controlling strategies and younger siblings used nonconfrontational strategies. Our follow-up analyses further suggested that age may play a more prominent role in nonconfrontation styles than birth order given differences were not significant once siblings who differed in birth order but were relatively similar in age were compared. It is possible that changes in nonconfrontation may be age related, with decreased use of this strategy over time. As youth age, they also develop more advanced perspective-taking skills that may result in siblings being more capable of developing a strategy that will benefit themselves as well as the other dyad member (e.g., solution orientation), instead of using a strategy (e.g., nonconfrontation) that only benefits the other dyad member. Exploring how nonconfrontation strategies change over time will be an important direction of future research. For controlling strategies, however, birth order may be particularly important to consider. Researchers have suggested that sibling relationships involve hierarchy and dominance, with greater power and status in the older sibling role (Dunn, 1993). The power that older siblings have may translate into the use of dominating resolution strategies with younger, less powerful siblings.

Although not tested in the present study, Mexican cultural values regarding hierarchy and structure in the family may further explain the role of power in Mexican origin adolescents' sibling relationships. Individuals with strong ties to Mexican culture have been described as valuing a hierarchical family structure that emphasizes the importance of elders and respect for family members (Delgado-Gaitan, 1993). If Mexican origin adolescents value respect for older family members, then older siblings may have more power in the sibling relationship and younger siblings may be more likely to defer to them when resolving sibling conflicts. Further

research is needed to determine how specific cultural values, such as values regarding respect, may have implications for sibling conflict resolution.

Age spacing, sibling gender, and gender constellation of the sibling dyad also were examined as correlates of siblings' use of a particular resolution strategy. Findings showed that siblings who were closer in age were more likely to use nonconfrontation strategies than those with greater age spacing. The smaller age gap between siblings may result in more egalitarian relationships similar to those between peers (Buhrmester, 1992), increasing the likelihood of nonconfrontation. Unlike the age gap between siblings, sibling gender and the gender constellation of the sibling dyad were not significant correlates of resolution strategies. For sibling gender, we predicted that boys would report controlling and nonconfrontation strategies more than girls; however, the findings indicated that there were no significant differences between girls and boys in the use of these resolution styles. Our hypotheses were based on the friendship and marital relationship literatures, and these findings may not apply to siblings, given the unique relationships between sisters and brothers. For the gender composition of the sibling dyad, we hypothesized that sister-sister pairs would be more likely to use solution orientation strategies; however, these predictions were not supported. In Mexican origin families, birth order and the age spacing between siblings may be more important determinants of resolution styles than the gender composition of the dyad.

Sibling Conflict Resolution and Cultural Orientations and Values

In an effort to learn how siblings' conflict resolution is embedded in adolescents' cultural experiences, we examined the associations between resolution strategies and cultural orientations and values (García Coll et al., 1996; McAdoo, 1993). Although theoretically relevant, little empirical work has addressed the role of culture in conflict resolution in adolescents' interpersonal relationships. Our findings revealed that adolescents' familism values predicted their use of solution orientation and nonconfrontation. Further, partner reports of familism values were associated with the use of solution-orientation strategies. Solution orientation and nonconfrontation strategies may maintain relationships in different ways, both of which are consistent with familistic values. One would expect that individuals who value preserving the family would endorse conflict resolution strategies that promote mutually satisfying outcomes of conflicts. Thus, one would expect that as familistic values increase, so too would preferences for solution-orientation strategies. Similarly, it may be that in a collectivistic culture that values group harmony, nonconfrontation strategies may help to prevent anger between siblings.

We also found that cultural orientations were linked to resolution strategies. For instance, orientation to Anglo culture was associated with using more controlling strategies, consistent with other work on conflict resolution revealing that European American youth used strategies that highlighted concern for self (Gabrielidis et al., 1997). Further, *both* Mexican and Anglo cultural orientations were positively associated with solution orientation resolution strategies in our multivariate models. By conducting additional follow-up analyses, we discovered that bicultural orientation, a form of cultural adaptation that is linked to positive psychosocial adjustment (Padilla, 2006), was associated with solution orientation, such that bicultural adolescents reported using solution orientation more frequently than did other adolescents. Partner orientation to Mexican culture also was positively associated with solution orientation. Additionally, partner orientation to Mexican and Anglo culture were associated with nonconfrontation, in that Mexican orientation was positively and Anglo orientation was negatively associated with nonconfrontation. Again, these findings are consistent with the notion that individuals who are collectivistic are more likely to use compromise and avoidance and individuals who are individualistic are less likely to use these strategies. The significant partner effects emphasize the importance of examining the perspectives of both dyad members.

Sibling Conflict Resolution and Sibling Relationship Qualities

Our final goal was to investigate links between siblings' conflict resolution and their intimacy and negativity in the sibling relationship. As predicted, we found that both actor and partner solution orientation strategies were positively associated with sibling intimacy. When siblings used solution orientation strategies, they also reported more intimacy with one another. Furthermore, when siblings used solution orientation less frequently and control more frequently, they perceived more negativity in their relationships. Sisters and brothers may feel more negativity toward one another when their siblings used resolution strategies that do not value relationship harmony. These findings were consistent with the perspective that using strategies that demonstrate concern for others or for the relationship are associated with positive relationship qualities (Laursen et al., 2001). Because collectivistic cultures place a strong emphasis on concern for the group, the importance of being empathetic in conflict situations appears to be significant. Further, resolution strategies that emphasize one's self-interest were negatively related to relationship quality; these strategies may be particularly harmful for Mexican origin adolescents because they focus on individual rather than collective success.

Additionally, we found that boys reported more negativity in their sibling relationships than did girls. In European American populations, researchers have reported no gender differences in sibling negativity (Kim et al., 2006). Given the importance of gender in Mexican origin families (Cauce & Domenech-Rodriguez, 2002) and the role of machismo (i.e., a Mexican cultural value that promotes male dominance; Cuéllar, Arnold, & González, 1995), negativity from boys may be more accepted than negativity from girls.

Our findings regarding the associations between conflict avoidance and relationship quality revealed that higher levels of nonconfrontation were associated with less intimacy and more negativity. Our follow-up analyses showed, however, that these findings were specific to *Anglo-oriented* adolescents. That is, when youth had stronger ties to Anglo culture, links between nonconfrontation and relationship quality suggest that avoidance strategies may be negative (Laursen, 1993). For Mexican-oriented youth, however, there were no significant associations between nonconfrontation and relationship quality.

Considering that conflict resolution occurs within dyadic relationships, we took a dyadic approach when describing conflict resolution. By collecting data from both younger and older siblings within the same family, the present study permitted an in-depth exploration of how both siblings' characteristics contribute to conflict resolution within the sibling relationship. This level of data collection and analysis contributes to our understanding of the processes occurring within the sibling relationship. For example, the findings that partner's use of solution-oriented resolution strategies was linked to increased intimacy and decreased negativity in the sibling relationship suggests that prevention and intervention should include *both* sibling dyad members to achieve optimal results.

Limitations and Directions for Future Research

This study's contributions should be interpreted with the limitations in mind. First, the sample was composed of two-parent Mexican origin families from the southwest, and the results may not be generalized to other family structures, other Latino subgroups, or other geographic locations. Examining sibling relationships in various family structures also is important because siblings may use different conflict resolution strategies with stepsiblings and half-siblings versus biological siblings. Second, only siblings' reports were used. Other methods, such as direct observations, will contribute to literature on sibling conflict resolution. Third, the alphas for siblings' reports of nonconfrontation resolution strategies were low. Finally, our design was cross-sectional, and future work should include longitudinal data to document how sibling conflict resolution processes change over time.

Conclusion

Highlighting the notion that adolescents learn important conflict resolution skills in their sibling relationships and that these skills may be translated to other relationships (Kitzmann et al., 2002), our study was the first (to our knowledge) to examine sibling conflict resolution in a sample of Mexican origin adolescents. An important contribution of our research was the examination of how *within-culture* variability may be linked to differences in sibling conflict resolution strategies in adolescence. We provided insights into how specific elements of Mexican culture (e.g., familism values) were related to family processes. Understanding the cultural context in which youths' family relationships are embedded is essential to developing a foundation of knowledge about family processes in ethnic minority families.

NOTE

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Table 1

Correlations Between Conflict Resolution and Cultural Orientation Measures for Older (Above the Diagonal) and Younger (Below the Diagonal) Siblings' Reports ($N = 246$) and Means and Standard Deviations for Study Variables

	1	2	3	4	5	6	7	8
1. Nonconfrontation		.15*	.05	-.11	.17**	.14*	.06	.09
2. Solution orientation	.05		-.16*	.12	.16**	.26**	.65**	-.36**
3. Control	.29**	-.16**		.24***	-.18**	-.09	-.03	.48**
4. Anglo orientation	.02	.16**	.12		-.41**	.05	.18**	.04
5. Mexican orientation	.06	.18**	-.17**	-.33**		.17**	.13*	-.03
6. Familism	.14*	.19**	-.03	.09	.09		.21**	-.11
7. Intimacy	-.13*	.57**	-.18**	.18**	.12	.16**		-.36**
8. Conflict	.24**	-.43**	.46**	.02	-.12	-.15*	-.44**	
Older siblings	2.70 (0.69)	3.08 (0.81)	3.16 (0.69)	3.92 (0.72)	3.70 (0.77)	4.23 (0.60)	3.30 (0.78)	3.15 (0.94)
Younger siblings	2.91 (0.70)	3.06 (0.74)	2.96 (0.69)	3.98 (0.59)	3.66 (0.78)	4.26 (0.52)	3.36 (0.73)	3.09 (0.90)

*
 $p < .05$.

**
 $p < .01$.

Table 2
Summary of APIM Models Predicting Sibling Conflict Resolution From Siblings' Reports of Cultural Orientation and Familism ($N = 246$)

	Conflict Resolution Strategy					
	Nonconfrontation			Solution Orientation		
	<i>y</i>	<i>SE</i>		<i>y</i>	<i>SE</i>	Control
Birth order ^a	-.09**	.02		.02	.02	.10**
Actor Mexican orientation	-.02	.04		.20**	.04	-.06
Actor Anglo orientation	.05	.04		.29**	.05	.14**
Actor familism	.17**	.05		.25**	.05	-.06
Partner Mexican orientation	.12**	.04		-.01	.04	-.06
Partner Anglo orientation	-.11**	.04		-.11*	.05	.01
Partner familism	-.04	.05		.12*	.05	-.03

^a -1 = younger sibling, 1 = older sibling.

* $p < .05$.

** $p < .01$.

Table 3

Summary of APIM Models Predicting Sibling Relationship Quality From Siblings' Reports of Conflict Resolution Strategy ($N = 242$)

	Intimacy		Negativity	
	<i>y</i>	<i>SE</i>	<i>y</i>	<i>SE</i>
Background characteristics				
Birth order ^a	-.05**	.01	.01	.02
Actor gender ^b	-.27**	.04	-.20**	.06
Partner gender ^b	-.16**	.04	-.04	.06
Conflict resolution strategies				
Actor nonconfrontation	-.10**	.03	.17**	.04
Actor solution orientation	.54**	.03	-.39**	.04
Actor control	.01	.03	.49**	.04
Partner nonconfrontation	.01	.03	.03	.04
Partner solution orientation	.15**	.03	-.11**	.04
Partner control	-.01	.03	.13**	.04

^a -1 = younger sibling, 1 = older sibling.

^b -1 = female, 1 = male.

**
 $p < .01$.