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# Parental Beliefs About Managing Sibling Conflict

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This study examined the correspondence between parents' beliefs about the most effective ways to manage sibling conflict and their responses to their children's spontaneous sibling conflicts. Eighty-eight 2-child, 2-parent families participated in 3 home sessions. Second-born children were 3–5 years old, and firstborn children were 2–4 years older. Parents' use of a particular conflict management strategy was based, in part, on their perception of how effective the strategy was and how well they could carry out the strategy. For example, mothers' use of child-centered strategies was predicted by their belief that parental control strategies were ineffective. Fathers' use of control strategies was predicted by their low confidence in enacting child-centered techniques. Although both mothers and fathers perceived child-centered and control strategies as more effective than passive nonintervention, parents engaged in passive nonintervention most often.



One of the most difficult tasks that parents face is deciding how to respond to conflicts between their children. There is growing evidence that the conflict management strategies typically used by parents vary widely in effectiveness (Dunn & Munn, 1986; Felson & Russo, 1988; Perlman & Ross, 1997; Ross, Filyer, Lollis, Perlman, & Martin, 1994). However, little is known about the factors that guide parents' selection of conflict management strategies. To date, research in this area has focused primarily on parents' behavior during sibling conflicts, for example, by examining the consequences of punitive conflict management strategies (Felson, 1983; Felson & Russo, 1988) or the effects of parental nonintervention (Perlman & Ross, 1997) on sibling interaction. However, parents' ideas and thoughts about sibling relationships have largely been overlooked by researchers. As Goodnow (1988) stated, this focus on parental behavior "ignores the fact that parents are thinking creatures who interpret events and whose interpretations influence their actions" (p. 287). Thus, increasing understanding of parental beliefs may provide insight about the factors that lead parents to select certain strategies over others. In the present study, we considered both behaviors and beliefs as we examined the ways that mothers and fathers attempted to manage sibling conflict in the home context.

In accordance with the concepts of schemas or latent mental structures in the social information-processing literature, here we defined beliefs as mental representations of reality that are constructed from past and present experiences and are stored in long-term memory (Crick & Dodge, 1994; Sigel, 1985, 1992). Specific schemas, beliefs, and expectancies are integrated into belief systems that, in part, shape individuals' interpretations and processing in specific situations. This situation-specific processing, in turn, is predicted to influence behavior (Crick & Dodge, 1994; Quattrone, 1985).

According to Backett (1982), parents' "images" or beliefs about their children help parents to make sense of their children's behavior and development. Parents are believed to draw on these implicit beliefs spontaneously and unreflectively in their daily interactions with their children and to use these beliefs to legitimize the actions they take with their children. For example, parents may justify using physical discipline by saying that they believe it will be effective. Parental beliefs are likely to remain implicit unless there is a problem that highlights a particular belief (Backett, 1982), for example, when someone opposes the parents' use of physical punishment. Furthermore, although individuals are thought to develop belief systems that are relatively stable over time, specific parental beliefs may change in response to events and experiences within their families, such as their children's development over time (Backett, 1982). It is also important to note that parental beliefs may be based on biased or distorted information (Bandura, 1977). Thus, parental beliefs or expectancies do not necessarily lead parents to behave in the "best" manner.

Parents' beliefs about child rearing have been shown to be related to a variety of parental behaviors and child outcomes (Dix, Ruble, & Zambarano, 1989; Rubin & Mills, 1989). For example, Simons, Whitbeck, Conger, and Chyi-In (1990) found that parents

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who believed that "harsh" parenting techniques were appropriate tended to report engaging in these behaviors more often than parents who held the opposite belief. Thus, under many circumstances, parents' beliefs about child rearing are likely to be associated with actual and self-reported parenting behavior. However, as Sigel (1992) pointed out, parental beliefs that relate to specific actions or behaviors tend to be better predictors of behavior than more global beliefs.

## Parental Beliefs About Sibling Conflict

Parental beliefs related to sibling conflict have received little attention in the empirical literature. It is likely that parents' belief systems about sibling conflict are complex and encompass a wide variety of dimensions, such as expectations about how often siblings will or should fight, whether and how they should intervene in their children's conflicts, and their beliefs about the appropriateness of certain types of discipline.

Given the potential complexity of parental belief systems about sibling conflict, it was important for this investigation to target one or two key facets that might serve as a foundation for later inquiries. Prior research and theory suggest that individuals are more likely to perform behaviors that they believe will be effective and that they can perform well (Bandura, 1977; Doherty, 1981a, 1981b; Simons, Beaman, Conger, & Chao, 1992). Using these findings as a guide, we examined two types of parental beliefs relevant to sibling conflict in the present study: (a) beliefs about the types of conflict management strategies that are most effective for resolving sibling conflicts (parental outcome expectations) and (b) beliefs about the types of conflict management strategies that parents feel most confident performing (parental self-efficacy expectations). These two types of expectancies may be related; that is, parents may believe that the strategies that they perform well are the ones that are most effective and vice versa. Alternately, parents may believe that a particular strategy will effectively resolve a given conflict (a positive outcome expectation) but may not select that strategy because they doubt their ability to enact it effectively (a negative self-efficacy expectation) with their own children. Thus, this study examined how these two dimensions of parental belief systems may interface to predict parental responses to sibling conflict.

## Types of Responses to Sibling Conflict

Few studies have investigated the full range of strategies that parents use to manage sibling conflict. Rather, most studies in this area have focused on the utility of a single intervention strategy, such as time-out (Allison & Allison, 1971), positive reinforcement for appropriate behaviors (Leitenberg, Burchard, Burchard, Fuller, & Lysaght, 1977), or benign neglect (Levi, Buskila, & Gerzi, 1977). In addition, some studies have not distinguished between different forms of intervention, focusing primarily on whether parents respond in any way to sibling conflict (e.g., Perlman & Ross, 1997). Other studies (e.g., Lollis, Ross, & Leroux, 1996) have made broad differentiations that relate to a particular theoretical concept, such as responses that followed a justice orientation (e.g., upholding rights of possession or ownership) versus a care orientation (e.g., exploring the feelings of others). Vuchinich, Emery, and Cassidy's (1988) research represents an important exception to this tradition because they investigated a more comprehensive range of parental conflict management strategies that included (a) conflict continuation (joining or extending the conflict), (b) authority (using power to try to end conflict), (c) mediation/information (making suggestions, reframing issues, or providing information), (d) distraction (changing the focus to nonconflict issues), and (e) nonintervention.

If sibling conflict is viewed as a form of misbehavior, research on parental disciplinary styles becomes most relevant (Baumrind, 1967; Darling & Steinberg, 1993; Grusec & Kuczynski, 1997; Hoffman, 1970; Maccoby & Martin, 1983; Sears, Maccoby, & Levin, 1957). In a critical review of this literature, Grusec and Goodnow (1994) advanced that most disciplinary styles fall into one of three broad categories: reasoning or induction, power assertion, or love withdrawal. Reasoning involves discussions with children about why their behavior is inappropriate, for example, by reviewing the consequences of the behavior, providing information, or describing how normative expectations have been violated. One form of reasoning, other-oriented induction (Hoffman, 1970), explicitly highlights how the child's behavior has affected another. Power assertion may involve physical punishment, force, withdrawal of privileges, threats, or commands. Love withdrawal involves direct expressions of disapproval, shame, or humiliation. Under many circumstances, the parental disciplinary styles of reasoning and power assertion are differentially related to children's social and moral development, with reasoning being most closely associated with adaptive child outcomes (Grusec & Goodnow, 1994; Hoffman, 1970). However, it is important to note that the superiority of reasoning over power assertion varies in accordance with parent gender, socioeconomic status, child age, child gender, and child temperament, as well as the nature of the misdeed (Grusec & Goodnow, 1994).

Although parallels can be drawn between parental disciplinary styles and parents' responses to sibling conflict, these processes are not synonymous, because the former set of strategies has been primarily studied in the parent–child context and the latter in the parent–sibling context. There may be important differences in the ways that parents perform reasoning and power assertion in these two contexts. For example, whereas the objective of reasoning in the parent–child context is to have children communicate with parents about their misbehavior, the parents' goal in the sibling context is to have two or more children communicate *with each other* about their positions and to attempt problem solving. Because of differences such as these, we use the term *child-centered strategies* in the present study to refer to responsive parental behaviors that are directed toward helping children to communicate with one another about their positions as well as to negotiate, reason, compromise, and problem solve. In contrast, *parental control strategies* were conceptualized as parental behaviors that are not directed toward understanding children but rather seek to eliminate conflict through punitive behaviors, threats, withdrawal of privileges, or other controlling actions. *Passive nonintervention* denotes instances in which parents do not intervene.

## Links Between Parents' Beliefs and Behaviors

In accordance with prior theory (Bandura, 1977; Doherty, 1981a, 1981b), the present study investigated whether different combinations of outcome and self-efficacy expectations underlie

parents' use of child-centered, control, and passive nonintervention strategies. Specifically, we hypothesized that parents who used child-centered strategies generally would believe that these techniques were relatively effective and, furthermore, that they would perform these techniques successfully. Parallel hypotheses were advanced regarding the use of parental control and passive nonintervention strategies. In testing these hypotheses, we also investigated whether the use of a given conflict management strategy was predicted by parents' beliefs about other strategies. For example, we evaluated to what extent parents used control and passive nonintervention strategies because they did not feel confident carrying out techniques that they considered to be more effective, such as child-centered strategies.

## Mother–Father Differences

Prior research in the area of sibling relationships has generally focused on mothers; therefore, there is little information about how mothers and fathers differ in their beliefs and behavior. The available data suggest that mothers are more likely than fathers to intervene in children's conflicts (Hoffman, 1970; Perlman & Ross, 1997). Furthermore, fathers tend to adopt an authoritarian stance when intervening in sibling conflicts, whereas mothers follow a mediational approach (Vuchinich et al., 1988). Thus, we hypothesized that fathers' outcome and self-efficacy expectations for control strategies would be higher than those of mothers. In contrast, we proposed that outcome and self-efficacy expectations for child-centered strategies would be higher for mothers than for fathers. Finally, we expected mothers to be more active in their children's interactions and consequently to less often engage in nonintervention than fathers.

## Developmental Factors

Parents' expectations and responses to sibling conflict may change in accordance with their children's growth and development (Dix et al., 1989; Goodnow & Collins, 1990). Parents may believe that certain strategies, such as child-centered strategies, will be more effective with relatively older siblings because younger children cannot engage in complex discussion, reasoning, perspective taking, and negotiation. In a review of the literature, Brody and Shaffer (1982) concluded that parental reasoning is more likely to be associated with advanced moral development in children 7 years of age and older. Furthermore, parents may believe that control strategies may be most appropriate with relatively younger sibling dyads because these dyads are unlikely to benefit from inductive approaches. Nonintervention may be viewed as most appropriate with older sibling dyads, who may be perceived as being more capable of managing conflict on their own. We tested these hypotheses in the present study.

## Sibling Gender Effects

Little is known about whether parents hold different beliefs about the effectiveness of various conflict management strategies with siblings of different gender constellations. Research on parental disciplinary styles suggests that parents are more likely to use inductive-reasoning approaches with girls and power assertion with boys (Grusec & Goodnow, 1994). However, it is unclear how parents respond when children of both genders are represented in the sibling group. Whereas several studies failed to identify sibling gender effects on observed (Lollis et al., 1996; Perlman & Ross, 1997) or reported (Washo, 1992) parental behavior, Felson and Russo's (1988) findings suggest that parents may be more likely to intervene to protect younger children, particularly if they are girls with an older brother. It does appear that same-sex sibling dyads engage in more conflict than mixed-sex dyads (Felson & Russo, 1988; Vespo, Pederson, & Hay, 1995). However, siblings in same-sex dyads also report a greater sense of companionship than siblings in mixed-sex dyads (Furman & Buhrmester, 1985). Given the lack of consistent findings in the literature, we advanced no specific hypotheses with respect to the gender of the sibling dyads.

In summary, the present study examined the extent to which two dimensions of parents' beliefs about sibling conflict correspond to their responses to actual conflict exchanges between their children in the home context. We hypothesized that (a) parents would use conflict management strategies that they perceived to be relatively effective and that they believed they could perform relatively well; (b) mother–father differences would be found in outcome and self-efficacy expectations, with mothers endorsing child-centered approaches and fathers endorsing control strategies; and (c) parents' beliefs and behavior would be associated with the developmental levels of their children, with mothers and fathers viewing child-centered strategies and passive nonintervention as more effective with older siblings and control strategies as more effective with younger siblings.

# Method

## *Participants*

Eighty-eight two-parent, two-child families consisting of a second-born child between 3 and 5 years of age ($M$ = 4 years 2 months, $SD$ = 1 year 0 months) and a firstborn child who was 2 to 4 years older ($M$ = 6 years 11 months, $SD$ = 1 year 4 months) participated in this research. Families were recruited through newspaper advertisements. The sample included 21 sister dyads, 20 brother dyads, 22 older sister–younger brother dyads, and 25 older brother–younger sister dyads. The average age spacing between siblings was 2 years 9 months ($SD$ = 11 months).

Eighty-six of the families were White and 2 were African American. Mothers were 33.74 years of age on average ($SD$ = 4.19 years), and fathers were 36.05 years of age on average ($SD$ = 5.16 years). Couples had been married an average of 9.25 years ($SD$ = 3.37 years). Mothers and fathers had completed an average of 16.01 ($SD$ = 3.75) and 16.06 ($SD$ = 3.24) years of education, respectively. Median family income was in the $40,000–$49,999 range.

## *Procedure*

Families were visited in their homes on three occasions to observe maternal and paternal responses to sibling conflict and to administer a set of self-report instruments to parents. Home visits were conducted at weekly intervals.

Following a procedure by Asher and Gabriel (1993), wireless microphones were used to record the children's conversations as they moved freely about their homes. During each of the three home observations, each child wore a small clip-on microphone that was connected to a transmitter by a thin cable. The transmitter was placed in a small belt pack that the child wore around his or her waist. The siblings' speech was transmitted to a tape recorder through the transmitter. The siblings' interaction was simultaneously transmitted to two small speakers that were placed in a

separate room near one of the parents so that the parent could monitor the children's interaction. This procedure ensured that parents were able to hear any conflicts that occurred. We wanted to optimize the likelihood that a lack of parental intervention was due to a conscious decision not to intervene rather than to an inability to hear the conflicts. Parents' spontaneous reactions to their children's conflicts were also audiotaped.

Once the equipment was set up, the children were escorted to a room in their house where they were asked to play. Although they were free to move about the house, sessions always began with both children in the same location. The children were told that the researcher was interested in how brothers and sisters play at home and that they could play with any toys or materials they had available. The researcher did not instruct the children to play either together or separately. Parents were also told that the purpose of the study was to learn about how brothers and sisters play together at home. Parents were not informed of our interest in sibling conflict until the end of the study.

The first observation session was 30 min in length and was intended to familiarize family members with the research procedures so that data collected at the subsequent sessions would be less influenced by the wireless microphone recording procedures. Data from this first session were not used.

The second and third sessions were each 45 min in length. One parent was chosen at random to monitor the siblings' interaction during the second home visit, and the other parent acted as monitor at the third session. The parent monitoring the siblings' interaction was asked to actively listen to the children's conversation on the speaker system. The researcher emphasized to the parent that he or she should respond to the children as he or she usually did.

The self-report measures designed to assess parental beliefs about sibling conflict were administered to parents at the end of the third session, after the observations of family interaction were complete. These instruments are described below.

Families were paid $50 at the completion of the study. Children were given small gifts at the end of each session.

### Measurement of Constructs

*Parental outcome expectations.* A modification of Washo's (1992) How Do You Manage Children's Conflicts? questionnaire was used to assess parental expectations for the effectiveness of the conflict management strategies for responding to children's verbal and physical sibling conflicts. Parents were asked to use a 5-point Likert scale (1 = *very ineffective,* 5 = *very effective*) to rate how effective they believed 26 possible conflict management responses were for resolving verbal and physical sibling conflicts, respectively. The 26 responses included six to seven exemplars of child-centered, parental control, and passive nonintervention strategies. Examples of child-centered strategies included (a) "worked with the children to help them resolve the conflict in a way that they both found satisfactory" and (b) "helped the children to use words to express their feelings to one another." Examples of parental control strategies included (a) "told the children to stop fighting" and (b) "told the children that they would be punished if they did not stop arguing." Exemplars of passive nonintervention were (a) "ignored the conflict" and (b) "decided not to go in and to let the children resolve the conflict on their own." Summary scores were calculated by collapsing across the individual items within each category of conflict management strategy. Internal consistency of the subscales ranged from .62 to .88 ($\alpha$; *Mdn* = .75).

*Self-efficacy expectations.* The How I Feel About My Children's Conflicts questionnaire is a self-report instrument, developed for this investigation, that assesses parents' self-efficacy expectations. This 14-item instrument draws on the work of Bandura (1977), Doherty (1981a, 1981b), and Simons et al. (1992) in its conceptualization of self-efficacy and in the format of the items.

Parents were asked to rate on a 5-point Likert scale (1 = *very poorly,* 5 = *very well*) how well they thought they could perform exemplars of child-centered, parental control, and passive nonintervention strategies if they tried to in response to their children's verbal and physical sibling conflicts. The internal consistency of these scales ranged from .51 to .74 ($\alpha$; *Mdn* = .69).

*Parental responses to sibling conflict: Naturalistic observations of parents' behavior.* Audiotapes and verbatim transcripts of the home sessions were used to identify all instances of sibling conflict. Conflict was defined as three or more turn units of conversation reflective of mutual opposition between the siblings (Shantz, 1987). A conflict was said to terminate after a clear resolution of the disagreement or after 30 s passed with no oppositional turns. One third of the observations were coded by two independent raters. Interrater agreement in identifying conflict episodes was .77 ($\kappa$).

Coders noted in sequence all conflict management strategies that parents used to respond to each conflict. Parents' responses were coded as representing child-centered, parental control, or passive nonintervention strategies. Overall interrater agreement in coding the types of conflict management strategies that were used was .70 ($\kappa$).

To ensure that our coding of conflict was consistent with parents' views of the events that represented conflict, 10 parents (5 mothers and 5 fathers) were asked to listen to an audiotaped session and mark on a transcript the beginning and end of all conflict exchanges. All 10 parents had children in the targeted age range and did not possess formal training in child development. Conflict was not defined for the parents. However, they were told that conflicts could vary widely in length. Percent agreement between the parents and the trained coders was 89%. This high level of agreement suggests that the observers' identification of conflict was in line with parents' perceptions.

## Results

The research questions were addressed by first investigating the degree to which characteristics of the children (age, age difference between siblings, and gender constellation) were associated with parents' outcome expectations, self-efficacy expectations, and observed responses to sibling conflict. The results of these analyses guided the selection of variables for hypothesis testing. Next, multivariate techniques were used to discern whether parents' outcome expectations, self-efficacy expectations, and observed responses to sibling conflict varied in accordance with parental gender, the type of conflict management strategy under consideration, and the type of conflict that children engaged in. Finally, we investigated whether mothers' and fathers' observed conflict management behavior could be predicted from parental belief system variables.

### Preliminary Analyses

*Age effects.* Correlational analyses were first performed to examine the associations between the sibling age variables and parental outcome expectations, self-efficacy expectations, and observed conflict management behavior. No significant associations were found between the children's ages and the outcome expectations reported by mothers. However, fathers reported that child-centered strategies were more effective with relatively older firstborn ($r = .26$, $p < .05$) and second-born ($r = .31$, $p < .05$) children. The sibling age variables were unrelated to mothers' and fathers' self-efficacy expectations.

Although age was unrelated to mothers' observed use of the three conflict management strategies, fathers used child-centered strategies more often with relatively younger firstborns ($r = -.22$, $p < .05$) and when the age spacing between the siblings was

smaller ($r = -.27$, $p < .05$). In addition, fathers used passive nonintervention more often with older firstborns ($r = .31$, $p < .01$).

As a result of these preliminary analyses that revealed several significant associations between children's age and the conflict management variables, children's age was included as a variable in subsequent analyses. Because the age variables approximated a bimodal distribution, the sample was divided into two groups representing younger and older sibling dyads on the basis of a median split conducted on firstborn age (*Mdn* = 6 years 11 months). (The ages of the firstborn and second-born children were highly correlated, $r = .71$, $p < .001$). Younger sibling dyads ($n = 43$) included firstborn and second-born children in the 3- to 7-year range. Children in the older sibling dyads ($n = 45$) were in the 4.5- to 9-year range.

*Sibling gender constellation.* A series of one-way analyses of variance (ANOVAs) was conducted to establish whether the gender constellation of the sibling dyads was related to parental outcome expectations, self-efficacy beliefs, and observed conflict management strategies. Only one significant association was revealed: Mothers' outcome expectations for passive nonintervention varied in accordance with their children's gender constellation, $F(3, 84) = 2.90$, $p < .05$. Post hoc contrasts (Tukey) indicated that mothers rated passive nonintervention as significantly more effective for resolving conflicts in older sister–younger brother pairs in comparison with other sibling dyads. Given the paucity of effects involving sibling gender constellation, this variable was not included in subsequent analyses.

## Outcome Expectations

*Verbal conflicts.* We next examined whether mothers and fathers reported different beliefs about the relative effectiveness of the three conflict management strategies for resolving verbal conflicts. A 3 (conflict management strategy) × 2 (parent gender) × 2 (younger–older sibling dyad) repeated measures multivariate analysis of variance (MANOVA) was performed with parents' outcome expectations for child-centered, control, and passive nonintervention strategies as the dependent variables and parent gender as the repeated variable. See Table 1 for descriptive data.

A significant interaction effect was revealed between conflict management strategy and parent gender, $F(2, 85) = 4.23$, $p < .05$. Follow-up one-way ANOVAs indicated that mothers viewed child-centered strategies, $F(1, 86) = 7.36$, $p < .01$, and passive nonintervention, $F(1, 86) = 4.08$, $p < .05$, as more effective than fathers did. In contrast, fathers considered parental control strategies to be more effective than mothers did, $F(1, 86) = 4.09$, $p < .05$. Post hoc contrasts (Tukey) also indicated that whereas mothers viewed child-centered strategies as significantly more effective than parental control strategies for responding to verbal sibling conflicts, fathers rated these two methods as similar in effectiveness.

A significant interaction effect was also detected for conflict management strategy and children's age group, $F(2, 85) = 3.94$, $p < .05$. Follow-up ANOVAs revealed that fathers of older sibling dyads ($M = 3.32$, $SD = 0.50$) believed that child-centered strategies were more effective than did fathers of younger sibling dyads ($M = 2.95$, $SD = 0.70$). No other effects involving sibling age were significant.

A significant main effect was also obtained for conflict management strategy, $F(2, 85) = 75.55$, $p < .001$. Post hoc contrasts (Tukey) revealed that both mothers and fathers viewed passive nonintervention as less effective than either child-centered or parental control strategies for responding to verbal conflicts. Mothers' and fathers' outcome expectations for child-centered, parental control, and passive nonintervention strategies were significantly correlated at .38 ($p < .01$), .44 ($p < .001$), and .24 ($p < .05$), respectively.

*Physical conflicts.* A parallel set of analyses was conducted on parents' outcome expectations for the conflict management strategies with regard to physical conflicts. Only a main effect for conflict management strategy was found, $F(2, 85) = 178.98$, $p < .001$, which indicated that both mothers and fathers viewed passive nonintervention as the least effective method for handling physical conflicts between siblings in comparison to child-centered and

Table 1
*Descriptive Characteristics of Parental Experiences and Parental Behavior With Regard to Verbal and Physical Sibling Conflicts (N = 88)*

| | Verbal conflict | | | | Physical conflict | | | |
|---|---|---|---|---|---|---|---|---|
| | Mothers | | Fathers | | Mothers | | Fathers | |
| Parental experience and strategy | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Outcome expectations | | | | | | | | |
| Child-centered | 3.34 | 0.66 | 3.16 | 0.51 | 3.09 | 0.62 | 3.03 | 0.61 |
| Parental control | 3.02 | 0.51 | 3.22 | 0.61 | 3.18 | 0.46 | 3.30 | 0.48 |
| Passive nonintervention | 2.33 | 1.00 | 2.05 | 0.90 | 1.76 | 0.79 | 1.77 | 0.79 |
| Self-efficacy expectations | | | | | | | | |
| Child-centered | 3.39 | 0.80 | 3.21 | 0.71 | 3.07 | 0.77 | 3.04 | 0.78 |
| Parental control | 3.39 | 0.82 | 3.72 | 0.74 | 3.23 | 0.76 | 3.79 | 0.70 |
| Passive nonintervention | 2.13 | 1.11 | 2.24 | 1.18 | 1.44 | 0.75 | 1.78 | 1.13 |
| Observed use of conflict management strategies | | | | | | | | |
| Child-centered | 0.16 | 0.62 | 0.09 | 0.34 | | | | |
| Parental control | 0.34 | 0.95 | 0.54 | 1.47 | | | | |
| Passive nonintervention | 1.62 | 2.13 | 2.01 | 2.28 | | | | |

control strategies (see Table 1). In addition, post hoc contrasts revealed that parental control methods were more likely to be endorsed as an effective method for handling physical sibling conflicts in comparison with child-centered approaches. Mothers' and fathers' beliefs about the effectiveness of child-centered, control, and passive nonintervention strategies were weakly correlated at .28 ($p < .05$), .30 ($p < .05$), and .22 ($p < .10$), respectively.

*Verbal versus physical conflicts.* Two 3 (conflict management strategy) × 2 (type of conflict: verbal vs. physical) × 2 (sibling age group) repeated measures MANOVAs were conducted to ascertain whether mothers and fathers held different outcome expectations when children engaged in verbal versus physical conflicts. Significant interaction effects were obtained between the type of conflict and conflict management strategy for both mothers, $F(2, 85) = 33.13, p < .001$, and fathers, $F(2, 85) = 8.48, p < .001$. Follow-up analyses indicated that both mothers, $F(1, 86) = 35.31, p < .001$, and fathers, $F(1, 86) = 8.65, p < .001$, viewed child-centered strategies as more effective when conflicts were verbal as opposed to physical (see Table 1). Control strategies were viewed by mothers to be more effective with physical rather than verbal conflicts, $F(1, 86) = 4.40, p < .05$. This effect was marginally significant for fathers' reports, $F(1, 86) = 3.26, p < .10$. Both mothers, $F(1, 86) = 16.53, p < .001$, and fathers, $F(1, 86) = 10.79, p < .01$, viewed passive nonintervention as more effective with verbal rather than physical conflicts.

## *Self-Efficacy Expectations*

*Verbal conflicts.* We next examined differences between mothers' and fathers' reports about how confident they felt performing each type of conflict management strategy in response to children's verbal conflicts. A significant interaction effect was found between conflict management strategy and parental gender, $F(2, 85) = 8.30, p < .01$. Follow-up ANOVAs revealed that mothers felt more comfortable performing child-centered strategies than did fathers, $F(1, 86) = 3.95, p < .05$. In addition, fathers felt more efficacious than mothers with respect to the use of control strategies, $F(1, 86) = 8.81, p < .01$. Post hoc contrasts also indicated that whereas mothers felt equally able to perform child-centered and control strategies, fathers reported that they were substantially more able to enact control than child-centered strategies.

In addition, a significant main effect was found for conflict management strategy, $F(2, 85) = 64.07, p < .001$. Post hoc contrasts (Tukey) revealed that mothers and fathers reported the lowest self-efficacy expectations with regard to passive nonintervention in contrast to child-centered or control strategies.

None of the effects involving sibling age reached significance. In addition, mothers' and fathers' self-efficacy expectations were not significantly correlated with one another.

*Physical conflicts.* Following the analytic strategy outlined above, we next investigated whether parents' self-efficacy expectations varied in accordance with parent gender and children's age group when children engaged in physical conflicts. The repeated measures MANOVA revealed a significant interaction effect for parent gender and conflict management strategy, $F(2, 85) = 5.10, p < .01$. Subsequent ANOVAs revealed that fathers felt more efficacious in performing both control, $F(1, 86) = 12.05, p < .001$, and passive nonintervention, $F(1, 86) = 4.02, p < .05$, strategies in comparison with mothers (see Table 1).

In addition, a main effect was obtained for conflict management strategy, $F(2, 85) = 225.49, p < .001$. Post hoc contrasts indicated that both mothers and fathers felt more effective when performing parental control strategies in response to physical conflicts in contrast to child-centered and passive nonintervention strategies.

*Verbal versus physical conflicts.* Two 3 (conflict management strategy) × 2 (type of conflict: verbal vs. physical) × 2 (sibling age group) repeated measures MANOVAs were conducted to ascertain whether mothers and fathers held different self-efficacy expectations when children engaged in verbal versus physical conflicts. Significant interaction effects were obtained between the type of conflict and conflict management strategy for both mothers, $F(2, 85) = 14.62, p < .001$, and fathers, $F(2, 85) = 6.88, p < .01$. Follow-up ANOVAs produced similar results for mothers and fathers. Mothers and fathers felt more effective performing both child-centered—for mothers, $F(1, 86) = 25.02, p < .001$; for fathers, $F(1, 86) = 6.37, p < .01$—and passive nonintervention—for mothers, $F(1, 86) = 30.33, p < .001$; for fathers, $F(1, 86) = 16.20, p < .001$—strategies with verbal rather than physical conflicts. Both mothers and fathers reported equivalent levels of self-efficacy when using control techniques to respond to verbal and physical sibling conflicts.

## *Parents' Observed Responses to Sibling Conflict*

Children engaged in approximately 2.60 extended conflicts in each of the 45-min home observations. Children engaged in 209 conflicts (range = 0 to 13 per family) when their mothers monitored the interaction and 233 (range = 0 to 11 per family) when their fathers were the monitors. The total number of conflicts did not differ in accordance with which parent monitored the interaction. Mothers ($M = 3.77$, $SD = 5.53$, range = 0 to 16) and fathers ($M = 3.44$, $SD = 3.61$, range = 0 to 14) used a similar number of conflict management strategies to respond to their children's conflicts during each session.

There was no evidence of session order effects. That is, the number of conflicts and types of parental responses did not differ in accordance with whether mothers preceded or followed fathers in monitoring the children's interaction.

We next evaluated whether mothers and fathers enacted different conflict management responses in the home observations and, furthermore, whether these responses varied systematically with children's age level. Because of the rare occurrence of physical sibling conflicts during the observations, only observational data on verbal sibling conflicts are presented. Verbal sibling conflict did not occur in 27 of the 176 sessions ($n = 15$ for mothers and $n = 12$ for fathers). These cases were deleted from all analyses involving observed parenting behavior.

A 2 (parent gender) × 2 (younger–older sibling dyad) repeated measures MANOVA was performed with the three observed parental conflict management strategies as the dependent variables and parent gender as the repeated variable. Significant interaction effects were found for conflict management strategy and sibling age, $F(2, 60) = 3.37, p < .05$, and for parent gender and sibling age, $F(2, 60) = 4.07, p < .05$. Follow-up one-way ANOVAs revealed that mothers, but not fathers, were more likely to use passive nonintervention with older ($M = 2.03$, $SD = 1.56$) rather

than younger ($M$ = 1.18, $SD$ = 1.61) sibling dyads, $F(1, 61) = 3.65, p < .05$. In contrast, fathers, but not mothers, enacted more control strategies with younger ($M$ = 0.57, $SD$ = 1.21) rather than older ($M$ = 0.19, $SD$ = 0.87) sibling dyads, $F(1, 61) = 3.63$, $p < .05$.

A main effect was also revealed for conflict management strategy, $F(2, 60) = 24.69, p < .001$. Post hoc contrasts indicated that mothers and fathers were most likely to respond to their children's verbal conflicts with passive nonintervention, followed by control, and then child-centered strategies.

Mothers' and fathers' observed use of child-centered ($r$ = .41, $p < .001$) and passive nonintervention ($r$ = .45, $p < .001$) strategies was significantly correlated. A nonsignificant correlation was obtained between mothers' and fathers' use of control strategies (see Table 1).

### *Predicting Parents' Responses to Sibling Conflict From Their Beliefs*

Logistic regression analyses were performed next to assess the extent to which parental responses to sibling conflict could be predicted from parents' reported beliefs about sibling conflict. Logistic regression analyses were appropriate because the behavioral data did not approximate a normal distribution and required transformation into categorical variables. These analyses allowed for an examination of the main and interaction effects of parental beliefs about sibling conflict and parental responses to sibling conflict.

In line with the results reported above regarding mother–father differences, the regression analyses were conducted separately for mothers and fathers and for each conflict management strategy. The following variables were selected as the independent variables in the logistic regression analyses: (a) children's age; (b) parents' outcome expectations for child-centered, control, and passive nonintervention strategies; (c) parents' self-efficacy expectations for child-centered, control, and passive nonintervention strategies; and (d) the interaction of parental outcome expectations and self-efficacy expectations. Three-way interaction terms did not contribute significantly to any of the models and so are not reported. Observed parental responses to sibling conflict served as the dependent variables. These data were recoded into categorical form (1 = *no use of the strategy,* 2 = *at least one instance of the strategy in the observation session*). In all cases, the percentage of parents who were correctly assigned to these two categories exceeded 85%.

*Predicting parents' use of child-centered strategies.* Mothers' use of child-centered strategies was significantly predicted by a model that included maternal outcome expectations for parental control strategies (see Table 2). Mothers were more likely to use child-centered strategies when they did not believe that parental control strategies were effective.

For fathers, use of child-centered strategies was significantly predicted by a model that included the age of the sibling dyad and

Table 2
*Logistic Regression Analyses for Variables Predicting Parents' Use of Conflict Management Strategies (N = 88)*

| Variable | $\beta$ | Wald statistic | $df$ | Exp($\beta$) | −2LL | Model $\chi^2$ |
|---|---|---|---|---|---|---|
| Mothers' use of child-centered strategies | | | | | | |
| Outcome expectations for control strategies | −2.48 | 4.52* | 1 | 0.08 | 36.43 | 7.38** |
| Fathers' use of child-centered strategies | | | | | | |
| Age of siblings | −0.19 | 4.12* | 1 | 0.83 | | |
| Outcome expectations for child-centered strategies | 5.62 | 4.21* | 1 | 27.58 | 21.62 | 11.81** |
| Mothers' use of control strategies | | | | | | |
| Self-efficacy expectations for control strategies | 0.81 | 4.29* | 1 | 2.26 | 60.48 | 4.58* |
| Fathers' use of control strategies | | | | | | |
| Outcome expectations for child-centered strategies | 4.42 | 3.47* | 1 | 83.43 | | |
| Self-efficacy expectations for child-centered strategies | −3.56 | 4.77* | 1 | 0.03 | 16.47 | 7.89* |
| Mothers' use of passive nonintervention | | | | | | |
| Outcome Expectations × Self-Efficacy Expectations for Passive Nonintervention | 0.90 | 4.25* | 1 | 2.45 | 63.71 | 9.22* |
| Fathers' use of passive nonintervention | | | | | | |
| Age of siblings | 0.05 | 5.78* | 1 | 1.05 | 65.59 | 8.51** |

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

outcome expectations for child-centered strategies. Fathers were more likely to engage in child-centered conflict management strategies with younger sibling dyads and when they believed that these strategies were effective.

*Predicting parents' use of parental control strategies.* As shown in Table 2, mothers' use of control strategies was significantly predicted by maternal self-efficacy expectations for parental control strategies. Mothers were more likely to use control strategies when they felt relatively confident about their ability to perform these techniques.

Fathers' use of control strategies was significantly predicted by both their outcome and self-efficacy expectations for child-centered strategies. Fathers who viewed child-centered strategies as an effective means for resolving children's conflicts but who doubted their ability to use child-centered strategies were more likely to use control strategies.

*Predicting parents' use of passive nonintervention.* Mothers' use of passive nonintervention was significantly predicted by a model that included an interaction term representing mothers' outcome and self-efficacy expectations for passive nonintervention (see Table 2). Mothers were more likely to use passive nonintervention when they believed that this was an effective strategy for managing children's conflict and that they could perform this strategy well if they tried to. Believing that passive nonintervention was effective, but not possessing the confidence to carry it out, was associated with lower levels of observed passive nonintervention.

For fathers, the only significant predictor of passive nonintervention was the age of the sibling dyads. Fathers of relatively older sibling dyads were more likely to use passive nonintervention.

## Discussion

The results of this study parallel those of previous research (Goodnow, 1988; McGillicuddy-deLisi, 1992; Sigel, 1992) in demonstrating the importance of taking parents' ideas and expectations into account when trying to understand their behavior. Partial support was obtained for the hypothesis that parents' responses to sibling conflict could be predicted from their beliefs about which techniques were most effective and which they were most able to perform. For example, fathers were observed to use child-centered strategies more often when they viewed these strategies to be relatively effective for resolving children's conflicts. Mothers were more likely to engage in parental control strategies when they reported feeling relatively confident about their ability to enact this strategy. In addition, mothers' engagement in passive nonintervention was predicted by both their appraisal that this was an effective strategy for resolving children's conflicts and the perception that they could carry out this strategy relatively well. However, despite these examples of consistency between parental beliefs and behavior, a lack of correspondence was also apparent.

One of the most striking results of this study is that the strategy that parents used most often (passive nonintervention) was not the one that they considered to be most effective or that they had the most confidence in performing. Contrary to parents' self-reported beliefs about the relative effectiveness of techniques that involve directly working with children to resolve conflicts (i.e., child-centered strategies) or the assertion of parental authority to end conflicts (i.e., parental control strategies), parents were observed to engage in passive nonintervention more than three times as often as the other conflict management strategies.

Interestingly, parents' use of a particular conflict management strategy was often predicted by outcome and self-efficacy expectations that related to other conflict management strategies. For example, mothers' use of child-centered strategies was predicted by their belief that authoritarian strategies were ineffective. Thus, mothers may use child-centered strategies, not because they believe that these are particularly effective strategies but rather because alternative strategies (e.g., power assertion, physical discipline) are viewed as worse. Although this may be viewed as an instance of consistency between beliefs and behavior (e.g., if one strategy is judged to be ineffective, then an alternative should be used), one may question how well a mother can perform a child-centered strategy if she doesn't really believe that it will work. These results suggest that educational programs for parents need to focus on parents' beliefs about a variety of conflict management strategies and not just the one that is targeted for improvement.

The finding of consistency between beliefs and behavior with respect to some areas of parenting but not others is characteristic of investigations of belief–behavior linkages in other domains of parenting (McGillicuddy-deLisi, 1992; Sigel, 1992). Thus, it remains important to ask, Why do parents use strategies that they do not believe are effective? Several explanations are possible. First, parents may have few opportunities during the course of daily life to reflect on their beliefs about sibling conflict and to consider the effects that these strategies have on their children's interaction. As a result, parents may have few occasions to adjust their beliefs and/or behaviors so that they are more internally consistent.

Second, perceptions of self-efficacy for enacting a strategy that is perceived to be effective may be low. For example, in the present study, fathers who viewed child-centered strategies as an effective means for resolving children's conflict but who had low levels of confidence in their ability to perform them were more likely to use control strategies. In this case, fathers' endorsement of child-centered strategies as an effective approach was not enough to ensure their enactment. Both self-efficacy and outcome expectations may need to be positive for parents to function most adaptively.

A third possible explanation for the apparent low level of convergence between parental beliefs and behavior is that parents and researchers may use very different "levels of analyses" when conceptualizing the use of intervention strategies. That is, although the observational techniques used in this study focused on parents' responses to each instance of sibling conflict, parents may have been operating on a broader, longer-term level. For example, parents may believe that it is very important for them to structure conflict situations with young children so that they can learn how to negotiate and problem solve, and accordingly, they may endorse questionnaire items that reflect this belief. However, for various reasons, parents may not choose to intervene in this way every time a conflict occurs. The ways in which parents choose to intervene (or not) in any single instance of sibling conflict is likely to be influenced by the particular characteristics of that conflict situation (Grusec & Goodnow, 1994) as well as events that happened prior to the conflict (e.g., how many times the children have fought that day, parents' experiences with similar types of conflicts). Integrative models such as those proposed by Darling and Steinberg (1993), which make distinctions between parenting prac-

tices (the content or type of parental behavior) and parenting styles (the context in which parenting practices are implemented), may be useful for advancing researchers' understanding of belief–behavior inconsistencies.

### *Mother–Father Differences*

The results of this study confirm previous findings that mothers and fathers often hold different beliefs about how to manage their children's conflicts (McGillicuddy-deLisi, 1992; Simons, Whitbeck, Conger, & Melby, 1990). Whereas mothers believed that child-centered strategies were more effective than control strategies, fathers believed that these strategies were equally effective for resolving verbal sibling conflicts. In addition, fathers had greater confidence in their ability to perform control strategies in comparison with child-centered strategies, whereas mothers reported equal confidence in their ability to perform these two sets of strategies in response to verbal conflicts. These results suggest that it is critical to include fathers in future studies on parental beliefs and behavior and to avoid assuming that mothers and fathers play interchangeable roles in two-parent families. As Grusec and Goodnow (1994) pointed out, children may respond differently to mothers and fathers even when they enact the same disciplinary strategy.

### *Child Characteristics*

The results of the present study are in line with previous research that suggests that parents' expectations and behaviors change in accordance with their children's development (Dix et al., 1989; Goodnow & Collins, 1990). It is notable that some developmental effects were discerned even though the present sample represented a relatively narrow age range. In particular, fathers were more likely to engage in child-centered strategies with younger sibling dyads and passive nonintervention with older sibling dyads. Fathers' greater use of child-centered strategies with younger siblings was particularly unexpected given that older children are thought to be more likely to benefit from reasoning and inductive strategies (Brody & Shaffer, 1982). Furthermore, fathers themselves indicated that they expected these techniques to be more effective with older sibling dyads. Given this contradiction, it will be important to include children's developmental level in future studies of parental responses to sibling conflict.

In contrast to the findings for children's developmental level, parents' beliefs and behavior were generally not related to the gender constellation of the sibling dyads. One exception was that mothers viewed passive nonintervention as more effective with sibling dyads that consisted of an older sister and a younger brother. The paucity of effects for children's gender was not unexpected given previous research that has revealed inconsistent associations between sibling gender and many aspects of child and parental behavior (see Dunn, 1983, for a review). However, these results diverge from the parental disciplinary styles literature, which generally suggests that parents engage in more reasoning with girls and more power assertion with boys (Grusec & Goodnow, 1994). The possibility that parental styles of discipline are less influenced by children's gender when parents are responding to the interaction of their children, rather than to individual children, should be evaluated in future research.

### *Implications for Intervention and Future Directions*

Most interventions for improving sibling conflict rely heavily on changing parental behavior, for example, by teaching parents when and how to intervene when their children are fighting (Kramer & Radey, 1997). However, the results of this study suggest that it is important to provide parents with mechanisms for examining their views about how to best manage sibling conflict and to help them to more consistently select strategies that correspond with their beliefs. For example, a simple problem-solving approach (e.g., D'Zurilla & Goldfried, 1971) could be used within a parent education or counseling context in which parents are taught to systematically (a) identify the type of problem they are facing with regard to their children's conflicts, (b) generate a host of possible solutions to the problem, (c) evaluate each of the possible solutions with regard to its expected effectiveness, (d) select the "best" strategy to try first, (e) implement, and (f) evaluate the effectiveness of this strategy. If the strategy is ineffective, the parent returns to Step d to select an alternate approach, and this process continues until the parent is satisfied with the outcome. A problem-solving procedure such as this could be most helpful for ensuring that parents consider using all possible strategies and not just the ones they gravitate to during times of stress. Another advantage of this approach is that it may naturally lead parents to examine their perceptions of self-efficacy in performing the strategies. Thus, a context may be created in which parents may ask themselves why they find it difficult to work with their children to resolve a conflict or to allow children to try to manage a conflict on their own, when appropriate.

Future studies should continue to explore parental beliefs and their associations with parental behavior. In particular, studies that integrate qualitative and quantitative methods to discover how parents' self-conceptualizations of their beliefs about sibling conflicts are organized would be most helpful. Additional components of parental belief systems should also be examined, for example, parents' beliefs about the short- and long-term effects of sibling conflict, parents' tolerance for conflict, parents' views about children's ability to resolve conflicts on their own, and the role that children should play in the conflict resolution process. In addition, the degree to which parents' beliefs are consistent across domains and the extent of agreement between spouses may offer clues about the prediction of parental behavior (Goodnow & Collins, 1990).

It is extremely important for future research to consider bidirectional effects. Because of the exploratory nature of this research, we made a decision to focus on the unidirectional associations between parental belief systems and parental behavior. However, there is a clear need to also examine how sibling behavior influences parents' beliefs and behavior.

Finally, there are several limitations to the present study that need to be recognized. First, the study included only two-parent, two-child families, the majority of whom were White, relatively well-educated, and in the low to middle range of the middle class. Controls were placed on family size and structure to minimize the number of variables under study. However, the generalizability of the findings may be restricted because of the nature of the participants.

Second, to evaluate mothers' and fathers' unique responses to sibling conflict, the procedure called for having parents individu-

ally monitor their children's interaction. This arrangement may differ from what happens naturally in families, where parents may act together or where one parent may defer to the other to handle sibling conflict. It will be important for future research to adopt a family systems perspective when exploring this issue.

In conclusion, this study provided a first look at the ways in which mothers and fathers think about sibling conflict and how they manage these conflicts. Although direct correspondences between parents' self-reported beliefs and their observed conflict management behavior were not always apparent, we did find that parents' selection of conflict management strategies is based, in part, on their perceptions about the effectiveness of a range of conflict management strategies and their appraisal of how well they are able to carry out these strategies. Broadening the focus of research to incorporate both parental beliefs and behavior promises to be beneficial for generating new ways to help families manage destructive forms of sibling conflict.

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