

# **Decision Making in One-Parent and Two-Parent Families: Influence and Information Selection**

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*This study investigated information selection and the influence of individual family members on decision outcomes during the transition into early adolescence. Members of 39 two-parent families and members of 30 one-parent families participated in the study. Participants completed four decision tasks independently and then came to a joint decision within their family. Mothers and fathers in both one- and two-parent families were more likely to use information concerning health or safety and past experience; however, their children were more likely to use information concerning the preferences of a group of peers or a single friend. Parents in these families also had more influence on the joint decisions of the family than did their children if only the first family choice was considered. If more than one individual and family choice was considered, influence on the joint decision by adolescents and parents did not differ. Age within the adolescent group interacted with respondent for information selection by two-parent families and for outcome influence in one-parent families.*

Recent concern about adolescent decision behaviors has resulted in large media and educational campaigns to teach adolescents strategies for making wise choices. However, little is known about what kinds of information adolescents are likely to use to make everyday choices and how they learn to select information to guide their decisions. Previous research has indicated that the transition from preadolescence into early adolescence is the period

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during which parents begin to give their children more autonomy in decision making (Grotevant & Cooper, 1986; Hill & Holmbeck, 1987; Steinberg & Silverberg, 1986), although children continue to seek their parents' advice about particular kinds of decisions (Kandel & Lesser, 1972; Lerner, Carson, Meisels, & Knapp, 1975; Wilks, 1986). To date, research on adolescent decision making has primarily focused on socioemotional changes in parent-child-peer relationships or on cognitive changes in the individual child. Both lines of inquiry have been critical to understanding the development of decision-making skills; however, due to lack of integration, the two areas of research have largely ignored the importance of family for training some of the cognitive skills that adolescents need to become competent decision makers (Conger & Peterson, 1984; Jacobs & Ganzel, in press). Two of those skills are selecting and ranking the informational attributes on which a decision will be based. If, as suggested by previous research, early adolescence is a time when parents allow their offspring to make more decisions, it is likely to be a period when adolescents are learning to selectively use information for making decisions. Much of that information selection will occur within the context of family discussions and negotiations about decisions concerning the adolescent's activities or purchases.

Decisions made within the family context are unique because, unlike decisions made alone or within the peer group, all family members have a long history with each other and power and resources of the individual members are inherently unequal. Everyday decisions made by a family may provide an arena in which fledgling decision makers try their new skills and where more experienced decision makers model appropriate behavior, give feedback about options being considered, or even provide instruction on how to make decisions. Adolescents are most likely to be involved and interested in decisions concerning their own activities or possessions, so many of these interactions are on topics in which the adolescent has a strong interest in the outcome. Adolescents may gain expertise in decision making by exposure to their parents' skilled handling of a decision while participating in joint family choices, a process similar to the joint structuring of activities, labeled "guided participation" by Rogoff (1990). Although families structure decision opportunities and model strategies, it is obvious that adolescents also bring their own beliefs and desires to the decision, that they are influenced by others outside of the family, and that motives and goals play a large role in decision making for them (see Jacobs & Ganzel [in press] for a discussion of these factors). However, adolescents may acquire basic skills about how to select and value different kinds of information from interactions within their families.

Brown and Mann (1990) have echoed the importance of the family context by suggesting that the "family is an important laboratory in decision-making" (p. 28) where children and adolescents learn about the kinds of factors that family members take into account when deciding. Recent research supports this view by linking patterns of family interaction on decision tasks to those found when making collaborative decisions with friends (Cooper, Carlson, Keller, Koch, & Spradler, 1991). Thus the goal of this investigation was to increase knowledge about information selection and individual family members' influences on decision outcomes during the transition from pre-adolescence into early adolescence. The study specifically focused on possible differences between families with preadolescents (9 through 11 years of age)<sup>1</sup> and those with early adolescents (12 through 14 years of age) and on the differences between one-parent and two-parent families.

### INFORMATION SELECTION

A critical component of individual judgment and decision making highlighted by recent literature is the way in which information is selected and processed. A number of studies have shown that young and mid-adolescents are more likely than children to generate options, to look at the situation from a variety of perspectives, to anticipate consequences of decisions, and to evaluate sources of information (see Keating, 1990; Mann, Harmoni, & Power, 1989). The transition occurs at about 12 years of age. Most of the studies on the topic have focused on how information is selected and processed (e.g., Klayman, 1983) rather than on the kind of information chosen. However, one of the most critical developmental changes in decision making may be in the types of information used to make choices. Information selection may be particularly important within the context of family decision making because it is likely to be modeled (Chilman, 1979). For example, in one family, every time a new purchase is made, the mother describes the "great deal" and money saved, but in another family, the mother describes the statistics from a consumer guide telling that her purchase will last forever. The adolescents in the two families are learning to attend to different sources of information when making purchasing decisions.

It seems likely that if parents are models for decision making, it is the information used to make decisions rather than the decision process that is available for imitation. Children may be able to discern patterns from the decision outcomes from models who are observed often (e.g., Dad always makes the decision based on price; Mom always chooses the "good for you"

alternative). One of the things that adolescents might learn about decision making from their families is what kind of information is considered legitimate as the basis for a decision. This knowledge may guide their selection of information in other contexts and within other groups. Of course, the type of information can vary with the task, the decision context, financial status, age of the decision maker, and other factors. To maximize respondents' interest in the decision outcome, this study focused on decisions about the preadolescents' and early adolescents' activities or possessions, concentrating on any changes in information use that might occur with age or after interactions with other family members.

### INFLUENCE WITHIN THE FAMILY

Previous research on the development of decision making within the context of the family has indicated that as children pass from late childhood into early adolescence they typically experience more autonomy to make their own decisions and are allowed to participate more in family decisions. Yee and Flanagan (1985) found that seventh and eighth graders reported more opportunities for decision making than did fourth and fifth graders. Similarly, Yee (1984) found that junior high students reported more participatory and self-regulating family environments than did elementary school students. Grotevant and Cooper (1985) found a trend toward increased autonomy for decision making in adolescence. With a slightly older sample (12 through 17 years of age) of 6,710 adolescents and their parents, Dornbusch et al. (1985) reported that joint decision making increased in middle adolescence and then declined. They attributed this to a "practice period" that preceded full autonomy in decision making. Others have suggested that as children get older they become more skilled in their negotiations with parents. They may be more able to judge the effectiveness of various influence techniques (Paikoff, Collins, & Laursen, 1988) and are more likely to be treated as equals in negotiating family decisions (Cooper & Carlson, 1991). Based on previous findings, it seemed likely that this practice period would occur during the transition into early adolescence. Thus the early adolescents would be expected to have greater influence on the final decision made by the family than would preadolescents.

In addition to age, the effect of family configuration on the development of decision making has been considered. Weiss (1976) suggested that one- and two-parent families differ because two-parent families are characterized by an "echelon" structure in which adults act in concert, reinforcing each

other's rules and rights to make decisions. According to Weiss, such an echelon structure would not be found in single-parent homes. This idea has been supported by studies reporting higher autonomy by adolescents and less control by parents in single-parent families (Dornbusch et al., 1985; Flanagan, 1987; Hetherington, 1989) and more opportunities for participating in decision making (Brown & Mann, 1990). Even without an "echelon" structure, two-parent families are likely to provide more opportunities to observe decision making because the additional parent provides a second model of decision making and the chance to watch two adults resolve conflicts concerning decisions (Brown & Mann, 1990). In addition, single parents may spend less time with the adolescent, thereby providing fewer opportunities for the adolescent to observe decision making (Barber & Eccles, 1992). However, children and adolescents in single-parent families have greater opportunities to participate in family decisions (Brown & Mann, 1990), report having greater control over some kinds of decisions (e.g., Dornbusch et al., 1985), and report less conflict with their parents than do adolescents in two-parent families (Anderson, Hetherington, & Clingempeel, 1989; Flanagan, 1987; Smetana, Yau, Restrepo, & Braeges, 1991). If early adolescents typically assume more responsibility and have more autonomy, they may gain a voice in decision making out of necessity (Smetana et al., 1991). In a recent study, single-parent mothers were more likely than other parents to report involving early adolescents in decision making, to confide in their children, and to believe that parenting became easier as their children moved into adolescence (Flanagan, Urdan, & Jacobs, 1993). Based on the studies just reviewed, it was expected that the patterns of influence on decision making would differ in one-parent and two-parent families, with preadolescents and early adolescents in one-parent families having greater influence on family decisions than on those in two-parent families.

## CURRENT RESEARCH

Most of the studies reviewed earlier have used self-reports of parents and/or adolescents to identify decision-making patterns. The measures have asked about either general decision-making strategies (typically using the Epstein & MacPartland, 1977, Family Decision-Making Scale) or who made most of the decisions for a particular topic (e.g., choosing the child's clothes) (Dornbusch et al., 1985). Although such studies have provided information about families' self-perceptions of their decision making, self-reports are limited to what respondents are aware of and could be biased for a variety of

reasons. One notable exception to self-reports is the Condon, Cooper, and Grotevant (1984) analysis of families' discussions concerning planning a family vacation (see also Cooper, Carlson, et al., 1991; Cooper & Cooper, in press). In their open-ended task, no constraints were imposed on the family's vacation planning. However, most real decisions in life are already constrained by what is available (e.g., individuals make a choice between Movie A or Movie B rather than designing a movie they would like to see).

The decision tasks in this study were designed to be as lifelike as possible by asking respondents to choose *between* alternatives. An unrevealed differences procedure (Ferreira, 1963) was used in which family members were first asked to rank order the possible choices individually and then come together to discuss and rank the choices as a group. Allowing the participants to rank order the choices individually first insured that they would come to the joint task with an opinion. This was done because family members typically come with opinions about a desired outcome in a real family discussion (e.g., "I want to see Movie A" or "I won't go to see Movie B because I don't like that kind of movie"). A similar procedure was recently used by Holmbeck and Hill (1991) to examine conflict in families with early adolescent girls. In social psychology, influence is typically defined as a person or a group's effect on someone's opinion or actions (e.g., Michener, DeLamater, & Schwartz, 1990). Although the present study did not attempt to measure the processes of influence (e.g., persuasion, etc.), it did measure influence on the outcome or joint family decision. Regardless of the family setting in which one lives, common sense suggests that neither parent nor child always and easily gets one's way; at times one will have more influence on the final decision than the others do. However, it seems likely that one good indicator of influence is how often one's idea or choice is adopted by the family. Thus each individual's prior choice was compared with the joint family decision to measure each family member's influence on the outcome.

This study examined decision making within the context of one- and two-parent families during the transition from preadolescence into early adolescence, specifically focusing on information selection and individual influence on the joint decision made by the family. The study was designed to answer three questions:

What kinds of information are most likely to be used to make everyday decisions?

Does the kind of information used by each family member differ?

Do individual family members have differing amounts of influence on the outcome of joint family decisions, and is the amount of influence related to the adolescent's age?

## METHOD

### Subjects

Members of one-parent and two-parent families participated in the study. Participants were sought from community groups (one scout group, two churches, one adult education class, and two single-parent organizations<sup>2</sup>) in two mid-sized cities (one in the central plains region and the other in the north-central region). One of the authors briefly described the study in each setting, and consent letters were sent home with interested parents and adolescents for all participating family members to read and sign. Consent letters were then returned to the researchers and families were contacted by telephone to schedule interviews.<sup>3</sup>

Mothers, fathers, and 1 child from each of 39 two-parent families participated in the study (18 daughters and 21 sons participated). Families were White European-Americans, with incomes ranging from \$10,000 to \$60,000+. Three quarters (75%) of the fathers and the mothers had completed college or above. The distribution of income and education levels are described in Table 1. None of the parents in the two-parent families had remarried. The preadolescents' ages ranged between 9.8 and 11.4 years, with a mean of 10.5 years ( $n = 22$ ), and the early adolescents' ages ranged between 12.1 and 15.1 years, with a mean of 13.1 years ( $n = 17$ ).

Mothers and 1 child from each of 30 single-parent families participated in the study (16 daughters and 14 sons participated). In order to participate, families had to meet the criteria of having been headed by a single parent for at least 1 year and children had to reside with the mother at least half of the week. These criteria were established to make sure that the mother and child had ample opportunity to establish their own decision-making patterns. These families were White European-Americans with incomes ranging from \$10,000 to \$60,000. Over half (53%) of these mothers had completed college or above (see Table 1). The preadolescents' ages ranged between 10.0 and 11.3 years, with a mean of 10.3 years ( $n = 17$ ), and the early adolescents' ages ranged between 12.3 and 14.9 years, with a mean of 13.6 years ( $n = 13$ ).

It should be noted that the data from the two groups were not directly compared due to the possible confound of using triads in the two-parent sample and dyads in the one-parent sample. Previous studies have found that some interaction differences within families are due to family structure (single-parent vs. two-parent) and that others are due to the number of people in the interaction (Gjerde, 1986; Smetana et al., 1991). It seems likely that preadolescents and early adolescents in two-parent families experience both

**TABLE 1: Families at Each Income and Educational Level**

<i>Income</i>	<i>Two-Parent Family</i>		<i>One-Parent Family</i>
	<i>%</i>		<i>%</i>
<\$10,000	0.0		5.3
\$10,000-\$19,999	4.2		52.6
\$20,000-\$29,999	20.8		15.8
\$30,000-\$39,999	20.8		5.3
\$40,000-\$49,999	12.5		15.8
\$50,000-\$59,999	20.8		5.3
\$60,000+	20.8		0.0

  

<i>Education</i>	<i>Two-Parent Family</i>		<i>One-Parent Family</i>
	<i>Mothers</i>	<i>Fathers</i>	
	<i>%</i>	<i>%</i>	<i>%</i>
High school	10.8	5.4	7.7
Some college	13.5	18.9	38.5
Finished college	32.4	13.5	23.1
Graduate work	43.2	62.1	30.7

dyadic and triadic decision making; however, the reality of living in a one-parent family is that decisions are made in dyads as compared to the triadic interactions that can take place within two-parent families (a similar point is made by Smetana et al., 1991, p. 1009).

**Measures and Procedure**

A trained researcher met with each family in its home. The researcher presented each participating family member with four decision tasks (choosing a bicycle, a snack, a movie, and a camp for the participating preadolescent or early adolescent). The decision tasks were selected because they represented situations in which participants would be choosing from a variety of options and using different sources of information. In addition, the tasks included two small and two larger decisions (small = snack, movie; large = bicycle, camp) and two decisions that involved cost differences and two that did not (cost information was not present for the movie and camp tasks). Each person was provided with one set of seven cards for each task. Each card within the set contained information about a particular item within the tasks



**TABLE 2: Example of Decision Task Completed by Parents and Adolescents**

<i>Information Category</i>	<i>Example</i>
Cost	Price is \$200.00 (typical) \$125.00 (inexpensive)
Peer preference <sup>a</sup>	Child's friends think "Not the hottest bike, but okay" "This is <i>the</i> bike to own!"
Health/safety	Bike is considered about as safe as most others the safest bike on the market
Prior experience	Last time you bought this brand it was okay it was a great bike
Base rates	A consumer survey rates this bike about average as the best bike made in years
Single case <sup>b</sup>	A friend bought this brand and found it acceptable thought it was the best
Child preference	Child thinks this bike is okay This is the bike the child wants

a. Depicted as a group of friends.

b. Depicted as a single opinion.

(e.g., if the task was selecting a bicycle, the respondent received seven cards, each representing a different bicycle). Table 2 lists the categories of information included on each card. The information was distributed across the cards so that selection of any particular card indicated a choice based on only one kind of information. Information categories were selected from answers given to open-ended questions concerning information selection in a pilot study ( $n = 30$ ).

The rank ordering of the cards was recorded by the researcher and was later used as the measure of information selection. After making individual decisions, family members were asked to reach consensus on the same tasks. After discussing their choices, a joint family decision for ranking the cards was reached and recorded by the researcher. Thus influence was measured by the amount of correspondence between an individual's original choices and the joint family decisions on the same tasks.

## RESULTS

### Information Used

#### Two-Parent Families

To test the question concerning what kinds of information are most likely to be used to make decisions, Friedman's two-way test was performed separately by task and respondent (mothers, fathers, and their children). The Friedman test is a nonparametric test used to compare two or more related samples, by ranking  $k$  variables from 1 to  $k$  for each case and then calculating and comparing mean ranks for the variables by case (a chi-square distribution results from this procedure).<sup>4</sup> The mean ranks are presented in Table 3, and the significance tests are presented in Table 4. As can be seen in Table 4, the category of information significantly affected how it was ranked by mothers and fathers on all tasks. The same was true for the joint decisions made by all family members. The category of information significantly affected children's rankings for only the snack and bike tasks. An inspection of Table 3 reveals that, generally, mothers and fathers ranked information concerning health and prior experience highest. (Recall that, because these are ranks, the highest ranked information has the lowest number.) Children, however, did not rank health information quite as high but shared parents' high ranking of prior experiences. The joint rankings of all tasks except the movie were significantly affected by the category of information.

#### One-Parent Families

Friedman's two-way test was again performed separately by task and respondent to determine which kinds of information were ranked highest in this sample. The mean ranks are presented in Table 3, and the significance tests are presented in Table 4. As can be seen in Table 4, the category of information significantly affected how it was ranked by mothers on all tasks. However, the category of information significantly affected children's rankings for only the snack and movie tasks. The joint rankings of the snack and bike tasks were significantly affected by the category of information. Table 3 reveals that, generally, mothers ranked past experience and health information highest, although this varied, depending on the task. Their children also ranked past experience very high.

**TABLE 3: Mean Ranks for Each Information Category, by Task**

<i>Information</i>	<i>Two-Parent Family</i>				<i>One-Parent Family</i>		
	<i>Mom</i>	<i>Dad</i>	<i>Child</i>	<i>Joint</i>	<i>Mom</i>	<i>Child</i>	<i>Joint</i>
<b>Cost</b>							
Snack	3.83	3.79	3.73	3.31	3.53	3.42	3.38
Bike	3.23	3.23	4.28	3.60	2.97	3.33	2.90
<b>Peer preference</b>							
Snack	4.45	3.96	3.50	4.21	4.33	3.15	3.97
Bike	4.35	3.94	3.32	4.21	4.22	3.10	3.83
Movie	3.31	3.37	3.14	3.00	3.03	2.85	2.75
Camp	4.12	3.78	3.38	3.88	3.63	2.73	3.27
<b>Health/safety</b>							
Snack	2.42	2.94	3.26	2.64	2.42	3.72	2.92
Bike	2.79	3.29	3.27	3.01	2.75	3.63	2.75
Movie	2.24	2.38	3.23	2.79	2.52	3.92	2.92
Camp	2.24	2.41	2.64	2.15	2.57	2.93	3.03
<b>Prior experience</b>							
Snack	2.17	2.13	2.46	1.91	1.63	2.52	1.78
Bike	3.28	3.06	2.72	2.76	3.60	3.25	3.40
Movie	2.76	2.81	2.82	2.88	2.77	2.83	2.93
Camp	2.18	2.37	2.87	2.42	2.17	2.83	2.78
<b>Single case</b>							
Snack	4.64	4.51	4.23	4.92	5.03	4.55	4.65
Bike	4.38	4.37	3.90	4.36	4.65	4.15	4.47
Movie	3.78	3.65	2.95	3.54	3.93	3.00	3.53
Camp	2.99	4.51	3.33	3.27	2.95	3.02	2.37
<b>Base rates</b>							
Snack	3.49	3.67	3.82	4.01	4.05	3.65	4.30
Bike	2.96	3.10	3.51	3.06	2.82	3.53	3.65
Movie	2.91	2.78	2.86	2.78	2.75	2.40	2.87
Camp	3.47	2.92	2.77	3.27	3.68	3.48	3.55

## Respondent Differences in Information Used

### Two-Parent Families

To test differences in the use of information by family member and by age,<sup>5</sup> mean ranks were calculated for each individual's use of a particular information category (averaging across tasks). To compare within-family differences, mixed-design ANOVAs were performed for each category of information, with respondent (mother, father, or their child) as a within-

**TABLE 4: Friedman's Two-Way Test, by Task on Mean Ranks of Information Categories**

Information	Respondent Chi-Squares						
	Two-Parent Family				One-Parent Family		
	Mother	Father	Child	Joint	Mother	Child	Joint
Snack	58.5**	39.6**	20.4**	67.8**	68.8**	19.4*	47.0**
Bike	26.8**	15.7*	16.3*	24.8**	27.1**	5.9	17.2*
Movie	30.0**	16.1*	2.0	6.1	14.7*	15.0*	4.5
Camp	42.4**	25.3**	7.1	30.8**	21.0**	4.1	9.9

NOTE:  $df = 5$  for snack and bike;  $df = 4$  for movie and camp.

\* $p < .01$ ; \*\* $p < .001$ .

subject independent variable and age group (preadolescent or early adolescent) as a between-subjects independent variable. These analyses revealed significant differences in family members' mean rankings of information concerning peer preferences and single cases. Children ranked peer preferences,  $F(2, 70) = 10.70$ ,  $p < .001$ , and single-case information,  $F(2, 70) = 9.15$ ,  $p < .01$ , significantly higher than did their parents. In addition, age group interacted with respondent for the information category of health,  $F(2, 70) = 3.57$ ,  $p < .05$ . Simple effects tests indicated no respondent differences for the preadolescent group but found that mothers ranked health significantly higher than did other family members for the early adolescent group. No other effects for age group were found.

### One-Parent Families

The same analysis strategy revealed significant respondent differences for the mean rankings of information concerning peer preference, health, and single cases. Mothers ranked information concerning health significantly higher than did their children,  $F(1, 26) = 15.64$ ,  $p < .01$ . However, children ranked peer preferences,  $F(1, 26) = 19.47$ ,  $p < .001$ , and single-case information,  $F(1, 26) = 12.97$ ,  $p < .01$ , significantly higher than did their mothers. No significant effects for age group were found.

### Influence on Family Decisions

The measure of influence used in this analysis was the correspondence between individual family members' choices and their joint family decisions. Scores were calculated in three different ways. First, a total score was calculated by adding the number of times a family member's individual *first*

rank matched the *first* rank on the joint decisions across the tasks. Thus this score is an indicator of how often an individual's first choice became the first choice of the family. This will be referred to as the 1:1 score.

The second score was calculated by adding the number of times a family member's individual first *three* ranks matched only the *first* rank on the joint decisions across tasks. This strategy seemed the most similar to "real world" decision making because families typically have to settle on one decision and the first ranked joint decision would be the one most likely to be pursued by the family. However, individual family members might reasonably be considered influential if any one of their first three choices was ultimately chosen by the family. This will be referred to as the 3:1 score.

The third score was calculated in the same way, but the number of times a family member's first *three* ranks matched the first *three* ranks on the joint decision was added across tasks. This strategy allowed maximum influence of individual's choices on the joint family decision because it tested whether any of a family member's first three choices was ranked first, second, or third by the family. In the real world, if a family member's first three choices are not selected as any of the first three choices of the group, that family member probably has little influence on the group decision. This will be referred to as the 3:3 score.<sup>6</sup>

To test differences in influence within families using each of these scores, mixed-design ANOVAs were conducted. The total number of matches were used as the dependent variables, respondent (mother, father, or child) as the within-subject independent variable, and age group (preadolescent or early adolescent) as the between-subjects variable.

### Two-Parent Families

When the 1:1 score was used as the dependent variable, mothers' and fathers' responses matched the joint decision significantly more often than did their children's responses,  $F(2, 66) = 4.18, p < .05$ . No significant differences based on age group were found. As can be seen in Table 5, the mean number of matches was relatively low for all family members when this strategy was used. It should be noted that even these low numbers may inflate "influence" because parents and children could come to the joint task in complete agreement before any discussion took place. This situation occurred 8.6% of the time; thus a small percentage of the matches was due to prior agreement.

When the 3:1 score was used as the dependent variable, mothers' and fathers' responses again matched the joint decision significantly more often

**TABLE 5: Mean Number of Matches Between Individual's Choice and Joint Family Decision**

Score <sup>a</sup>	Two-Parent Family			One-Parent Family	
	Mother	Father	Child	Mother	Child
1:1	2.30 <sup>b</sup>	2.12	1.46	2.62	1.62
3:1	3.24	3.38	2.57	3.35	2.66
3:3	3.68	3.65	3.32	3.80	3.47

a. 1:1 = individual first rank matched with joint first rank; 3:1 = individual first three ranks matched with joint first rank; 3:3 = individual first three ranks matched with joint first three ranks.

b. Possible range for all scores was 0 to 4.

than did their children's responses,  $F(2, 69) = 5.92, p < .01$ . In addition, as can be seen in Table 5, the mean number of matches was larger for all respondent groups when this strategy was used.

Use of the 3:3 score changed the picture considerably. No significant differences were found between the influence of various family members on the joint decision. Because this strategy maximizes the potential for input into the family decision, the mean number of matches is higher than in the previous analyses (see Table 5). However, to test the possibility that the apparent differences in respondent influence were due to ceiling effects in the 3:3 score, group means were transformed to normal deviates, based on the implied probabilities of a match. When these transformed scores were used to calculate the difference between parent and child scores, the relationship between parent and child influence was stable across the three kinds of scores.

### One-Parent Families

When the 1:1 score was used as the dependent variable, the results were similar to those found in two-parent families. Mothers' responses matched the joint decision significantly more often than did their children's responses,  $F(1, 25) = 8.03, p < .01$ . No significant differences based on age group were found. The mean number of matches for each respondent are presented in Table 5. Again, some matches were due to mothers and children making the same individual choices before making the joint decision. This happened in one-parent families 28.6% of the time.

Use of the 3:1 score yielded a significant interaction between respondent and age group,  $F(1, 27) = 4.75, p < .05$ . Follow-up *t* tests indicated that

mothers of the preadolescent group matched the joint task significantly more often than did their children,  $t(1, 27) = 3.28, p < .05$ , but that the number of times mothers of adolescents in the older group and their children matched the joint task did not differ significantly.

Finally, use of the 3:3 score resulted in no significant differences in respondent influence on the joint decision. As can be seen in Table 5, the mean number of matches was high both for mothers and for adolescents. However, when the group means were transformed to normal deviates as described for the two-parent families, the relationship between parent and child influence was again found to be stable across the three kinds of scores.

## DISCUSSION

The findings from this study provide important information concerning (a) the kinds of information that families use to make everyday decisions and (b) the patterns of family influence on decision outcomes during the transition into early adolescence. A notable difference in the information that parents and their children selected was found both for one-parent and two-parent families, with parents' rankings affected by the category of information more often than children's rankings. This suggests that parents consistently rank some types of information high and others low, indicating shared beliefs about the differential value of various types of information for decisions concerning their children. Preadolescents and early adolescents did not appear to share a consistent set of values concerning the use of various types of information that might be relevant to a decision. It should be noted that the information categories were provided for the respondents in this study; therefore, they might not generalize to all families and all decision situations, particularly to issues of family conflict such as those examined by other researchers (e.g., Hill, 1988; Holmbeck & Hill, 1991; Smetana, 1988, 1989). However, the types of information were based on open-ended responses given in the pilot study, so they were representative of the sources of information used by parents and early adolescents to make selections among activities and possessions.

Not surprising, within-family analyses for both samples indicated that members of a particular family ranked the types of information differently. One of the major differences was that children were more likely than their parents to use friends' opinions, as seen in their selections of peer preference (typically depicted as a group of friends) and single-case information (typically depicted as a particular person known to them). This finding is substantiated by current literature concerning the influence of peers on current, daily

decisions (e.g., Biddle, Bank, & Marlin, 1980; Emmerich, 1978; Wilks, 1986). In addition, all parents were more likely than their children to give high ranks to health and safety information. Mothers from two-parent families who had early adolescents ranked health significantly higher than did other family members. As their children gain the autonomy to make decisions that comes with the transition into early adolescence, these mothers may have greater concerns over health and safety than do mothers of the preadolescents who may have less autonomy.

Smetana et al. (1991) have suggested that discrepancies found in parents' and adolescents' beliefs and expectancies about adolescent-parent relationships are related to differences in parents' and children's roles in the family social system. This suggestion might describe differences found in information selection equally well. Parents are expected to maintain social order, to socialize family and cultural values, and to be responsible for their offspring's well-being. At the same time, early adolescents are expected to begin to achieve autonomy, identify with their peers, and begin to be self-sufficient. These roles may lead parents to select health and safety information and their children to select information concerning peers.

Some of the most interesting findings from this study came from the use of the three different outcome influence scores. When individual family member's first choices were compared to the joint first choice, parents (from both types of families) were significantly more likely than their children to have their original choices prevail. However, when the 3:3 score was calculated, allowing maximum individual influence, the differences in influence were no longer significant because almost all family members' individual choices were represented. The difference between the results found with the 1:1 score and 3:3 score should not be interpreted as a difference in influence but rather, as a difference in opportunity. The 3:3 scores show a clear ceiling effect, indicating that all family members' first three choices were almost always considered when the family made three joint decisions. However, if the ceiling effect is removed by transforming the probabilities into normal deviates, the rate of influence is similar for all three scores. This indicates that, given the chance to make more than one choice, preadolescents' and early adolescents' original opinions would quite likely be reflected in the final set of decisions. Thus the amount of influence that adolescents have within a family could be highly related to opportunities which are more plentiful for certain kinds of decisions that occur frequently in families (e.g., choosing a snack), thus giving all family members a chance to "get their way."

Between the minimum and maximum influence scores was the 3:1 score, in which each family member's first three ranks were matched with only the



first-ranked joint decision. As mentioned earlier, this computation seemed most similar to real choices made in families where only one selection is made. In this kind of situation, an individual might be considered influential if any one of his or her top choices was selected. Although children from two-parent families had higher mean scores than when the 1:1 strategy was used, their parents were still more likely to have one of their top choices selected by the family. In single-parent families, the same pattern was found in families with preadolescents but was not found in families with early adolescents.

What are the implications of these findings for real family decisions? In general, they indicate that when the decision concerns choices among options, if only one choice is being made by a family, the parents' original wishes are more likely to influence the final decision (even on topics that directly concern their children). If more than one choice is made, this difference in influence or "who wins" disappears. The exception to this pattern is found in one-parent families with early adolescents. This fits the existing literature indicating that adolescents in single-parent families are given more autonomy (Dornbusch et al., 1985; Flanagan, 1987) and more opportunities for participating in decision making (Brown & Mann, 1990; Smetana et al., 1991) than are those in two-parent families.

Overall, the predicted age differences were not found (although age interacted with respondent in the cases previously mentioned). This could be due to the content of the tasks and age groups used in this study as compared to those used by others. Previous studies asked parents and adolescents about general decision making strategies or about decisions concerning behavioral rules (e.g., curfews) or interpersonal choices (e.g., selection of friends). It is likely that parents and adolescents interact differently depending on the decision domain. In addition, some of the studies reporting increases in autonomy and decision making related to age looked at older adolescents than those examined in this study (e.g., Grotevant & Cooper, 1985).

Another possible reason for the lack of age differences in this study was the use of a decision task rather than self-reports. Previous studies that found age differences in influence on decision making typically used self-reports of influence (e.g., Dornbusch et al., 1985; Steinberg, 1987; Yee & Flanagan, 1985). It is possible that although parents and their children *feel* (and report) that adolescents are more efficacious than preadolescents, no real differences in influence on decisions existed. Some evidence for the idea of a discrepancy between various reporters' perceptions of the adolescent's input is found in two studies reporting that parents typically assess communication more positively than do their adolescents (Smetana et al., 1991) and that early

adolescents believe that their parents assert more power and control to gain compliance than the parents themselves believe (Flanagan et al., 1993). In these cases, the reality of the situation is not known, but it is clear that the perceptions of parents and adolescents differ. Of course, it is possible that self-reports are the most accurate indicators of influence about the *process* of decision making and that age differences were not found in this study because only the *outcomes* of the decision process were measured.

Dornbusch et al. (1985) describe the period of early adolescence as a practice period when adolescents begin to practice decision skills within the context of the family. It is possible that parents begin to include early adolescents in the discussion of family decisions more than they do younger children but retain decision-making power, reflecting a "guided participation" model (Rogoff, 1990). This study was limited by defining influence only in terms of outcome rather than process; thus it provides few clues as to the "why" and "how" of decision-making influences. However, the processes within families are likely to be similar to those previously found in other social influence situations. These include the use of rewards, coercion, expertise, information, referent power, and legitimate authority (Raven & Rubin, 1983). Studies of both processes and decision outcomes are clearly needed to explore the ways in which parents and early adolescents negotiate the influence on decision making within different types of families.

In summary, the study reported here presents evidence of a general difference between parents and their children on both information selection and influence. Parents clearly had more influence on decision outcomes on the research tasks than did their preadolescents and early adolescents. Parents also valued different kinds of information when making decisions. These include health/safety and prior experience. Not surprisingly, their children tended to care more about friends' opinions. As in any study, the conclusions must be interpreted within the limitations of the investigation. The participants were volunteers from community groups. It is possible that families who belong to community groups and who volunteer to be in a research study on decision making differ systematically from other families. They may have more time, feel more confident about their decision practices, or be more committed to research. In addition, the sample was a White middle-class group of families, hence the results may not generalize to more diverse populations. Decision making within families is likely to be influenced by cultural traditions in interaction patterns, economic circumstances, and attitudes about child rearing that could be different in other populations. Finally, although the findings from this study might apply to many situations in which different kinds of information are available for choosing among a variety of

options, they might not apply to real-world choices in which family members must generate options (see Jacobs & Ganzel, in press, for a discussion of this point).

The value of this study is that it represents a first step toward looking at the important role of families as a training ground for the acquisition of cognitive skills, such as sorting and choosing the information to be used in decisions. To understand how early adolescents make major choices in life, a better understanding of how they are socialized as decision makers for the more everyday, mundane decisions is needed. Much of this socialization takes place within the family; thus more detailed research concerning decision making within families is needed to shed light on this important topic. Such research should include more diverse kinds of families, a broader range of decision topics, and a variety of measures to assess both the processes and the outcomes of decision making used by early adolescents and their families.

## NOTES

1. It should be noted that the Society for Research in Adolescence and the "Instructions for Authors" in this journal define "early adolescence" as that period between 10 and 14 years of age. However, in the study reported here the term "preadolescence" is used to refer to the earliest part of this period (9 through 11 years of age) and "early adolescence" is reserved for the latter part of the same period (12 through 14 years of age).

2. Although single-parent organizations were included, participating single-parent families came from all of the settings.

3. Criteria for inclusion in the study (e.g., one-parent families had been divorced for at least 1 year, ages of preadolescents and early adolescents) were described in the presentations to community groups; therefore, many families who heard about the study knew that they did not fit the selection criteria. Thus it was not possible to accurately calculate participation rates because some families may have failed to request consent forms due to lack of interest or lack of eligibility. However, 82% of the families who originally took consent forms home agreed to participate in the study.

4. The category labeled "child's preference" was not included in the analyses reported here because it seemed likely that parents and children interpret the category differently. Adolescents were significantly less likely than parents to use it because it was not their real preference—two-parent families:  $F(2, 70) = 5.39, p < .01$ ; one-parent families:  $F(1, 26) = 17.61, p < .001$ . However, it should be noted that when "child's preference" was included in the analyses, the overall pattern of results remained the same.

5. Preliminary analyses revealed no significant gender differences on any of the analyses reported here.

6. It should be noted that in addition to the 1:1, 3:1, and 3:3 scores reported here 1:2, 1:3, 2:1, 2:2, 2:3, and 3:2 scores were constructed and tested. The three scores reported here were chosen because each represented a *conceptual* difference in the way individuals' and families' choices might be related (as described in the text). However, all similarly constructed scores showed the same pattern of results as those reported here. All scores tested and described

represent total matches across tasks. Analyses for individual tasks could not be conducted using this method because individual task scores were dichotomous (match/no match).

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