

# Maternal Differential Treatment in Later Life Families and Within-Family Variations in Adult Sibling Closeness

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**Objectives.** In this article, we explore within-family differences in the closeness of sibling ties in adulthood. Specifically, we consider the sibship as a network and investigate the ways in which perceptions of mothers' differential treatment play a role in within-family variations in sibling closeness in midlife.

**Method.** Data were analyzed from 2,067 adult sibling dyads nested within 216 later life families, collected as part of the Within-Family Differences Study-II.

**Results.** Respondents reported the greatest closeness to siblings whom they perceived as favored by their mothers when they were not favored themselves, whereas respondents were less likely to choose siblings whom they perceived as disfavored by their mothers when they did not perceive themselves as disfavored.

**Discussion.** Variability in the strength of sibling ties within families suggests that some individuals receive greater benefits from this relationship than do their brothers and sisters. These findings shed new light on such within-family variations in sibling closeness by identifying how specific patterns of maternal differential treatment draw offspring toward some siblings and away from others.

**Key Words:** Adult siblings—Parent—adult child relations—Parental favoritism—With-family differences.

THE sibling tie is one of the most enduring kin relations across the life course (Bedford & Avioli, 2012), serving as an important source of social interaction and both instrumental and emotional support in adulthood (A. Rossi & P. H. Rossi, 1990; Campbell, Connidis, & Davies, 1999; Connidis & Campbell, 1995; Spitze & Trent, 2006; Voorpostel & Blieszner, 2008; White, 2001; White & Reidmann, 1992). One marker of the salience of this tie in adulthood is that the quality of sibling relations is a strong predictor of psychological well-being even into late life (Cicirelli, 1989; Paul, 1997). Such compelling evidence that sibling relations play an important role in adulthood is not surprising when considered in light of life course theories regarding the salience of “linked-lives” on family members' experiences beginning in childhood (Elder, 1985; 1994). However, research has shown that there is variability in the strength of sibling relations both within and between families, suggesting that although some individuals receive substantial psychological, emotional, and instrumental rewards from their sibling ties, others do not (Connidis & Campbell, 1995; Spitze & Trent, 2006; Voorpostel, van der Lippe, Dykstra, & Flap, 2007; White, 2001).

In the present study, we take a new approach to studying adult siblings by exploring within-family differences between sibling dyads in the same family. We consider the sibship as a network and explore the ways in which perceptions of mothers' differential treatment play a role in within-family variations in sibling closeness in midlife. In

particular, we examine how the quality of intergenerational relations shape within-family differences in intragenerational relations.

According to theories of interpersonal relations, the addition of a third party has a considerable effect on the quality of dyadic relationships (Heider, 1958; Simmel, 1950; Thibaut & Kelley, 1959). Specifically, the quality of each of the three dyadic relationships composing the triad influences one another (Heider, 1958; Thibaut & Kelley, 1959). Drawing on this argument, we suggest that an individual's closeness to any one of his or her siblings will vary depending on the sibling's relationship with his or her mother, relative to that of the individual. To explore this issue, we use data collected from 2,067 adult sibling dyads nested within 216 later life families, collected as part of the Within-Family Differences Study-II (WFDS-II).

## STRUCTURAL AND SOCIO EMOTIONAL APPROACHES TO STUDYING SIBLING RELATIONS

Scholarship on variability in the quality of adult sibling relations has focused primarily on social structural characteristics of individuals and their siblings. However, with the exception of sibling gender, this line of research has shown few consistent effects of structural factors such as marital or parental status, educational attainment, or age. The absence of strong and consistent structural predictors of sibling relationship quality mirrors that found in the study of parent—adult child relations. Specifically, studies of closeness and

tension between parents and adult children has been shown to be shaped substantially more by socioemotional factors, such as value similarity, than by structural factors such as marital, parental, and employment status (Suito, Sechrist, Gilligan, & Pillemer, 2011). In fact, even similarity of structural characteristics has been found to play a very small role in these processes, compared to value similarity (Suito & Pillemer, 2006). Thus, we suggest that sibling relations, much like parent–adult child relations, are shaped primarily by socioemotional, rather than structural factors.

We propose that one of the most promising socioemotional factors to take into consideration in studying sibling relationship quality is perceptions of parental differential treatment within the family in adulthood. For more than 30 years, research on the consequences of parental differential treatment, including favoritism and disfavoritism regarding parents' emotional resources, has been a major focus of interest in studies of families in the early stages of the life course. Studies have demonstrated that perceptions of such parental differential treatment have effects on sibling relations, as well as on psychological well-being, in childhood and adolescence (Jenkins, Rasbash, Leckie, Gass, & Dunn, 2012; McHale, Updegraff, Jackson-Newsom, Tucker, & Crouter, 2000; Shanahan, McHale, Crouter, & Osgood, 2008; Suito, Sechrist, Plikuhn, Pardo, & Pillemer, 2008). Specifically, siblings have been found to feel and express less warmth and more hostility toward one another when parents differentiate either positively or negatively among their children (Jenkins et al., 2012; McHale et al., 2000; Shanahan et al., 2008), regardless of which children are favored or disfavored.

In the past decade, life course scholars have begun to consider whether similar patterns and consequences of parental differential treatment occur in middle and later life families (Boll, Ferring, & Filipp, 2003; 2005; Gilligan, Suito, Kim, & Pillemer, 2013; Suito, Gilligan, Johnson, & Pillemer, 2014; Suito et al., 2009). This line of research has demonstrated remarkably similar patterns to those found in earlier stages of the life course, documenting that parental favoritism and disfavoritism are common, and have detrimental consequences on children's psychological and relational well-being throughout the life course (Boll et al., 2003; 2005; Gilligan et al., 2013; Jensen, Whiteman, Fingerman, & Birditt, 2013; Pillemer, Suito, Pardo, & Henderson, 2010; Suito et al., 2009; 2014). Further, recent research has established the stability of mothers' differential treatment indicating the salience of such differentiation across time (Suito, Gilligan, & Pillemer, 2013).

Little is known, however, about whether parental differential treatment in adulthood translates into *within-family variations* in sibling relationship quality. This is because research on parental favoritism and sibling relations in adulthood has either focused on a single sibling dyad (Boll et al., 2003; 2005) or studied sibling relations in the aggregate (Gilligan et al., 2013; Suito et al., 2009).

### MATERNAL DIFFERENTIAL TREATMENT AND WITHIN-FAMILY VARIATIONS IN SIBLING CLOSENESS

Drawing on scholarship on tie preferences within established networks, we suggest two processes through which perceptions of patterns of maternal favoritism are likely to shape within-family variations in sibling closeness. Specifically, we suggest that individuals will either: (a) gravitate to group members who share their own favored or disfavored status and avoid those who do not or (b) adhere to the pattern of differential preferences established by the mother.

#### *Similarity of Parental Differential Treatment and Sibling Closeness*

Theories of homophily suggest that shared maternal differential treatment would result in individuals feeling closer to siblings who experience similar relationships with their mothers. Classic scholarship in this area has emphasized the importance of similarity in the development and maintenance of interpersonal relationships (Heider, 1958; Homans, 1950; Merton, 1968). More recent work on homophily has shown that experiential similarity plays an even greater role in these processes than does structural similarity (Suito, Pillemer, & Keeton, 1995; Thoits, 1986; 2011), primarily because this dimension of similarity increases empathetic understanding and positive affect (Thoits, 1986; 2011). Experiential similarity has been shown to be an important predictor of closeness and support between individuals and both kin and nonkin members of their networks across a broad range of life events including returning to school (Suito et al., 1995) becoming a family caregiver (Suito & Pillemer, 2002; Suito et al., 1995) and facing the loss of a parent or spouse (Suito & Pillemer, 2000; Umberson & Chen, 1994). Most directly relevant to the present study, this line of research has shown that experiential similarity also plays an important role in relations between siblings, particularly during and following major life events (Suito & Pillemer, 1996).

Taken together, this theoretical and empirical work suggests that within-family patterns of perceptions of differential treatment may shape to which siblings adult children feel the greatest closeness. In particular, we propose that similarity in the experience of being favored by their mothers constitutes a salient form of similarity that will help explain within-family variations in sibling closeness. For example, an individual who perceives that she is favored by her mother *and* that her sister is favored by her mother is likely to feel that she and her sister experience a unique relationship with their mother that is not shared by other siblings. In contrast, if she perceives that she is favored, but that her sister is not, she would feel that she experiences a substantially different relationship with her mother than does her sister. Given the significance of mother–adult child ties in individuals' lives, we suggest that the perception of

having shared or nonshared relational experiences with the mother is likely to constitute a salient basis upon which to differentiate among one's siblings. Thus, we hypothesize that individuals will feel the greatest closeness toward siblings whom they perceive as sharing their experience of being favored by their mothers.

#### *Parental Differential Treatment, Interpersonal Influence, and Sibling Closeness*

In contrast to theories of similarity, arguments on the influence of central members within social networks suggest that adult children will feel the most emotional closeness to siblings whom they perceive as favored by their mothers, regardless of whether they perceive themselves as favored. Perspectives on status hierarchies in social networks can be used to propose that central members of networks influence the attitudes, beliefs, and actions of other group members—particularly within friendship groups and work environments (Friedkin & Johnsen, 2011). This is the case when central members of networks are highly visible and vocal, especially regarding topics that are salient to other network members. Perceptions of maternal favoritism appear to be consequential for adult children's well-being and sibling relationship quality (Gilligan et al., 2013; Pillemer et al., 2010; Suito et al., 2009; 2013), suggesting that maternal favoritism is highly salient. Further, although mothers are reticent to directly vocalize their preferences, adult children are typically aware of those preferences, particularly when they perceive that they are the favored offspring (Suito et al., 2014). Based on these arguments, we propose that mothers, as central individuals within the family network, are likely to influence their children's feelings toward their siblings.

In particular, we assert that because mothers hold high status positions within the family, siblings' perceptions of mothers' differential treatment will shape their relationships with one another. Thus, we hypothesize that adult children will feel the most emotional closeness to siblings whom they perceive as favored by their mothers, regardless of whether they perceive themselves as favored.

#### *Favoritism versus Disfavoritism as Predictors of Sibling Differential Closeness*

Up to this point, we have focused on the consequences of perceptions of mothers' favoritism on within-family variations in closeness among siblings. However, mothers may also differentiate among their children in terms of "negative treatment," a concept referred to in the child development literature as being "disfavored" (McHale et al., 2000). We propose that the processes we have described regarding the ways in which perceptions of favoritism shape sibling closeness can also be applied to mothers' "disfavoring" particular children relative to their siblings.

Our basis for this argument can be found in studies in both childhood and adulthood which have found that parents' negative differential treatment has even greater effects on the well-being of offspring than does positive differential treatment (McHale et al., 2000; Pillemer et al., 2010). Such a pattern is not surprising, given that negative dimensions of interpersonal relations have been found consistently to have more detrimental effects on well-being than do positive dimensions (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001).

Studies of parental disfavoritism in childhood include a broad range of differential treatments, such as discipline, anger, and withholding resources. In adulthood, the focus has been on within-family differences in parent-child conflict (Pillemer et al., 2010). Given the substantially greater detrimental effects of negative relationship dimensions, perceptions of mothers' disfavoritism may have even stronger consequences for sibling relations than do perceptions of favoritism. Therefore, rather than exploring only the ways in which "favoritism" shapes sibling closeness, we also examine the role of adult children's perceptions of mothers' "disfavoring" particular offspring.

Based on theories of homophily, we hypothesize that adult children will be more likely to prefer siblings with whom they share the same status as disfavored. Alternatively, drawing upon theories of influential network members, we hypothesize that adult children will be less likely to prefer siblings whom the mother disfavors, regardless of their own disfavoritism status.

#### *Gender as a Moderating Factor in Within-Family Differences in Sibling Relations*

Up to this point, we have been discussing the association between perceived maternal favoritism and within-family differences in sibling relations without taking adult children's gender into consideration. However, throughout the literature, gender has been found to be the most consistent predictor of both patterns of maternal favoritism (Suito et al., 2013; Suito & Pillemer, 2006) and sibling relationship quality (Connidis & Campbell, 1995; Spitze & Trent, 2006; White & Reidmann, 1992). This is not surprising, given that both classic theories of gender (Chodorow, 1978; Gilligan, 1982) and empirical research on interpersonal relations have highlighted girls' and women's stronger emphasis on interpersonal relations across the life course, relative to those of their male counterparts (Suito et al., 2011). In particular, through the process of socialization, daughters are encouraged to place highest value on their socioemotional roles in the family, whereas sons are encouraged to pursue instrumental achievements outside the family (Chodorow, 1978; Coser, 1991; Gilligan, 1982). Based on such gender differences in the emphasis placed on interpersonal relations, particularly within the family, we expected that perceptions of mothers' favoritism would be more consequential for

daughters than sons. The fact that the mother–daughter tie is typically stronger than the mother–son tie (A. Rossi & P. H. Rossi, 1990; Suito & Pillemer, 2006) further contributes to the likelihood that daughters' patterns of closeness to their siblings will be influenced particularly strongly by their perceptions of mothers' favoritism and disfavoritism. Thus, we propose that the effects of perceptions of shared favored status and mothers' interpersonal influence will be greater for daughters than sons.

#### *Other Factors Affecting Within-Family Variations in Sibling Closeness and Parental Favoritism*

Based on the literature, the quality of sibling relations in adulthood is shaped by several demographic- and family-level characteristics that are important to take into consideration in the analysis. These include family size, children's age, and marital and parental status (Connidis & Campbell, 1995; White & Reidmann, 1992). These factors have also been found to play a role in both the occurrence and specific patterns of parental favoritism (Suito et al., 2011; 2014), making them important to include in the present investigation. Thus, we take these factors into consideration to reduce the likelihood that any apparent influence of favoritism on sibling relations could be accounted for by the association among these factors.

#### *Summary*

In summary, we propose that patterns of perceptions of mothers' favoritism will predict which siblings individuals will name as those to whom they are most close. Based on theories of homophily, we argue that individuals will be most close to siblings whom they perceive as sharing the same favoritism and disfavoritism status—in other words, siblings with whom they believe share the position of being favored or share the position of being disfavored. Alternatively, based on theories of interpersonal influence in status hierarchies, we suggest that individuals will be most close to siblings whom they perceive as favored by their mothers and will not choose those whom they perceive as disfavored by their mothers, in both cases, regardless of their own status. Last, we propose that the role of perceptions of maternal favoritism on sibling closeness will vary by gender. Specifically, we suggest that perceptions of shared favored and disfavored status, as well as mothers' interpersonal influence, will be more strongly associated with daughters' than sons' sibling preferences.

#### **METHOD**

The data used in the present analyses were collected as part of the WFDS. The design of the WFDS involved selecting a sample of community-dwelling mothers 65–75 years of age with at least two living adult children. Mothers and

their adult children were interviewed between 2001 and 2003; in 2008, the original study was expanded to include a second wave of data collection (for a detailed description of the WFDS design, see Gilligan et al., 2013; Suito et al., 2014, where portions of this section have been published previously).

#### *Procedures*

With the assistance of the Center for Survey Research (CSR) at the University of Massachusetts, Boston, Suito and Pillemer drew a probability sample of women ages 65–75 with two or more children from the greater Boston area. The T1 sample consisted of 566 mothers, which represented 61% of those who were eligible for participation, a rate comparable to that of similar survey strategies in the past decade (Dixon & Tucker, 2010).

Data collection for the second wave of the study occurred between 2008 and 2011. The survey team attempted to contact each mother who participated in the original study. At T2, 420 mothers were interviewed. Of the 146 mothers who participated at only T1, 78 died between waves, 19 were too ill to be interviewed at T2, 33 refused, and 16 could not be reached. Thus, the 420 represent 86% of mothers who were living at T2. Comparison of the T1 and T2 samples revealed that the respondents differed on subjective health, educational attainment, marital status, and race. Mothers who were not interviewed at T2 were less healthy, less educated, and less likely to have been married at T1; they were also more likely to be Black. Comparisons between the mothers alive at T2 who did and not participate revealed that they differed on only education and subjective health.

The data for the present paper were collected from the 311 families at T2 in which there were three or more living offspring; this is the minimum sibship size necessary for siblings to differentiate among group members. Comparison of the subsample of mothers with three or more children and the subsample of those with less than three living children revealed that the women with larger families had completed less education, were more likely to be divorced or widowed, and were more likely to be Black.

Following the interview, mothers were asked for contact information for their adult children. The mothers in these families had a total of 1,301 living offspring at T2. Two hundred fifty-three (81.3%) of the mothers provided contact information for one or more of their adult children—a rate higher than typically found in studies of multiple generations (A. Rossi & P. H. Rossi, 1990; Kalmijn & Liefbroer, 2011). Of those 253 mothers, 74% provided contact for all of their adult children and 26% provided contact for some, but not all of their offspring. We compared the levels of closeness in the mother–child dyads reported by the 253 mothers who provided contact information and the 58 mothers who did not. This comparison revealed that mothers who provided contact for any of their

children reported being slightly closer to their offspring than did those who did not (6.0 vs. 6.2;  $p < .01$ ) on a 1–7 measure of emotional closeness at T2, consistent with other multigenerational studies (Kalmijn & Liefbroer, 2011). Further, among those who provided contact information for only some of their children, mothers were more likely to provide this on offspring to whom they were closer, although the difference is only moderate (5.3 vs. 6.2;  $p < .01$ ). An examination of the qualitative data revealed that mothers were more likely to omit children from whom they were estranged; however, mothers were equally likely to cite offspring living abroad or in institutional settings (i.e., prison, rehabilitation centers, assisted living) as reasons for not sharing contact information.

The 253 mothers provided contact information on 936 adult children. We were able to contact approximately 84% of those offspring, 70% of whom agreed to participate at T2, resulting in 550 completed interviews. Although 253 mothers provided contact information, in some families, all of the offspring participated (30%), whereas in others, none of the offspring participated (16%), resulting in participation of 216 families. Analyses comparing mothers with no participating children and mothers who had at least one participating child revealed no differences between these two groups in terms of race, marital status, education, age, or number of children. Consistent with other studies with multiple generations (A. Rossi & P. H. Rossi, 1990; Kalmijn & Liefbroer, 2011) daughters, marrieds, and those with higher education were slightly more likely to participate. Mothers reported being slightly closer to children who participated than those who did not participate (6.0 vs. 6.3;  $p < .01$ ) on a 1–7 measure of emotional closeness at T2, a pattern that has also been found in other multigenerational studies (Kalmijn & Liefbroer, 2011).

Seventeen of the adult children (1%) were omitted from the analytic sample because they were missing data on central variables. The final analytic sample consisted of 533 adult children nested within 216 families, who reported on their relationship in 2,067 respondent-sibling dyads. Table 1 presents demographic information for the adult child respondents and the siblings on whom they reported.

## MEASURES

### *Within-Family Variation in Sibling Closeness*

To create the measure of within-family variation in sibling closeness respondents were asked the following question regarding their relationships with their siblings: “To which of your siblings do you feel the most emotional closeness?” Ninety-two percent of the respondents named a sibling to whom they felt the most emotional closeness. Each member of the respondents’ sibling network was then coded as “0” if he or she was not chosen or “1” if he or she was chosen.

### *Perceptions of Mothers’ Favoritism and Disfavoritism*

Respondents were asked questions regarding nine relational dimensions on which they could report that they

Table 1. Demographics on Respondents (Egos) And Respondents’ Siblings (Alters)

Characteristics of respondents ( $n = 533$ )	Means, <i>SD</i> , %
Family- and respondent-level characteristics (in %)	
Women	57.2
Parents	76.2
Married	70.9
Education (in %)	
Less than high school	4.9
High school graduate	24.4
Some college	13.3
College graduate	57.4
Age ( <i>SD</i> )	49.0 (5.7)
Family size ( <i>SD</i> )	4.9 (1.8)
Characteristics of respondents’ siblings ( $n = 889$ )	
Family- and respondent-level characteristics (in %)	
Sisters	50.4
Parents	73.3
Married	65.7
Education (in %)	
Less than high school	6.4
High school graduate	29.8
Some college	14.1
College graduate	49.6
Age ( <i>SD</i> )	49.2 (5.8)

perceived their mothers as favoring or disfavoring some children over others. For the present paper, we selected perceptions of mothers’ emotional closeness and pride for positive dimensions of differentiation or “favoritism.” For negative dimensions, or “disfavoritism,” we selected conflict and disappointment. We used these dimensions of differentiation because their face value of being “positive” and “negative” is high and unambiguous, unlike some other differentiation measures in the data set where there is ambiguity (e.g., preferred as caregiver, confidant, or the first-responder in a crisis). In creating the measures of shared maternal favoritism and disfavoritism, we used two dimensions of each construct because it was necessary to provide respondents with the opportunity to name both themselves and another sibling, and respondents seldom named more than one offspring for any single dimension.

It is important to note that although the conventional understanding of the term “favorite child” suggests that there is typically a single “all purpose” favorite child, this is rarely the case. In fact, rarely is there an “all purpose” favorite child. Rather than high levels of multiplexity between relational dimensions within domains (e.g., emotional closeness and pride; disappointment and conflict), offspring are typically named by adult children for only one dimension. For example, only 21% of the adult child respondents named the same offspring for both closeness and pride, and only 32% named the same offspring for conflict and disappointment. Thus, our conceptualization of a “favored child” as being one that is chosen either for only a single domain or for multiple domains is consistent with the patterns found in mothers’ preferences in later life families.

*Perceptions of mothers' favoritism.*—To create the perceived maternal favoritism measure, we combined adult children's responses to two questions: (a) "To which child in your family is your mother the most emotionally close?" and (b) "Taking all things together, of which child in your family is your mother the most proud?" For each item, the sibling was coded as named (1) or not named (0) based on the respondents' reports. When a respondent reported that his or her mother was *equally close to all of us* or that she was *equally proud of all of us*, each sibling in the family was coded 1 for that item. Conversely, when a respondent reported that his or her mother *isn't close to any of us* or *isn't proud of any of us*, each sibling was coded 0 for that item.

Combining these two dimensions of favoritism, we then coded each respondent-sibling dyad into one of four categories: (a) respondent perceived that both she and the sibling were favored by their mother for at least one of the two relational domains (45%); (b) respondent perceived that she was favored by her mother for at least one of these domains but that the sibling was not (27%); (c) respondent perceived that the sibling was favored for at least one domain, but she was not (12%); or (d) respondent perceived that neither she nor the sibling were favored by their mother for either of the domains (17%). These categories were then used to create four dummy variables; the referent category was neither respondent nor sibling favored (i.e., the siblings are similar in that neither of them was favored).

*Perceptions of mothers' disfavoritism.*—To measure adult children's perceptions of mothers' disfavoritism, we used the procedures just described to create the "favoritism" measure. To create this measure, we combined adult children's responses to the questions: (a) "With which child in the family does your mother have the most disagreements or arguments?" and (b) "Taking all things together, with which child in the family has your mother been most disappointed?"

The responses were used to code each dyad into one of the four categories: (a) respondent perceived that both she and the sibling were disfavored by their mother for at least one of these relational domains (6%); (b) respondent perceived that she was disfavored by her mother for at least one of these domains but that the sibling was not (16%); (c) respondent perceived that the sibling was disfavored for at least one domain, but she was not (24%); or (d) respondent perceived that neither she nor the sibling were disfavored by their mother for any of the domains (54%). These categories were then used to create four dummy variables; the referent category was neither respondent nor sibling disfavored (i.e., the siblings are similar in that neither of them was disfavored).

#### Control Variables

Family size was the number of living offspring at T2. Respondents' and siblings' gender were coded as 0 = *son*; 1 = *daughter*. Sibling's marital status was coded as 0 = *not*

*married*; 1 = *married*. Siblings' parental status was coded as 0 = *no children*; 1 = *parent*. Sibling's age was measured as a continuous variable. Sibling's education was coded 1 = *less than high school*, 2 = *high school graduate*, 3 = *some college*, and 4 = *college graduate*.

#### Multivariate Analysis

Throughout the analyses, the sibling dyad, rather than the mothers or the adult children, was the unit of analysis. In other words, the 2,067 adult sibling dyads who are the units of analysis are nested within 216 later life families. Because the respondents were reporting on multiple siblings, as well as nested within the same families, the observations are not independent. To take this factor into account, we used three-level binomial logistic regression modeling. Three-level multilevel models (MLM) accounts for within-family dependence by incorporating a unique random effect for each family and adult child, and this variability in random effects is taken into account when estimating *SEs*. This technique accounts for nonindependence and allows for correlated error structures. We began the analyses by examining the variance explained by the mother-level and adult child-level characteristics. We ran an intercept-only model, which provided the variance components to calculate the interclass correlation coefficients (ICCs; Heck, Thomas, & Tabata, 2012). The ICCs were 0.01, indicating that the mother-level and child-level factors accounted for 1% of the variance in adult children's closeness toward a particular sibling. Despite the low ICCs, we conduct MLM because it is the best approach to our research question, which is "Why is the respondent closer to a particular sibling than to his/her other brothers and sisters?" The analyses were conducted using SPSS version 19. Listwise deletion was used to handle missing data because there were no more than 1% missing on any variable in the analysis (cf. Allison, 2010).

#### RESULTS

Table 2 presents the results of the multilevel binomial logistic regression predicting within-family variation in sibling closeness. Model 1 presents the findings for the full sample. Based on theories of similarity and influential members in social networks, we hypothesized that perceptions of mothers' favoritism would shape variations in sibling closeness in two ways. First, based on theories of similarity, we hypothesized that adult children would feel the most emotional closeness toward siblings whom they perceived as sharing their maternal favoritism status. Contrary to these expectations, neither perceptions of shared favoritism nor shared disfavoritism from mothers predicted which siblings were chosen as those to whom the respondents were most close.

Based on theories of influential members in social networks, we posed the alternative hypothesis that respondents would choose siblings whom they perceived as favored by

Table 2. Multilevel Binomial Logistic Regression Predicting Within-Family Variation in Sibling Closeness ( $N = 2,067$  dyads)

	Model 1	Model 2	Model 3
	Full sample ( $N = 2,067$ dyads)	Sons ( $N = 851$ dyads)	Daughters ( $N = 1,216$ dyads)
	Odds ratio	Odds ratio	Odds ratio
Family- and respondent-level characteristics			
Family size	0.72**	0.73**	0.70**
Respondent is daughter	1.03		
Sibling-level characteristics			
Sibling married	1.15	0.92	1.29
Sibling is parent	0.98	1.12	0.93
Sibling's education	1.02	1.03	1.00
Sibling is sister	2.23**	1.03	4.04**
Sibling's age	1.00	0.99	0.99
Dyad-level characteristics			
Both favored	1.34	1.56	1.24
Respondent only favored	1.10	1.21	1.04
Sibling only favored	1.59*	2.00*	1.42
Both disfavored	0.90	0.97	0.74
Respondent only disfavored	0.88	0.74	0.98
Sibling only disfavored	0.57**	0.48**	0.59*
Model statistics			
Log likelihood	9706.45	3972.04	5797.10
AIC	9708.45	3974.05	5799.11
BIC	9714.07	3978.77	5804.20

Notes. AIC = Akaike information criterion; BIC = Bayesian information criterion.

\* $p \leq .05$ . \*\* $p < .01$ .

their mothers, regardless of the respondent's own favoritism status. Further, we hypothesized that respondents would be less likely to choose siblings whom they perceived as disfavored, also regardless of their own favoritism status. Both of these hypotheses were partially but not fully supported. First, respondents were more likely to choose siblings whom they perceived their mothers as favoring, even though they were not themselves favored (odds ratio [OR] = 1.59). Second, respondents were less likely to choose siblings whom they perceived as disfavored, when they did not perceive themselves as disfavored (OR = 0.57). However, contrary to what would be expected based on the interpersonal influence argument, the role of mothers' differentiation was contingent upon the respondents' self-perception of his or her status. Specifically, perceiving the mother as either favoring or disfavoring a sibling did not predict sibling favoritism except in the case in which the respondent perceived that only the sibling was favored or disfavored.

It is worth noting that, as would be expected based on both the theoretical and empirical literature on gender and interpersonal relations, respondents were more likely to choose sisters than brothers as the siblings to whom they felt the most emotional closeness (OR = 2.23).

Taken together, the findings provide support for the interpersonal influence hypothesis under particular circumstances. Respondents were more likely to choose siblings whom they perceived their mothers favored when they did perceive themselves as favored. Respondents were also less

likely to choose siblings whom they perceived their mothers disfavored. Contrary to the theories of similarity, respondents were not more likely to choose siblings whom they perceived shared either their favored or disfavored status.

Next, we conducted the analysis separately by respondents' gender. As shown in Model 2 in Table 2, sons were more likely to choose siblings whom they perceived their mothers favored, even when they themselves were not favored (OR = 2.00). Sons were also less likely to choose siblings whom they perceived their mothers disfavored (OR = 0.48), but only when they were not disfavored themselves. Sibling's gender did not predict sons' choices.

Model 3 in Table 2 presents the findings for daughters. Consistent with sons, daughters were also less likely to choose siblings whom they perceived their mothers disfavored (OR = 0.59), when they were not disfavored themselves. However, unlike sons, daughters were not more likely to choose siblings whom they perceived as favored when they were not favored themselves. Finally, daughters were more much more likely to choose sisters as the siblings to whom they felt the most emotional closeness (OR = 4.04), whereas sibling gender did not predict sons' choices.

## DISCUSSION

Siblings play an important role in adults' lives. In fact, siblings serve as sources of social interaction and support across the life course (A. Rossi & P. H. Rossi, 1990; Campbell et al., 1999; Connidis & Campbell, 1995; Spitze

& Trent, 2006; Voorpostel & Blieszner, 2008; White, 2001; White & Reidmann, 1992). Further, the quality of sibling relations is a strong predictor of psychological well-being even into late life (Cicirelli, 1989; Paul, 1997).

There is, however, substantial variability in the strength of sibling relations within families, with some individuals receiving greater potential benefits from this tie than do their brothers and sisters. The purpose of the present paper was to investigate the factors that explain variations in sibling closeness within the family, focusing on an aspect of family relations that has been shown to play an important role in sibling relations and well-being in both childhood and adulthood—children's perceptions that their mothers differentiate among offspring in the family. Research has documented that perceptions of parental differential treatment have effects on sibling relations, as well as on psychological well-being, in childhood and adolescence (Jenkins et al., 2012; McHale et al., 2000; Shanahan et al., 2008; Suito et al., 2008). Specifically, siblings have been found to feel and express less warmth and more hostility toward one another when parents differentiate either positively or negatively among their children (Jenkins et al., 2012; McHale et al., 2000; Shanahan et al., 2008), regardless of which children are favored or disfavored.

Studies of parental differentiation in adulthood have revealed that these patterns are as common and as consequential in adulthood (Jensen et al., 2013; Suito et al., 2008; 2009). This line of research has shown that children's perceptions of mothers' differential treatment are consequential for both sibling closeness and tension (Boll et al., 2003; 2005; Gilligan et al., 2013; Suito et al., 2009; 2014), regardless of which children are favored. We suggest, however, that the specific patterning of favoritism may be highly salient in within-family variations in sibling relationship quality.

Based on theories of homophily, we hypothesized that adult children would feel the greatest closeness toward siblings whom they perceived as sharing their experience of being either favored or disfavored by their mothers. Our findings, however, did not provide support for this hypothesis. This is surprising when put in the context of previous literature on the role of experiential similarity in network members' choices. In particular, individuals are likely to prefer similar network members, including siblings, across a variety of contexts including returning to school (Suito et al., 1995) becoming a family caregiver (Suito & Pillemer, 2002; Suito et al., 1995) and facing the loss of a parent or spouse (Suito & Pillemer, 2000; Umberson & Chen, 1994). However, the present context may differ from these studies in two important ways.

First, none of these dimensions of status similarity carry with them the negative connotations that are associated with being disfavored by one's mother. Our findings suggest that individuals may not be drawn to similar others in situations in which the shared status carries a negative label. Although

theories of labeling propose that individuals who have been stigmatized may be more likely to be attracted to one another, due to blocked opportunities (Goffman, 1963), we suggest that these processes may not be applicable to interactions within the family. Future research should examine whether theories of labeling and interpersonal relations are applicable within the family when members violate broader societal norms.

Second, studies have revealed that the effects of experiential similarity on interpersonal relations are greatest when individuals have recently experienced major life events or status transitions, particularly when those events produce changes in values and reference groups (Suito et al., 1995; Suito & Pillemer, 2000). Thus, in the context of adult siblings who have not experienced recent major life events, experiential similarity may be less salient. Further, the sibship constitutes a relatively stable social group of members that share high experiential similarity on many dimensions. Future research should consider whether similarity in perceptions of mothers' favoritism and disfavoritism play a greater role when all members of the sibship experience the same major life event, such as in the face of the death of a parent.

Based on theories of interpersonal influence in status hierarchies, we hypothesized that respondents would be most emotionally close to siblings whom they perceived as favored by their mothers, regardless of their own favoritism status. Further, we proposed that respondents would not choose siblings whom they perceived as "disfavored" by their mothers. These hypotheses were partially supported. Respondents were more likely to choose siblings whom they perceived their mothers favored, but only when they were not themselves favored. Further, respondents were less likely to choose siblings whom they perceived as disfavored, but only when they were not disfavored themselves. Thus, contrary to expectations, mothers' favoritism and disfavoritism was associated with respondents' choice of sibling only when the sibling, but not the respondent, was perceived as favored or disfavored.

We interpret this pattern as suggesting that adult children's preferences for particular siblings reflect their perceptions that they may garner more favor by their association with favored siblings and avoid disfavor by disassociating from disfavored siblings. Although we argued that this pattern would occur regardless of the respondents' favored or disfavored status, mothers' preferences are influential only when respondents' differential associations with siblings has the potential to affect their own status. A somewhat different but related interpretation is that adult children may be drawn to or away from the same offspring whom their mothers favor or disfavor as a result of particular characteristics that make those offspring considered more or less desirable social partners. The present data do not allow us to explore these two alternative explanations. We hope that future research will attempt to shed light on this question.



We also took into consideration how the association between maternal favoritism and sibling closeness varied by child's gender. In particular, we proposed that perceptions of shared favoritism status and mothers' interpersonal influence would be more salient for daughters than sons. For sons, our findings indicated the role of maternal differential treatment mirrored that of the full sample. Sons were more likely to choose siblings whom they perceived as favored by their mothers regardless of their own favoritism status and were less likely to choose siblings whom they perceived as disfavored when they did not perceive themselves as disfavored. In contrast, perceptions of mothers' favoritism did not predict which siblings daughters favored, although perceptions of mothers' disfavoritism did predict respondents' preferences. Given the salience of the mother tie in the daughters' lives (Suitor et al., 2011), it is possible that daughters feel a sense of jealousy or competition toward siblings whom they perceive as favored when they themselves are not and therefore do not choose these siblings as those to whom they are the most emotionally close.

It is worth noting that daughters were much more likely to choose other daughters as the siblings to whom they were the most emotionally close. In contrast, siblings' gender did not play a role in sons' choices. This finding is consistent with the literature on sibling relationship quality which has demonstrated that sisters often have closer more intimate relationships with one another (Connidis & Campbell, 1995; Spitze & Trent, 2006). Although classic theories of homophily would suggest that other dimensions of structural similarity might shape sibling favoritism, a separate analysis conducted using the WFDS sibling data revealed that gender was the only dimension that predicted respondents' choices (tables not shown). Thus, our findings reflect the broader literature on interpersonal relationships by showing the salience of similarity of gender compared to that of other structural characteristics (McPherson, Smith-Lovin, & Cook, 2001).

Taken together, the findings we have presented in this article shed new light on the ways in which mothers' differentiation shapes relations among siblings, contributing to a growing literature documenting the role of parental differentiation in both inter and intragenerational relations. They also raise several important questions that we cannot address in the present study that we hope will be taken into consideration in future research on the interplay between parent-adult child and sibling relations.

First, in the present article, we focus on the individuals' perceptions of mothers' favoritism and disfavoritism toward particular siblings. It is possible that shared perceptions of mothers' favoritism and disfavoritism might have stronger consequences for sibling relations than would the perceptions held by only one group member. We hope that studies in which data were collected from all siblings in the family will pursue this question.

Second, in the present study, the mothers were the initial entry point into the family, and access to adult children

required both the mothers' permission and the actual contact information. Consistent with other studies, mothers were somewhat more likely to provide contact information about offspring to whom they were emotionally closer, and offspring who were emotionally closer are also more likely to participate (Kalmijn & Liefbroer, 2011). Thus, our findings may be generalizable primarily to more harmonious families.

Third, as noted above, we cannot provide a definitive explanation for why adult children were more likely to prefer siblings whom they perceived as favored by their mothers. We suggest that this question could be answered using qualitative data that would shed light on the basis on which adult children are drawn toward or drawn away from particular siblings in the family in adulthood.

Fourth, we hope that future research will explore the role of mothers' differential treatment on sibling relations across developmental periods. Research conducted at different points in the life course has demonstrated remarkably similar patterns in earlier and later points (Boll et al., 2003; 2005; Gilligan et al., 2013; Suitor et al., 2009; 2014). Further, recent research has established the stability of mothers' differential treatment in later life, indicating the salience of such differentiation across time when children are in midlife (Suitor et al., 2014). Perhaps even more important, recent findings have shown that adult siblings' recollections of their mothers favoring some siblings over others in childhood were stronger predictors of sibling closeness and tension in midlife than were siblings' perceptions of current favoritism (Suitor et al., 2009). These findings suggest that, in fact, patterns of within-family differentiation may extend and be consequential across the life course. However, no studies to date have followed *the same siblings* across developmental periods to explore whether perceptions of differentiation are stable and whether perceptions of favoritism from earlier periods affect later sibling relations.

In sum, these findings reveal the complex patterns by which the quality of intergenerational relations shape within-family differences in intragenerational relations. Thus, the findings contribute to a growing body of research exploring the conditions under which broader theories of interpersonal relations help to explain family processes both within and between generations. In particular, they highlight the importance of considering classic approaches to studying social networks when considering families. Although family systems theory has played a central role in research on inter and intragenerational relations for several decades, theories that are prominent in the study of social networks, such as homophily (McPherson et al., 2001) and interpersonal influence (Friedkin & Johnsen, 2011), have been substantially underutilized in studies of the family. We urge gerontological scholars to consider these theories when studying kinship relations in the middle and later years.

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## REFERENCES

- Allison, P. D. (2010). Missing data. In J. D. Wright & P. V. Marsden (Eds.), *Handbook of survey research* (pp. 631–657). Bingley, UK: Emerald Books.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, E. (2001). Bad is stronger than good. *Review of General Psychology*, 5, 323–370.
- Bedford, V. H., & Avioli, P. S. (2012). Sibling relationships from midlife to old age. In R. Blieszner & V. H. Bedford (Eds.), *Handbook of families and aging* (2nd ed., pp. 125–151). Santa Barbara, CA: Praeger.
- Boll, T., Ferring, D., & Philipp, S. H. (2003). Perceived parental differential treatment in middle adulthood: curvilinear relations with individuals' experienced relationship quality to sibling and parents. *Journal of Family Psychology: JFP*, 17, 472–487.
- Boll, T., Ferring, D., & Philipp, S.-H. (2005). Effects of parental differential treatment on relationship quality with siblings and parents: Justice evaluations as mediators. *Social Justice Research*, 18, 155–182.
- Campbell, L. D., Connidis, I. A., & Davies, L. (1999). Sibling ties in later life: A social network analysis. *Journal of Family Issues*, 20, 114–148.
- Chodorow, N. (1978). *The reproduction of mothering: Psychoanalysis and the sociology of gender*. Berkeley, CA: University of California Press.
- Cicirelli, V. G. (1989). Feelings of attachment to siblings and well-being in later life. *Psychology and Aging*, 4, 211–216.
- Connidis, I. A., & Campbell, L. D. (1995). Closeness, confiding, and contact among siblings in middle and late adulthood. *Journal of Family Issues*, 16, 722–745.
- Coser, R. L. (1991). *In defense of modernity*. Stanford, CA: Stanford University Press.
- Dixon, J., & Tucker, C. (2010). Survey nonresponse. In J. D. Wright & P. V. Marsden (Eds.), *Handbook of survey research* (pp. 593–630). Bingley, UK: Emerald Books.
- Elder, G. H. Jr. (1985). *Life course dynamics: Trajectories and transitions, 1968–1980*. Ithaca, New York, NY: Cornell University Press.
- Elder, G. H. Jr. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly*, 57, 4–15.
- Friedkin, N. E., & Johnsen, E. C. (2011). *Social influence network theory: A sociological examination of small group dynamics*. New York, NY: Cambridge University Press.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Gilligan, M., Suitoer, J. J., Kim, S., & Pillemer, K. (2013). Differential effects of perceptions of mothers' and fathers' favoritism on sibling tension in adulthood. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 68, 593–598. doi:10.1093/geronb/gbt039
- Goffman, E. (1963). *Behavior in public places: Notes on the social organization of gatherings*. New York, NY: Free Press.
- Heck, R. H., Thomas, S., & Tabata, L. (2012). *Multilevel modeling of categorical outcomes using IBM SPSS*. New York: Routledge Academic.
- Heider, F. (1958). *The psychology of interpersonal relations*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Homans, G. C. (1950). *The human group*. New York, NY: Harcourt, Brace.
- Jenkins, J., Rasbash, J., Leckie, G., Gass, K., & Dunn, J. (2012). The role of maternal factors in sibling relationship quality: A multilevel study of multiple dyads per family. *The Journal of Child Psychology and Psychiatry*, 53, 622–629.
- Jensen, A. C., Whiteman, S. D., Fingerma, K. L., & Birditt, K. S. (2013). "Life still isn't fair": Parental differential treatment of young adult siblings. *Journal of Marriage and Family*, 75, 438–452. doi:10.1111/jomf.12002
- Kalmijn, M., & Liefbroer, A. C. (2011). Nonresponse of secondary respondents in multi-actor surveys: Determinants, consequences, and possible remedies. *Journal of Family Issues*, 32, 735–766. doi:10.1177/0192513X10390184
- McHale, S. M., Updegraff, K. A., Jackson-Newsom, J., Tucker, C. J., & Crouter, A. C. (2000). When does parents' differential treatment have negative implications for siblings? *Social Development*, 9, 149–172. doi:10.1111/1467-9507.00117
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415–444.
- Merton, R. K. (1968). *Social theory and social structure*. New York, NY: Free Press.
- Paul, E. L. (1997). A longitudinal analysis of midlife interpersonal relationships and well-being. In M. E. Lachman & J. B. James (Eds.), *Multiple paths of midlife development* (pp. 171–206). Chicago, IL: University of Chicago Press.
- Pillemer, K., Suitoer, J. J., Pardo, S., & Henderson, C. Jr. (2010). Mothers' differentiation and depressive symptoms among adult children. *Journal of Marriage and the Family*, 72, 333–345. doi:10.1111/j.1741-3737.2010.00703.x
- Rossi, A., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Shanahan, L., McHale, S. M., Crouter, A. C., & Osgood, D. W. (2008). Linkages between parents' differential treatment, youth depressive symptoms, and sibling relationships. *Journal of Marriage and Family*, 70, 480–494.
- Simmel, G. (1950). *The sociology of Georg Simmel*. New York, NY: The Free Press.
- Spitze, G., & Trent, K. (2006). Gender differences in adult sibling relations in two-child families. *Journal of Marriage and Family*, 68, 977–992. doi:10.1111/j.1741-3737.2006.00308
- Suitoer, J. J., Gilligan, M., Johnson, K., & Pillemer, K. (2014). How widowhood shapes adult children's responses to mothers' preferences for care. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 69, 95–102. doi:10.1093/geronb/gbt062
- Suitoer, J. J., Gilligan, M., & Pillemer, K. (2013). Continuity and change in mothers' favoritism toward offspring in adulthood. *Journal of Marriage and Family*, 75, 1229–1247. doi:10.1111/jomf.12067
- Suitoer, J. J., & Pillemer, K. (1996). Sources of support and interpersonal stress in the networks of married caregiving daughters: Findings from a 2-year longitudinal study. *Journal of Gerontology: Social Sciences*, 51B, S297–S306.
- Suitoer, J. J., & Pillemer, K. (2000). When experience counts most: Effects of experiential similarity on men's and women's receipt of support during bereavement. *Social Networks*, 22, 299–312.
- Suitoer, J. J., & Pillemer, K. (2002). Gender, social support, and experiential similarity during chronic stress: The case of family caregivers. In J. A. Levy & B. A. Pescosolido (Eds.), *Medical advances in medical sociology: Social Networks and health* (pp. 247–266). New York, NY: JAI.
- Suitoer, J. J., & Pillemer, K. (2006). Choosing daughters: Exploring why mothers favor adult daughters over sons. *Sociological Perspectives*, 49, 139–161.

- Suitor, J. J., Pillemer, K., & Keeton, S. (1995). When experience counts: The effects of experiential and structural similarity on patterns of support and interpersonal stress. *Social Forces*, 73, 1573–1588. doi:10.1093/sf/73.4.1573
- Suitor, J. J., Sechrist, J., Gilligan, M., & Pillemer, K. (2011). Intergenerational relations in later-life families. In R. A. Settersten & J. L. Angel (Eds.), *Handbook of sociology of aging* (pp. 161–178). New York: Springer.
- Suitor, J. J., Sechrist, J., Plikuhn, M., Pardo, S. T., Gilligan, M., & Pillemer, K. (2009). The role of perceived maternal favoritism in sibling relations in midlife. *Journal of Marriage and the Family*, 71, 1026–1038. doi:10.1111/j.1741-3737.2009.00650.x
- Suitor, J. J., Sechrist, J., Plikuhn, M., Pardo, S. T., & Pillemer, K. (2008). Within-family differences in parent-child relations across the life course. *Current Directions in Psychological Science*, 17, 334–338. doi:10.1111/j.1467-8721.2008.00601.x
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: John Wiley & Sons, Inc.
- Thoits, P. A. (1986). Multiple identities: Examining gender and marital status differences in distress. *American Sociological Review*, 51, 259–272.
- Thoits, P. A. (2011). Mechanisms linking social ties and support to physical and mental health. *Journal of Health and Social Behavior*, 52, 145–161. doi:10.1177/0022146510395592
- Umberson, D., & Chen, M. D. (1994). Effects of a parent's death on adult children: Relationship salience and reaction to loss. *American Sociological Review*, 59, 152–168.
- Voorpostel, M., & Blieszner, R. (2008). Intergenerational solidarity and support between adult siblings. *Journal of Marriage and Family*, 70, 157–167. doi:10.1111/j.17413737.2007.00468.x
- Voorpostel, M., van der Lippe, T., Dykstra, P. A., & Flap, H. (2007). Similar or different?: The importance of similarities and differences for support between siblings. *Journal of Family Issues*, 28, 1026–1053. doi:10.1177/0192513X07300713
- White, L. (2001). Sibling Relationships over the life course: A panel analysis. *Journal of Marriage and Family*, 63, 555–568. doi:10.1111/j.1741-3737.2001.00555.x
- White, L. K., & Reidmann, A. (1992). When the brady bunch grows up: Step/half- and full sibling relationships in adulthood. *Journal of Marriage and Family*, 54, 197–208.