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GROWING UP WITHOUT SIBLINGS AND ADULT SOCIABILITY BEHAVIORS

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Abstract

We use data from the National Survey of Families and Households to examine a range of sociability behaviors for adults who grew up with and without siblings. Compared to adults who grew up with siblings, adults who grew up without siblings have less frequent social activities with relatives, and the difference is greater among those who did not live with both parents growing up. Differences in engaging in certain social events between adults who grew up without and with siblings vary by age. Differences in participation in sports, youth, or school related group activities for those who grew up without and with siblings vary by gender. Thus, there are some differences in adult sociability behaviors between those who grew up with and without siblings; however, our pattern of findings suggests that these differences are not large or pervasive across a range of sociability behaviors and may grow smaller with age.

Keywords

siblings; sociability; only child; onlies

Siblings play important and lifelong roles in the social lives of most individuals. Most adults consider a sibling a best friend, report positive feelings about their sibling, and frequently interact (White & Riedmann, 1992a; Spitze & Trent, 2006). The importance of having siblings is a well-entrenched American value reflected in persistent concerns about having only one child (Blake, 1981; Hagewen & Morgan, 2005). Recent data indicate that only 3 percent of American adults think the ideal number of children for a family to have is one (Carroll, 2007). Many view having another child, so that their son or daughter will have a sibling, as an important consideration for childbearing (National Survey of Families and Households, 1990). Thus, not only is the sibling relationship thought to be one of the most enduring of human relationships (Connidis, 2001; White & Reidmann, 1992a), but there is also an apparent concern that a lack of siblings will be detrimental during childhood and throughout the life course (Blake, 1981).

Yet, in the face of declining fertility and increases in divorce, the number of children growing up without other children in the household has increased as families have become smaller. The growth of families with only one child, and hence children who grow up

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without a sibling, has steadily increased over time (U.S. Census Bureau, 2008). The percent of women ages 40–44 with one child ever born increased from 9.6 percent in 1980 to about 17 percent beginning in the 1990s and continuing into the 2000s (U.S. Census Bureau, 2008).

Although much has been written about "only children", we know much less about later adult behaviors of these children. Whether and how growing up without siblings is related to adult social behavior has not been thoroughly examined. To the extent there are differences in adult behavior between those growing up with and without siblings, these differences may have implications for social lives, particularly in terms of available support and for the overall well-being of adults (Glenn & Hoppe, 1984).

The focus of this paper is to examine the social behavior, particularly the social activities, of adults with and without siblings. We examine group differences in the frequency of engagement in social activities with relatives and non-relatives, types of social participation, and whether social activities between the two groups of adults vary by age, gender, and parents' marital history. Our conceptual framework is grounded in the extant literature on siblings and particularly in that literature addressing only children and the limited literature on adults without siblings. Hypotheses derived from this prior research are tested using data from the National Survey of Families and Households (NSFH).

THEORETICAL BACKGROUND AND HYPOTHESES

There are three main theoretical arguments as to why those with and without siblings are expected to be "different" in terms of their social activities (Blake, 1989; Downey & Condron, 2004; Falbo & Polit, 1986). These are the "resource dilution," the "siblings as resources," and the "only child uniqueness" models. The "resource dilution model" suggests that the more children in a household, the fewer the resources available to any one child. Although largely applied to educational outcomes, only children are thought to benefit from the undivided attention of parents in other ways including the development of social skills (Blake, 1989; Downey & Condron, 2004; Falbo & Polit, 1986).

The "siblings as resources" model views siblings as social capital and suggests that those without siblings are deprived of important social learning background experiences that are gained through sibling interaction (Downey & Condron, 2004; Falbo & Polit, 1986). Siblings are "thought to affect social development and, consequently, sociability," defined "as the need for affiliation" (Blake, 1991, p. 272). Presumably, sibling interaction facilitates learning about emotional regulation and enhances social skills and sociability (Bedford & Volling, 2004). The "siblings as resources" model would also suggest that throughout the life course those without siblings would not have that particular social capital to draw upon. Finally, the "only child uniqueness" argument suggests the only child experience is unlike any other birth order position, being somewhat akin to both first born and last born, yet unlike either (Falbo & Polit, 1986). Such uniqueness is thought to engender particular behaviors and personalities such as onlies preferring and mastering skills related to solitary pursuits (Falbo & Polit, 1986).

Thus, these models suggest different outcomes for the social lives of those who grow up with and without siblings. The "resource dilution" model suggests that those without siblings would have enhanced social skills and sociability. However, both the "siblings as resources" and the "only child uniqueness" arguments predict that those without siblings are less sociable because of a lack of social skills or simply because of a lack of motivation or opportunities. However, beyond these hypothesized *overall differences in sociability between adults who grew up with and without siblings*, these three theoretical arguments do

not provide much guidance in understanding more subtle social differences. However, we derive several more nuanced hypotheses from the more general research literature on siblings and also that literature addressing only children at different ages.

It is clear that having siblings plays a role in the social lives of adults. Siblings provide companionship and emotional support in childhood and throughout the life course (Goetting, 1986). Several studies suggest that siblings contribute to the social support needs of adults, providing "unique forms of social support" (Bedford, 1995, p. 202). Because siblings tend to be more numerous and available than other kin and also tend to outlive parents, siblings account for a large proportion of adults' social networks at any one time and throughout life (Bedford, 1995). Thus, sibling interaction accounts for a substantial amount of family activity over the life course.

Thus, on average, we might hypothesize that *those without siblings spend a smaller proportion of their social activities with relatives* since they, by definition, have fewer immediate relatives with whom to interact. Some research suggests this is the case. Blake (1981) using General Social Survey data from the 1970s, reported that only children were the least likely of all sibsize groups to spend an evening with relatives. However, an alternative hypothesis is that *there is no difference in socializing with relatives between those with and without siblings.* Adults without siblings may make up for kin deficit by spending more time with other relatives from their family of origin, such as parents. More recent research found that parents reported more visits with an only child than with a child who has siblings; similar patterns prevail when respondents report about visiting their own parents (Logan & Spitze, 1996).

Other studies examine how siblings affect sociability beyond the family. However, findings from past research on children, adolescents, and adults are surprisingly mixed, perhaps due to varying sample sizes, analytic methods, and measures of sociability.

Studies of Onlies as Children and Adolescents

Some studies reported that only children were more sociable in terms of being more outgoing, engaging more in extracurricular activities, and enjoying higher levels of peer acceptance than those with siblings (e.g., Blake, 1989; Claudy et al., 1979). And there is some evidence that only children are more socially popular. For example, teachers reported onlies were more likely to be picked when children chose sides (Blake, 1989). Other studies reported no sociability differences in that onlies and those with siblings had the same number of close friends and similar quality of friendships (Polit & Falbo, 1987; Kitzmann et al., 2002). Yet, other research suggested only children were noticeably disadvantaged in terms of social and interpersonal skills, less able to negotiate peer relationships, and more likely to be both victims and aggressors (e.g., Kitzmann et al., 2002; Downey & Condron, 2004). Feiring and Lewis (1984) reported only children had unique social networks (compared to first-borns), having smaller networks with fewer friends.

In terms of specific social activities, Blake (1989) reported that only children did not differ from others in terms of overall social participation, but were more likely to engage in extracurricular activities, music, painting, cultural activities, radio listening, reading newspapers, reading books, and solitary play. Blake (1989, p. 230), as well as others, suggested that only children have greater tolerance for being alone and that they lead "rather different personal lives from those residing with numerous siblings."

Studies of adolescents and young adults indicate some differences as well between those with and without siblings and also inconclusive findings regarding sociability. Falbo (1978), in a study of 70 undergraduate students, found onlies reported fewer overall friends, but

similar numbers of close friends, and joined fewer clubs than did those with siblings. Claudy (1984) and Claudy and colleagues (1979) concluded that adolescents and young adults without siblings were more "cultured" and socially sensitive, more likely to engage in intellectual and solitary pursuits, extracurricular activities, reading, collecting, clubs, hobbies, raising animals, acting, singing, dancing, music, and photography, and those with siblings gravitated toward group and practical activities such as high school leadership roles, team activities, sports, hunting, fishing, and cooking.

In a meta-analysis of research through the 1980s, Falbo and Polit (1986) and Polit and Falbo (1987) found no significant effect sizes for extraversion, social participation, peer popularity, or sociability for most age groups with the exception of college-age subjects. For college-age subjects, onlies showed a higher level of sociability. Falbo and Polit (1986), while concluding there was little evidence for differences in sociability between onlies and others, did note that evidence depended on how sociability was measured. Lower sociability for onlies was found for self reports and not for peer ratings.

Blake (1989) later also studied the social activities of adolescents and found that among younger adolescents, onlies reported being read to more growing up and that they were more likely to have had music/dance lessons and foreign travel than others. Among older adolescents, she concluded that onlies were less likely than others to engage in community activities, showing tendencies toward intellectual and artistic activities. She also reported that onlies were slightly more likely than others to report no activity.

Whether observed differences for children and adolescents persist into adulthood is not clear from past research, but these studies of children and adolescents suggest *sociability behavioral differences between those who grew up with or without siblings may be dependent on the type of activity observed*. Past research on siblings and adult sociability is scant and largely based on surveys from the 1970s or earlier and limited measures of social activities or sociability. By and large, this research also focuses less on behaviors and more on attitudes and other psychological measures. Regardless, findings from this research on adults are also mixed.

Studies of Onlies as Adults

Polit and colleagues (1980) studied adult singletons, 70 women and 62 men, in a larger sample of 537 white middle-class families from the Boston area in the mid-1970s. Among other findings, they reported onlies similar to others in terms of a series of social activities, although onlies had lower levels of church attendance. In another study with a larger sample of adult only children, using merged General Social Survey data from the 1970s and three measures of sociability, Blake (1981) reported that adults without siblings had a slightly lower average number of memberships in non-church voluntary organizations, were the least likely to spend an evening with relatives, and were less likely than all sibsizes (although about equal to 7+ sibs) to spend an evening with friends. Thus, Blake (1981, p. 53) concluded that these adults were somewhat less sociable than were adults with siblings and that sociability was not "the only child's strong suit." Importantly, the findings from both studies are based on data from the 1970s, the former data were non-representative of the U.S. population, and sociability was not closely examined in either study. In direct contrast to the former results, Ernst and Agnst (1983) in a later study of young Swiss adults (ages 19–20) concluded that as adults, only children scored higher on measures of both sociability and extraversion, and the significantly higher score for extraversion withstood controls for family and social background in the multivariate analyses.

In later research on sibsize in general, Blake (1991) and Blake and colleagues (1991) also addressed adult sociability using two primary sources of data. In these studies, she reported

either no difference between onlies and others for sociability or significant differences favoring greater sociability for those with siblings that did not survive controls for social and economic background characteristics. Importantly, these findings were also based on survey data from the late 1950s and mid-1970s, non-representative samples, and very limited measures of sociability. One analysis was based on the 1957 Study of American Family Growth, a sample of white ever-married women living in the eight largest metropolitan areas of the U.S. and the measure of sociability was "based on whether the women preferred working and problem-solving alone or with others" (Blake, 1991, p. 273). The second data source, the 1976 Americans View Their Mental Health Survey, was based on a national probability sample of both men and women ages 21 and older, but here the available measure of sociability was also limited as "respondents were asked to indicate their preferences for having more friends versus achieving one's goals or having power; preferences for working with compatible people versus being challenged or having influence at work; and preferences for being liked versus being respected for one's accomplishments or having a major influence on others" (Blake, 1991, p. 273). Importantly, both measures of sociability were based on preferences and not actual behaviors. More recently, Riggio (1999) found in a study of 197 young adults at a state university that adults without siblings were not significantly different from adults with siblings in measures of social skills or social competence.

Thus, whether or not the sociability behaviors of adults with and without siblings differ remains an open question. No prior study, to our knowledge, simultaneously used a nationally representative sample and detailed measures of sociability behaviors to examine potential differences. Moreover, no prior study, to our knowledge, has both controlled for differences within a multivariate framework and tested for interactions between having no siblings and other independent variables (although several studies acknowledge the experience of being an "only" may be diverse). We turn now to a discussion of why age, gender, and parents' marital history may affect the relationship between having no siblings and sociability.

Age, Sex, and Parents' Marital History Differences

Past studies point to the importance of cohort and age differences in understanding the effects of being an only child. As families have grown smaller, observed differences between onlies and others may have grown smaller as well if the driving force behind any effects is simply large family size (Blake, 1989). The relationship between having no siblings and sociability may be weaker among younger adults than older adults simply because all families have become smaller.

We might expect age differences in the effects of being an only child on social behaviors for other reasons as well. There is evidence that sibling mutual reliance for social interaction changes with age. Some authors report negative effects of age on contact and support from siblings (Spitze & Trent, 2006), while White (2001) found a U-shaped effect of age on sibling relations, with an upturn in help in old age (see also Lee et al., 1990). Thus, prior studies suggest countervailing hypotheses: *differences in social behaviors between adult onlies and adults with siblings may grow weaker or stronger with age*.

We might also expect men and women to differ in their experience of being an only child because of the nature of their family and non-family social relationships. Because women are thought to have somewhat larger social networks than men (McPherson, Smith-Lovin, & Brashears, 2006), women without siblings may be less affected by their "only" status than are men. When women have smaller family networks they may have more motivation and opportunities than men to draw on non-family social networks to be socially active. On the other hand, the composition of men's and women's social networks differs. It has long been

thought that women have fewer non-kin ties and more kin ties than men (Moore, 1990), although recent evidence suggests gender differences in non-kin ties have dissipated (McPherson, Smith-Lovin, & Brashears, 2006). There is also evidence that women belong to smaller-sized voluntary organizations than do men (McPherson & Smith-Lovin, 1982). These patterns may suggest that women will not fare as well in their opportunities to engage in social activities when they have fewer family members with whom to interact.

Gender is clearly related to family relations (Rossi & Rossi, 1990). Women are more likely than men to be kin keepers (di Leonardo, 1987) and they have more kin ties in their social networks (Moore, 1990). Men without siblings may be on average more socially isolated than women in terms of family social activities. On the other hand, it might also be the case that men without siblings are more likely to maintain kin ties than other men who rely on sisters to do "family work." We do not know whether there are gendered patterns in socializing with relatives in general between onlies and others, but Spitze and Logan (1991) found that the positive effect of being an "only child" on visiting and helping parents was significantly stronger for women.

Importantly, there is also some evidence that gender role socialization differs between those with and without siblings. Katz and Boswell (1984) found onlies experience less "stringent" gender role socialization compared to those with siblings. However, the parental socialization practices and the gendered behaviors of only boys exhibited inconsistent patterns and for only daughters both the behaviors of parents and children were more consistent and tended to be more androgynous. In general, the authors conclude that onlies were more "gender-role flexible" with girls more so than boys. Thus, taken together, these studies suggest that *differences in the social behaviors between those who grew up with and without siblings may vary by gender*.

Finally, past empirical research also suggests hypotheses about how the relationship between having no siblings and sociability may vary by parents' marital history. Among those with siblings, early parental divorce may create a less cohesive family environment with weaker sibling bonds (White, 1994; White & Reidman, 1992b), but could also cause siblings to bond more closely for support (Cicirelli, 1995; White, 1994). Results for living with both parents through childhood have been mixed (Spitze & Trent, 2006; White, 1994; White & Reidman, 1992b). Thus, the extent to which parental divorce weakens or loosens kin ties and interaction could alter any observed difference between those who grew up with and without siblings.

How parental divorce, growing up without siblings, and social behavior beyond the family are related is not well understood. Research on parental divorce and not having siblings is scant, although single-parent families and the single-parent/single-child family form has increased over time (Moore et al., 2002; Polit, 1984). Polit (1984) suggests that onlies from one-parent families fare better in terms of their social networks compared to other children from one-parent, two-child families or two-parent one-child families (Polit, 1984). Thus, prior studies suggest that *differences in the social behaviors between those who grew up with and without siblings may vary by parental divorce.* However, the extent to which parental divorce may make those with and without siblings more or less similar in terms of adult social behaviors remains an open question.

The outcomes we examine in this study, measuring a wide range of sociability behaviors and using a nationally representative sample of adults who grew up with or without siblings, should provide more definitive answers to the specific hypotheses discussed above. Taken together, they answer the following general questions: 1) Do adults who grew up with and without siblings vary in their frequency of engagement in social activities with relatives and

non-relatives? 2) Do adults who grew up with and without siblings vary across different types of social participation? and 3) Does the effect of growing up without siblings on social activities vary by age, gender, and parents' marital history?

DATA AND METHODS

Data for this study come from The National Survey of Families and Households (NSFH), a national probability sample of 13,007 respondents ages 19 and older who were first interviewed in 1987–1988 (Sweet & Bumpass, 1996). We use data from the first wave that allow us to identify respondents who grew up with and without siblings. The first wave is the only wave in NSFH that asks questions about siblings in the household during childhood (later waves ask about living siblings and do not distinguish between full, half, and step-siblings). The sample sizes vary slightly across the outcomes examined because of missing data, but include a minimum of 11,149 respondents. Overall, 6 percent of these respondents grew up without other children in the household.

Dependent Variables

Multiple dependent variables are used in the analysis of sociability behaviors. The first set of dependent variables measures with whom respondents socialize. Respondents were asked: "About how often do you do the following things: How often do you spend a social evening with 1) relatives, 2) a neighbor, 3) people you work with, and 4) friends who live outside your neighborhood." Response categories included never, several times a year, about once a month, about once a week, and several times a week. We converted these five categories to approximate respondent's average annual activities (with codes of 0, 4, 12, 52, and 208 respectively). Each of these activities is examined separately because we are interested in contrasting respondent's social engagement with relatives and with non-relatives.

The next set of dependent variables measures the respondents' frequency of engaging in particular types of social events. Respondents were asked: "About how often do you do the following things: 1) attend a social event at your church or synagogue, 2) go to a bar or tavern, 3) participate in a group recreational activity such as bowling, golf, square dancing, etc." The response categories and conversion to average annual activities were identical to those in the previous set of variables.

The final set of dependent variables measures respondents' social activity in different types of organizations. Respondents were asked: "Here is a list of various kinds of organizations. How often, if at all, do you participate in each type of organization: 1) fraternal groups, 2) service clubs, 3) veteran's groups, 4) political groups, 5) labor unions, 6) sports groups, 7) youth groups, 8) school related groups, 9) hobby or garden clubs, 10) school fraternities or sororities, 11) literary, art, study or discussion groups, and 12) professional or academic societies?" Similar to the other dependent variables discussed above, five possible response categories for these types of activities range from "never" to "several times a week." We converted these five categories to reflect respondent's average annual contacts. Guided by both results from factor analysis and past research (Blake, 1989), we combined these variables into five smaller groupings. *Literary/art or professional/academic* is a sum of respondents' scores for frequency of participation in literary, art, study or discussion groups and professional or academic societies. *Veterans/political or labor* is a sum of respondents' scores for frequency of participation in Veteran's, political, and labor unions. *Sports/youth or school related* is a sum of respondents' scores for frequency of participation in sports, youth, and school-related groups. *Fraternal/service or fraternity/sorority* is a sum of respondents' scores for frequency of participation in fraternal groups, service clubs, and fraternities or sororities. *Hobby/garden* measures respondents' frequency of participation in hobby or garden clubs (a single item in the original data collection).

Independent Variables

The primary independent variable of interest in this study is *grew up without siblings*, a dummy variable for whether respondents had no siblings of any type growing up (1 = yes). We should note that our measure of being an only child captures the "only" experience implied by theoretical arguments of past research. The adults in our sample defined as "having no siblings" grew up without full, half, or step-siblings in the household. Most theoretical arguments addressing the only child experience assume the child is an isolate in the family household in terms of other children being present. However, most likely because of data limitations, much of past research does not distinguish whether or not "onlies" in fact spent their entire childhood without other children in the household. The NSFH data allow our measure of only child status to capture the respondent's status throughout their entire childhood. Only children are defined here as growing up without full, half, or step-siblings in the household from birth through age 18.

In addition to the measure of growing up without siblings, the independent variables include a dummy variable for *sex* (1 = female) and *age* measured in years. Because past research indicates only children are more likely than others to have experienced parental death or divorce (Blake, 1981), we include a dummy variable for whether the respondent *lived with both* (biological) *parents to age 19* (1 = yes). And because current household structure and SES may affect the time and opportunities to socialize, the independent variables also include a dummy variable for whether the respondent is *married or cohabiting* (1 = yes), and continuous variables for the *number of children in the household* in three age groups (ages 0 to 5, ages 6 to 12, and ages 13 to 17), *hours worked last week*, *educational attainment* (highest level of education attained), and respondent's *total household income* (in $1,000s). The independent variables also include dummy variables for *race/ethnicity* (white, Hispanic, other race, with black as the reference category) and self-reported *health* with five possible response categories ranging from "very poor" to "excellent."

Analytic strategy

We first describe the patterns of sociability behaviors between adults with and without siblings, and then provide descriptive statistics for all the variables used in the analysis. We then use OLS regression to examine relationships of not having siblings, control variables, and interactions with age, gender, and parents' marital history, with the multiple measures of sociability behaviors.

RESULTS

We first present mean annual frequencies for participation in various kinds of social activities by whether the respondent grew up with any siblings (including half or step-siblings) or as an only child. We will refer to the latter as "respondent only children" or "adult only children" and the former as "respondents with siblings" but the reader should keep in mind that these are statuses during childhood, not as adults. Siblings may have died after the respondent reached adulthood or may have entered the family through a parent's late remarriage, but we analyze respondents in relation to their childhood experience.

We find that respondents with siblings see relatives more often than do only children, on average just over 40 times per year compared to 32 times. Among the social activities with specific other categories of persons, this is the only significant difference by only child status. Socializing with neighbors (on average around 30 times per year), with coworkers (around 16 times per year) and with friends who are not neighbors (34 times per year) occur with the same frequency for adult only children and respondents with siblings.

Similarly, adult only children engage in three other types of social activities with the same frequency as those with siblings: religious events (20 times per year), going to bars (around 11 times per year), and group recreational activity (around 20 times per year). Further, we also have information regarding the types of groups or organizations with which respondents may be involved.

We find no significant differences by only child status in the annual frequency of any of the five clusters of group activities. Because only a fraction of respondents participate in each of these clusters of activities, mean annual frequencies are low for four of the clusters. Mean annual participation frequencies for the literary/art or professional/academic, veterans/political or labor, fraternal/service or fraternity/sorority, and hobby/garden clusters are all in the range of 2 to 8 times per year. Mean annual frequencies for sports/youth or school related activities are much higher than are other types of participation: 23 to 24 times per year.

Descriptive statistics for the independent variables used in the analysis of social activities are shown in Table 2. As mentioned above, only 6 percent of adults in the sample grew up without other children in the household. Sixty percent of the respondents are women and the average age of respondents is about 43 years. Sixty-six percent of the respondents lived with both biological parents while growing up. About 59 percent of respondents are currently married or cohabiting; they average well under 1 child living at home in each of three age ranges, work on average about 24 hours a week and have attained a high school education. Mean household income in the sample is just under 29 thousand dollars. Seventy-three percent of the respondents are white, about 8 percent Hispanic, 18 percent black, and 1 percent are of other racial and ethnic backgrounds. On average, respondents in the sample report their health to be “good.”

In Tables 3 and 4 we present results from ordinary least squares regressions for annual frequency of the first two clusters of social activities listed in Table 1. Equations for significant interactions with age, sex, and living with both biological parents to age 19 are also included in these tables.

Of the four types of social activities listed in Table 3, socializing with relatives, coworkers, neighbors, and friends outside the neighborhood, there is a significant difference for adult only children socializing with relatives (see Column 1a). As we found in the bivariate results, adult only children see relatives less often than do those who grew up with siblings, a difference of approximately seven times per year, controlling for other predictors. This difference may simply reflect that only children have fewer relatives (e.g., no siblings, no nieces or nephews from a sibling) with whom to interact.

In general, the predictors shown in Table 3 explain a small percentage of the variance for contact with relatives, neighbors, coworkers, and friends. However, there are interesting patterns of results, some consistent across types of socializing and some not. For example, women socialize with relatives more frequently and with coworkers and friends less frequently than do men; these differences nearly cancel each other out. Older persons, on the other hand, participate less in each type of activity, with a difference ranging from two to eight times annually per decade of age. Those who are partnered, as well as those with children at home, tend to do less of each type of socializing. However, having preschool (ages 0 to 5) or school-age (ages 6 to 12) children does not significantly decrease contact with neighbors, and having preschool children increases contact with relatives. We also find that those who lived with both biological parents to age 19 see neighbors and friends less often, but there is no corresponding effect on seeing relatives as one might expect.

Better health increases all types of social activities, not surprisingly. Indicators of socioeconomic status (education and household income) tend to have a negative impact on socializing, with the exception of getting together with friends. Those who work more hours per week see relatives, neighbors and friends less often, but see coworkers more often. Finally, there are differences across racial/ethnic categories, with African-Americans (the reference category) socializing more with relatives and neighbors than all other groups and more than whites with coworkers. Hispanics associate with coworkers marginally more than do African-Americans. There are no racial/ethnic differences for socializing with friends.

Of the three interaction terms tested for each of the four dependent variables in Table 3 (sex, live with parents to age 19, and age) we find two significant interactions, although one is of marginal significance. First, there is an interaction ($p = .08$) between only child and living with biological parents to age 19, in the equation for social activities with relatives (see Column 1b). Among those who did not live with both biological parents, only children have about 11 fewer visits with relatives than do those with siblings. Among those who did live with both biological parents, only children have approximately 3 fewer visits with relatives per year than do those with siblings. This suggests that it is the combined effect of being an only child, perhaps due to divorce or parents who never married, and residence history that noticeably decreases visits with relatives in adulthood. Such adult only children may not have contact with relatives on one side of their family, perhaps that of their father.

We also find a significant interaction between adult only child status and age in the equation for socializing with friends (see Column 4b). In this equation, the effect of being an adult only child is strongly negative, but the interaction term implies that for every decade of age, this difference is decreased by about 3 visits per year. This pattern suggests greater differences in socializing with friends among younger adults with and without siblings than among older adults. The larger difference observed during the young adult years is reduced to a small difference by age 40 (less than 3 social activities per year) and there is no difference by age 50.

In Table 4 we examine determinants of three additional types of social activities: attending an event at a church or synagogue, going to a bar, and attending a group recreational activity. There are no significant differences between adult only children and those with siblings on any of these types of activities.

We find that women attend slightly more church/synagogue activities, but men attend bars or group recreational activities quite a bit more often than women (11 and 10 more times a year, respectively). Age is positively correlated with religious attendance, and negatively with bar or group activities. Those with more children in each age group (although of marginal significance for the youngest and oldest children) attend more religious events, while both being married/cohabiting and having children decreases trips to bars and group recreational activities. Those who lived with both biological parents during childhood are also less likely to go to bars.

Other predictors of religious activities include more education, lower household income, better health, and being African-American compared to all other race/ethnic categories. Whites and those with lower household income go to bars more than African-Americans. Attendance at group recreational activities is more common for those with higher education, for whites, and for those in better health.

Of the three dependent variables in Table 4, there is one significant interaction between only child status and the three variables being tested (sex, lived with both biological parents to age 19, and age). Adult only children attend more church/synagogue activities per year, but this difference decreases by 3 activities for each decade of age (see Column 1b). Again, this

implies that a difference present in early adulthood gradually declines to no difference by late middle age -- by age 40 there is no difference (less than 1 event per year).

In Table 5, we present regressions for the annual frequency of participation in the five clusters of activities described earlier. As we found in the bivariate tables, there are no significant main effects of being an adult only child. A number of other predictors have effects that are in some cases consistent across several groups and in others, just appear to be scattered.

Women participate less frequently in veteran/political, sports/youth, and in fraternity/service activities. Older persons participate less in three of the five types of activities, and somewhat more in veterans/political or labor activities. Those with more preschool age children in the household are less involved in sports/youth events while those with more school-age (ages 6 to 12) or teenage children are more involved in those activities. Having more preschool children appears to deter participation in literary/professional, hobby/garden, and fraternity/service events. School-age children (ages 6 to 12) also decrease literary/professional activities. Education increases all types of activities as does good health (except for veteran/political), while working more hours decreases literary/professional, sports/youth/school related, fraternity/service, and hobby/garden activities (the latter is marginally significant). There are a few scattered effects of race, living with biological parents to age 19, and being married/cohabiting.

We find three significant interaction effects in Table 5, although two are of marginal significance. First, being an adult only child interacts with age ($p = .06$) in the equation for literary/professional events (see Column 1b). The coefficients for only child and age, in combination, imply that in younger age groups only children attend more of these events per year, while the difference decreases by over one event per decade of age. This pattern is similar to the interaction between only child status and socializing with friends and attending church/synagogue events, with larger differences in younger cohorts that decrease with age. There is little difference by age 40 (about 2 events per year) and by age 50 there is no difference (less than 1 event).

Second, we find a marginally significant ($p = .09$) interaction between only child status and living with biological parents to age 19 in the equation for literary/art/professional activities (see Column 1c). The combined coefficients for only child and growing up with both parents imply that only children who grew up without both parents participate in these activities about 4 more times per year, but only children who grew up with both parents are no different from other adults.

We also find a significant interaction between only child status and sex in the equation for frequency of sports/youth or school related activities. The combined coefficients for only child and sex imply that men who are adult only children participate in these activities substantially more often (about 5 times per year more than other men). For women, adult only children participate in these activities about 8 times fewer than other women.

CONCLUSION

As the number of families with only one child has increased over time, concern and stereotypes continue about growing up without siblings. Previous research has mostly focused on onlies as children and how they may differ from their peers. Research on onlies as adults is scant and the very limited research on sociability focuses on attitudes and not behaviors. In this paper, we examine whether adults who grew up with and without siblings differ in terms of their social activities. We find the main difference between the two groups of adults for social activities with relatives.

Compared to adults who grew up with siblings, adults who grew up without siblings have significantly less frequent social activities with relatives, and the difference is greater among those who did not live with both biological parents growing up. This pattern suggests that only children who grew up in single parent homes have noticeably less contact with relatives than do similar children with siblings. Perhaps, disconnected fathers are more likely to be engaged with their children if they have more than one child from a prior relationship.

These patterns do not suggest that adult only children are less family-oriented than others. The observed patterns for socializing with relatives may simply reflect structural circumstances and differential opportunities to interact with a wider network of family members. Not having siblings by definition implies fewer family members with whom to interact. This may account for the roughly 7 fewer visits per year with relatives for only children compared to adults with siblings.

The difference in socializing with relatives between adults who grew up with and without siblings is likely complex, and calls for further research. The type of family activity may be important. For example, if visiting parents often occurs because of family gatherings surrounding siblings, nieces and nephews (e.g., out of town visits, birthdays, and various celebrations of life events), then those without siblings should have, on average, fewer family events to engage in – suggesting less contact with relatives, including parents. However, other studies report increased visits with parents for adult only children, particularly women (e.g. Logan & Spitze, 1996). Perhaps, adult only children play a unique social role in the lives of parents, particularly older parents. Only children may be able to allocate more time to parents because they do not spend time with siblings.

Regardless, the lesser total contact with relatives among adult only children reported here, appears to occur despite the greater contact with parents reported in other studies. We cannot account for the nature of social interactions with relatives and so do not know how accounting for different types of family activities might help to understand overall differences in social interaction with relatives between those who did and did not grow up with siblings. Future research would benefit from examining in more depth the observed differences in family interaction between those who grew up with and without siblings.

We also find that at younger adult ages growing up without siblings affects the frequency of engaging in certain social events – less time spent with friends, more time spent at church/ synagogue, literary/art or professional/academic events - but these differences decrease with age. The pattern with friends does suggest that adults without siblings may be less sociable and engage in fewer social activities with friends. The difference is notable among younger adults. Overall, the interactions with age suggest that some of the differences that have been observed between children with and without siblings may disappear as the children age into adulthood.

We also find gender differences in the frequency of participation in sports, youth, or school related activities. Among men, we find more frequent participation in these activities for those who grew up without siblings compared to those who grew up with siblings. However, women have less frequent participation in these types of activities if they grew up without siblings. Although we do not know what types of sports, youth group, or school related organizations respondents participate in, the patterns may suggest that only children experience different gender role socialization than do other children.

In our study of adults we do not find support for arguments suggesting that those without siblings are more sociable than others - that these children grow up to be more extroverted and sociable. In fact, they are less likely to socialize with relatives and, in young adulthood, with friends. Nor do we find overwhelming evidence that adults without siblings are less

sociable --that children who grow up without siblings may develop into adults that are more comfortable and prefer to be “alone.” We find in young adulthood adults without siblings are more socially active in their churches and synagogues and in literary/art or professional/ academic events than other adults, perhaps lending support to arguments that those without siblings may be drawn to different types of social activities. However, for most of the sociability measures examined these adults do not differ from others at all and the predictive power of our models is low for understanding overall variation in adult sociability behaviors.

For all of the social activities we examine, with the exception of social activities with relatives, we find no significant main effects of growing up without siblings. Adults who grew up without siblings do not appear to be different from others in their patterns or frequency of interaction across a wide variety of social interactions such as with neighbors and coworkers. Nor do adults who grew up without siblings differ from others in their engagement in other social activities such as those involving group recreation, non-professional groups, or personal hobbies. Thus, in this study we find little evidence of long-term effects of growing up without siblings for the social lives of adults as suggested by the “resource dilution,” “siblings as resources” and “only-child uniqueness” models.

Nonetheless, we have examined only a few types of the wide range of adult social activities and behaviors that are possible and questions remain about possible long-term effects of growing up with or without siblings. For example, these two groups may vary in terms of their family attitudes and other family behaviors not examined in this study. We have noted differences in terms of visiting relatives, but future research should explore whether these differences extend to marital behaviors and social interaction with offspring.

Future research should also examine whether the differences we observed have implications for the quality of life of those who did or did not grow up with other children in their household. Although we can only speculate, it seems unlikely that what amounts to much less than one activity a month in most cases could have any detrimental effects on adult well-being. Moreover, our pattern of findings suggests that differences in sociability behaviors between those with and without siblings can grow smaller with age. Perhaps, future research should focus on young adults since these are the ages where we observed the greatest differences between adults who did and did not grow up with siblings.

Finally, we should stress that we have used a rather strict definition of “only” in this study, measuring the status as growing up without other children in the household. However, the very nature of the only child experience has changed over time and should be more closely monitored. When scholars began writing extensively about only children in the 1970s and 1980s, the status was likely a rather advantaged one, as these children were more likely to be products of low fertility and have parents with greater social and economic capital than do “onlies” of today. Only children today are likely more so than in the past to be products of low fertility due to nonmarital childbearing and divorce. And as cohabitation, nonmarital childbearing, divorce, and stepfamilies have become more common, the experience of growing up without siblings has also become more fluid than in the past. Some children may spend parts of their childhood or even parts of their week or month alone. Children may move in an out of being an “only child” as their parents make transitions from one status to another. Although data from NSFH remain an invaluable resource for family scholars, data from the first wave are now over 20 years old. Using recent data on the timing and sequencing of living arrangements during childhood and understanding the now diverse experiences of being alone as a child on social behaviors is worthy of more research attention.

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Table 1

Mean Annual Social Activities for Adults Growing Up - Without and With Siblings - National Survey of Families and Households (N=13,008)

	Grew up without siblings	Grew up with siblings
Social Activity		
Spend evening with:		
Relatives	31.7	40.5 *
Neighbors	30.3	29.0
Coworkers	15.9	16.6
Friends outside neighborhood	33.9	34.0
Engage in social event:		
Church/synogogue	19.8	19.7
Bar/tavern	10.2	11.5
Group recreational activity	19.5	19.5
Participate in type of organization:		
Literary/art or professional/academic	7.9	6.2
Veterans/political or labor	2.4	2.2
Sports/youth or school related	24.3	22.7
Fraternal/service or fraternity/sorority	4.6	5.2
Hobby/garden	7.6	5.7

* $p \leq .05$ (t-test)

Table 2

Descriptive Statistics for Independent Variables used in Analysis of Social Activities for Adults Growing Up Without and With Siblings - National Survey of Families and Households (N=11,729)

	Percent	
Grew up without Siblings (1=yes)	5.9	
Sex (1= female)	59.7	
Lived with parents to age 19 (1=yes)	66.4	
Married or cohabiting (1=yes)	59.4	
Race/ethnicity		
White	73.1	
Black	18.0	
Hispanic	7.5	
Other	1.4	
	Mean	Standard Deviation
Age (in years)	42.54	17.27
Number of children in household		
Ages 0 to 5	0.34	0.67
Ages 6 to 12	0.35	0.70
Ages 13 to 17	0.25	0.57
Hours worked last week	24.45	22.57
Educational attainment	12.25	3.03
Household Income (in dollars)	28,713.09	35,743.23
Health	3.98	0.87

Notes: Descriptive statistics for independent variables taken from largest sample used in analyses. Standard deviations for dummy variables not shown.

Table 3

Regression Analysis of Annual Number of Social Activities for Adults: Spending Evening with Relatives, Neighbors, Coworkers, or Friends - National Survey of Families and Households (N=11,307)

	Number of times spent evening with					
	Relatives		Neighbors	Coworkers	Friends	
	(1a)	(1b)	(2)	(3)	(4a)	(4b)
Independent Variables						
Grew up without Siblings (1=yes)	−6.89 *	−11.13 *	1.12	0.59	−0.39	−15.61 *
Sex (1= female)	6.11 *	6.14 *	0.39	−4.88 *	−3.37 *	−3.37 *
Age (in years)	−0.32 *	−0.32 *	−0.18 *	−0.37 *	−0.81 *	−0.83 *
Lived with parents to age 19	1.47	0.91	−2.89 *	0.38	−3.89 *	−3.85 *
Married or cohabiting (1=yes)	−1.09 α	−1.09 α	−2.79 *	−1.41 *	−4.57 *	−4.57 *
Number of children in household		*				
Ages 0 to 5	2.30 *	2.29 *	−0.37	−3.15 *	−8.29 *	−8.33 *
Ages 6 to 12	−2.18 *	−2.17 *	−0.49	−2.34 *	−5.68 *	−5.69 *
Ages 13 to 17	−3.23 *	−3.28 *	−2.58 *	−0.75	−3.00 *	−3.00 *
Hours worked last week	−0.16 *	−0.16 *	−0.28 *	0.25 *	−0.20 *	−0.20 *
Educational attainment	−1.66 *	−1.67 *	−1.26 *	−0.42 *	0.36 α	0.35 α
Household Income (in $1,000s)	−0.04 *	−0.04 *	−0.05 *	−0.04 *	−0.10 *	−0.10 *
Race/ethnicity						
White	−14.25 *	−14.31 *	−9.71 *	−3.55 *	−0.45	−0.50
Hispanic	−8.47 *	−8.50 *	−11.74 *	3.47 α	−0.69	−0.75
Other	−16.61 *	−16.70 *	−12.04 *	1.15	0.35	0.29
Health	3.59 *	3.60 *	1.73 *	1.27 *	3.49 *	3.49 *
Interactions:						
Grew up without siblings × Lived with parents to age 19	--	8.57 α	--	--	--	--
Grew up without siblings × Age	--	--	--	--	--	0.33 *

	Number of times spent evening with					
	Relatives		Neighbors	Coworkers	Friends	
	(1a)	(1b)	(2)	(3)	(4a)	(4b)
Constant	72.74 *	73.20 *	65.35 *	35.56 *	69.41 *	70.45 *
R^2	0.03	0.03	0.03	0.06	0.07	0.07

* $p \leq .05$,

$^{\alpha} \leq .10$

Table 4

Regression Analysis of Annual Number of Social Activities for Adults: Engaging in Social Event at Church/synagogue, Bar/tavern, or Group Recreational Activity - National Survey of Families and Households (N=11,729)

	Number of times engaged in social event at			
	Church/synogogue		Bar/tavern	Group Recreational Activity
	(1a)	(1b)	(2)	(3)
Independent Variables				
Grew up without Siblings (1=yes)	−1.07	12.77 *	−1.10	−0.47
Sex (1=female)	3.36 *	3.36 *	−11.05 *	−10.11 *
Age (in years)	0.26 *	0.28 *	−0.38 *	−0.26 *
Lived with parents to age 19 (1=yes)	0.97	0.93	−1.33 *	−1.47
Married or cohabiting (1=yes)	0.28	0.28	−1.84 *	−1.41 *
Number of children in household				
Ages 0 to 5	1.14 α	1.18 α	−4.74 *	−5.19 *
Ages 6 to 12	1.75 *	1.76 *	−2.34 *	−1.36 *
Ages 13 to 17	1.45 α	1.44 α	−1.35 *	−1.73 *
Hours worked last week	−0.05 *	−0.05 *	0.02	−0.02
Educational attainment	0.36 *	0.37 *	−0.11	1.10 *
Household Income (in $1,000s)	−0.04 *	−0.04 *	−0.02 *	0.01
Race/ethnicity				
White	−14.49 *	−14.44 *	2.70 *	3.90 *
Hispanic	−10.49 *	−10.44 *	−2.40 α	1.89
Other	−9.79 *	−9.75 *	−3.65	−2.78
Health	2.83 *	2.83 *	0.30	4.65 *
Interaction:				
Grew up without siblings × Age	--	-0.30 *	--	--
Constant	2.61	1.70	37.47 *	6.82 *
R^2	0.03	0.03	0.07	0.05

* $p \leq .05$,

α ≤ .10

Table 5

Regression Analysis of Annual Number of Social Activities for Adults: Participation in Types of Organizations - National Survey of Families and Households (N=11,149)

	Number of times participated in							
	Literary/art or professional/academic			Veterans/political or labor	Sports/youth or school related		Fraternal/service fraternity/sorority	Hobby/garden
	(1a)	(1b)	(1c)	(2)	(3a)	(3b)	(4)	(5)
Independent Variables								
Grew up without Siblings (1=yes)	1.57	7.37 *	3.56 *	−0.48	−2.59	5.30	−1.30	1.20
Sex (1=female)	−0.52	−0.52	−0.54	−2.11 *	−8.80 *	−7.98 *	−2.39 *	−0.88
Age (in years)	−0.08 *	−0.08 *	−0.08 *	0.03 *	−0.47 *	−0.47 *	−0.00	−0.10 *
Lived with parents to age 19 (1=yes)	−0.19	−0.20	0.07	−1.13 *	−1.21	−1.26	−0.17	−0.19
Married or cohabiting (1=yes)	−0.43	−0.43	−0.43	−0.10	−1.33 *	−1.32 *	−0.26	−0.04
Number of children in household								
Ages 0 to 5	−1.10 *	−1.08 *	−1.10 *	−0.49 α	−5.72 *	−5.72 *	−1.51 *	−1.16 *
Ages 6 to 12	−0.87 *	−0.87 *	−0.88 *	−0.05	10.47 *	10.44 *	0.11	−0.81 *
Ages 13 to 17	0.03	0.02	0.05	0.56 *	6.62 *	6.67 *	0.34	1.05 *
Hours worked last week	−0.06 *	−0.06 *	−0.06 *	0.01	−0.08 *	−0.08 *	−0.04 *	−0.02 α
Educational attainment	1.27 *	1.28 *	1.27 *	0.23 *	2.62 *	2.61 *	0.65 *	0.29 *
Household Income (in $1,000s)	−0.01	−0.01	−0.01	0.01	0.00	0.00	−0.01	0.00
Race/ethnicity								
White	−3.14 *	−3.12 *	−3.11 *	−1.10 *	0.88	0.87	−0.96	−0.95
Hispanic	−0.60	−0.58	−0.60	−1.29 α	−1.33	−1.42	−0.17	−1.77
Other	6.23 *	6.25 *	6.28 *	−1.99	−8.92	−9.03	−1.95	0.46
Health	1.21 *	1.21 *	1.21 *	0.21	5.95 *	5.91 *	1.13 *	0.95 *
Interactions:								

	Number of times participated in							
	Literary/art or professional/academic			Veterans/political or labor	Sports/youth or school related		Fraternal/service fraternity/sorority	Hobby/garden
	(1a)	(1b)	(1c)	(2)	(3a)	(3b)	(4)	(5)
Grew up without siblings × Age	--	−0.13 $^{\alpha}$	--	--	--	--	--	--
Grew up without siblings × Lived with parents to age 19	--	--	−3.94 $^{\alpha}$					
Grew up without siblings × Sex	--	--	--	--	--	−13.69 *	--	--
Constant	−5.56 *	−5.95 *	−5.77 *	0.32	−2.55	−2.75	−3.34 $^{\alpha}$	4.85 *
R^2	0.03	0.03	0.03	0.01	0.06	0.06	0.01	0.01

* $p \leq .05$,

$^{\alpha} \leq .10$