Identifying children's friendships across diverse contexts Maternal and child perspectives
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Abstract:
We examined the extent to which identifications of children's friends across multiple contexts by both children and their mothers might differ from identifications made by both individuals working in concert as well as the sources of such differences. Interviews were conducted with 347 fifth-grade children and their mothers. A subset of 20 dyads also participated in qualitative interviews. Children and mothers created lists of children's friends working separately and together. Individual completion and joint completion lists were compared to identify discrepancies. Qualitative participants reflected on sources of discrepancies. Discrepancies were predicted by ethnicity, child social problems, cross-gender and cross-ethnicity friendship status, and friendship context. Explanations for discrepancies suggested that discrepancies reflected both genuine differences in perspective and reporting error.

Keywords: Children | discrepancies | error | friends | friendship | mothers | self-report

## Article:

Those who study children's friendships often engage in a two-step process as they collect data. First, researchers must determine the identities of children's friends; then they proceed to consider characteristics of friendship partners and the nature of children's relationships with these partners. The first step in this process involves making deliberate choices concerning how friendships will be defined and identified, including determination of which individual(s) will make such identifications. The current investigation considers ways in which mothers and their fifth-grade children may identify children's friendships in ways that reflect both reporters' own unique perspectives regarding such relationships and limitations in their abilities to make identifications. Such issues are considered with regard to mothers' and children's identifications of children's friendships as they are maintained across the multiple contexts of children's lives. Utilizing hierarchical generalized linear modeling (HGLM) as well as analysis of qualitative
interviews with mothers and children, we consider the nature of differences between mothers' and children's identifications of children's friendships and lists of friendships generated using a methodology intended to yield more accurate lists of such relationships.

## Identifying children's friendships

## Definitions of friendship

Although the identification of children's friends appears, on the surface, to be a relatively straightforward task, deciding on how to best come up with a list of children's friends is in fact a complicated endeavor fraught with a number of potential pitfalls. A primary concern that must be addressed by researchers involves the definition of a friend. Although researchers typically acknowledge that "friends" are different than "peers" or "network members" (Hinde, 1987) and that "best friends" are different from "friends" (Berndt \& Keefe, 1995), they have been slower to acknowledge that there are different sorts of "friends" and that the definition of a "friendship" is inherently subjective. Such realities are explicitly recognized in work by Berndt and McCandless (2009), which represents friendships on a continuum of overlapping categories including best/close friends, good friends, just friends, and acquaintances. Such distinctions are inherently indistinct, in that (a) there are no commonly understood explicit criteria for what defines membership within these different categories, (b) different methodologies and reporters may differentially categorize the same individuals, and (c) some children may not have social affiliates occupying all continuum categories. Accordingly, researchers need to be aware that even the most careful efforts to identify children's friendships are unlikely to result in identification of individuals who are psychologically and relationally equivalent across children.

Discrepancies in relational definitions may be especially prominent in middle childhood. Middle childhood is a developmental period during which individuals' definitions of friendship undergo substantial refinement and revision. Throughout middle childhood, friends develop from playmates and companions into confidantes and sources of support and help (Bigelow, 1977; Hartup \& Stevens, 1997). Therefore, researchers must expect that individuals in middle childhood will be in varying stages of revising their personal definitions and expectations for friendship, making the identification of friends particularly complex for children of this age.

## Reporter biases

Most researchers seeking to identify children's friendships rely on neither children's own reports of their friendships nor reports of key others (e.g. parents), although there are notable exceptions (Bukowski, Sippola, \& Newcomb, 2000; McElwain, Halberstadt, \& Volling, 2007; Reitz, Dekovic, Meijer, \& Engels, 2006; Simpkins \& Parke, 2001). This hesitancy to rely on single reporters to identify children's friendships is in large part due to assumptions regarding reporter biases. However, there has been very little research considering the extent to which such biases are present. In work that focused on the abilities of children to correctly identify their social network members (which should not be confused with "friends"), Leung (1993)compared

Chinese children's own nominations of school social affiliates to those names generated using a social consensus methodology. He found that discrepancies were more common among less popular children and reflected a tendency of such children to inflate the social desirability of their listed social affiliates. Gest and Fletcher (1996) utilized a similar approach and reported a lack of correspondence in social affiliates generated by individual children versus the consensus methodology on the order of $30 \%$. This work suggests that children may be limited in their abilities to accurately identify social partners, which may extend to the identification of friendships as well.

## Reciprocated friendship nominations

Most contemporary friendship research does not rely on single reporters to identify children’s friends. Instead, friendship researchers typically use techniques such as reciprocated friendship nominations (Laursen, Bukowski, Aunola, \& Nurmi, 2007;Parker \& Asher, 1993; Phillipsen, 1999; Rose, Carlson, \& Waller, 2007). This methodology is limited in that it can only be used in group settings (most typically the classroom). Given that children's friendships are often maintained across a variety of settings (Fletcher, Troutman, Gruber, Long, \& Hunter, 2006), reciprocated friendship nominations are of little use to researchers who wish to study children's friendships beyond the confines of a single context. Such researchers are forced to relinquish the advantages offered by these methodologies and instead rely on identifications provided by the only reporters who may potentially have access to information regarding the identification of children's friends across these multiple contexts - children themselves and their parents. Accordingly, it is of critical importance to consider issues related to the ways in which these two groups of individuals identify children's friendships.

## Child- and friendship-level variation in identification of children's friendships

As discussed above, the few studies that have been conducted focusing on variations in identification of children's friendships (or social network members) across methodologies or reporters (Gest \& Fletcher, 1996; Leung, 1993) have suggested that such variations reflect both characteristics of children and characteristics of friendships. These findings suggest that children who are less socially accepted or competent identify their social network members (some of whom are likely their friends) in ways that suggest "errors" of both omission and commission or at least that such children's subjective understanding of which individuals constitute their social network members is inconsistent with identifications generated through other methodologies.

The unique perspectives brought to bear on the identification of children's friendships by children versus parents are also suggested by data indicating that when low-income black mothers and children were asked to individually provide lists of children's closest friends, overlap between the two sets of lists averaged just 13\% (Fletcher, Troutman, Madison, \& Hunter, 2005). The question of whether differences of such magnitude would also emerge in samples
with different demographic profiles remains uninvestigated, but the possibility that misidentifications are more frequent among Black participants and participants from less advantaged socioeconomic backgrounds is consistent with other lines of research. For example, in middle childhood, Black mothers are more conservative than White mothers in terms of their willingness to encourage children's efforts to connect with school friends outside of the school context (Fletcher, Bridges, \& Hunter, 2007) or outside of parents’ own social networks (Hunter \& Taylor, 1998; Johnson, 2000). Parents who are raising children in neighborhoods characterized by crime or social disorder (more likely among economically disadvantaged families) may restrict children's social relationships in an effort to keep children safe (Furstenberg, Cook, Eccles, Elder, \& Sameroff, 1999). Such strategies of restriction and keeping children close may make it more difficult for parents to accurately identify children's friendships- or even for children to clarify in their own minds which social affiliates are best identified as "friends."

An accumulation of research indicates that girls in middle childhood and early adolescence spend more time than boys thinking about friendship-related issues (Richards, Crowe, Larson, \& Swarr, 1998) and that girls’ friendships are more likely to be disrupted over time than are boys’ relationships (Benenson \& Christakos, 2003). Girls are also more likely than boys to engage in relational aggression, defined as manipulative behaviors intended to damage the relationships or social standing of others (Murray-Close, Ostrov, \& Crick, 2007). Taken together, such evidence suggests that girls may be more consciously aware of the nuances involved in their social affiliations and thus may differ from boys in terms of how they think about friendship and what individuals constitute friends. Specifically, we suspect that they will be more considered in their friendship identifications and thus that discrepancies between initial friendship nominations and subsequent revisions to nominations will be less frequent for girls than for boys.

Friendships in which friends are different from one other on key demographic characteristics are likely to introduce additional complications for identification. Due to a combination of factors including sex cleavage in children's relationships (Maccoby, 1990), age grading within American schools (Ennett \& Bauman, 1996), and ethnic segregation in settings (such as neighborhoods, schools, and places of worship) within which children's friendships are established, children's closest friends are likely to be with peers of the same gender, age, and ethnicity (Youniss \& Smollar, 1989). Given that children’s friendships that deviate from such patterns are less common, it is more likely that they will be omitted from lists of friends generated by raters of all sorts - both because they are less likely to be acknowledged as friendships and because they are more likely to be forgotten by raters. In addition to their rarity, Aboud, Mendlesen, and Purdy (2003) found that cross-ethnic friendships were less stable than same-ethnicity friendships across the fifth-grade school year. Therefore, mothers may not be as aware of these short-term relationships as they are of others. Cross-gender friendships have the further complication of potentially being undifferentiated from romantic relationships (Bagwell
\& Schmidt, 2011), which means some individuals would likely consider them friendships while others would define them as a separate type of relationship.

The importance of the current research lies in its potential to advance the study of children's friendships in two distinct ways. First, it is of interest to increase understanding regarding the ways in which individuals (mothers vs. children, mothers and children from different backgrounds, children with different types of friendships) define and identify children's "friends." Second, this information has practical utility in that it suggests a methodological approach for identifying children's friendships as they are maintained within contexts that do not permit the use of techniques such as reciprocated friendship nominations.

## Methodological considerations within the current study

Existing theory and research suggest that both parents' and children's identifications of children's friendships are likely to differ from identifications obtained through a "gold standard" methodology such as reciprocated nominations. Such differences likely reflect variations in perspectives regarding friendships that are consistent with Berndt and McCandless's conceptualization of friendships as constituting a subjective continuum of categories - but likely also reflect genuine "error" on the part of both reporters (e.g. forgetting). Within the current study, we sought to understand the extent to which identifications of children's friends across the multiple contexts of children's lives by both children and their mothers might differ from identifications generated through a methodology designed to weed out potential errors and misclassifications as well as the sources of such differences.

Due to our focus on children's friendships maintained across diverse contexts (as opposed to focusing solely on school friendships), we were unable to use a measure of reciprocated friendship nominations to identify children's "true" friends as a point of comparison for children's and mothers' reports. Accordingly, we elected to have children and mothers identify children's friendships twice - once independently and once jointly. We believed that the joint identification procedure would yield a more accurate list of children's friendships by eliminating reporter errors due to factors such as forgetting (of individual friends or of friendship contexts yielding friends) and misclassification of friends versus acquaintances along the friendship continuum. Thus, for the purposes of our study the joint classification approach became akin to reciprocated friendship nominations - but with the potential to be applied when friendships were identified across multiple contexts. This methodology is certainly not without its limitations though. We were aware that the joint identification procedure most certainly introduced sources of error not present in individual reports or in the generation of reciprocated nominations. Of greatest concern was the possibility that children might be reluctant to identify some individuals as friends in the company of their mothers. Many children consider decisions related to friendship choices to be personal domain issues, and as a result children may feel that they are not obliged to divulge the identities of friends to their parents (Smetana, Metzger, Gottman, \& Campione-Barr, 2006). However, the joint identification procedure represented the only
available alternative for generating a comparison list for the identification of friendships across multiple contexts.

Given our choice to utilize mother-child joint identification of friends as our "gold standard" for identifying children's "true" friends, we utilized the following terminology to describe the phenomena of interest within the current study. The term discrepancy refers to cases in which children's or mothers' independent identifications of friends did not match identification of a friend through the joint completion task. This term does not refer to comparisons of mothers’ reports versus children's reports, as such comparisons are not considered within the current effort. Discrepancies defined as such were recognized as potentially arising from a variety of factors, including differences in perspectives regarding who constituted a child's friend as well as error in both mother and child reports.

## Research questions and interpretive strategy

The purpose of the current investigation was to answer a series of questions regarding the sources and nature of discrepancies between mothers' and children's identifications of children's friendships and a comparison list generated through a methodology that could be applied to the case of friendships maintained across the diverse contexts of children's lives. To answer these questions, we chose to adopt a mixed-method approach that utilized HGLM to identify predictors of discrepancies and analysis of qualitative data to shed light on the meaning of such discrepancies. Our specific research questions and accompanying hypotheses were as follows. First, what are the extent and nature of discrepancies concerning the identities of children's friends? We hypothesized that there would be frequent discrepancies observed for both mothers and children and that discrepancies would reflect both tendencies to name individuals who might not actually be children's friends and not to name individuals who were children's friends. Second, does the prevalence of discrepancies vary based on the characteristics of children and friendships? We hypothesized that more discrepancies would be observed when target children were Black or from more economically disadvantaged backgrounds, when target children demonstrated lower levels of social competence, and when friendships were maintained within contexts that did not include mothers. We also hypothesized that discrepancies would be more prevalent for cross-gender and cross-ethnic friendships, as well as friendships with older peers, as such friendships might be unexpected by mothers and/or less likely to be revealed by children. We anticipated that discrepancies would be more prevalent among boys than among girls. Additionally, we explored the effects of interactions between child characteristics and friendship characteristics. Although we had no specific hypotheses for these interaction effects, we believed the interactions could potentially yield meaningful results as we attempted to understand the complex processes resulting in discrepancies. Third, when mothers and children reflect on differences between their own reports of children's friendships and a subsequent list obtained through joint efforts, what factors do they perceive as responsible for differences? We anticipated that qualitative data used to answer this last question would yield elaborations
regarding how characteristics of children and friendships shaped individual reports as well as whether discrepancies represented meaningful differences in perspective versus reporting errors.

## Methods

## Participants

Data for this study came from 1 year of a 3-year longitudinal study of children's friendships and child well-being. Participants in the quantitative portion of this study were 347 fifth-grade students and their mothers who provided data during the 2003-2004 school year. The sample size at time 1 was 404, and attrition analyses indicated that children retained versus not retained until time 3 did not differ in terms of gender, ethnicity, social class, or levels of social problems. Students were recruited from nine elementary schools located in a southeastern county in the United States. Sixty-two percent of the children and their mothers identified themselves as White and $38 \%$ as Black; no children or mothers identified themselves as biracial. Fifty-three percent of the participating children were girls. Sixty-seven percent of mothers were married to the biological fathers of target children, $23 \%$ were single mothers, and $11 \%$ were living with a nonrelated adult partner. The Hollingshead (1975) four-factor index of social status was used to calculate family socioeconomic status (SES). The mean score for the sample was 44 (medium business personnel and minor professionals) and ranged from 15 (unskilled laborers) to 66 (major business persons and professionals).

Twenty mother-child dyads were selected from the larger sample to participate in qualitative interviews. Qualitative participants were chosen to equally represent boys and girls as well as Black and White families. Thus, there were 10 boys and 10 girls and 10 dyads identified themselves as Black and 10 as White. According to the Hollingshead (1975), social class for the qualitative subsample ranged from 15 (unskilled laborers) to 66 (major business persons and professionals). The mean score was 40.65 , slightly lower than that of the quantitative sample. Of the 20 mothers, 13 were married to the target child's biological father, 3 were single, and 4 lived with the child's stepfather or a partner.

## Procedures

All third-grade children enrolled in nine elementary schools within a single county in the southeastern portion of the United States were invited to participate in a school-based data collection. Schools were selected so as to maximize the representation of Black students and White students (by far the most prevalent ethnic groups within the county) while also attending to diversity within these two ethnic groups. Accordingly, schools were rural, urban, and suburban and varied in size and ethnic composition to the greatest extent possible. That said, schools tended to be relatively homogeneous in terms of ethnic composition. Three schools were predominantly Black ( $76 \%$ to $96 \%$ of year 1 participants in our study from these schools were Black) and six were predominantly White ( $71 \%$ to $91 \%$ of year 1 participants in our study from these schools were White). In addition, rural schools tended to be predominantly White, while
urban schools tended to be predominantly Black and percentage of students eligible for free or reduced lunch was higher in predominantly Black schools. Data from the initial school-based data collection were not analyzed for this project. Eligibility requirements for participation in subsequent home interviews included Black or White ethnicity, child residing with the mother, child was born in the United States, and child having participated in the school-based portion of the project. Telephone calls were made to eligible mothers inviting them to participate in home interviews. In all, $79 \%(N=404)$ of mother-child dyads who were contacted participated in interviews at wave 1. Data for the current project were collected during the children's fifth-grade year, which constituted wave 3 of the larger project. Attrition among wave 1 participants resulted in a wave 3 quantitative sample of 347 families. Quantitative home interviews were conducted by two graduate research assistants and were completed in approximately 1 h and 15 min . At least one research assistant was of the same ethnicity as the families and at least one was always female. Mothers and children completed interviews separately; dyads then came together to jointly complete the Social Contexts of Friendships Interview. Qualitative interviews were also conducted in the families' homes with both mothers and children. Each mother interview was conducted by a graduate research assistant of matched ethnicity. Mothers provided written consent for their own and children's participation and children provided verbal assent for participation at the start of each interview.

## Measures

## Demographic variables

Demographic data were collected through a family roster interview with mothers during year 1. Mothers reported on mother and child ethnicity (always the same within dyads; Black = 0, White $=1$ ) and child gender (female = 0 ; male $=1$ ). The Hollingshead Four-Factor Index of Social Status (Hollingshead, 1975) was completed utilizing parental education levels and occupations as reported by mothers.

## Social competence

Child social competence was measured with the Child Behavior Checklist Social Problems scale (Achenbach \& Edelbrock, 1981). Mothers responded to 11 items rating how true they considered it to be that their children experienced social problems such as being "lonely" and "gets teased," with a response range of (0) not true (as far as you know) to (2) very true or often true.

## Social contexts of friendships

The Social Contexts of Friendships Interview, developed for the project was utilized to identify target children's nonsibling, nonadult friends as well as information about those friends. The interview was conducted with mothers, with children, and then jointly with mothers and children together. Joint interviews were always completed subsequent to individual interviews. Participants were given the following instructions for identifying friends: "I'd like you to come
up with a list of children who you [you both] would consider to be friends of X. Remember a friend is someone who has a special relationship with X [you]. For example, if X [you] played on a soccer team, he/she [you] would know all of the other children on that team, but probably just a few of them would be friends. Although we know that some children consider their siblings to be friends, we're not going to include siblings on this list. In addition, we're not going to include adult friends, only children." Responses were recorded by research assistant interviewers on a blank piece of paper so as to avoid any observation on the part of the participants that there was an expectation to identify a certain number of friends. However, interviewers were instructed to limit the number of listed friends to 10 or fewer by reminding participants who were approaching this cutoff number that they were being asked to identify individuals with whom children had special relationships. Using this procedure, most participants identified nine or fewer friends ( $94.8 \%$ of mothers, $79.5 \%$ of children, $86.5 \%$ of joint completion), suggesting that this procedure allowed most participants to list all individuals they considered to be friends. There was no effort to restrict listed friends to specific contexts or to nonrelative friends (except for siblings) and the meaning of "special relationship" was left to the individual interpretation of participants. For the joint completion effort, mothers and children were allowed to use whatever means was necessary to arrive at a mutually agreed upon list. Anecdotally, research assistants observed that this task was an amicable one for virtually all dyads. Mothers and children both contributed to the process in terms of generation of names and suggestions for revisions. For every friend, participants provided that friend's ethnicity, gender, and age. Friends' ethnicity and gender were crossreferenced with target children's ethnicity and gender to create dichotomous variables of crossethnicity and cross-gender friendships ( $0=$ same ethnicity, $1=$ cross-ethnicity; $0=$ same gender, $1=$ cross-gender). Additionally, participants indicated all of the contexts in which each friendship was maintained. There were eight possible contexts: school, neighborhood, church, child care, parental networks, relatives, extracurricular activities, and "other efforts" (such as friendships initially established within an identifiable context, currently not associated with a specific context, but rather maintained through other efforts on the part of children and mothers). Eight variables were created to represent whether or not the friendship was maintained in each specific context ( $0=$ not maintained in this context; $1=$ maintained in this context).

The three lists of friends, generated through interviews with mothers alone, children alone, and jointly with mothers and children, were compared to create variables representing discrepancies between the lists. Joint lists were utilized as the reference for comparison. Four types of discrepancies were identified: (1) mother false positives (MFPs): mothers listed a friend who did not appear on the joint list; (2) child false positives (CFPs): children listed a friend who did not appear on the joint list; (3) mother false negatives (MFNs): mothers did not list a friend who appeared on the joint list; and (4) child false negatives (CFNs): children did not list a friend who appeared on the joint list. Four variables were created to represent each of the discrepancy types and were dummy coded ( $0=$ discrepancy type did not occur; $1=$ discrepancy type did occur).

## Qualitative interview

As a part of quantitative data collection, each participant completed two versions of the Social Contexts of Friendships Interview, individual and joint. Later, during qualitative interviews, mothers and children were asked to collaboratively reflect on the names present on each list (child, mother, and joint). For each friend who was named on one or more lists, the researcher asked the participant(s) who named that friend, "Why was it important to you to place this person on your list of friends?" For those friends who appeared on one or two (but not all three) lists, the participant(s) who did not list the friend were asked, "Why do you think you didn’t place this child on your list?" The dialogue generated in response to these questions yielded the qualitative data analyzed in the current study.

## Data analytic strategy

## Quantitative analyses

Quantitative data for the current study were nested, such that all of the friends listed by children and/or their mothers were nested within the child/family. Children who are listed as friends by the same child are, by definition, interdependent. Thus, including these friends in the same models without nesting would violate assumptions of statistical independence. As a result, data were analyzed using hierarchical linear modeling, which allows for examination of the variation between individuals (level 2) and within individuals (level 1), while accounting for the dependencies between these two types of variances (Raudenbush \& Bryk, 2002). For the purposes of this study, target children were the level 2 (between) factor, and friendships were the level 1 (within) factor. Each hierarchical model predicted one of the four types of discrepancy, each of which was a binary variable indicating the presence or lack of a discrepancy type. We utilized HGLM, the multilevel equivalent of logistic regression, which allow for the analysis of binary-dependent variables. Our focal quantitative analyses consisted of a series of four, twolevel, HGLM models using HLM 6 (Raudenbush \& Bryk, 2002).

Each of the four dependent variables was modeled in the same way. Level 1 predictors (characteristics of the friendships) included the eight dummy-coded context variables, the dummy-coded variables of cross-gender and cross-ethnicity, as well as the continuous variable of friend age. Level 2 predictors (characteristics of the study child) included child social problems, family social class, child gender, and child ethnicity. Each level 2 predictor was examined as a direct effect as well as a potential moderator variable through its interactions with level 1 predictors. All variables were grand-mean centered.

## Qualitative analyses

All interviews were transcribed verbatim and coded using an emergent coding strategy from mothers' and children's reflections concerning why each individual identified was or was not placed on a list. For each discrepancy type (MFN, CFN, MFP, and CFP), coders developed a list of "reason" codes as to why the discrepancy had emerged. The coding templates for each discrepancy type were refined using a subset of 10 transcripts. Codes were modified through an
iterative process wherein two coders engaged in multiple independent readings of these transcripts, meeting between each round of readings to add codes, delete codes, or clarify code definitions so as to accurately reflect the mothers' and children's descriptions of reasons for discrepancies. Reliability of the final set of codes was verified by having both the first author and the fourth author code all 20 transcripts using the final coding protocol and then comparing coding. Assignment of codes to transcript segments was highly reliable across these two coders for three of the four discrepancy types—Cohen’s $\kappa \mathrm{s}=.93$ (CFN), 92 (MFP), . 96 (CFP). Cohen's $\kappa$ for MFNs was somewhat lower (i.e. .77). All coding disagreements were resolved through discussion and consensus.

We then utilized a qualitative software program (QUALRUS; Brent, Slusarz, \& Thompson, 2002) to group coded sections across participants (mothers vs. children) and discrepancy types (false positives vs. false negatives). We conducted a content analysis of interview data to extract themes across cases as they related to discrepancy types. Themes were then verified by manual counts to determine whether they accounted for a meaningful percentage of discrepancies.

## Results

## Friendship descriptives

Across all participating dyads, children identified 2387 friendships, mothers identified 1819 friendships, and joint efforts yielded 2223 friendships. Percentages of these friendships maintained within different contexts are presented in Table 1. Across all three lists, friendships were most likely to be maintained in the contexts of school, neighborhood, and extracurricular activities. Children's lists contained 20\% cross-ethnicity friendships, mothers’ lists yielded 14\% cross-ethnicity friendships, and the joint list friendships were $15 \%$ cross-ethnicity. Across all three types of lists, $10 \%$ of friendships were cross-gender.

Table I. Percentages of friendships on friend lists maintained in specific contexts.

|  | List type |  |  |
| :--- | :---: | :---: | :---: |
|  | Child lists | Mother lists | Joint lists |
| Context | $n=2387$ | $n=1819$ | $n=2223$ |
| School | 75 | 60 | 65 |
| Neighborhood | 19 | 24 | 23 |
| Church | 5 | 13 | 10 |
| Child care | 2 | 3 | 3 |
| Parental network | 3 | 7 | 7 |
| Relative | 4 | 7 | 7 |
| Extracurricular | 14 | 21 | 19 |
| Other | 7 | 9 | 7 |

Note. Percentages do not add to 100 because friendships could be maintained across multiple contexts.

## Discrepancy descriptives

Across all 6437 friendships identified through child, mother, and joint efforts, the most common type of discrepancy was MFNs (1185 friendships; 18\%) followed by CFNs (1043 friendships; 16\%), CFPs (820 friendships; 13\%), and finally MFPs (343 friendships; 5\%).

## HGLM analyses

Results of HGLM analyses predicting discrepancy types from characteristics of children and friends are presented in Tables 2 (mother discrepancies) and 3 (child discrepancies). For all direct effects, the results tables include gammas ( $\gamma$ ), which are equivalent to logistic regression estimates as well as standard errors and $p$ values. In addition, the tables include odds ratios, which are equivalent to the probability that a discrepancy will occur over the probability that it will occur for another group, and can be interpreted as the odds of a discrepancy occurring. Thus when the odds ratio is greater than 1 , and the predictor is also binary, it indicates that a discrepancy is more likely when the predictor is present. For instance, the odds of an MFN occurring when the friendship is cross-gender are 1 to 2.07 (Table 2), which can be interpreted to mean that MFNs are 2.07 times, or $107 \%$ (2.07-1.00) more likely when friendships are crossgender. When the odds ratio is less than 1, it indicates that the discrepancy is less likely when the predictor is present. For example, the odds of MFN when a friendship is maintained at school are 1 to 0.73 . In other words, MFN is $27 \%$ (1.00-0.73) less likely when the friend is from school. As with other analyses, odds ratios should only be interpreted when $p$ values indicate the association is significant. Results for interaction terms are not reported in tables but are presented within text when they yielded significant effects. Given our relatively large sample size at both levels of analysis (within and between children), we discuss only findings that were significant at $p<.01$ level.

Table 2. Main effects for HGLMs of mother discrepancy types ( $n=345$ ).

|  | Mother false positives |  |  |  | Mother false negatives |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\gamma$ | SE | $p$ | Odds ratio | $\gamma$ | SE | p | Odds ratio |
| Level I |  |  |  |  |  |  |  |  |
| Intercept | -3.34 | . 10 | . 00 | . 04 | -1.79 | . 07 | . 00 | . 17 |
| Friend age | -. 02 | . 04 | . 67 | . 98 | -. 03 | . 03 | . 39 | . 97 |
| School | -. 37 | . 19 | . 05 | . 69 | -. 32 | . 12 | . 01 | . 73 |
| Neighborhood | . 19 | . 18 | . 29 | 1.21 | -.91 | . 12 | . 00 | . 40 |
| Church | . 28 | . 23 | . 23 | 1.32 | $-1.43$ | . 21 | . 00 | . 24 |
| Child care | -. 05 | . 46 | . 92 | . 96 | -. 36 | . 25 | . 15 | . 70 |
| Parental network | -. 57 | . 42 | . 17 | . 57 | -. 64 | . 21 | . 00 | . 53 |
| Relative | . 49 | . 30 | . 10 | 1.64 | $-1.03$ | . 26 | . 00 | . 36 |
| Extracurricular | -. 27 | . 25 | . 28 | . 76 | -. 25 | . 14 | . 08 | . 78 |
| Other efforts | . 07 | . 29 | . 84 | 1.06 | -. 50 | . 19 | . 01 | . 60 |
| Cross-ethnicity | -. 01 | . 21 | . 97 | . 99 | . 11 | . 11 | . 33 | 1.12 |
| Cross-gender | . 40 | . 22 | . 07 | 1.48 | . 73 | . 13 | . 00 | 2.07 |
| Level 2 |  |  |  |  |  |  |  |  |
| Social problems | . 04 | . 04 | . 33 | 1.04 | -. 05 | . 04 | . 14 | . 95 |
| SES | . 00 | . 01 | . 99 | 1.00 | -. 01 | . 01 | . 06 | . 99 |
| Gender | . 04 | . 18 | . 80 | 1.05 | -. 04 | . 14 | . 29 | . 96 |
| Ethnicity | . 34 | . 21 | . 10 | 1.41 | -. 34 | . 16 | . 04 | . 71 |

HGLMs: hierarchical generalized linear models; SES: socioeconomic status.

## MFPs

No predictors had direct associations with MFPs (as indicated in Table 2), but there were a number of significant interaction effects. The interaction of friend age and SES was significant ( $\gamma=-.01$, SE = .00, $p<.01$ ), such that MFPs were more likely when friends were older and family SES was lower. The interactions of children's social problems and friendships maintained in neighborhoods ( $\gamma=-.24, S E=.09, p<.01$ ) and other contexts $(\gamma=-.38, S E=.13, p<.01)$ were also associated with MFPs, with a greater likelihood of MFPs when friendships were maintained in these contexts and target children had lower levels of social problems. Finally, White mothers only were more likely to make MFPs for cross-gender friendships ( $\gamma=1.62$, SE $=$ $.52, p<.01)$.

## MFNs

MFNs were less likely when friendships were maintained in schools, neighborhoods, churches, parental networks, relatives, and other contexts. The associations between MFNs and the contexts of school and other varied based on SES. When friendships were maintained in school ( $\gamma=.03, S E=.01, p<.01$ ) or other contexts ( $\gamma=.05, S E=.02, p<.01$ ), MFNs were more likely when SES was higher. MFNs were also more likely when friendships were maintained within the parental network and target children had higher levels of social problems $(\gamma=.26, S E=.09, p<$
.01). When friends were relatives ( $\gamma=-1.57, S E=.48, p<.01$ ) or when friendships were maintained in other contexts ( $\gamma=-1.77, S E=.42, p<.01$ ), MFNs were more likely when mothers were Black. MFNs were also more likely when friendships were cross-gender (Table 2).

## CFPs

CFPs were more likely for Black children than for White children (Table 3).The likelihood of CFPs was lower when friendships were maintained in the contexts of neighborhoods, churches, child care settings, parental networks, relatives, extracurricular activities, and other contexts (all contexts except school). Cross-ethnicity friendships were more likely than same-ethnicity friendships to result in CFPs. There were no significant interaction effects in the model predicting CFPs.

Table 3. Main effects for HGLMs of child discrepancy types ( $n=345$ ).

|  | Child false positives |  |  |  | Child false negatives |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\gamma$ | SE | p | Odds ratio | $\gamma$ | SE | $p$ | Odds ratio |
| Level I |  |  |  |  |  |  |  |  |
| Intercept | -2.49 | . 09 | . 00 | . 08 | -2.08 | . 08 | . 00 | . 12 |
| Friend age | . 00 | . 04 | . 96 | 1.00 | -. 02 | . 03 | . 56 | . 98 |
| School | . 00 | . 17 | . 98 | 1.00 | -1.21 | . 11 | . 00 | . 30 |
| Neighborhood | $-1.34$ | . 16 | . 00 | . 26 | . 40 | . 12 | . 00 | 1.49 |
| Church | -2.01 | . 33 | . 00 | . 13 | . 73 | . 15 | . 00 | 2.08 |
| Child care | -1.36 | . 48 | . 01 | . 26 | . 06 | . 30 | . 83 | 1.07 |
| Parental network | -2.21 | . 39 | . 00 | . 11 | . 86 | . 18 | . 00 | 2.36 |
| Relative | $-1.22$ | . 31 | . 00 | . 30 | 1.13 | . 19 | . 00 | 3.10 |
| Extracurricular | -1.14 | . 19 | . 00 | . 32 | . 41 | . 14 | . 00 | 1.51 |
| Other efforts | -. 82 | . 25 | . 00 | . 44 | -. 34 | . 20 | . 08 | . 71 |
| Cross-ethnicity | . 54 | . 13 | . 00 | 1.71 | -. 13 | . 14 | . 35 | . 87 |
| Cross-gender | . 21 | . 16 | . 19 | 1.23 | . 53 | . 14 | . 00 | 1.70 |
| Level 2 |  |  |  |  |  |  |  |  |
| Social problems | -. 02 | . 04 | . 69 | . 98 | . 05 | . 04 | . 23 | 1.05 |
| SES | -. 02 | . 01 | . 02 | . 98 | . 00 | . 01 | . 92 | 1.00 |
| Gender | . 10 | . 17 | . 57 | 1.10 | -. 01 | . 15 | . 97 | . 99 |
| Ethnicity | -. 54 | . 20 | . 01 | . 58 | -. 25 | . 18 | . 16 | . 78 |

HGLMs: hierarchical generalized linear models; SES: socioeconomic status.

## CFNs

CFNs were less likely when friendships were maintained in schools, and this effect was stronger when target children were boys ( $\gamma=-.70, S E=.22, p<.01$ ). When friendships were maintained in the contexts of neighborhoods, churches, parental networks, relatives, or extracurricular activities, CFNs were more likely (Table 3). However, several of these associations were moderated by ethnicity. Neighborhood ( $\gamma=-1.15, S E=.27, p<.01$ ) and parental network friendships ( $\gamma=-1.34, S E=.42, p<.01$ ) were more likely to result in CFNs when children were

Black, and CFNs were more likely for relative friendships when children were White ( $\gamma=$ $1.42, S E=.41, p<.01$ ). Friendships maintained in other contexts were more likely to result in CFNs when children were girls compared to boys ( $\gamma=-1.23, S E=.40, p<.01$ ). White children were more likely than Black children to generate CFNs when friendships were cross-gender ( $\gamma=$ .87, $S E=.31, p<.01$ ).

## Qualitative findings

## Descriptive information

Across all 20 mother-child dyads in the qualitative sample, 193 friendships were identified. Of these, 59 (31\%) were identified by mothers, children, and through joint efforts (no discrepancies present). CFPs were observed in 40 cases (21\%). CFNs were observed in 29 cases (15\%). MFPs were observed in 17 cases ( $9 \%$ ). MFNs were observed in 48 cases ( $25 \%$ ). Within each of these four categories, transcripts were coded for explanations provided for each type of error.

## False negatives

Four categories of explanations emerged for mothers' and children's failures to identify individuals who were later included on collaboratively generated lists. Together, these categories accounted for $96 \%$ of CFNs and $80 \%$ of MFNs.

In all, $42 \%$ of MFNs and $15 \%$ of CFNs were explained by the tendency of both mothers and children to define a friend by comparing levels of relational closeness to that observed within other dyads-what we term a perceptions of relative importance explanation. In such cases, mothers indicated that they were aware of the friend they did not list but did not consider him or her to be as close a friend as others in children's lives: "Even though Maria is important, most of the time my Ashley spends her time away from school with Anna ... I'm always hearing about Anna or Liz." In such cases, mothers were aware of the existence of MFN individuals but failed to recognize the importance of the friend in the child's life because other friendships were more salient to the mother. On the less frequent occasions when children made false negative identifications, these were explained through similar processes as were observed for motherschildren saw an individual as a friend but not as close a friend as others.

In all, $20 \%$ of MFNs and $30 \%$ of CFNs were accounted for by simple forgetting. In such cases, both mothers and children clearly recognized the importance of friend whose name was omitted and expressed embarrassment at having failed to name such an individual. One mother explained her omission by saying, "I forgot about her. I know they were friends, you know, they talk all the time on the phone, but forgot [laughing]."

In all, $12 \%$ of MFNs and $35 \%$ of CFNs were accounted for by limited contextual mind-sets. In such cases, a friend was omitted from a list because mothers and children were not thinking about the context within which the friendship was maintained. One child commented simply, "I
was thinking about school friendships." A mother described her thought processes and how they led to an error, "I was going by the school [laughing]. Trying to figure out, now who is he in school with and who does he play baseball with, and I left out who he sees here [in the neighborhood]. I was going by baseball, boy scouts, and school."

The final category of explanation was relevant only for MFNs. Some mothers expressed difficulties with their ability to name children's friendships maintained within a single context not occupied by mothers: school. Twenty-two percent of MFNs occurred for unknown school friendships. One mother communicated her confusion regarding her daughter's school friendships by commenting, "from school, I know one of them Cathys, but I don't know which one."

## False positives

Just two categories of explanations emerged explaining mothers' and children's identification of individuals who were not placed on joint lists. A single one of these categories accounted for $89 \%$ of CFPs. Together, they accounted for $81 \%$ of MFPs.

Both mothers and children sometimes experienced difficulties distinguishing between friends and acquaintances. However, children experienced such difficulties far more often than mothers. The following comments illustrate children’s difficulties determining the difference between a friend and an acquaintance. In all cases, children initially listed the child in question as a friend but removed him or her from this category during the joint listing process, resulting in a CFP classification.

Child speaking of a classmate, "Well, we sit beside each other. and. when we get, like, time to talk, we talk together and we work together."

Mother speaking of her daughter's false positive community acquaintance, "We don't live in the same neighborhood. You know, like if I go over and pick Mary Lee up, I may see Sue, but I don't really interact with her. Normally she plays with her when she is at Carla's house."

Child speaking of a relative, "Well, one thing is she's a cousin that I’ve known for all of my life, so she's, like, basically the closest thing that I have had, like, actually as a friend cousin, because she was, like, the first person I saw."

Mothers experienced these difficulties less frequently and typically based their initial friendship listings on observations of time children spent with the individual in question. Children were quick to correct misconceptions on mothers' parts. One mother explained why she thought initially that her daughter's cousin was one of her close friends, "It's our cousin, and I thought they got along really good, 'cause she stayed, not this summer that just passed, but the summer before up there." In response, her daughter stated, "I stayed with her a month, and that's horror, horror I mean!" Another daughter corrected her mother’s belief that a child attending their
church was one of her friends. In response, the mother commented "I'm not usually there in your conversation, but you always ask to sit with her, or her sit with us, on Wednesdays... I don't know what you talk about, you seem to get along really well. Y'all seem to have a lot to talk about, I don't know what it is."

The second category of explanation for false positives was observed for mothers only and was indicative of mothers' dated frames of reference concerning their children's friendships. Thirtyone percent of MFPs involved listing children's former friend. This category of discrepancy was distinguished from the previous category by the fact that the individuals listed were children's friends at an earlier time, but this was no longer the case. One mother commented in retrospect, "They play together, enjoy each other's company. They certainly aren't together anymore."

## Discussion

The purpose of the current investigation was to utilize a mixed methods approach to address questions regarding the sources and nature of discrepancies between mothers' and children's identifications of children's friendships and a comparison list jointly prepared by mothers and children. We discuss the findings in terms of the extent to which identification of friendships differed across lists, evidence suggesting that such differences represented differences in perspective versus error, and predictors of discrepancies.

## Identification of friendships across diverse contexts

The assumption that children are not reliable reporters regarding the identities of their own friends is a strong undercurrent within the friendship literature. Clearly there are differences between reciprocated and nonreciprocated friendships, as demonstrated by Newcomb and Bagwell (1995) in their work comparing indicators of friendship quality across these two groups. As a result, friendship researchers have relied heavily upon the use of reciprocated friendship nominations to identify children's friendships within contexts that contain both friendship partners-such as school. Unfortunately, the presumed shortcomings of children as reporters of their own friendships and the advantages of the reciprocated friendship nominations methodology have resulted in a tendency for friendship researchers to focus their attention on school friendships to the exclusion of friendships maintained within other contexts (Kiesner, Kerr, \& Stattin, 2004). The current study demonstrates that $60 \%-75 \%$ of children’s friendships are maintained in the school context, which leaves a large number of friendships unaccounted for in school-based friendship studies. Exceptions to this tendency to focus on school-based friendships are few but noteworthy. Simpkins and Parke (2001) reported on observations and ratings of dyadic relationships maintained across numerous contexts. Kiesner and colleagues compared peer relations with in-school versus out-of-school friends (Kiesner, Poulin, \& Nicotra, 2003). Completely absent from the friendship literature are efforts to not only examine the nature of children's friendships across diverse contexts but also consider the different perspectives and
accuracy of individuals whose reports might be used to identify children's friendships within these contexts-children themselves and their parents.

Within our data, lists of children's friendships from diverse contexts generated by children and by mothers differed from jointly generated friendship lists in ways that reflected both tendencies to omit the names of individuals subsequently determined to be children's friends ( $18 \%$ of friends not initially identified by mothers; $16 \%$ of friends not initially identified by children) and list the names of individuals subsequently removed from a finalized list ( $13 \%$ of names listed by children; $5 \%$ of names listed by mothers). These percentages suggest that children's reports were characterized by more discrepancies than were mother's reports and that tendencies to omit names of friends who were subsequently deemed important outweighed tendencies to list names of individuals who were subsequently removed. These numbers suggest that researchers should be cautious in relying on single reporters of children's friendships when studying friendships that are maintained across diverse contexts.

## Differences in perspective or reporter error?

Analysis of our qualitative data suggests that discrepancies in friendship identification can be accounted for by two broad categories of explanation: differences in perspective regarding where individuals fall along the friendship continuum as described by Berndt and McCandless (2009) and reporter error. False negatives appear to reflect both of these processes. Perceptions of relative importance are indicative of mothers and children placing an individual higher on the friendship continuum than is subsequently judged to be appropriate. In contrast, simple forgetting, limited contextual mind-sets, and unknown school friendships all reflect reporter error in that omissions are recognized as being mistakes. These mistakes can be further subcategorized as being due to cognitive lapses (simple forgetting) versus errors that occur as a result of difficulties identifying and remembering friendships across multiple contexts (limited contextual mind-sets and unknown school friendships).In contrast, false positives are better understood as reflecting differences in perspectives regarding where individuals fall along the friendship continuum. Both difficulties distinguishing between friends and acquaintances andformer friends are indicative of challenges experienced by both mothers and children concerning where along this continuum a given individual falls at a set moment in time. False positive listings do not appear to represent reporter error.

It is noteworthy that mothers were less likely to generate false positives than were children. Likely, this reflects the maturity of mothers who were clearer in their minds concerning the distinction between a friend and a nonfriend. Mothers may also have been better able to recognize their own reporting limitations and did not feel pressure to add names unless they were relatively confident that the individual in question was truly a friend. As a result, when mothers generated false positives, they reflected genuine misconceptions on the part of mothers rather than areas of ambiguity.

## Individual- and family-level predictors of discrepancies

HGLM analyses indicated that the prevalence of discrepancy types could be predicted by both child-/family-level and friendship-level variables. Controlling for social class, ethnicity emerged as a significant predictor of discrepancies in that Black children generated more false positives overall than did White children. Black children were particularly likely to generate false negative discrepancies when friendships were from neighborhoods and parental networks, while White children generated more false negatives when friendships were with relatives-as-friends. Black mothers generated more false negatives in the contexts of same-age relatives and for friendships maintained through other efforts. This pattern of findings may be explained by the tendency of Black families to structure social connectedness around extended kinship relations (Johnson, 2000; Stack \& Burton, 1993). Ethnic minority families may emphasize social connectedness with kin, yet their children experience extensive opportunities to form friendships across a variety of contexts that extend beyond the extended kin network. As a result, Black children and mothers may experience challenges in terms of deciding who is or is not a child's friend. Interestingly, White mothers appear to have similar difficulties when White children form friendships within kinship networks. This may reflect expectations within White families that children's friendships will be maintained outside of the extended family.

Children's false positives were more likely when friendships were maintained across ethnic groups. Children within our sample mostly attended ethnically homogeneous schools that enrolled predominantly children who were either Black or White, and study neighborhoods were characterized by moderate to extreme levels of residential segregation (Pattillo, 2005; Pettigrew, 2004). In addition, most of the contexts that provide children's friendship partners (e.g. extracurricular activities, churches, relatives as friends, parental network, after school care arrangements) are characterized by the presence of a dominant ethnic group. Since most children in our sample were members of the ethnic majority within such settings, friendships with children from other ethnic groups may have been particularly salient to them. We suspect that this salience may have made them particularly likely to come to mind when children were asked to think of their friends-even though these individuals were not ultimately included on joint friendship lists.

False negatives were more likely when individuals were of the opposite gender. Interestingly, White mothers were more likely than Black mothers to generate both false negatives and false positives in such cases. False negatives may be explained by cross-gender friendships being unexpected and violating gender segregation norms prevalent at this age (Maccoby, 1998). Also, some of the opposite gender individuals who were ultimately named on joint listings may have been "girlfriends" or "boyfriends." A variety of factors might account for their omission from initial listings. Mothers and children may have considered children's romantic interests to constitute a different class of individuals than "friends" and deliberately omitted them from initial listings. Alternatively, mothers may be less likely to know about children's romantic interests and thus be unable to list them. The identification difficulties reported by White
mothers (in terms of both false negatives and false positives) suggest that White mothers may be particularly likely to be confused by their children's romantic interests and involvements at this age. Children themselves may be embarrassed to admit that they have such interests. Friendship researchers should make decisions in advance of data collection regarding whether romantic interests should be considered "friends" and should explicitly inform reporters of this decision, even in samples as young as fifth graders. Such a strategy will both ensure unambiguous identification and classification of friends versus romantic interests.

Friendship contexts predicted three discrepancy types with three observed patterns. The first pattern involved higher rates of three discrepancy types (CFP, CFN, and MFN) and was observed within the contexts of neighborhood, church, parental network, and relatives as friends. These are all contexts characterized by the presence of both mothers and children. It may be that when children's interactions with peers occur within contexts that permit observation by mothers, children feel pressured to identify as friends individuals with whom they do not feel particularly strong connection or omit the names of friends they value but whom they may have observed their mothers do not value. In contrast, mothers may pay less attention to children's interactions with peers when they occur within contexts that are close at hand, believing that they will be informed about these contexts merely as a result of their proximity. Maternal false negatives may result when mothers are less informed than anticipated due to this lack of attention within such contexts.

The second pattern involved fewer false negatives for both children and mothers. This pattern was observed only for friendships maintained within schools. Schools are clearly a salient source of children's friendships within the eyes of both mothers and children. Our own data indicated that schools were sources of more child friendships than any other context. Accordingly, children and mothers alike appear to pay special attention to the school context when attempting to identify children's friendships and are unlikely to mistakenly omit names of friends within this context. However, qualitative data suggest that this increased attention does not always result in accurate knowledge on the part of mothers.

Third, higher levels of child discrepancies only (CFP and CFN) were observed within the context of extracurricular activities. These seemingly contradictory error patterns may be accounted for by the varying nature of activities that fall under this umbrella category. False negatives may be accounted for by some activities not being particularly salient in the minds of children when they are thinking about sources of friendships. Yet other contexts may be overly salient, resulting in some children naming as friends other children who are looked up to within the context of such activities. Overall, it appears to be particularly likely that children will inaccurately report friendships within extracurricular activities, suggesting that researchers may need to be particularly alert to potential reporting difficulties by children within this context.

## Limitations

Findings reported here provide important information concerning the different lenses children and their mothers bring to the task of identifying children's friendships, the extent to which genuine errors occur in such identifications, and the manner in which characteristics of families and friendships shape both. However, the current investigation is not without its limitations. Foremost among these is our reliance on a joint listing procedure involving both mothers and children as constituting the "gold standard" to which individual reports were compared. Differences between individual listings and joint listings were considered to represent reporting inaccuracies. However, joint listings were inherently imperfect. Although it was our hope that children and mothers working together would correct one another's inaccuracies, in some cases more powerful personalities may have presided during the interview process, with some children yielding to their mothers' perspectives regarding who their friends were and some mothers yielding to children's perspectives. In other cases, mothers and children may have made similar mistakes in generating names of friends, which would not have been caught during the joint listing process. For example, both might have forgotten to consider a given context when listing friends. Of critical importance is research by Smetana and colleagues (2006) indicating that children do not always believe it is necessary to fully disclose information concerning the identities of their friends with their parents. This is particularly likely when friends are individuals of whom their parents may not approve. Accordingly, the jointly generated friend list should be viewed with healthy skepticism in terms of its validity as a point of comparison. Still, we believe that lists of names generated jointly were likely to be considerably more accurate than any list generated by children or mothers alone, a claim that is supported by qualitative data, suggesting that differences across lists did not appear to be indicative of deliberate withholding of information by children. Our approach was also the only reasonable alternative, given that the naming task involved identifying friends across multiple contexts, thus precluding the use of reciprocated friendship nominations.

The current investigation relied on a sample of fifth-grade children and their mothers from just two ethnic groups. It is likely that findings reported here would have differed had we focused our efforts on either younger children or older adolescents, as opposed to fifth graders, given that parents likely become less aware of their children's friendships as children get older. Parental participation in this study was limited to mothers. There is evidence suggesting that mothers are more likely to be responsible for the day-to-day care and supervision of children (Helms \& Demo, 2005) and thus are likely to be more knowledgeable concerning children's social affiliates and relationships, making them better choices for participation in a joint friendship nomination task. Yet father data would likely also have yielded an interesting and valuable perspective. Finally, differences observed between Black mothers and children versus White mothers and children introduce the question of whether additional differences would have been emerged had our sample included dyads from other ethnic groups. Further research on this topic should include attention to whether the patterns we have described here hold across samples diverse with respect to characteristics such as child age, parent gender, and ethnicity.

## Future directions

Findings from this mixed method investigation highlight the unique perspectives represented within maternal and child reports of children's friendships as maintained across the diverse contexts of children's lives. Furthermore, the processes that account for reporter differences vary in predictable ways and represent both meaningful differences in perspective and true reporting error. We conclude by suggesting that researchers who wish to study friendships maintained across diverse contexts consider adopting the following strategies to assist them in obtaining the most accurate and complete lists of children's friendships as possible. First, lists of children's friendships should be generated using research procedures that rely on knowledge and expertise across multiple reporters. Given the large number of contexts that characterize children's friendships, mothers emerge as the most appropriate class of individuals to participate in such a procedure with children. Second, mother-child dyads should be provided with detailed information concerning the definition of a "friend" with accompanying examples that illustrate different points on the friendship continuum as described by Berndt and McCandless (2009). Third, dyads should be reminded of the multiple contexts within which friendships may be maintained so as to decrease the likelihood of any given context being inadvertently omitted from consideration. Fourth, both members of dyads should be given the opportunity to independently review and correct jointly prepared lists at a later point in time in an effort to allow time for "forgotten" names to come to mind and to provide opportunities for each dyad member to correct inaccuracies that he or she was unwilling to discuss in the company of the other.

We suggest that with the use of these strategies, it is possible for researchers to obtain lists of children's friendships maintained across a wide range of contexts that are both accurate (in the sense that they minimize genuine error in identification of friendships) and sensitive to the inherently subjective nature of friendship identifications among both mothers and children. With such lists, researchers will be in the position to extend the study of children's friendships in a manner that more accurately reflects the social realities of children's lives. Further research related to a variety of aspects of children's friendships, including studies of friendship quality, friendship stability, and the influence of friendships on children's psychosocial and behavioral well-being will benefit from the development of this new approach for identifying children's friendships across all the contexts of their lives.

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