FAMILY BOUNDARY AMBIGUITY AND THE MEASUREMENT OF FAMILY STRUCTURE: THE SIGNIFICANCE OF COHABITATION*

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Abstract

We used data from the first wave of the National Longitudinal Study of Adolescent Health to examine family boundary ambiguity in adolescent and mother reports of family structure and found that the greater the family complexity, the more likely adolescent and mother reports of family structure were discrepant. This boundary ambiguity in reporting was most pronounced for cohabiting stepfamilies. Among mothers who reported living with a cohabiting partner, only one-third of their teenage children also reported residing in a cohabiting stepfamily. Conversely, for those adolescents who reported their family structure as a cohabiting stepfamily, just two-thirds of their mothers agreed. Levels of agreement between adolescents and mothers about residing in either a two biological parent family, single-mother family, or married stepfamily were considerably higher. Estimates of the distribution of adolescents across family structures vary according to whether adolescent, mother, or combined reports are used. Moreover, the relationship between family structure and family processes differed depending on whose reports of family structure were used and boundary ambiguity was associated with several key family processes. Family boundary ambiguity presents an important measurement problem for family scholars.

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Cohabitation is now a common experience among U.S. adults and children. A majority of persons in their twenties and thirties have cohabited, and the modal path of entry into marriage is cohabitation (Bumpass & Lu, 2000; Bumpass & Sweet, 1989; Bumpass, Sweet, & Cherlin, 1991). Cohabitation is a family status that includes children; almost half of cohabiting unions have children present. Bumpass and Lu (2000) estimate that 40% of children will spend some time in a cohabiting family before age 16. These figures demonstrate the importance of obtaining reliable and valid measures of cohabitation in our research on family structure and living arrangements.

Several recent studies have documented various challenges associated with measuring cohabitation (Casper & Cohen, 2000; Knab, 2004; Manning & Smock, 2005; Teitler, Reichman, & Koball, 2006), but none has considered inter-reporter reliability, or the propensity of two family members to report the same family structure. In line with research on married stepfamilies that shows family members often disagree about who is in and who is out of their family (e.g., Furstenberg 1987; White 1998), we anticipate that ambiguity surrounding the boundaries of cohabiting stepfamilies is likely to be especially blurry as cohabitation remains an incomplete institution (Cherlin, 1978; Nock, 1995). This boundary ambiguity can lead to measurement error, undermining the reliability and validity of family structure-related estimates. Moreover, inconsistencies in reports of family structure may bias estimates of its effects on important indicators, such as family processes and well-being.

In this paper, we argue that cohabitation poses significant measurement challenges because of the ambiguity of family boundaries and this ambiguity is likely to be associated with

inconsistencies in reporting of cohabitation. Family structure has often been treated as an objective social fact when in reality family structure reports are based on subjective views of the family (White, 1998). Using data from the first wave of the National Longitudinal Study of Adolescent Health (Add Health), we compare adolescent and mother reports of family structure to document the extent to which boundary ambiguity exists and its impact on population estimates of adolescents' living arrangements. We also investigate whether using adolescent, mother, or combined reports of family structure yield different conclusions about the association between family structure and family processes. Our conclusion outlines approaches to improve the measurement of children's family structure.

Measuring Cohabitation

Children's living arrangements have become increasingly complex and unstable (Bumpass & Lu, 2000; Raley & Wildsmith, 2004). A declining share of children resides with two biological married parents and a growing share lives in an array of other arrangements, including married stepfamilies, single-parent families, and cohabiting families (Bumpass & Lu, 2000; Seltzer, 2000). Until recently, research on children's living arrangements often obscured cohabitation. Only in the past decade or so have cohabiting families been distinguished from other family types (Manning, 2002). About 20% of single-mother families include a cohabiting partner and nearly one-third of single-father families also contain a cohabiting partner (London, 1998; Manning & Smock, 1997). Most stepfamilies are formed through marriage, but some are maintained informally through cohabitation (Stewart, 2005). Among adolescents living in stepparent families, one-third live with cohabiting parents and two-thirds live with married parents (Manning & Lamb, 2003). Taken together, these figures indicate that basic measurement

of children's living arrangements requires including cohabitation as a family type.

Estimates of cohabitation are especially sensitive to different measurement strategies (Casper & Cohen, 2000). Early estimates of cohabitation were derived through indirect measurement approaches. The Census Bureau measured cohabitation by determining the number of POSSLQ households, that is, partners of opposite sex sharing living quarters. POSSLQs are defined as those households containing only two persons of the opposite sex who are unrelated and at least age 15. This definition excludes cohabitors with resident children and those living in complex households. It also mistakenly identifies persons living as roommates for cohabiting partners. Casper and Cohen (2000) introduced an adjusted POSSLQ measure that captures many of those cohabitors with children and yields more generous estimates of the cohabiting population from the 1970s to the 1990s than the original measure. A comparison of the adjusted POSSLQ measure with direct measures of cohabitation available in data sets such as the 1987-88 National Survey of Families and Households (NSFH) and 1995 NSFG reveals that these direct measures produce even larger estimates of the cohabiting population. Direct questions about cohabitation (referred to as unmarried partners in household rosters) were first included in the 1990 decennial Census and the 1995 Current Population Survey (CPS). Direct measures of cohabitation from the 1995-1997 CPS surveys actually yield lower estimates than the adjusted or unadjusted POSSLQ or other surveys (e.g., NSFH and NSFG). This disparate pattern of findings led Casper and Cohen (2000) to caution researchers to be mindful of the ways in which cohabitation is conceptualized and measured, particularly when making comparisons across surveys.

Today, most national data collections include direct measures of cohabitation, but

surveys nonetheless use various strategies to ascertain cohabitation. Some surveys include questions about current and prior times the respondent has lived together with someone of the opposite sex. Another approach is to ask respondents to report their relationships to other household members by completing a household roster. The most common method to identify cohabitors is to include relationship types on these rosters such as “partner” or “unmarried partner.”

Recent research on measurement issues and cohabitation indicates that current measurement strategies may be less than ideal. From in-depth interviews with 115 cohabitors, Manning and Smock (2005) conclude that many cohabitors do not understand the term “unmarried partner” and would not use it to describe their cohabiting relationship. This finding suggests that U.S. Census figures (which are derived from reports of the relationship to the household head is “unmarried partner”) may underestimate cohabitation.

Two studies relying on data from the Fragile Families and Child Well-being survey also have uncovered considerable complexity in the measurement of cohabitation. First, reports of cohabitation often vary according to the number of nights the couple spends together; cohabitation is perhaps more fluid than marriage (Knab, 2004). Second, mothers and fathers with newborns do not always consistently report whether they were cohabiting when the child was born and their reports of cohabitation sometimes change during follow-up interviews (Teitler et al., 2006). The findings from these studies challenge both the reliability and validity of current measures of cohabitation. Researchers are increasingly interested in the implications of cohabitation for child well-being, making it important to have accurate measures of cohabitation. As described in the following section, there also are important theoretical reasons to expect that

the measures may not be robust.

Family Boundary Ambiguity

The measurement challenges posed by emerging family forms are not new. There is extensive research on the ambiguities surrounding married stepfamilies, which Cherlin (1978) characterized as "incomplete institutions" because the norms and expectations involved in this family type are not clearly defined. Stepfamilies require individual members to create kinship ties and establish among themselves the contours of their responsibilities and obligations to one another. Doing the work of kinship is difficult for many stepfamilies and contributes to their instability (Cherlin & Furstenberg, 1994). *Family boundary ambiguity* refers to the higher likelihood of inconsistency in reporting who is and who is out of the family that is associated with greater family complexity (Boss, 1980; Ganong & Coleman, 1994; Stewart, 2005).

The ambiguity surrounding stepfamily members' roles is evidenced in Furstenberg's (1987) study showing that many individuals do not report stepfamily members when asked to list the people in their family. For example, 15% of parents did not report stepchildren who resided in the household (versus only 1% of parents who neglected to mention biological children). And, whereas about 7% of children failed to mention a biological mother or father, 31% of children did not include a residential stepparent in their family list. Children were also more likely to omit residential stepsiblings than biological siblings (41% compared to 19%).

Similarly, White (1998) found that children's reports of siblings are unreliable, particularly when step- and half-siblings are involved. Using data from the two waves of the NSFH, she calculated that about 16% of respondents over-reported and another 15% under-reported their siblings. These discrepancies are largely attributable to the classification

difficulties posed by complex family forms, including stepfamilies that involve the presence of step- and half-siblings.

The incomplete institutionalization of new family forms is linked to the measurement challenges involved with complex family structures (White, 1998). Without shared understandings of the norms and roles involved in these "nontraditional" families, family boundary ambiguity leads to inconsistencies in reports of who is in and who is out of the family (Ganong & Coleman, 1994; Stewart, 2005). Therefore, it is not surprising that there are discrepancies in reports of membership in complex family structures. Stated differently, individuals define their families and consequently the reliability of our measures may be compromised. The more complex the family form, the greater the family boundary ambiguity (Boss, 1980; Stewart, 2005). White (1998, p. 732) argued that "family structure has a larger subjective component than we have accorded it...incongruity is not error." Family structure reports, particularly for complex families, are likely to depend in part on who is doing the reporting. Discrepancies may occur between siblings, partners, or the parent and child. In their study of adolescents following parental divorce, Bunchanan, Maccoby, and Dornbusch (1996) encountered discrepancies in terms of the presence of new partners, the remarriage status (i.e., cohabiting versus married) of a parent, and the duration of the new relationship.

Cohabiting stepfamilies are arguably even less institutionalized than married stepfamilies, which are formed through a tie that is legally binding. Although increasingly common, cohabiting stepfamilies are predicated on informal ties between two adults and their partner's children (Stewart, 2007). The growing propensity to substitute cohabitation for remarriage suggests that remarriage is "becoming less obligatory and socially regulated. It

follows that informal unions are generally less stable and secure arrangements" (Cherlin & Furstenberg, 1994, p.362). Indeed, Stewart (2005) found that family boundary ambiguity, operationalized as a discrepancy in stepparents' reports of their (and their partner's) children, was greater among cohabiting stepfamilies than married families (29 versus 11%).

The Present Study

Family life today is diverse and complex. The instability and incomplete institutionalization of cohabiting families likely contributes to family boundary ambiguity, which in turn calls into question the efficacy of our family structure measurement strategies. A decade ago, family scholars were concerned with the boundary ambiguity created by married stepfamilies (Cherlin & Furstenberg, 1994). Now, we extend this line of inquiry by focusing on cohabiting stepfamilies.

The National Longitudinal Study of Adolescent Health (Add Health) data provide a unique opportunity to compare family structure reports of parents and adolescents to estimate the prevalence and consequences of boundary ambiguity. Few other national data sets include family structure reports from both children and parents (exceptions are the NELS, the High School and Beyond Survey, and the Intergenerational Parents and their Children data set) and none contains as recent and large a sample of children in diverse family forms as the Add Health. Still, nearly all prior studies using the Add Health rely on the child's perspective of family structure (e.g. Bearman & Brüückner, 2001; Demuth & Brown, 2004; Harris, Duncan, & Boisjoly, 2002; Meier, 2003; Videon, 2002; for an exception, see Manning & Lamb, 2003). Few studies have considered family membership as defined by the parent and child (an exception is Sun, 2003). To date no study has tackled reports of cohabiting family structure from both the child's and

parent's perspective.

We begin by documenting patterns of boundary ambiguity, that is, whether and how mothers and adolescents (dis)agree about their family structure. We also provide estimates of the distribution of adolescents across family structures using adolescent, mother, and combined reports to illustrate how the source of data alters the estimates. Then, all pairs in which either (or both) the adolescent or the mother reports the current family structure as a cohabiting stepfamily are examined to determine the extent to which mothers and adolescents report different family structures. In particular, this discrepancy centers on either the nature of the mother's relationship to the partner (i.e., married versus cohabiting stepfamily) or the presence of the partner (i.e., single-mother family versus cohabiting stepfamily). We also examine the factors associated with discrepant family structure reports among this group to determine which adolescent-mother pairs are more (or less) likely to provide conflicting information about their current living arrangements. Prior work on family boundary ambiguity suggests that several demographic characteristics (e.g., older age of child, nonwhite, and less education) as well as prior marital experience may heighten the odds that the adolescent and mother do not report the same family structure (Madden-Derdich, Leonard, & Christopher, 1999; Stewart, 2005).

Finally, the relationship of family boundary ambiguity to indicators of family processes is evaluated. Prior research on married stepfamilies shows that boundary ambiguity is associated with less effective family functioning and reduced relationship quality (Ganong and Coleman, 1994; Stewart, 2005). Family processes, the interactive or relational qualities of the family environment, are the intervening mechanisms through which family structure influences adolescent development (Acock and Demo, 1994; Brofenbrenner, 1979). These processes are

critical not only as predictors of well-being but also in some work are treated as indicators of well-being (Thornton 2001). Core family processes include closeness, supervision, distance regulation (which is particularly salient during adolescence), and caring or belonging (Day, Gavazzi, Acock, 2001). We examine whether adolescent versus mother reports of family structure are similarly related to these family processes as well as whether boundary ambiguity is associated with family processes. If the pattern of association is similar regardless of whose report is used and is not sensitive to disagreement between mothers and adolescents, then future data collection efforts presumably can obtain reasonable information on family structure from either adolescents or parents. Alternatively, if the patterns differ according to whose report is used or boundary ambiguity associated with family processes, then perhaps collecting data from multiple reporters would be worthwhile. Indeed, boundary ambiguity may be part of the reason why prior work on the association between parental cohabitation and adolescent well-being has not yielded consistent findings (cf. Manning, 2002). We estimate a series of models using (1) the mother's family structure report, (2) the adolescent's family structure report, and (3) a combined mother and adolescent family structure report. This approach permits an evaluation of how specific family structure measurement strategies are related to family processes to determine whether the source of information (i.e., mother or adolescent) or discrepancy between sources is linked to adolescent well-being.

Method

Data

We use the first wave of the National Longitudinal Study of Adolescent Health (Add Health) collected in 1995. The Add Health includes both an in-home parent interview and an in-home

adolescent interview. The respondents were students in grades 7 through 12 from a sample of 80 high schools and 52 middle schools in the United States. The analytic sample for our paper is composed of adolescents who have a biological or adoptive mother who responds to the parent interview (N=14,047).

The Add Health data are appropriate for our analyses for several reasons. The primary advantage of the Add Health is that the data include questions about family structure directed to both the adolescent and the parent. Other national data sources rely on the parent's report of family structure (e.g., CPS, NLSY, NSAF, NSFG, NSFH, PSID, and SIPP). For a summary of the question wording and reporting source for cohabitation in various national surveys, including the Add Health, see the Appendix. Other benefits of using the Add Health include the large sample that ensures a sufficient number of parents who are cohabiting and questions that tap several family processes.

Family Structure

Adolescents are asked to fill out a household roster, which we use to construct a measure of the *adolescent's report of family structure*. One category on this roster is mother's cohabiting partner. For these analyses, respondents who report they are living with their biological or adoptive mother and their "mother's partner" are coded as living in cohabiting stepparent families. Adolescent's family structure differentiates among two biological parents, married step, cohabiting step, and single mother family.

The parent interview includes several questions that are used to establish the *mother's report of family structure*. Mothers are coded as living in a cohabiting stepfamily if they report they are currently living in a "marriage-like" relationship and they are not living with the

biological father of their child. The question about the type of relationship was prefaced with a series of questions that started with "The next questions are about your marriages and marriage-like relationships." Mothers reported on the number of relationships and then were asked "Think about your present or most recent such relationship. During what years were you married or living with this person?" The mother then replies whether or not she was married or living with someone in each year and whether the relationship was a "marriage or marriage-like relationship." Finally the mother is asked "Is this relationship still going on?" We categorize mother's family structure into the same four family categories as adolescents: two biological parent, married stepparent, cohabiting stepparent, and single-mother family.

Combined family structure is a variable designed to capture agreement between adolescents and mothers about their current living arrangements. Here, adolescent-mother pairs are classified into a family type only if they both report the same family structure, that is, they both report residing in either a two biological parent, married step, cohabiting step, or single-mother family. For this combined measure, pairs in which reports are discrepant are captured in a residual category labeled *family boundary ambiguity*.

Family boundary ambiguity taps disagreement between the adolescent and mother reports of family structure. It is a dichotomous measure coded 1 if the two reports differ and 0 if they are the same.

Family Processes

We consider four indicators of family processes that have been identified by prior research as central components of the family environment (Day, Gavazzi, & Acock, 2001) and are likely to be related to family boundary ambiguity (Ganong & Coleman, 1994). All of these

measures are derived from adolescent reports and tap into parenting and family dynamics.

Mother-adolescent closeness is composed of the following four items: how close you feel to your mother, your mother is warm and loving toward you, you are satisfied with the way your mother and you communicate with each other, and you are satisfied with your relationship with your mother. Values for each item range from 1 to 5, with higher values indicating better relationship quality. The Cronbach's alpha for the scale is 0.85.

Maternal supervision is a count variable that sums the frequency with which the mother is home when the adolescent leaves for school, returns from school, and goes to bed. Responses range from (1) always to (5) never and are reverse-coded such that higher values indicate more supervision.

Family protection sums the adolescent's responses to a series of four questions about the quality of family life: How much do you feel that your parents care about you; the people in your family understand you; you and your family have fun together; and your family pays attention to you. Values for each item range from 1 not at all to 5 very much.

Autonomy is a count variable that tallies the number of domains in which the adolescent makes decisions. These domains include what time to be home on the weekends, who to hang out with, what to wear, how much TV to watch, what programs to watch on TV, what time to go to bed, and what to eat. Higher values on this variable indicate greater autonomy from parental influence.

Other Covariates

We include control variables in a supplemental model that examines the factors related to family boundary ambiguity. There are three measures of the child's demographic characteristics: *age*

(coded in years), *gender* (male is coded one, female zero), and *race-ethnicity* (White (reference), African-American, Latino, and Other). Mothers report on the family's socioeconomic status, including maternal education, marital history, and parental income. *Education* is coded into four categories: less than high school, high school (reference), some college, and college graduate. *Marital history* is a dichotomous variable indicating whether the mother has ever been married. *Family income* is logged to correct for skewness. Missing cases are imputed to the mean and a dummy variable flags the imputation.

Analytic Strategy

First, we document the extent of family boundary ambiguity in family structure reports by tabulating the percentage of mothers whose reports agree with their adolescent's report of family structure as well as the percentage of adolescents whose reports agree with their mother's report of family structure (N=14,047). Additionally, we estimate the distribution of adolescents by family structure using adolescent, mother, and combined reports to determine whether population estimates of adolescents' family living arrangements are sensitive to the source of the data. Since boundary ambiguity most commonly arises for cohabiting stepfamilies, a closer examination of the types and correlates of discrepancies between adolescents and mothers for all pairs in which either the mother or the adolescent reported living in a cohabiting stepfamily (N=831) is warranted.

Second, we estimate multivariate models to evaluate the linkages between various measures of family structure and our four indicators of family processes (N=14,047). Ordinary least squares regression is appropriate for these analyses since the dependent variables are continuous. Three sets of models are estimated. The first set uses adolescent reports of family

structure and the second uses mother reports. We estimate a zero-order or bivariate model that includes only the basic family structure variables (i.e., two biological, married stepparent, cohabiting stepparent, and single mother) and then introduce the measure of boundary ambiguity to evaluate the significance of discrepancy in adolescent and mother reports of family structure. The third set of models use the combined family structure measure and family boundary ambiguity. To ensure that the data are nationally representative of adolescents in the United States design effects must be taken into account (Bearman, Jones & Udry, 1997). All analyses are conducted using STATA survey estimation procedures to obtain correct standard errors (Chantala & Tabor, 1999).

Results

Family Boundary Ambiguity in Adolescent and Mother Reports of Family Structure

Overall, there is a high level of congruence between mother and adolescent reports of family structure; 87% of mothers and adolescents report living in the same family structure (result not shown). Conversely, 13% of adolescent-mother pairs exhibit family boundary ambiguity.[1] Table 1 shows family boundary ambiguity varies considerably by family structure. The first panel is based on the adolescent report of family structure and shows the unweighted percentage of mothers whose family structure reports agree with that of their offspring and the percent that have boundary ambiguity (i.e., disagree). As expected, family boundary ambiguity varies by family structure. Typically, adolescents who report living with two biological parents also have mothers who report this same family structure (90%). A slightly lower percentage (82%) of adolescents who claim to live with single mothers has mothers who also state they are a single

[1]This figure is nearly identical to that obtained by Sun (2003) who compared mismatches in parent and student

mother. Similarly, 86% of adolescents who report living in a married stepfamily have mothers who also report living in a married stepfamily. The greatest level of ambiguity occurs among adolescents who report living in cohabiting stepfamilies. Only two-thirds of teenagers who state they are living in a cohabiting stepfamily have mothers who also report living in a cohabiting stepfamily. Among teens who report living in a cohabiting stepfamily, one-fifth of their mothers report being single mothers and the remaining 14% claim to be in a married stepfamily (results not shown).

[TABLE 1 ABOUT HERE]

The second panel of Table 1 focuses on the mother's report of family structure and represents the unweighted percentage of adolescents whose reports of family structure (dis)agree with those of their mothers. There is nearly perfect congruence (99%) between mother and adolescent reports of living with two biological parents. Similarly, among mothers who report being single mothers, 89% of adolescents' reports agree. In contrast, only 63% of mothers who state they live in married stepfamilies have an adolescent who also reports living in a married stepfamily. In fact, one-quarter of mothers who report living in a married stepfamily have a teen who reports living with two biological parents (results not shown). The family category with the highest level of ambiguity is cohabiting stepfamily. Only one-third of mothers who report living in this family type have an adolescent who also claims to be living with a cohabiting stepparent. Most often the discrepancy occurs because teens report they live with single mothers (44%) and more than one-fifth state they live with married stepparents (results

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reports of family structure using NELS data. Sun found mismatches for 11% of cases and these were deleted from subsequent analyses.

not shown). This pattern of findings is consistent with prior research on family boundary ambiguity as the more complex the family form, the greater the discrepancy in reporting.

[TABLE 2 ABOUT HERE]

Table 2 demonstrates that family boundary ambiguity is consequential for population-level estimates (i.e., weighted percentages) of the family structure distribution of adolescents. Specifically, estimates of the distribution of family structure vary according to whether we rely on the adolescent, mother, or combined report of family living arrangements. Consistent with the results shown in Table 1, the largest difference emerges for estimates of the percentage of adolescents residing in cohabiting stepfamilies. Using adolescent reports of family structure, we estimate that slightly less than 3% of adolescents reside in a cohabiting stepfamily. In contrast, relying on mother reports of family structure yields a considerably higher estimate at over 5%. Thus, the number of adolescents living in a cohabiting stepfamily is 67% higher when relying on mother's rather than adolescent's reports. This differential persists across race-ethnic groups and is most pronounced among Blacks, for whom the estimated percentage residing in a cohabiting stepfamily ranges from 3% using adolescent reports to 10% using mother reports. Such wide variability in estimates calls into question prior research on the prevalence of cohabitation as a living arrangement for children and reinforces our assertion (as well as that of others who have conducted research on the measurement of cohabitation) that current strategies for measuring cohabitation may not be robust. In addition, our understanding of stepfamilies depends on the reporter. Only 18% of stepfamilies are cohabiting when we rely on the adolescent's report but 25% are when we draw on the mother's report.

Using the combined report measure reveals that if we required mother and child

agreement, just 2% of adolescents live in cohabiting stepfamily. The combined measure also indicates that a nontrivial share of adolescents and mothers do not agree about their family structure (11%). Substantial boundary ambiguity exists among Black, White and Hispanic children and mothers. Nearly one in ten white teens and mothers and one in eight Black and Hispanic adolescents and mothers provide discrepant family structure reports.

Table 3 focuses on the types of boundary ambiguity that occur among those adolescent-mother pairs in which either (or both) the adolescent or the mother reports living in a cohabiting stepfamily (N=831). There is a very high level of discord in reports about cohabiting stepfamilies; only 28% of these mother-adolescent pairs concur that they reside in a cohabiting stepfamily. The most common type of boundary ambiguity (38%) is when a mother reports living in a cohabiting stepfamily and the adolescent reports residing in a single-mother family. In this situation the teenager does not appear to recognize their mother's cohabiting partner. Another type of ambiguity exists for 19% of mothers and adolescents in which the mother reports living with a cohabiting partner and the adolescent states they are living with a married mother and stepfather. This may occur because the teen is embarrassed to report that the mother is cohabiting and not married or alternatively the mother has told the child she is married when she is not. It is less common for the adolescent to claim they are living with a cohabiting stepparent and the mother reports living alone or being married (9% and 6%, respectively).

[TABLE 3 ABOUT HERE]

Additional analyses (not shown) were conducted to examine the correlates of family boundary ambiguity. Black adolescent-mother pairs were more likely than whites to disagree about whether they reside in a cohabiting family. Pairs in which the mother had been previously

(versus never) married were more likely to agree about being in a cohabiting family.

Family Boundary Ambiguity in Family Structure Reports and Family Processes

Our final task is to examine whether and how family boundary ambiguity is related to family processes. We present results for mother-child closeness, maternal supervision, family protection, and autonomy separately.

Closeness. In the top panel of Table 4, model 1a shows the association between family structure and closeness using adolescent reports of family structure. Adolescents residing in cohabiting or single-mother families report lower levels of closeness, on average, than those in two biological parent families. Adolescents in married stepfamilies do not significantly differ from those in two biological parent families in terms of closeness. Introducing the boundary ambiguity dummy variable does not appreciably change the pattern of association between family structure and closeness, as shown in Model 1b. Nor is boundary ambiguity related to closeness.

The middle panel reveals that using mother reports of family structure yields a distinct pattern of findings. Now, not only do adolescents in cohabiting in single-mother families report less closeness to their mothers, but so too do those in married stepfamilies (Model 2a). Adding the boundary ambiguity measure does not alter the pattern of association found in the initial model, nor is it related to closeness (Model 2b).

The bottom panel uses the combined measure of family structure. Here, only adolescents in cohabiting stepfamilies (as well as those who disagree with their mothers about their family structure) report less closeness than adolescents in two biological parent families (Model 3a). Adolescents in married stepfamilies or single-mother families do not differ from those in two

biological parent families. These three approaches to measuring family structure would lead researchers to draw distinct conclusions about the association between family structure and mother-adolescent closeness.

[TABLE 4 ABOUT HERE]

Maternal Supervision. Turning now to maternal supervision, the top panel shows that using adolescent reports of family structure, adolescents who reside in single-mother families report lower levels of supervision, on average than those in two biological parent families. This latter group does not significantly differ from either cohabiting or married stepfamilies (Model 1c). Adding the measure of boundary ambiguity does not change this pattern of association between family structure and maternal supervision, as shown in Model 1d. Boundary ambiguity is positively related to supervision.

The middle panel shows the results obtained when mother reports of family structure are used. The initial model (Model 2c) is similar to that shown in the top panel using adolescent reports. But once the measure of boundary ambiguity is included in Model 2d, the relationship between family structure and maternal supervision changes such that all adolescents residing outside of two biological parent families report less supervision, on average. Additionally, boundary ambiguity is positively associated with supervision.

The bottom panel presents the results using the combined reports of family structure (Model 3b). Here, only adolescents residing in single-mother families report lower levels of supervision than those in two biological parent families. Boundary ambiguity is not significantly related to supervision levels. Although the findings obtained using the adolescent and combined reports of family structure appear similar, they differ from those obtained using mother reports of

family structure.

Family Protection. As shown in Model 1e, using the adolescent's report of family structure, we find that teens residing outside of two biological parent families report lower levels of family protection, on average. Adolescents in cohabiting stepfamilies rate their family protection more weakly than those in either married stepfamilies or single-mother families. The introduction of boundary ambiguity in Model 1f does not change this pattern of findings, nor is the coefficient significant.

The middle panel shows that when we use mother's reports of family structure (Model 2e), teens outside of two biological parent families report less family protection, on average, but unlike the results obtained using adolescent reports, here there is no additional disadvantage for those in cohabiting stepfamilies. Once again, the inclusion of family boundary ambiguity (Model 2f) does not alter the pattern of results and the coefficient is not significant.

The bottom panel uses combined reports of family structure (Model 3c). Cohabiting stepfamilies are associated with the lowest average levels of family protection, followed by married stepfamilies, single-mother families, and families with ambiguous boundaries, and finally two biological parent families, which enjoy the highest levels. Unlike the prior two models, boundary ambiguity is significantly negatively associated with family protection.

Autonomy. Using the adolescent' report of family structure, there is no significant association between family type and autonomy (Model 1g). Controlling for family boundary ambiguity (Model 1h), adolescents in single mother families have less autonomy than those in two biological parent families, on average. Boundary ambiguity is related to higher levels of autonomy.

The middle panel reveals a slightly different pattern for mother's report of family structure. Although the conclusions about family structure and autonomy are substantively similar for Models 1g and 2g, in Model 2h, single-mother families do not differ from two biological parent families. Boundary ambiguity is positively associated with autonomy.

Using the combined reports of family structure, we would draw a different set of conclusions. As shown in Model 3d, adolescents in single-mother families and married stepfamilies report less autonomy than those in two biological parent families. Cohabiting stepfamilies do not differ from the reference group, but they are distinct from the pairs characterized by boundary ambiguity, who tend to report more autonomy, on average.

Discussion

We used data from the wave one adolescent and parent in-home questionnaires of the Add Health to examine family boundary ambiguity, that is, the extent to which adolescents and mothers provide discrepant reports of family structure. Consistent with prior research which has shown that the greater the family complexity, the more likely is inconsistency in reporting who is in and out of the family, we anticipated that the greatest discrepancy in reporting would occur among those living in cohabiting stepfamilies. Indeed, whereas two-thirds of adolescents agreed with their mothers' reports of living in a married stepfamily, just one-third of adolescents whose mothers said they live in a cohabiting stepfamily reported the same family type. Nearly 90 percent of adolescents concurred with mothers who reported being single and over 99 percent agreed with mothers who reported being part of a two biological parent family.

Certainly, our documentation of considerable ambiguity in the reporting of cohabiting stepfamilies between adolescents and their mothers is important for how we measure family

structure. As cohabitation continues to increase in popularity and more children are exposed to this family type, the questionable validity of relying on a single reporter of family structure becomes more consequential. A school-based survey, the Add Health has a higher response rate for adolescents than parents. Yet it seems that adolescents and parents often provide discrepant reports of their living arrangements. Using adolescent reports of family structure yields only half as many cohabiting families as tallied from mother reports in the Add Health. This discrepancy affects our estimates of children in cohabiting families. From a demographic perspective, misclassification of children's living arrangements provides an inaccurate picture of the distribution of children across various family structures.

In addition to the demographic consequences of boundary ambiguity in cohabiting stepfamilies, our work reveals the importance of boundary ambiguity for research on the association between family structure and processes. Our examination of four central domains of family processes shows that whose report of family structure we use matters. Whether the adolescent, mother, or combined reports of family structure were used yielded different conclusions about the linkages between family structure and family processes. Moreover, the boundary ambiguity coefficient was often significant, meaning that the reporting discrepancy itself is consequential for adolescent functioning. Although it is possible that family dynamics have a feedback effect on boundary ambiguity, we maintain that uncertainty about family membership sets the stage for poorer family functioning by generating conflict and stress that weakens family ties (Stewart, 2005).

The findings from this study are instructive for researchers who measure family structure, especially using the Add Health data. Estimates of family structure depend on whose report is

used. Similarly, the substantive conclusions that are drawn about the associations between family structure and family processes vary according to which measure of family structure is considered. Having family structure reports from two sources permits explicit measurement of family boundary ambiguity, which provides an additional layer of information that is often associated with the adolescent's experience of family interactions. To the extent possible, researchers should fully exploit multiple-source reporting to incorporate family boundary ambiguity into measures of family structure.

An important limitation is that we are not able to gauge the extent to which the high level of discrepancy in adolescent and mother reports of a cohabiting stepfamily is due to measurement error. The Add Health ascertains adolescent reports of family structure through a household roster, whereas mother reports are achieved through a detailed series of questions about living with someone in a marriage or marriage-like relationship. We might have achieved greater consistency in reporting had adolescents and mothers been asked the same series of questions about their current living arrangements. Still, the pattern obtained is consistent with that which is to be expected based on prior work on family boundary ambiguity. The more complex the family form, the greater the discrepancy in adolescent and mother reports. Particularly since cohabitation is an incomplete institution that is predicated on informal ties, greater attention should be paid to how we measure cohabitation in national surveys (Casper & Cohen, 2002; Manning and Smock 2003). Inconsistencies in question wording (see Appendix) may account for some of the reporting discrepancies documented in this paper.

Our study demonstrates that family boundary ambiguity is not uncommon, especially in complex family forms, namely, cohabiting stepfamilies. As family complexity intensifies, the

validity of measures of family structure may be undermined. We provide evidence that adolescents and mothers are more likely to disagree than agree about living in a cohabiting stepfamily. Whose report of family structure we use in our analyses of adolescent outcomes affects conclusions about how adolescents fare in various family forms. Lynn White (1998, p. 732) suggested researchers refer to “perceived family structure” since respondents actively construct their families. Our results resonate with White’s argument. Future data collection efforts should obtain family structure information from multiple sources, including parents and children, to permit additional research on family boundary ambiguity as discrepancies yield meaningful insights not only about the social construction of family membership, but also its influence on individual well-being.

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Table 1. Matches between Adolescent and Mother Reports of Family Structure

	Adolescent Report		
	No Boundary Ambiguity	Boundary Ambiguity	Total
Two Biological	90.3%	10.7	100.0
Single Mother	82.2	7.8	100.0
Married Stepparent	85.5	14.5	100.0
Cohabiting Stepparent	65.6	34.4	100.0
	Mother Report		
	No Boundary Ambiguity	Boundary Ambiguity	Total
Two Biological	99.1%	0.9	100.0
Single Mother	88.8	11.2	100.0
Married Stepparent	63.2	36.8	100.0
Cohabiting Stepparent	33.4	66.6	100.0

N=14,047

Source: Add Health Wave 1 (unweighted)

Table 2. Family Structure Distribution by Type of Report (Adolescent, Mother, or Combined Report of Family Structure), for the Total Sample and Separately by Race-Ethnicity

	TOTAL			BLACK			WHITE			HISPANIC		
	Adol	Mother	Combined	Adol	Mother	Combined	Adol	Mother	Combined	Adol	Mother	Combined
Family Structure												
Two Biological	62.0	58.2	57.9	34.7	32.0	31.3	67.8	63.9	63.8	58.8	54.2	53.2
Married Step	12.4	15.6	10.9	11.4	13.0	8.3	12.8	15.9	11.8	12.6	17.4	9.9
Cohabiting Step	2.7	5.2	1.8	3.2	10.0	2.0	2.4	4.2	1.7	3.7	6.3	2.0
Single Mother	22.8	21.0	18.5	50.8	45.0	41.1	17.0	15.9	14.0	24.9	22.1	18.6
Boundary Ambiguity	na	na	10.9	na	na	17.2	na	na	8.7	na	na	16.3

N=14,047. Weighted percentages shown.

Table 3. Mother or Adolescent Reports of Cohabiting Stepparent Family

	%
Adolescent & Mother Agree	28.4
Adolescent Cohabit & Mother Married	6.1
Adolescent Cohabit & Mother Single	8.8
Adolescent Married & Mother Cohabit	19.0
Adolescent Single & Mother Cohabit	37.7
	100.0

N = 831

Source: Add Health Wave 1 (unweighted)

Table 4. OLS Regression Coefficients Obtained Using Adolescent, Mother, and Combined Reports of Family Structure

	CLOSENESS		SUPERVISION		FAMILY PROTECTION		AUTONOMY	
Adolescent Report	Model 1a	Model 1b	Model 1c	Model 1d	Model 1e	Model 1f	Model 1g	Model 1h
CohStep	-.72**	-.68**	-.24	-.31	-1.12***	-1.09***	-0.11	-0.15
MarStep	**-.19**	**-.18**	-.12	-.14	**-.62*** **	**-.61*** **	0.03	0.02
Single Mom	**-.22****	**-.21***	-.37***	-.41***	**-.42*** **	**-.41*** **	-0.09	-0.11*
(Two Bio)	ref	ref	ref	ref				
Boundary Ambiguity		-.16		**.27****		-.09		**.16****
Mother Report	Model 2a	Model 2b	Model 2c	Model 2d	Model 2e	Model 2f	Model 2g	Model 2h
CohStep	-.61***	-.61**	-.22	-.45**	-.60***	-.72***	-.04	-.16
MarStep	-.20*	-.20*	-.06	-.16*	-.63***	-.68***	0.00	-.05
Single Mom	-.21*	-.21*	-.35***	.39***	-.43***	-.46***	-.05	.07
(Two Bio)	ref	ref	ref	ref				
Boundary Ambiguity		-.01		.36***		0.19		.19**
Combined Report	Model 3a		Model 3b		Model 3c		Model 3d	
CohStep	-.90***		-.33		-1.24***		-0.23*	
MarStep	**-.19**		-.12		**-.72*** **		0.01	
Single Mom	**-.19**		-.42***		**-.41*** **		-.11*	
(Two Bio)	ref		ref					
Boundary Ambiguity	**-.33*** **		0.06		**-.44*** **		**0.10**	

Note: Models are correct for the complex sampling design of the Add Health. Bold coefficients are significantly different from cohabiting stepfamily.

*p<.05, **p<.01,***p<.001

Appendix: Cohabitation Questions in Selected National Data Sources

DATA	QUESTION
Current Population Survey (2003)	*I am going to read a list of relationship categories.* How (are/is) (name/you) related to (name of reference person)? Response categories: ▪ Unmarried Partner ▪ Partner/Roommate
National Health Interview Survey (2002)	What is {your/PX's-name's} relationship to {you/RP-name}? Roster category: unmarried partner
National Longitudinal Study of Adolescent Health (1994)	*Adolescent Interview*: What is {NAME}'s relationship to you? Roster categories: ▪ Mother's partner ▪ Father's partner *Parent Interview*: *The next questions are about marriages and marriage-like relationships. A marriage-like relationship means living with someone as if you were married to him or her when you are not.* Think about your present or most recent relationship. During what years were you married to or living with this person? Response categories: 1977-1995 Was this a marriage or marriage-like relationship? Response categories: ▪ Marriage ▪ Marriage-like Is this relationship still going on? Response categories: ▪ No ▪ Yes
National Longitudinal Survey of Youth (1997)	*Asked during the child screener interview…* What is [name of relative]'s relationship to [name of person on household roster 2]? Roster category: Lover/Partner *During the parent interview, parents are asked if the information given by the screener is correct?* *If their marital status is corrected from never married to separated, the parent is asked….* Do you have a spouse or partner living in the household? (1) Yes, spouse (2) Yes, partner (3) No

Appendix: Cohabitation Questions in Selected National Data Sources

DATA	QUESTION
National Survey of American Families (2002)	What is (PERSON's) relationship to you? Roster categories: ▪ Unmarried Partner ▪ Boyfriend/Girlfriend
National Survey of Families and Households (1987/88)	•*Asked of each person in the household….* Is (he/she) currently living with an opposite sex lover/partner? Coded as (1) Cohabiting (2) Not Cohabiting How is (he/she) related to you? Roster category: Lover/Partner (roster) •Nowadays, many unmarried couples live together; sometimes they eventually get married and sometimes they don't. Have you ever lived with a partner of the opposite sex? Response categories: ▪ Yes ▪ No
National Survey of Family Growth (1995)	What is (name of household member)'s relationship to you? Roster categories: ▪ Male partner ▪ Female partner
Panel Study of Income Dynamics (2001)	*Relationship to head (Preload data - Roster categories):* Roster categories: ▪ "Wife" - female cohabitor who has lived with Head for a year or more or was present in the [previous year's] family, ▪ Girlfriend ▪ Boyfriend