

# Adult children in complex families: How do relationships affect relationships?

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## Abstract

**Objective:** We examined how adult (step)parent–child closeness is associated to the quality of other ties in the family network (i.e., parent–child dyads, parent–parent dyads).

**Background:** Although stepfamily scholars often assume that there are associations between all dyads within a family unit, more research needs to examine this premise empirically.

**Method:** We used survey data on adult children and their relationships with mothers, fathers, stepfathers, and stepmothers ( $N = 1,022$ ). Two methods—non-recursive structural equation modeling (SEM), and cross-lagged SEM—were applied to consider the bidirectionality between ties.

**Results:** Those who are close to their biological parent are often also close to the new partner/stepparent, which is interpreted as a household effect. Moreover, the tie between the divorced parents is strongly associated to father–child closeness but less to mother–child closeness. We also found that mother–stepmother closeness and stepmother–child closeness are correlated, as are father–stepfather closeness and stepfather–child closeness. Our findings suggested weak substitution between father–child and stepfather–child closeness (a small but significant negative association). Gender differences are visible, as ties between biological mothers and adult children seemed more independent of the family system than other parent–child ties.

**Author note** The OKiN was developed, designed, and executed by a collaborative team of researchers from the University of Amsterdam and Statistics Netherlands (CBS).

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**Conclusions:** Shifts in one (step)family dyad seem to create a spillover effect, also affecting other family dyads.

**Implications:** For family practitioners or counselors, it is more efficient to consider the embeddedness of parent–child closeness within the family system than to focus on one constituent member or dyad of the system.

#### KEYWORDS

divorce, family relations, parent–child relations, SEM modeling, stepfamilies

Many adults nowadays have grown up in post-divorce families, often characterized by the biological parents living in separate households and new partners joining as stepparents (Thomson, 2014). Family relationships have therefore become more diverse. Adult children with divorced and remarried parents have to balance a variety of simultaneous (step) parent–child ties, as well as potentially deal with their parents' facilitative or restrictive attempts to influence other parents' involvement (Ganong & Coleman, 2016). At the same time, a remarried parent has to balance a relationship with an ex-partner and with a new partner. As such, the various coexisting ties in complex families are likely to be interdependent.

The quality of one family relationship likely depends on the quality of other relationships in the family unit. A parent–child tie can therefore best be understood when we consider the context of family relationships in which it is embedded. This argument has been introduced in social network theories (Heider, 1958), but also complies with family systems theory (Cox & Paley, 1997; Minuchin, 1974). Applying it to the context of stepfamilies is fitting, several scholars have argued, because in stepfamilies, existing dyads and new dyads are merged together into a new stepfamily system that transcends the unit of a single household (Ganong & Coleman, 2016; Giles-Sims & Crosbie-Burnett, 1989). Examining the associations between multiple types of dyads also has theoretical benefits, as it allows us to examine questions related to gender asymmetries in intergenerational ties (e.g., the centrality of biological mothers, the disadvantage of biological divorced fathers, and the disadvantage of stepmothers in their relationships with (step)children; Weaver & Coleman, 2010).

In this paper, we examined how (step)parent–child closeness is linked to the quality of other relationships within the family system (e.g., other parent–child dyads, parent–parent dyads). We proposed a theoretical framework to conceptualize these interrelations and empirically evaluated it using reports by adult children on nine dyads. The adults reported on their ties with mothers, fathers, stepfathers, and stepmothers, as well as on the ties *between* these four parent figures. As mothers generally have a central position in shaping intergenerational ties (Kalmijn et al., 2019), fathers' ties compared to mothers' ties are expected to be more sensitive to the dynamics among parents. We therefore studied if parent–parent ties had a different impact on the mother's compared to the father's bond with the child, and similarly, on the stepfather's compared to the stepmother's bond with the child.

Most existing literature on family ties has focused on one dyad and compared its quality across different types of family structures, with “intact families” functioning as the reference group (Amato & Keith, 1991). Recently, scholars have increasingly recognized that, rather than studying the differences between non-intact and intact families, more information is needed on the dynamics that are unique to the functioning of stepfamilies (Ganong & Coleman, 2016).

This shift resulted in an increased interest in the interdependence between the variety of ties in stepfamilies. Thus far, associations were found between the quality of the spousal tie and (step) father–child closeness (King, 2006), children’s ties to resident and nonresident biological parents (Kalmijn, 2013), children’s ties to mothers and stepfathers (King et al., 2014), and children’s ties to fathers and stepfathers (King, 2006).

Three approaches of studying interdependencies between family ties can be distinguished in the literature. The first approach studied patterns in children’s relations to two parent figures and constructed measures distinguishing whether children were close to one parent, both parents, or neither parent (e.g., using multinomial logit models; Klaus et al., 2012). Although insightful, this approach only allows comparisons between two parent–child ties. The second approach used data on multiple time points (e.g., longitudinal analyses; King et al., 2014). Yet, the possibilities with this approach are often limited by data availability issues. Finally, a few studies examined the associations between more than two dyads by placing respondents into different profiles or typologies based on their reports of closeness to different parents (e.g., latent class analyses; Amato et al., 2016; Jensen, 2017).

Although all three approaches yield valuable insights, four opportunities for improvement can be identified. First, we went beyond the focus on two family dyads, and rather focused on all dyads between the focal child and the four parent figures. In other words, we focused on a family network of five people and used information on all the ties between them (see Table 1). Second, we studied the parent–child ties in relation to the parent–parent ties in which they are embedded. By doing so, we also included parent–parent ties which, due to data availability, received little to no prior attention in the literature (e.g., mother–stepmother, father–stepfather). Third, we used a large-scale data set on adult children, including an unusually large sample of respondents with four parents ( $N = 1,022$ ). Fourth, rather than identifying distinct typologies of stepfamilies based on the nine dyads, we aimed to provide a general conceptual framework on the expected associations between the nine family ties. This is necessary, as only then we are able to better understand each parent–child dyad as a function of the context of family dyads in which it is embedded.

The analyses in this article examine general theoretical mechanisms with respect to complex family systems, but we use data from one national context, the Netherlands. Similar to most Western countries, the Netherlands experienced a steep increase in divorce rates since the 1960s. There are a few aspects unique to the Dutch context that should be considered when interpreting the findings. For instance, its cultural character has been described as more inequalitarian, but also as being favorable to household modernity and gender equality in the household (Arts et al., 2003). Yet, the representativeness of the country holds with respect to the frequency of intergenerational exchanges and the precarious position of father–child contact vis-à-vis mother–child contact (Börsch-Supan et al., 2005).

**TABLE 1** Overview of dyadic relationships

Parent–child dyads	Parent–parent dyads
Mother–Child	Mother–Father
Father–Child	Mother–Stepfather
Stepfather–Child	Father–Stepmother
Stepmother–Child	Mother–Stepmother
	Father–Stepfather

## THEORY AND HYPOTHESES

In this section, we provide a theoretical framework to explain the main mechanisms that underlie interdependencies between ties in stepfamilies. To achieve this goal, we considered the interrelations between the nine family dyads listed in Table 1. We focused on the adult child and four types of parents: biological mothers, biological fathers, stepfathers, and stepmothers. Below, we formulate hypotheses on the association of each parent–child dyad with respect to all other family dyads. In doing so, we focus on three main types of interdependencies that shape stepfamily interaction: within the new stepparent households (e.g., between the mother–child dyad and stepfather–child dyad), within the original divorced household (e.g., between the ex-partners and the two biological parent–child dyads), and between the original household and new stepparent households (e.g., between the mother–child dyad and stepmother–child dyad). Almost all dyadic relations between the five family members are thus included in the theoretical framework. Note that the stepmother–stepfather tie is not listed in Table 1. The quality of this bond is not likely to vary greatly nor are variations in the dyad expected to affect the other ties within the (step)family system.

### Parent–child closeness in adulthood

The parent–child relationship is a central kinship tie across the lifespan. Adult intergenerational closeness is expected to partly be the product of the relationship dynamics during the adult’s upbringing, when the child still lives with their parent(s), and parents can more actively engage with other parents via childcare responsibilities (Ivanova & Kalmijn, 2020). In addition, adult closeness is expected to also be the product of the current relationship dynamics among the members of the family (Kalmijn et al., 2019). After all, in adulthood, children may still draw support from parent–child ties (van Houdt et al., 2020b), have contact with stepparents via biological parents (Schmeeckle, 2007), talk with parents about other parents (Amato & Afifi, 2006), and be drawn into conflicts (Buchanan et al., 1991). Therefore, the mechanisms explained below largely apply to the relationship dynamics in youth, as well as adulthood, although, in the theoretical arguments, the emphasis is on the application of these mechanisms in adulthood.

### Household effects

We first considered the associations between the parent–child dyad and stepparent–child dyad that are connected to one household.<sup>1</sup> After parental divorce, the adult child’s decision to maintain a close relationship with a specific parent often also entails more involvement with that parent’s (potential new) partner (Hornstra et al., 2022). This is most often the result of two partners belonging to the same household. In fact, the adult child’s closeness to the stepfather is expected to be contingent on the mother’s relation with the child, whereas the adult child’s closeness to the stepmother relies on the father’s relation with the child (Jensen & Shafer, 2013). This can be interpreted as a household effect.

Two arguments underlie these household effects. First, one argument is that, due to normative expectations of family life, a divorced parent may desire to have their new household resemble and function as a familial household (Ganong & Coleman, 2016), with their new partner also having a family-like relationship with their biological adult child. As a result, the divorced parent may act as a facilitator to secure the stepparent’s involvement with the adult child (Ganong & Coleman, 2016). In other words, if the biological parent and adult child are close, the biological parent also prefers the relationship between the child and stepparent to be close, which drives the biological parent to invest in the stepparent–child relationship (e.g., by

organizing joint activities). These efforts are also expected to be more effective when the biological parent–child bond is close: adult children generally spend more time with a stepparent when their bond with the biological parent is closer (King, 2006).

Second, household effects can also be explained by exposure (Homans, 1961). The association is then driven by the adult child simply being exposed (or not exposed) to the parent and stepparent at the same time. That is, if there is more face-to-face contact between the adult child and a biological parent, the adult child is inevitably also exposed to the stepparent more frequently, due to the parent and stepparent belonging to the same household. In practice, an adult child thus will maintain a relationship with the parent–stepparent household rather than with the biological parent only (they are a “package deal”). In short, both arguments suggest that the two parents within one household can act as a united front toward the adult child, while the adult can also treat the two parents as such (e.g., when visiting, providing support).

Based on these two arguments, closeness (or distance) in one parent–child dyad is expected to flow over to the other parent–child dyad if both parents belong to the same household. Our hypotheses were the following: *There is a positive association between the closeness of the mother–child tie and stepfather–child tie* (H1a) and *there is a positive association between the closeness of the father–child tie and stepmother–child tie* (H1b; see paths A in Figure 1).

Another type of household effect can be identified if we consider the association between the quality of the new stepcouple household (the mother–stepfather or father–stepmother dyad) and (step)parent–child closeness (King, 2006). The argument is that adult children are less likely to distance themselves from the stepfamily household if the stepcouple tie is more positive. When the biological parent and new partner do not have a good partnership, it creates friction that ultimately results in distance between the adult child and stepcouple. For instance, when a biological parent and stepparent are in a low-quality partnership, (a) the child may be less willing to accept the new partner as family, (b) the child and stepparent may be less willing to develop a relationship, (c) the new partner may be a subject of friction between the child and biological parent, and overall (d) the adult child may feel uneasy visiting the stepcouple household. Most support has been found for the latter explanation: feeling awkward in the presence of two disputing parents (Amato & Afifi, 2006; Ganong & Coleman, 2016). Our hypothesis was the following: *There is a positive association between the relationship quality of the stepcouple tie and the closeness of the (step)parent–child tie* (H1c; see paths B in Figure 1).

## Gatekeeping an ex-partner

Central to a post-divorce family is the relationship between the two ex-partners, that is, the mother–father tie. Research suggested that parents’ marital quality strongly affects their behavior toward each other as co-parents and thereby functions as a determinant for parent–child ties (Erel & Burman, 1995). Although the mother–father tie shifts in nature after divorce, the argument also applies to the context of adult stepfamilies, with the tie between the divorced parents operating as a driving factor in the quality of parent–child ties.

A possible explanation for the role of the mother–father tie lies in parents’ tendencies to engage in gatekeeping practices (McBride et al., 2005). Parental gatekeeping includes parents’ efforts of facilitating or restricting the involvement of another parent in their children’s lives (Sobolewski & King, 2005; Weaver & Coleman, 2010). A troubled mother–father relationship is expected to encourage restrictive efforts by either biological parent. Divorced parents who do not get along with each other may want to minimize their ex-spouse’s involvement in their own and in their children’s lives. In some cases, these behaviors are driven by feelings of jealousy or revenge, in particular when the divorce was characterized by conflict (Fischer et al., 2005). This is also reflected in findings on divorced fathers, who often reported to encounter barriers in maintaining close relationships with their children after divorce (Dudley, 1991). Overall, the ties between adult children and their biological parents are expected to grow more distant when the

mother–father tie is negative, as it is then more likely that adult children have been put in the middle of parents' negotiations and disputes (Buchanan et al., 1991), experience conflicting loyalties (Amato & Afifi, 2006), and have difficulty coordinating their relationships with both parents simultaneously (Ganong & Coleman, 2016).

Most literature on gatekeeping relates to the situation when children are young and still living with (one of) the parents (McBride et al., 2005). After all, in youth, there is an actual space (i.e., child place of residence) and specific childcare activities (e.g., bringing the child to school) that can be used by parents to restrict the involvement of other parents. Therefore, if the mother–father relationship indeed relates to children's closeness to mothers and fathers, this will in part be the product of gatekeeping in youth. Still, there are reasons to expect that the gatekeeping dynamics between the divorced parents do not simply stop after children leave the nest, but rather, take on a different form. A few studies reported on the experiences of (young) adults from divorced families, and showed that some adults see their parents as still interfering in their relationship with the other parent (Ahrons & Tanner, 2003; Baker & Eicher, 2014; Thorson, 2017). In adulthood, this can take form in, for instance, talking negatively about the other parent, discouraging the child to have contact with the other parent, or avoiding family events where the other parent is present (Baker & Eichler, 2014).

Given our focus on the ties of adult and independently living children, we need to recognize the role of children's agency in the gatekeeping mechanism. It could be that, once children are adults, divorced parents have more limited opportunities to restrict each other, and rather, vocalize their negative bond in other ways, with the adult child making the active decision to stay away from either or both parents to avoid feeling "caught in the middle" (Amato & Afifi, 2006). Our hypothesis was the following: *The closeness of the mother–father relationship is positively associated with the closeness of the mother–child tie and the closeness of the father–child tie* (H2a; path C and D in Figure 1).

## Gatekeeping a stepparent

An association may also exist between the quality of the mother–father tie and ties between stepparents and adult children. A more harmonious relationship between the two biological parents has been suggested to correspond to more positive evaluations of stepparents by children (Ganong & Coleman, 2016). We again draw upon arguments from the gatekeeping literature (Ganong & Coleman, 2016; McBride et al., 2005). An explanation is that parents restrict the stepparent as a side effect of gatekeeping the biological parent (Kalmijn et al., 2019; Weaver & Coleman, 2010). The association between mother–father and stepparent–child ties is then not the result of active dislike toward a stepparent, but runs indirectly via the biological parent's relationship with the child, on which the stepparent–child relationship is contingent. In other words, tension between divorced parents relates to more distant parent–child ties, which, due to household effects, inevitably also creates more distant stepparent–child ties. If the biological parents get along well currently, however, there is more contact between the two new households and adult children will encounter fewer coordination problems when organizing joint family activities. Adult children will then have more opportunities to have a positive stepparent–child relationship (Allen & Hawkins, 1999; Ganong & Coleman, 2016).

Based on gatekeeping arguments, the influence of biological parents on stepparent–child ties partly runs via the quality of the mother–father tie. This dynamic is what we call indirect gatekeeping. We formulated the following hypotheses: *The closeness of the mother–father relationship is positively associated with the closeness of the stepfather–child tie and with the closeness of the stepmother–child tie* (H2b; see path E and F in Figure 1).

When discussing gatekeeping toward stepparents, we also need to consider if the biological mother and stepmother or the biological father and stepfather get along currently and to what extent

this associates to stepparent–child closeness. Next to indirect gatekeeping, which relates to the mother–father tie, biological parents could also have issues with the stepparent specifically, which may lead to direct gatekeeping (Allen & Hawkins, 1999; Ganong & Coleman, 2016). For instance, when the mother–stepmother tie is distant, the biological mother may have discouraged the stepmother to take an active role as parent in youth, leading to a less involved stepmother currently. Additionally, now that the child is an adult, the mother may vocalize her dislike toward the stepmother in other ways, which could continue to discourage the adult child to become close with the stepmother (Baker & Eichler, 2014). Given that we study adults, we need to recognize the role of child agency with respect to the gatekeeping mechanism. The driving factor may not be parents’ restrictive behaviors, but the adult children themselves seeking less contact. Earlier research has shown that, when two parental figures do not get along with each other, the children are likely to feel uncomfortable and prone to experience conflicting loyalties (Amato & Afifi, 2006; Baker & Eichler, 2014). In some cases, such feelings can cause children to less often seek contact with one parent or even both parents. We hypothesized the following: *The quality of the mother–stepmother relationship is positively associated with the quality of the stepmother–child tie and the quality of the father–stepfather relationship is positively associated with the quality of the stepfather–child tie* (H2c; paths G and H in Figure 1).

## Substitution

Associations can also exist between the biological parent–child dyad connected to one household and the stepparent–child dyad connected to the other household. An ongoing debate is whether the coexistence of fathers and stepfathers and the coexistence of mothers and stepmothers leads to complementarity (“two positive ties”) or substitution (“one positive tie”). Adult children are expected to benefit from having at least one close tie with one father and one mother figure due to the higher inflow of resources and support (King, 2006). Stepparents that are involved in the lives of adult children may therefore function as additional parents and take over the role of a distant biological parent of the same sex in the other household (Stewart, 2007). For instance, a poor relationship with the biological father could encourage children to develop a closer bond with the stepfather, whereas poor mother–child ties could encourage stepmother–child closeness (King, 2006, 2007). A strong parent–child tie could also preclude children to seek contact with a “substitute” stepparent due to the added complexity (King, 2006). Following these ideas, an adult child is more likely to be close to one father or mother figure than to be close to both or neither (implying a negative association).

So far, most empirical evidence complies with the notion of substitution. Although qualitative findings showed that fathers and stepfathers sometimes work as allies (Marsiglio & Hinojosa, 2007), research suggested that most biological fathers feel as if the presence of a stepfather makes their own involvement less necessary and creates role ambiguity or discomfort (Seltzer et al., 1989). Accordingly, quantitative reports indicate a negative correlation between father involvement and stepfather–child closeness (Hornstra et al., 2020; Klaus et al., 2012; White & Gilbreth, 2001). Based on substitution arguments, our hypotheses were the following: *The closeness of the biological father–child tie is negatively associated with the closeness of the stepfather–child tie* (H3a) and *the closeness of the biological mother–child tie is negatively associated with the closeness of the stepmother–child tie* (H3b; see path I in Figure 1).

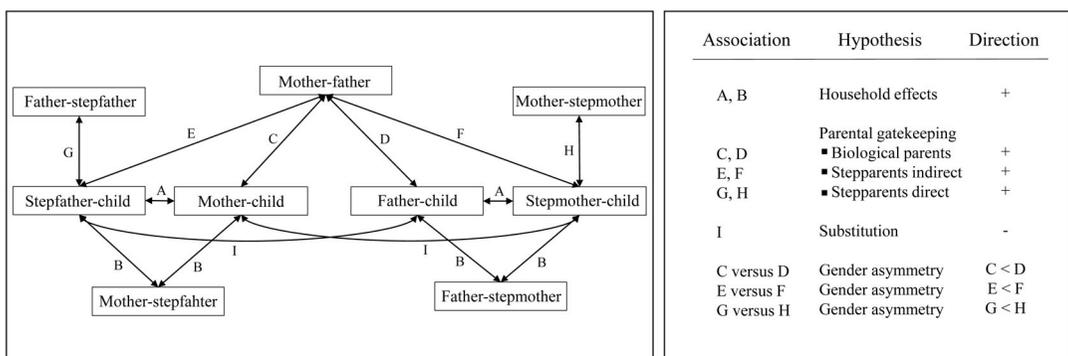
## Gender asymmetries

Although shared legal custody has become more common, the majority of adult children from separated parents grew up in custody of their mother (Ganong & Coleman, 2016). Even when biological parents are involved in a joint parenting agreement, it was, among the current cohort

of adult children, often the mother who assumed the role of main caretaker after divorce, whereas fathers less frequently took part in practical childrearing activities (Ganong & Coleman, 2016). In addition, mothers are often more involved in relationship management due to gendered patterns of kinkeeping. A kinkeeper is a person in the household that navigates family relationships (e.g., communicating family news, organizing outings). Taken together, the biological mother is expected to have an advantage over the biological father in terms of her opportunities to interfere in the ties of the adult child with other parent figures (Kalmijn, 2013). Overall, we hypothesized the following: *The closeness of the mother–father tie is more strongly associated with the closeness of the father–child tie compared to the closeness of the mother–child tie* (H4a; the association of path D is stronger than path C).

The influence of the mother–father tie may also be different for stepfather–child dyads compared to stepmother–child dyads. Earlier qualitative research suggested that biological mothers perceive themselves as “family captains” and use a variety of strategies to preserve boundaries with respect to potential new partners of the biological father (Weaver & Coleman, 2010). The relationships adult children have with stepmothers are expected to be contingent on the relationship the biological mother has with her ex-partner, the biological father. This dynamic is expected to be less strong with respect to stepfather–child ties. After all, if mother–child closeness is more independent from the mother–father tie, stepfather–child ties are also expected to benefit. To illustrate, a few studies suggested that stepmothers are disadvantaged in maintaining close relationships with their stepchildren due to their link to the biological father (Kalmijn et al., 2019), whose relationship with the child is highly dependent on the biological mother (van Houdt et al., 2020b). Our hypothesis was the following: *The quality of the mother–father tie is more strongly associated to the closeness of the stepmother–child tie than to the closeness of the stepfather–child tie* (H4b; the association of path F is stronger than path E).

Finally, gender asymmetries can also play a role in the associations between the mother–stepmother or father–stepfather tie and the quality of stepparent–child dyads. In general, mothers are expected to have an advantage over fathers in terms of gatekeeping opportunities. Due to the normative evaluations surrounding motherhood, the mother role is expected to be more exclusive and stepmothers may, therefore, be more likely to step into the “mother’s domains” than stepfathers are to step into “father’s domains” when taking upon a more active role in the life of the adult child (Weaver & Coleman, 2010). This may make mothers more prone to act restrictively in case of negative mother–stepmother sentiments. Based on these arguments, we formulated the following hypothesis: *The association between the closeness of the mother–stepmother tie and the stepmother–child tie is stronger than the association between the closeness of father–stepfather and stepfather–child tie* (H4c; the association of path H is stronger than path G).



**FIGURE 1** Visual overview of the hypothesized interdependencies in stepfamilies

## THE CURRENT STUDY

Earlier work on interdependencies between ties in (step)families provided several approaches to empirically study interrelations, all of which have their own strategy of dealing with the well-known issue that the association between two family dyads may be bidirectional in nature (Jensen, 2017, King, 2006; Klaus et al., 2012). However, as no ideal strategy exists to consider this issue empirically when more than two dyads are included, we opted to test our theoretical model using two methodological strategies: (a) non-recursive structural equation modeling (SEM) and (b) cross-lagged SEM. The non-recursive model used instruments to account for confounding problems and bidirectionality, whereas the cross-lagged model used information on two time points. More information on the sample and the measurements is provided below.

## DATA AND METHOD

### Data description

We used data from OKiN (Parents and Children in the Netherlands; Kalmijn et al., 2018), which includes a register-based oversample of adults aged 25–45 who did not live with both biological parents at age 15. Adult children (also referred to as *anchors*) reported on their relations to all types of parents, and additionally, on relationships between these parents. The data were gathered in 2017 and the response rate was 62%. We made several sample selections. From the anchor data ( $N = 6,485$ ), we selected all respondents whose biological parents divorced or separated during the anchor's youth (2,929 cases deleted). As we were interested in how concurrent relationships in adulthood affect each other, we excluded the cases where one of the parents died (795 cases deleted). Furthermore, we selected the cases in which the biological mother and the biological father were reported to have a new partner currently (1,645 cases deleted). In other words, if the adult child used to have a stepfather or stepmother which subsequently separated from the biological parent, the cases were excluded from the analyses. The deletion of separated stepparents was needed because (a) continuous contact between a child and separated stepparents is not likely to have persisted into adulthood, and (b) there is no information in the OKiN on the relationship between the divorced biological parent and divorced stepparent, which is needed to test the hypotheses on direct gatekeeping. Finally, cases with missing values on the outcome variables were excluded using listwise deletion (74 cases). The final sample consisted of  $N = 1,022$  adult children who currently have four parent figures. This sample size is unusually large in stepfamily research, especially if you consider that we restricted our sample to adults with two living stepparents, whereas most stepfamily research selects those with only one stepparent.

As we needed information on two time points to perform the cross-lagged SEM model, we also used the second wave of the OKiN survey, which was collected in 2020 (response rate of 59%). This follow-up study included a selection of the variables from the first wave (e.g., the parent–child ties) and additional variables that were missing in first wave of data collection (e.g., father–stepmother and mother–stepfather relationship quality). For our analytical sample, we have a sample of  $N = 477$  respondents that participated in both the first and second wave. Nonresponse analyses were consulted to assess the selectivity of panel attrition (Kalmijn & Hornstra, 2020). There was some selectivity with respect to the expected demographic and socioeconomic variables: those with more education, a higher status occupation, and those with a partner were more likely to respond in both waves. Still, gender, divorce, and migration status did not significantly predict nonresponse. Importantly, attrition was also not selective with respect to family tie quality. The amount of contact, the degree of closeness, and the level of conflict with (step)parents were considered. None of these variables had significant explanatory power with respect to panel attrition.

## Variables and measurement

The OKiN survey was designed to gather information on the individual outcomes of those who grew up in complex divorced families. In addition, the survey included retrospective questions to capture the characteristics of the upbringing of the adult individual. The questions on the past and the questions on the current situation were structured in two separate sections of the survey and explicitly refer to two time frames. The retrospective questions referred to the *period of the respondents' youth*, where youth was defined as the period from birth up to the age at which the child left the parental home (or the age of 18 if the child left home after that age). The questions on adult outcomes referred to the *situation currently*, which was defined as the period during the past 12 months up to the time of the interview. We refer to these two time frames in the following measurement descriptions.

### Parent–child ties

We measure the quality of four parent–child ties. The strength of the parent–child ties was measured using the current degree of closeness, as reported by the adult child. The degree of closeness was measured using a single item (How close is the relationship with your [parent/new partner of parent] currently?) and answered on a 5-point Likert scale, ranging from *very close* (1) to *not close at all* (5). The question referred to the situation currently. The item was recoded so that higher values indicate closer ties and treated as an interval variable following previous works on closeness in parent–child ties. These single-item measures on closeness are expected to have a high face validity and have therefore been widely used in the literature (Arránz Becker et al., 2013; Kalmijn et al., 2019; King, 2006; Klaus et al., 2012; van Houdt et al., 2020a).

### Parent–parent ties

We measure the perceived strength of five parent–parent ties. The perceived strength of the mother–stepfather and father–stepmother tie was measured by asking “How would you describe the current relationship between your mother/father and the partner of mother/father?” In addition, the perceived strength of the tie between the divorced biological parents was measured by the item “How well do your biological parents currently get along with each other?” The perceived strength of the father–stepfather tie and mother–stepmother tie was assessed by asking “How well do your biological father/mother and the new partner of your biological mother/father currently get along with each other?” All five variables were answered on a scale from *very good* (1) to *not good at all* (5) and recoded so that higher values refer to stronger ties. The measures referred to the situation currently (the period of the past 12 months up to the time of the interview). Information on the mother–stepfather or father–stepmother tie was only measured in the second wave of data collection.

We measured the parent–parent ties as perceived by the adult child. This may differ somewhat from the actual tie quality. Regardless, the perceived parent–parent ties are relevant for our research questions theoretically and overall, the existing literature on single-reporter bias in measuring family ties suggests that it does not matter for model results which family member is reporting on the relationship (Steinbach et al., 2019; van Houdt et al., 2020a).

### Instrumental variables

Several personal traits of parents, which are likely to affect relationship quality, were measured as control variables. These parent traits functioned as our instrumental variables in the non-recursive

SEM (see the Analytical Strategy section). We included two traits of the biological mother, biological father, stepfather, and stepmother—parents' health traits and parents' employment status. To measure the health traits, three indicators were considered: alcohol use, mental health issues, and addiction. Alcohol use was measured by asking "Did [parent] drink alcohol during this period?" Responses ranged from *no* (1) to *yes, excessively* (5). The item referred to the period of the respondents' youth (from birth up to the age of 18). Given the skewness of the scale, we dichotomized the measure to reflect frequent alcohol use. The dummy was coded 1 if the adult child reported that the parent drank alcohol *yes, frequently* (4) or *yes, excessively* (5).

Whether parents were treated for mental health issues or addiction was measured by asking "Has [parent] ever been treated for mental health issues or addiction during that period?" Answer categories were *no* (1); *yes, for addiction* (2); *yes, for mental health issues* (3); *yes, for both* (4). This item referred to the period of the respondents' youth up to the age of 18. We created two dummies, one for mental health and one for addiction, with each dummy coded as follows: *yes, parent was treated* (1) and *no, parent was not treated* (0). The three health traits were combined into a single scale which counts the "problematic" traits the parent was reported to have shown when the adult was growing up. Parents' employment status was measured by asking the adult child "Did your [parent] work during that period? This regards paid work with a minimum of 12 hours a week," with answer categories ranging from *worked the entire period* (1) to *did not work* (5). The question referred to the period of the respondents' youth. The item was recoded into a dummy variable to measure if a parent was unemployed for most of that period. The item was coded 1 if the adult child reported that the parent *did not work large part of period* (4) or *did not work* (5).

## Controls

We controlled for the residence structure during the adult child's youth by including the total years of coresidence between adult child and each of the parent figures.<sup>2</sup> We measured the total years the adult child lived in the same household as the parent figure, ranging from *never lived together* (0 years) to *into adulthood* (18 years). As the respondents were asked if and how their main residence changed between the divorce and the time they left the parental home, the years of coresidence could be corrected for such changes. Note that, in the selection of our sample, the selection of stepfamilies was not conditional on the biological parent having full custody or on stepparent-child coresidence. Therefore, there are cases in our sample in which the (adult) child and the stepparent have never lived together (as captured by a score of 0). Individual control variables included the adult child's gender and age. The descriptive statistics of all variables are presented in Table 2.

## Analytical strategy

As relationships are likely to be mutually influential, studying the associations between intergenerational ties inevitably raises the issue of reciprocal effects. Our theoretical model included associations between the nine family dyads that are potentially bidirectional (see Figure 1). That is, the associations among these family dyads are not likely to be strictly unidirectional in nature and the error terms in the model are therefore not fundamentally different for each variable (Berry, 1984). We need to consider this issue empirically, as it also means that model estimates from regular ordinary least squares (OLS) regression models could be biased and give an inaccurate assessment of the nature and magnitude of the associations between the family dyads. Given that dealing with the issue of reciprocity is a well-known challenge in the stepparenting literature, one for which no ideal strategy exists, we tested our theoretical model using two different types of methods.<sup>3</sup>

**TABLE 2** Means and standard deviations of variables

	<i>N</i>	<i>M</i>	<i>SD</i>	Min	Max
<i>Closeness in Parent–Child ties</i>					
Mother–Child closeness (Wave 1)	1,093	3.91	1.14	1	5
Mother–Child closeness (Wave 2)	517	3.68	1.13	1	5
Father–Child closeness (Wave 1)	1,075	3.02	1.31	1	5
Father–Child closeness (Wave 2)	508	2.79	1.15	1	5
Stepfather–Child closeness (Wave 1)	1,086	3.25	1.16	1	5
Stepfather–Child closeness (Wave 2)	479	3.28	1.13	1	5
Stepmother–Child closeness (Wave 1)	1,049	2.46	1.16	1	5
Stepmother–Child closeness (Wave 2)	487	2.53	1.07	1	5
<i>Relationship quality in Parent–Parent ties</i>					
Mother–Father (Wave 1)	1,017	2.88	1.26	1	5
Mother–Father (Wave 2)	479	2.81	1.24	1	5
Mother–Stepmother (Wave 1)	940	2.90	1.27	1	5
Mother–Stepmother (Wave 2)	377	2.99	1.09	1	5
Father–Stepfather (Wave 1)	950	3.09	1.20	1	5
Father–Stepfather (Wave 2)	364	3.13	1.07	1	5
Mother–Stepfather (Wave 2)	479	4.04	.82	1	5
Father–Stepmother (Wave 2)	487	3.80	.98	1	5
<i>Control variables</i>					
Age	1,096	31.97	5.14	25	45
Female (0 = male)	1,096	.56			
Years of coresidence with mother	1,096	16.82	2.65	2	18
Years of coresidence with father	1,096	9.14	5.07	1	18
Years of coresidence with stepfather	1,096	5.09	4.87	0	17
Years of coresidence with stepmother	1,096	1.44	3.09	0	14
<i>Instruments</i>					
Number of health issues mother	1,096	.31	.56	0	3
Number of health issues father	1,096	.34	.61	0	3
Number of health issues stepfather	1,096	.22	.52	0	3
Number of health issues stepmother	1,096	.16	.43	0	3
Unemployed mother (0 = paid employment)	1,070	.23	.42		
Unemployed father (0 = paid employment)	1,069	.04	.19		
Unemployed stepfather (0 = paid employment)	984	.07	.25		
Unemployed stepmother (0 = paid employment)	870	.20	.20		

*Note:* Data are from the OKiN survey on adults (25–45) in the Netherlands. Mother–stepfather and father–stepmother were measured in the second wave only. In the structural equation models (SEM), cases with missing data on the dependent variables—the four parent–child ties—were deleted using listwise deletion, whereas cases with missing data on the independent variables are dealt with using full information maximum likelihood (FIML).

## Non-recursive SEM models

Our first method was a non-recursive SEM model using the Wave 1 data. Such path models allow for the estimation of reciprocal associations between two variables by using instrumental variables. The instruments are included to identify the model and thus, to achieve identification

(Berry, 1984). These instruments are considered valid when they affect the explanatory variable ( $y_1$ ) but have no independent effect on the dependent variable ( $y_2$ ). To estimate the bidirectional association between two family dyads, we needed to use a measure that embodies an exogenous source of variation affecting the closeness of only one dyad and not the closeness of the other dyad.

The instruments used in this study were the biological parents' and stepparents' traits during youth (i.e., health traits, unemployment). For each family dyad in our model, we used the traits of the corresponding parent figure(s) in the dyad as predictors (e.g., stepfathers' traits and mothers' traits as predictor of the mother–stepfather dyad; stepmothers' traits as predictor of the stepmother–child dyad). These instruments were appropriate because the traits of one family member are not likely to have an independent effect on the quality of a family dyad in which this family member is not involved (e.g., the traits of the biological mother are only associated to the stepmother–child tie via its association with the mother–child tie).

The association from one family dyad to another family dyad, and the association vice versa, were constrained to be equal. We thus tested the overall bidirectional association between two dyads. Although explorative methods, such as partial correlations, naturally capture reciprocity, here we needed to model the association both ways and impose equality constraints. This was done to have more degrees of freedom. Non-recursive SEM models without equality constraints are sometimes used to determine the direction of an effect but doing so when using information from one time point is difficult and prone to bias.

## Cross-lagged SEM models

Non-recursive SEM models have some disadvantages, mostly because the necessary conditions for selecting appropriate instrumental variables are very strict (Berry, 1984). Cross-lagged SEM models are estimated using information on two time periods ( $t_1$ ,  $t_2$ ) and have generally been used to describe mutual effects between two variables. The models are considered “crossed” because they estimate relationships from one variable to another and vice versa. To perform such a model, we needed information on parent–child closeness from Wave 1 and Wave 2 of the OKiN survey. Using this information, we were able to model the effects of one relationship in Wave 1 on another relationship in Wave 2 while controlling for the other relationship in Wave 1. In essence, such a model suggests the effect of change in one variable on change in a second variable (Kline, 2016).

One advantage of cross-lagged SEM models was that the used measures (i.e., the Wave 1 variables) could with more confidence be selected as appropriately controlling for bidirectionality (in contrast to our non-recursive SEM model). Another advantage was that, in its basic form, cross-lagged panel models can be used to identify the direction of an effect. The cross-lagged SEM model does not include equality constraints on the association from one dyad to another and the association vice versa (as was needed with the non-recursive SEM model). Therefore, it could give an indication of whether the association between two family dyads is bidirectional (as hypothesized) or in fact unidirectional, which means that one dyad influences another dyad without also experiencing a reciprocal influence in return.

The cross-lagged SEM model also has some disadvantages. As the model is based on reciprocity over time, insignificant associations may be the result of little variance in an outcome variable between  $t_1$  and  $t_2$  rather than a nonexistent association. In addition, as we needed information on respondents who participated in both waves, the sample size of this model was smaller. Also, not our entire model could be measured using cross-lagged effect, as we had no longitudinal information on mother–stepfather and father–stepmother dyads. For these two

ties, we instead calculated the association between each parent–child tie at  $t_2$  and parent–parent tie at  $t_2$ , while using the parent–child tie at  $t_1$  to control for their  $t_2$  equivalents. For these two ties, we were thus unable to explore the direction of the association.

All three models were calculated using STATA 16. For the two SEM models, cases with missing values on the explanatory variables were accounted for by using Full Information Maximum Likelihood. Full information maximum likelihood (FIML) uses all available data (also partially observed data) to yield unbiased inferences and standard errors and has been shown to work well within a SEM framework (Kline, 2016). The models were estimated using restricted maximum likelihood (MLR), which adjusts the standard errors to be robust in case of non-normality. Informed by the modification indices, we allowed the error variances of the parent–parent ties to covary. After these adjustments, the fit statistics of both SEM models indicated a good overall fit, with the Comparative Fit index (CFI)/Tucker–Lewis index (TLI) of the models having a value above 0.95, the  $\chi^2/df$  below 5, and the root-mean-square error of approximation (RMSEA) having a value of 0.05 and lower (Kline, 2016, see Table A2 in the supplemental appendix for all fit statistics).

## RESULTS

Below we discuss the findings in relation to our theoretical model (as displayed in Figure 1). We present the results of the two different methods for each hypothesis separately. The results are displayed in Table 3 (non-recursive SEM) and Table 4 (cross-lagged SEM).

### Household effects (path A and B)

All methods seemed to support our first hypothesis on household effects: When two parents belong to one household, the relationships an adult child has with these two parents are likely to be similar in quality (and thus, correlate positively). The non-recursive SEM model, which calculated the overall bidirectional relations using instruments, showed that children’s evaluations of their ties to mothers and stepfathers are positively associated ( $B = .327, p < .01$ ), as well as children’s evaluations of their ties to fathers and stepmothers ( $B = .360, p < .01$ ). In addition, when we used two time points in the cross-lagged SEM, we saw that mother–child closeness on  $t_1$  was associated with stepfather–child closeness on  $t_2$  ( $B = .122, p < .01$ ) and that father–child closeness on  $t_1$  was related to stepmother–child closeness on  $t_2$  ( $B = .127, p < .01$ ). The association vice versa was insignificant, indicating that the association is mostly unidirectional, from the biological tie to the step tie. This is plausible, as it suggests that closeness with a stepparent depends strongly on closeness with the biological parent, while the biological parent–child tie is more independent.

Overall, the results suggested that, when people are close (or distant) with their biological parent, they are also close (or distant) with the new partner of that parent, the stepparent. Thus, adult children have a close (or distant) tie with the mother–stepfather or father–stepmother household, rather than with only the biological parent in that household.

We also found support for the second type of household effects we hypothesized: between the stepcouple and two parent–child relationships. Looking at the non-recursive SEM, we found a significant association between mother–stepfather relationship quality and the closeness of the adult child with the stepfather ( $B = .186, p < .01$ ). The quality of the stepcouple tie was unrelated to mother–child closeness. We also found a significant association between father–stepmother relationship quality and the relationship an adult child had with the father ( $B = .162, p < .05$ ) and stepmother ( $B = .111, p < .05$ ). Finally, the cross-lagged SEM suggested reciprocal paths from the stepcouple relationship at  $t_2$  and the two related parent–child

**TABLE 3** Non-recursive SEM on parent–child closeness in stepfamilies

	Father–Child closeness	Mother–Child closeness	Stepmother–Child closeness	Stepfather–Child closeness
<i>Parent–Child closeness</i>				
Father–Child		0.063*** (0.015)	0.360*** (0.014)	–0.068*** (0.014)
Mother–Child	0.063*** (0.015)		–0.057*** (0.015)	0.327*** (0.014)
Stepmother–Child	0.360*** (0.014)	–0.057*** (0.015)		0.043*** (0.014)
Stepfather–Child	–0.068*** (0.014)	0.327*** (0.014)	0.043*** (0.014)	
<i>Parent–Parent closeness</i>				
Mother–Father	0.134*** (0.016)	0.069*** (0.017)	–0.013 (0.016)	–0.001 (0.016)
Father–Stepfather	0.042*** (0.016)			0.111*** (0.015)
Mother–Stepmother		0.016 (0.016)	0.124*** (0.015)	
Mother–Stepfather		0.013 (0.024)		0.186*** (0.023)
Father–Stepmother	0.162*** (0.025)		0.111*** (0.022)	
<i>Instruments</i>				
Parent no. of health issues	–0.240*** (0.047)	–0.215*** (0.049)	–0.137** (0.060)	–0.135*** (0.052)
Parent unemployed (ref. paid work)	–0.176 (0.162)	–0.229*** (0.068)	–0.259*** (0.073)	0.040 (0.154)
<i>Controls</i>				
Age	–0.016*** (0.006)	–0.015*** (0.005)	0.001 (0.005)	–0.003 (0.005)
Female (ref. male)	–0.054 (0.057)	0.266*** (0.054)	0.119** (0.052)	0.116** (0.053)
Duration of coresidence	0.030*** (0.006)	0.040*** (0.010)	0.034*** (0.008)	0.056*** (0.005)
Constant	1.347*** (0.232)	2.305*** (0.270)	0.632*** (0.203)	0.748*** (0.212)
Sample size ( <i>N</i> )	1,022	1,022	1,022	1,022

*Note:* Unstandardized results. Standard errors in parentheses. Data are from the OKiN survey on adults (25–45) in the Netherlands. Ref. = reference group; SEM = structural equation modeling. Missing values on independent variables are dealt with using full information maximum likelihood (FIML). We modeled bidirectional associations: We constrained the association from a parent–child dyad to a parent–parent dyad, and the association vice versa to be equal.

\*\**p* < .05. \*\*\**p* < .01.

relationships at *t*<sub>2</sub> (also significant for mother–child closeness). This indicated that, when the stepcouple became closer (or more distant), the adult children will also have a closer (or more distant) relationship with the stepparent in that couple, and vice versa.

**TABLE 4** SEM with cross-lagged-structure on parent–child closeness in stepfamilies

	Father–Child closeness $t_2$	Mother–Child closeness $t_2$	Stepmother–Child closeness $t_2$	Stepfather–Child closeness $t_2$
<i>Parent–Child closeness</i>				
Father–Child ( $t_1$ )	0.603*** (0.039)	–0.038 (0.038)	0.127*** (0.034)	–0.060** (0.029)
Mother–Child ( $t_1$ )	–0.006 (0.039)	0.643*** (0.041)	0.026 (0.028)	0.122*** (0.040)
Stepmother–Child ( $t_1$ )	0.026 (0.041)	–0.010 (0.040)	0.520*** (0.038)	
Stepfather–Child ( $t_1$ )	0.010 (0.037)	0.041 (0.042)		0.503*** (0.043)
<i>Parent–Parent closeness</i>				
Mother–Father ( $t_1$ )	0.064* (0.036)	0.026 (0.039)	–0.043 (0.034)	–0.040 (0.037)
Father–Stepfather ( $t_1$ )	–0.068* (0.038)			0.097** (0.040)
Mother–Stepmother ( $t_1$ )		0.036 (0.039)	0.038 (0.034)	
Mother–Stepfather ( $t_2$ )		0.189*** (0.046)		0.372*** (0.045)
Father–Stepmother ( $t_2$ )	0.263*** (0.038)		0.300*** (0.034)	
<i>Controls</i>				
Age	–0.011* (0.007)	–0.007 (0.007)	0.001 (0.006)	–0.003 (0.007)
Female (ref. male)	–0.101 (0.067)	0.202*** (0.069)	–0.056 (0.060)	0.121* (0.067)
Duration of coresidence	0.003 (0.006)	0.007 (0.012)	0.001 (0.008)	0.018*** (0.007)
Constant	0.281 (0.300)	0.242 (0.372)	–0.341 (0.260)	–0.390 (0.304)
Sample size ( $N$ )	447	447	447	447

*Note:* Unstandardized results. Standard errors in parentheses. Data are from the OKiN survey on adults (25–45) in the Netherlands. Ref. = reference group; SEM = structural equation modeling. Missing values on independent variables are dealt with using full information maximum likelihood (FIML). We modeled bidirectional associations (without equality constraints) using closeness at Wave 1 as predictors for closeness at Wave 2.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

## Parental gatekeeping toward ex-partner (path C and D)

The non-recursive SEM model suggested that the perceived quality of the biological mother–father tie was positively associated with father–child closeness ( $B = .134, p < .01$ ) and mother–child closeness ( $B = .069, p < .01$ ), but the association with the mother–child tie was considerably smaller in comparison. This difference is significant, Wald  $\chi^2(1) = 8.01, p < .01$ . Finally, we saw that the perceived mother–father relationship at  $t_1$  significantly related to the father–child closeness at  $t_2$  ( $B = .064, p < .01$ ), whereas mother–child closeness at  $t_2$  was unaffected. This indicated that, when

the quality of the mother–father tie changes for the better, father–child closeness also changes for the better (although the results also suggested bidirectional association).

Overall, when the two ex-spouses do not get along, as perceived by the child, adult children’s evaluations of their ties with biological fathers are weaker, whereas adult children’s evaluations of their ties with biological mothers are not affected as much. The finding displayed a gender difference, as father’s ties to adult children were more sensitive to variation in the quality of the mother–father tie than mother’s ties to adult children.

### **Parental (indirect) gatekeeping toward stepparent (path E and F)**

The relationship between the biological parents may indirectly restrict/facilitate closeness in the stepparent–child dyad via household effects. However, in contrast to our hypotheses, we found no significant associations between the mother–father tie and stepparent–child closeness.

### **Parental (direct) gatekeeping toward stepparent (path G and H)**

There could also be a more direct way in which interparental dynamics affects how the child feels toward the stepparents, namely, the restrictive/facilitative dynamics driven by the bond between the biological parent and the new partner of their ex-spouse. This hypothesis was confirmed by both models. The non-recursive SEM suggested that the extent to which the mother and stepmother get along currently was positively associated to closeness in stepmother–child ties ( $B = .124, p < .01$ ), whereas closeness in stepfather–child ties was related to the bond between the father and stepfather ( $B = .111, p < .01$ ). The cross-lagged SEM showed reciprocal paths between the father–stepfather tie at  $t_1$  and stepfather–child closeness at  $t_2$  ( $B = .097, p < .05$ ), but no reciprocal paths were found with respect to mother–stepmother tie-quality.

Hence, when the father–stepfather relationship became closer (or more distant), the adult children also became closer (or more distant) with the stepfather, and vice versa. These results may indicate that divorced parents, based on the bond with the new partners of their ex-spouses, show interfering behaviors toward the stepparent (intentionally or not), making the adult child either feel more/less comfortable maintaining a close tie with the stepparent.

The gender asymmetries we hypothesized were less clear with respect to stepparents. Overall, we did see that stepmothers’ ties to adult children are sensitive to the quality of parent–stepparent ties (although only for the non-recursive SEM), but not more sensitive than stepfathers’ ties to adult children. That is, stepmother–child closeness was contingent on the mother–stepmother dyad, but in a similar manner, stepfather–child ties were contingent on the quality of the father–stepfather dyad (post-estimation tests confirmed the difference is not significant, with Wald  $\chi^2(1) = 0.40, p > .05$  and Wald  $\chi^2(1) = 1.25, p > .05$ ).

### **Substitution (path I)**

The concept of substitution, where one is more likely to be close to one father/mother figure than to be close to both or neither, would empirically translate to a negative correlation between the two ties. The non-recursive SEM model suggested weak substitution between father–child ties and stepfather–child ties ( $B = -.068, p < .01$ ), as well as weak substitution between mother–child ties and stepmother–child ties ( $B = -.057, p < .01$ ).<sup>4</sup> These associations suggested that children are more drawn to one father/mother figure when their relationship to the other father/mother figure is more distant. The cross-lagged SEM model, however, showed that mother–child closeness at  $t_1$  did not significantly relate to stepmother–child closeness at  $t_2$ ,

but the model did consistently show weak substitution between fathers and stepfathers ( $B = -.060, p < .05$ ). That is, we found that, when the father–child relationship becomes more distant (or closer), the adult child is more likely to become closer (or more distant) with the stepfather. The association seemed to be unidirectional, which means that the biological father–child dyad influences the stepfather dyad without also experiencing a reciprocal influence in return.

## CONCLUSION AND DISCUSSION

Whereas traditional two-biological parent families consist of a parental dyad and two parent–child dyads, stepfamilies generally include an ex-couple dyad, parent–child dyads, stepparent–child dyads, parent–stepparent dyads, and stepcouple dyads. Scholars generally work from the belief that there are reciprocal influences among all dyads of a family unit (Minuchin, 1974). In the current paper, we explored this premise empirically using large-scale survey data on adult children. By studying parent–child ties and stepparent–child ties as a function of the other dyads within the family unit, the current study provided insights on (a) the functioning of stepfamilies in adulthood, (b) the hierarchy in the interdependencies between family ties, and (c) the potentially gendered dynamics in these interdependencies.

We proposed a theoretical framework to consider which interdependencies are expected within stepfamilies and tested it using adult children’s reports about their ties *with* and *between* all their (step)parents. We first looked at the interrelations between the dyads that are connected to the stepparent households that formed after the parents’ remarriage. Our findings suggested that there are strong *household effects* in children’s relationships with their biological parents and stepparents. Adult children who are close (or distant) to their biological parent are generally also close (or distant) with the new partner of that parent (in the minority of cases in which this tendency did not apply, the adult is presumably close with the biological parent, but not with the stepparent; see Hornstra et al., 2022). The individual ties were also associated with the stepcouple tie. The implication is that many children either have multiple positive or multiple negative relationships connected to one stepfamily household. At the same time, improvement in one relationship could flow over and be beneficial for all ties connected to the household. In sum, the adult child had a relationship with a household rather than with the two parents in that household individually.

We proceeded by looking at the associations between family dyads that prior to the parents’ separation belonged to one household. We found that the quality of the mother–father dyad is significantly associated with the closeness between adult children and their biological fathers. The findings were gendered, as the results were more mixed for the association with mother–child closeness. The association between the mother–father tie and mother–child closeness was not significant in one of the models and considerably smaller in magnitude. The extent to which the divorced parents get along currently may be interpreted as proxy for the parents’ facilitative or restrictive behaviors toward each other in youth (McBride et al., 2005), as well as their interparental dynamics currently (Baker & Eichler, 2014). If so, a more positive mother–father tie is expected to correspond with less restrictive dynamics from either divorced parent toward the other. Both parent–child relationships are then likely to be closer. This implies that, if parents indeed have difficulty separating their issues as ex-partners from their role as co-parents, this amplifies the disadvantaged position of fathers.

A remaining question is whether there are also interdependencies between the dyads from the former household and the dyads in the new stepfamily households. One reasoning behind this question is that interparental dynamics can also exist between a parent and the new partner of a former spouse. We found no association between mother–father ties and stepparent–child closeness. Rather, our findings imply more direct forms of gatekeeping, which depend on the

biological parent not getting along with the new partner of their former spouse. That is, stronger father–stepfather ties were associated with closer stepfather–child ties and stronger mother–stepmother ties were associated with closer stepmother–child ties. Interestingly, biological mothers were not shown to have a larger effect on stepmother ties than biological fathers have on stepfather ties.

According to the literature, some parents are able to function as substitutes (White & Gilbreth, 2001). Our results imply small but significant substitution in children’s ties to mothers and stepmothers and children’s ties to fathers and stepfathers. This means, for instance, that if the bond between the adult child and biological father is more distant, the child is likely to be more drawn to the stepfather.

In general, we have shown that there are relational influences between parent–child ties and most dyads within the family unit. However, our findings also suggested that not all dyadic relations are associated to the same extent, rather showing clear primary and secondary effects. To start, we saw that household effects play a larger role in comparison, which could indicate that other interdependencies run mostly between the three units on the household level: the adult child, the mother–stepfather household, and the father–stepmother household. We also saw comparatively strong associations with respect to the mother–father tie, in particular for father–child closeness. This complies with the general argument that the biological mother has a more central position in shaping intergenerational ties. Mothers’ relationships with their children are therefore expected to be less sensitive to the quality of other relationships in the kinship network than fathers’ relationships with their children. Moreover, the substitution associations were smaller in comparison. Parental gatekeeping toward stepparents, either direct or indirect, also seemed to play a more secondary role.

## Limitations and future directions

Although this study is the first to systematically examine the embeddedness of parent–child ties within an array of different types of family ties, there are some limitations to our study that should be considered. First, as our data consisted of two waves of data on adult children, we are not able to examine potential changes in the quality of adult children’s ties between childhood and adulthood. This limits our results, as some of the associations may actually be the outcome of dynamics between family members at earlier times rather than similar dynamics presently.

Second, given that we are not directly testing the mechanisms proposed in our theoretical framework, we cannot conclude with complete certainty the associations found in our study are actually driven by our proposed mechanisms (e.g., exposure, gatekeeping, conflicting loyalty, substitution). It should be noted, however, that this issue applies to most studies that use relationship systems as the unit of analysis. The current study followed the tradition of social network studies, which typically do not rely on measures about motive or intent, but rather rely on measures related to the structure of a (family) system (e.g., parent–child dyads) to study questions related to interdependence. Guided by our findings, it would be insightful if future works examine the proposed underlying mechanisms more directly.

Third, alternative explanations should be considered. This is especially important with respect to the found associations with parent–parent ties. Our knowledge on gatekeeping practices in adulthood is limited, with most earlier studies referring to the period when the child is young, lives with (one of) the parents, and is still in need of childcare. There are reasons to believe that gatekeeping does not simply stop once children leave the nest. At the same time, we cannot be sure that parents’ interference is still effective when children are adults. Rather than parent facilitation or restriction, it may be the adult child who decides to take a step back from two parents who do not get along. Another alternative is that the associations with parent–parent ties are due to

parents' interpersonal relationship skills. Those who have poorer relationship skills and those with a more difficult personality (e.g., less agreeable, more neurotic) may have problems maintaining positive ties with all members within the family unit.

Fourth, as our measures on relationship quality are based on the reports by the adult child only, our findings are prone to single-reporter bias. As a result, our findings reflect the situation as experienced by the adult child (from "the eye of the beholder"). Note that using multiple sources was not feasible, as this would compromise the size of our sample. Moreover, an earlier study using the OKiN survey compared reports by children (the anchors) and reports by parents (the alters) and found that, although there were differences, adults and their parents were in high agreement on the quality of parent-child ties. This was captured by strong correlations between the anchor and alter reports (van Houdt et al., 2020a).

Finally, in using cross-lagged SEM models, we tried to empirically acknowledge the role of bidirectional associations and offer a first exploration into the unidirectional effects that could exist with respect to the ties in stepfamilies. However, this method is built on strong assumptions. One assumption is that the covariates are measured perfectly and therefore, we need to acknowledge that if there is considerable measurement error in our Wave 1 variables, our findings on unidirectional effects may be biased. Still, when the cross-lagged model does find that associations are unidirectional in nature, the found effect does comply with the theory (e.g., bio ties affect step ties). This adds confidence to our findings.

In the future, more research should focus on the reciprocal influences among all members of a stepfamily unit—acknowledging the structure of ties in which parent-child relationships are embedded (within-family approach; Ganong & Coleman, 2016). In doing so, future works could "zoom in" on specific interrelations found in our study and examine if they are indeed driven by mechanisms such as kinkeeping, gatekeeping, conflicting loyalty, or substitution. Alternatively, future studies could build upon our work by "zooming out" and including indicators of sibling relationship quality or grandparent relationship quality.

Moreover, biological mothers were not found to have a larger effect on stepmother ties than biological fathers have on stepfather ties. Given this surprising result, it may be relevant to further study how people perceive stepparenthood and the extent to which this differs according to the cultural context (e.g., norms on caring, gender, or family; Arts et al., 2003).

Finally, since intergenerational relationships have been suggested to relate to child outcomes (Jensen et al., 2017), future studies on child outcomes should also consider the interdependence between ties. When the quality of one relationship depends in part on the quality of another family relationship, its influence on child outcomes may also partly depend on the other relationship. One example is to examine if the quality of the ex-spouse dyad influences child outcomes and particularly, whether potential withdrawal from either the mother or father mediates this association. Another example would be to test whether the benefits of being close to a biological parent in terms of child outcomes depends on the relationship that child has with a new partner of the biological parent. Longitudinal analyses would again be ideal to overcome the ambiguity surrounding the order of associations between family relationships and child outcomes.

## Implications

Stepfamilies have been argued to be incompletely institutionalized (Cherlin, 1978). Relevant for family practitioners is that, by studying families as interdependent units, we provide insights on the *functioning* of stepfamilies in adulthood. This is important, as the number of adult children from more complex types of families increases (Thomson, 2014). If our interpretations are correct, the implication is that shifts within a family network—that is, in the quality or functioning of one part of family network—are likely to result in a spillover effect, also affecting other parts of the family network in terms of relationship quality. In practice, this adds to the existing

argument that, in programs that attempt to strengthen the ties between (adult) children and parents after divorce, it is more efficient to consider the entire family unit than to focus on one constituent member or dyad of that unit (Fingerman & Bermann, 2000). Moreover, our findings imply that some parts of the family network have a more central position in shaping the quality of family ties than others (e.g., the role of the mother–father tie for closeness with divorced fathers). In sum, our article calls for a more integrated approach to family dynamics in which the embeddedness of parent–child ties within kinship systems is better acknowledged.

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## ENDNOTES

- <sup>1</sup> The adult child is living independently and thus, not part of the stepfamily household. The concept refers to the child having a relationship with the stepfamily household rather than with the people in that household individually.
- <sup>2</sup> We also considered the marital status and parenthood status of the respondents as controls. As neither control variable had explanatory power and because the model fit was lower after their inclusion, we did not keep the two variables in our models.
- <sup>3</sup> Note that we first started with an explorative step by calculating partial correlations between all family dyads before we moved to the two SEM models (see Table A1 in the supplemental appendix). The advantage is that partial correlations express the linear associations between two family dyads ( $y_1$ ,  $y_2$ ) after the variability in both  $y_1$  and  $y_2$  associated with the other family dyads in the model is removed. It naturally captures the bidirectional nature of the association between two family dyads, while it does not require longitudinal data or equality constraints (as our main models do). It therefore provided an important explorative step to which the two more sophisticated models were compared. In comparison, the two SEM strategies produced findings that were similar to the explorative partial correlations in terms of the nature and significance of the associations.
- <sup>4</sup> Note that the associations are controlled for the potential trade-off between fathers/stepfathers and mothers/stepmothers in coresidence and investment histories.

## REFERENCES

- Ahrons, C. R., & Tanner, J. L. (2003). Adult children and their fathers: Relationship changes 20 years after parental divorce. *Family Relations*, 52(4), 340–351. <https://doi.org/10.1111/j.1741-3729.2003.00340.x>
- Allen, S. M., & Hawkins, A. J. (1999). Maternal gatekeeping: Mothers' beliefs and behaviors that inhibit greater father involvement in family work. *Journal of Marriage and Family*, 61(1), 199–212. <https://doi.org/10.2307/353894>
- Amato, P. R., & Afifi, T. D. (2006). Feeling caught between parents: Adult children's relations with parents and subjective well-being. *Journal of Marriage and Family*, 68(1), 222–235. <https://doi.org/10.1111/j.1741-3737.2006.00243.x>
- Amato, P. R., & Keith, B. (1991). Parental divorce and the well-being of children: A meta-analysis. *Psychological Bulletin*, 110(1), 26–46. <https://doi.org/10.1037/0033-2909.110.1.26>
- Amato, P. R., King, V., & Thorsen, M. L. (2016). Parent–Child relationships in stepfather families and adolescent adjustment: A latent class analysis. *Journal of Marriage and Family*, 78(2), 482–497. <https://doi.org/10.1111/jomf.12267>
- Arránz Becker, O., Salzburger, V., Lois, N., & Nauck, B. (2013). What narrows the stepgap? Closeness between parents and adult(step) children in Germany. *Journal of Marriage and Family*, 75(5), 1130–1148. <https://doi.org/10.1111/jomf.12052>
- Arts, W., Hagenaars, J., & Halman, L. (Eds.). (2003). *The cultural diversity of European unity: Findings, explanations and reflections from the European Values Study*. Brill Academic. <https://doi.org/10.1163/9789047400035>
- Baker, A. J., & Eichler, A. (2014). College student childhood exposure to parental loyalty conflicts. *Families in Society*, 95(1), 59–66. <https://doi.org/10.1606/1044-3894.2014.95.9>
- Berry, W. D. (1984). *Nonrecursive causal models*. Sage.
- Börsch-Supan, A., Hank, K., & Jürges, H. (2005). A new comprehensive and international view on ageing: Introducing the 'Survey of Health, Ageing and Retirement in Europe'. *European Journal of Ageing*, 2(4), 245–253. <https://doi.org/10.1007/s10433-005-0014-9>
- Buchanan, C. M., Maccoby, E. E., & Dornbusch, S. M. (1991). Caught between parents: Adolescents' experience in divorced homes. *Child Development*, 62(5), 1008–1029. <https://doi.org/10.1111/j.1467-8624.1991.tb01586.x>
- Cherlin, A. (1978). Remarriage as an incomplete institution. *American Journal of Sociology*, 84(3), 634–650. <https://doi.org/10.1086/226830>

- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, 48(1), 243–267. <https://doi.org/10.1146/annurev.psych.48.1.243>
- Dudley, J. R. (1991). Increasing our understanding of divorced fathers who have infrequent contact with their children. *Family Relations*, 40(3), 279–285. <https://doi.org/10.2307/585012>
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin*, 118(1), 108–132. <https://doi.org/10.1037/0033-2909.118.1.108>
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *The International Journal of Aging and Human Development*, 51(1), 5–29. <https://doi.org/10.2190/7TF8-WB3F-TMWG-TT3K>
- Fischer, T. F. C., de Graaf, P. M., & Kalmijn, M. (2005). Friendly and antagonistic contact between former spouses after divorce: Patterns and determinants. *Journal of Family Issues*, 26(8), 1131–1163. <https://doi.org/10.1177/0192513X05275435>
- Ganong, L. H., & Coleman, M. (2016). *Stepfamily relationships: Development, dynamics, and interventions* (2nd ed. 2017 ed.). Springer.
- Giles-Sims, J., & Crosbie-Burnett, M. (1989). Stepfamily research: Implications for policy, clinical interventions, and further research. *Family Relations*, 38(1), 19–23. <https://doi.org/10.2307/583604>
- Heider, F. (1958). *The psychology of interpersonal relations*. Wiley.
- Homans, G. C. (1961). Social behavior: Its elementary forms. *Harcourt, Brace, and World*.
- Hornstra, M., Kalmijn, M., & Ivanova, K. (2020). Fatherhood in complex families: Ties between adult children, biological fathers, and stepfathers. *Journal of Marriage and Family*, 82(5), 1637–1654. <https://doi.org/10.1111/jomf.12679>
- Hornstra, M., Kalmijn, M., & Ivanova, K. (2022). Dissonant relationships to biological parents and stepparents and the well-being of adult children. *Journal of Social and Personal Relationships*, 39(3), 481–504. <https://doi.org/10.1177/02654075211031984>
- Ivanova, K., & Kalmijn, M. (2020). Parental involvement in youth and closeness to parents during adulthood: Stepparents and biological parents. *Journal of Family Psychology*, 34(7), 794–803. <https://doi.org/10.1037/fam0000659>
- Jensen, T. M. (2017). Constellations of dyadic relationship quality in stepfamilies: A factor mixture model. *Journal of Family Psychology*, 31(8), 1051–1062. <https://doi.org/10.1037/fam0000355>
- Jensen, T. M., & Shafer, K. (2013). Stepfamily functioning and closeness: Children's views on second marriages and stepfather relationships. *Social Work*, 58(2), 127–136. <https://doi.org/10.1093/sw/swt007>
- Jensen, T. M., Shafer, K., & Holmes, E. K. (2017). Transitioning to stepfamily life: The influence of closeness with biological parents and stepparents on children's stress. *Child & Family Social Work*, 22(1), 275–286. <https://doi.org/10.1111/cfs.12237>
- Kalmijn, M. (2013). Adult children's relationships with married parents, divorced parents, and stepparents: Biology, marriage, or residence? *Journal of Marriage and the Family*, 75(5), 1181–1193. <https://doi.org/10.1111/jomf.12057>
- Kalmijn, M., de Leeuw, S. G., Hornstra, M., Ivanova, K., van Gaalen, R., & van Houdt, K. (2019). Family complexity into adulthood: The central role of mothers in shaping intergenerational ties. *American Sociological Review*, 84(5), 876–904. <https://doi.org/10.1177/0003122419871959>
- Kalmijn, M., & Hornstra, M. (2020). *A survey of adult children and their family relationships in the Netherlands: The second wave of the OKiN anchor survey*. Netherlands Interdisciplinary Demographic Institute.
- Kalmijn, M., Ivanova, K., van Gaalen, R., de Leeuw, S. G., van Houdt, K., van Spijker, F., & Hornstra, M. (2018). A multi-actor study of adult children and their parents in complex families: Design and content of the OKiN survey. *European Sociological Review*, 34(4), 452–470. <https://doi.org/10.1093/esr/jcy016>
- King, V. (2006). The antecedents and consequences of adolescents' relationships with stepfathers and nonresident fathers. *Journal of Marriage and Family*, 68(4), 910–928. <https://doi.org/10.1111/j.1741-3737.2006.00304.x>
- King, V. (2007). When children have two mothers: Relationships with nonresident mothers, stepmothers, and fathers. *Journal of Marriage and Family*, 69(5), 1178–1193. <https://doi.org/10.1111/j.1741-3737.2007.00440.x>
- King, V., Thorsen, M. L., & Amato, P. R. (2014). Factors associated with positive relationships between stepfathers and adolescent stepchildren. *Social Science Research*, 47, 16–29. <https://doi.org/10.1016/j.ssresearch.2014.03.010>
- Klaus, D., Nauck, B., & Steinbach, A. (2012). Relationships to stepfathers and biological fathers in adulthood: Complementary, substitutional, or neglected? *Advances in Life Course Research*, 17(3), 156–167. <https://doi.org/10.1016/j.alcr.2012.01.006>
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Marsiglio, W., & Hinojosa, R. (2007). Managing the multifather family: Stepfathers as father allies. *Journal of Marriage and Family*, 69(3), 845–862. <https://doi.org/10.1111/j.1741-3737.2007.00409.x>
- McBride, B. A., Brown, G. L., Bost, K. K., Shin, N., Vaughn, B., & Korth, B. (2005). Paternal identity, maternal gatekeeping, and father involvement. *Family Relations*, 54(3), 360–372. <https://doi.org/10.1111/j.1741-3729.2005.00323.x>
- Minuchin, S. (1974). *Families and family therapy*. Harvard University Press.
- Schmoeckle, M. (2007). Gender dynamics in stepfamilies: Adult stepchildren's views. *Journal of Marriage and Family*, 69(1), 174–189. <https://doi.org/10.1111/j.1741-3737.2006.00352.x>
- Seltzer, J. A., Schaeffer, N. C., & Charng, H. (1989). Family ties after divorce: The relationship between visiting and paying child support. *Journal of Marriage and Family*, 51(4), 1013–1031. <https://doi.org/10.2307/353213>

- Sobolewski, J. M., & King, V. (2005). The importance of the coparental relationship for nonresident fathers' ties to children. *Journal of Marriage and Family*, 67(5), 1196–1212. <https://doi.org/10.1111/j.1741-3737.2005.00210.x>
- Steinbach, A., Kopp, J., & Lazarevic, P. (2019). Divergent perceptions of intergenerational relationships: What implications, if any? *Journal of Family Studies*, 25(4), 368–384. <https://doi.org/10.1080/13229400.2016.1269659>
- Stewart, S. D. (2007). *Brave new stepfamilies: Diverse paths toward stepfamily living*. Sage.
- Thomson, E. (2014). Family complexity in Europe. *The Annals of the American Academy of Political and Social Science*, 654(1), 245–258. <https://doi.org/10.1177/0002716214531384>
- Thorson, A. R. (2017). Communication and parental infidelity: A qualitative analysis of how adult children cope in a topic-avoidant environment. *Journal of Divorce & Remarriage*, 58(3), 175–193. <https://doi.org/10.1080/10502556.2017.1300019>
- van Houdt, K., Kalmijn, M., & Ivanova, K. (2020a). Perceptions of closeness in adult parent–child dyads: Asymmetry in the context of family complexity. *The Journals of Gerontology: Series B*, 75(10), 2219–2229. <https://doi.org/10.1093/geronb/gbaa122>
- van Houdt, K., Kalmijn, M., & Ivanova, K. (2020b). Stepparental support to adult children: The diverging roles of stepmothers and stepfathers. *Journal of Marriage and Family*, 82(2), 639–656. <https://doi.org/10.1111/jomf.12599>
- Weaver, S. E., & Coleman, M. (2010). Caught in the middle: Mothers in stepfamilies. *Journal of Social and Personal Relationships*, 27(3), 305–326. <https://doi.org/10.1177/0265407510361729>
- White, L., & Gilbreth, J. G. (2001). When children have two fathers: Effects of relationships with stepfathers and non-custodial fathers on adolescent outcomes. *Journal of Marriage and Family*, 63(1), 155–167. <https://doi.org/10.1111/j.1741-3737.2001.00155.x>

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