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The long reach of childhood.

Childhood experiences influence close relationships and loneliness across life

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Abstract

This paper intends to gain insight into the role of childhood relationships and experiences within the parental home for the formation and meaning of later family relationships and loneliness. Particularly, childhood attachment to mother and father and stressful childhood experiences were studied in their association with satisfaction in the romantic relationship, the quality of adult family ties and the perceived quality of the social network, i.e. loneliness in adulthood. Based on data from the Netherlands Kinship Panel Study ($N = 3,980$) structural equation models were estimated to predict adult relationships and loneliness with childhood experiences. Positive attachment experiences with parents, such as reliability, closeness and supportiveness during childhood were associated with greater satisfaction in the romantic relationship, stronger family ties and higher quality in the social network, i.e. less loneliness, whereas stressful childhood experiences, such as conflicts and violence negatively predicted the quality of adult relationships. Life span theoretical perspectives, such as attachment theory are discussed as useful unifying framework to study social relationships, their interconnectedness and association with outcome during all phases of life.

1. Introduction

Clearly humans need each other. Social relationships play a major role in individuals' lives and can be the source of comfort, support and protection during the whole life course. Childhood relationships with parents are the first and most crucial relationships through which children learn to organize meaning (Marris, 1991). Childhood experiences lead to the formation of mental representations about the availability and reliability of trusted figures. These representations are thought to guide people in establishing close relationships throughout life (Fiori, Consedine, & Merz, 2011; Merz & Consedine, 2009). Research on childhood (e.g., Raikes & Thompson, 2008) and adolescence (e.g., Willemen, Schuengel, & Koot, 2009) clearly supports this supposition but less is known about aspects of close relationships and their origin in adulthood and older age (Merz, Schuengel, & Schulze, 2007). This is unfortunate because adult relationships, especially the pair bond between romantic partners, can be an important resource in dealing with life's challenges such as aging, declining health and shrinking social networks. Given societal changes such as longevity, increasing divorce rates and acquiring different roles across life, it is important to examine aspects that might influence the development of adult family relationships and loneliness. One possible predictor of adult relationships might be childhood experiences with availability and reliability of close figures, usually the parents, during childhood.

Based on an attachment theory (Bowlby, 1969/1982) framework, the current study examined experiences within the relationship with parents during childhood, that is reliability, availability and stressful aspects, in their association with adult family ties, satisfaction with the romantic relationship and loneliness to shed some light on the processes behind the development and maintenance of adult relationships. First general concepts from attachment theory are discussed and applied into a life course framework. The remainder of the introduction describes possible relationship patterns based on childhood experiences leading

to different relationship outcome in adulthood. We intended to take a life course approach in spanning childhood and adulthood in order to integrate the scattered literature on the role of family relationships of individuals during certain phases in life. We aim to contribute to the literature by shedding light on the mechanism behind the complex interplay among family relationships during childhood and in adulthood with paying special attention to the central role of the romantic bond in this multifaceted associations. Data from the Netherlands Kinship Panel Study (NKPS, Dykstra et al., 2012) are used to estimate structural models in explaining the interplay among childhood experiences, adult romantic relationships, family ties and loneliness.

1.1. Relationships Across Life— An Attachment Perspective

1.1.1. Childhood memories and the parental home. The underlying assumption about attachment across life is that close relationships in which security and comfort are sought and provided start in and continue beyond childhood (Colin, 1996). During the years from infancy to adolescence individuals gradually build up expectations regarding close ties, based on experiences in their relationships (Feeney, 2008). In parent-child interactions children receive answers and reactions either recognizing or ignoring their wishes and needs. When the caregiver is reacting sensitively to a child's needs and wishes, the child becomes able to integrate negative feelings like anger, grief, sadness and helplessness into goal oriented ideas. Based on this integration the child obtains a communicative strategy to also handle and cope with negative feelings. If however, the caregiver is ignoring or rejecting a child's needs and wishes, the expression of the child's anger could develop in a dysfunctional way (Grossmann, 2004). Experiences, memories and the expectations about the availability and responsiveness of close figures are incorporated into a mental representation of the self, of others and of close relationships, which guides perceptions and behavior in later relationships (Feeney, 2008). Children who have developed good relationships and attachment security, based on

experiences with reliable caregivers, typically show positive views of the self and others, and desire closeness within relationships (Kachadourian, Fincham, & Davila, 2004) across life. They manage to maintain a balance between being autonomous and having satisfying relationships with others, depending on them or having others dependent on themselves. Such children are expected to establish and maintain healthy and fulfilling relationships with a romantic partner and family members during adulthood.

Conversely, early experiences characterized by stressful childhood environments, unavailability of trusted figures and negative life events such as neglect or violence, lead to the development of less positive representations of relationships in which either the self and/or the relationship partners are negatively viewed. Insecurity about relationships with important people limits our trust in the world and the risks we are prepared to take to explore it (Merz & Consedine, 2012). Persons who have developed such negative representations generally have pessimistic views regarding interactions with other people (Mikulincer, Shaver, & Pereg, 2003), associated with less social support exchange and ineffective support seeking in times of stress (Kobak & Sceery, 1988). They have difficulties with being close or dependent on others as well as having others depend on them accompanied by difficulties with balancing care giving and care seeking behavior within significant relationships.

Although attachment research has always acknowledged the central role of primary caregivers, usually the mother, for the development of children into adolescents and adults, only few studies have extended this work to covering the whole life course (Van IJzendoorn & Bakermans-Kranenburg, 2010). In addition, for a long time attachment research has neglected the role of fathers and mainly focused on the mother. However, fathers play a special and unique role in upbringing children and contribute specific features to the social and emotional development of children (Mallers, Charles, Neupert, & Almeida, 2010).

Especially in stimulating exploration fathers have been shown to be important figures in children's development (Grossmann, Grossmann, Kindler, & Zimmermann, 2008).

1.1.2. Romantic relations. Finding someone to share life with in a long lasting and stable partnership is a key social process, many adults aim to establish (Holmes & Johnson, 2009). Romantic relationships play a central role in adults' lives and are associated with all kinds of outcome, such as wellbeing (Musick & Bumpass, 2012; Soons & Liefbroer, 2008; Soons, Liefbroer, & Kalmijn, 2009), health (Musick & Bumpass, 2012), and mortality (Drefahl, 2012). Fulfilling and satisfying partnerships protect individuals from loneliness (De Jong Gierveld, Broese van Groenou, Hoogendoorn, & Smit, 2009) and may also function as an avenue through which many other contacts are established and maintained.

Positive experiences with parents during childhood may ease the partnering process for young adults. Individuals with positive relationship histories might be equipped with social and cognitive competencies that allow and influence the formation of positive and stable romantic relationships. From an attachment perspective, being involved in a stable and satisfying romantic relationship may enable adults with negative childhood experiences to alter their insecure internal representations with respect to relationships from a skeptic to a more trustworthy approach (Feeney, 2008; Simpson, Collins, & Salvatore, 2011).

The benefits individuals experience from romantic relationships are distinct from those of other social bonds. In other words, the romantic relationship has a unique position in the social networks of human adults and offers protection and care (Zeifman & Hazan, 2008). It usually is a close and significant relationship through which individual behavior and other relationships both with kin and non-kin may be shaped.

1.1.3. Adult family ties. Adults' evaluations of their childhood experiences and family life with primary caregivers, most often the parents, and their influences on current functioning are manifested within a relative stable state of mind (Van IJzendoorn, 1995) and

guide individuals in their adult relationships. However, changes in this state of mind are not only possible but significantly associated with presence and timing of life events (Roisman, Padrón, Sroufe, & Egeland, 2002; Thompson, 2000). Negative representations of the relationship with parents may be revised in adulthood based on positive experiences with close romantic partners or with family members, such as siblings. Individuals who manage to overcome negative experiences and adversities in childhood have been shown to successfully maintain and enjoy close relationships in adulthood (Roisman et al., 2002). Family relationships have been identified important resources for adults to maintain or regain health, life satisfaction and wellbeing (e.g., Merz & Consedine, 2009; Tesch-Römer, Motel-Klingebiel, & Von Kondratowitz, 2002). Embedding in a close family network protects people from adverse life events and enables individuals to successfully cope with them. For example Voorpostel, Van der Lippe, and Flap (2012) have shown that those with supportive and less strained sibling relationships experienced less negative life events such as divorce or physical and psychological illnesses, suggesting a protecting role of family networks in exposure to negative life events. As suggested by Bengtson (2004) it is necessary to look beyond the nuclear family when examining the influential power of family ties.

1.1.4. Loneliness. Perlman and Peplau (1981, p. 31) defined loneliness as “the unpleasant experience that occurs when a person’s network of social relationships is deficient in some important way, either quantitatively or qualitatively”. Another definition of loneliness is that “loneliness is a situation experienced by the individual as one where there is an unpleasant or inadmissible lack (quantity or quality) of certain relationships. This includes situations in which the number of existing relationships is smaller than is considered desirable or admissible, as well as situations where the intimacy one wishes for has not been realized” (De Jong Gierveld, 1987, p.120). Central to both definitions is that loneliness is a

subjective, negative experience – the outcome of a cognitive evaluation of the match between the quantity and quality of existing relationships and relationship standards.

1.2. Positive and Negative Relationship Careers: The Current Study and Hypotheses

Ample evidence has shown the general salutatory effect of positive relationships on various kinds of outcome. Additionally, it has been shown that experiences within the parental home – early relationships with parents – influence mental and physical functioning throughout life (Repetti, Taylor, & Seeman, 2002). However, what has been lacking so far is an integration of these two strands of literature. Knowledge about the origin of types of adult relationships is scarce: Where do they come from? How they are experienced? Why are they how they are? Many studies focus on specific periods during the life course only. There are whole literatures on adolescence, young adulthood and old age. Yet, not many studies cover the whole adult age range spanning young adulthood until the end of the life span. In addition, these studies often rely on small samples. The current study intends to contribute to the literature in three important ways. First, it intends to shed light on the shaping of adult relationships across the whole adult age range. Second, it applies attachment theoretical concepts to large scale survey data. And third, it includes a large sample.

Based on the above discussed literature it is expected that adult relationships depend on earlier experiences within relationships and, comparable to outcome such as health and wellbeing, are positively influenced by memories of warm and supportive childhood environments. Individuals with memories of reliable and sensitive parents have developed positive relationship representations leading to fulfilling adult relationships with the romantic partner and family members. Such relationship experiences may furthermore relate to a general positive view and perceived high quality of the social network and therefore low loneliness. As discussed by Grossmann et al. (2008) both attachment relationships with

fathers and mothers have an important influence on the social functioning of children, adolescents and adults. Individuals who have experienced their mothers and fathers as caring, loving, and supportive in exploring have been found to be able to appropriately respond to life's challenges. Additionally, greater competence in establishing adult relationships has been ascribed to them (Grossmann et al., 2008). Contrary, experiences of rejection, violence and fights in the relationship with parents during childhood may negatively influence adult relationships with the romantic partner (cf. Brown, Craig, Harris, & Handley, 2008 for women), and the family network. Such experiences may also lead to the perception of a restricted social network in which several social needs such as companionship and support stay unfulfilled and feelings of loneliness are high.

It has been suggested that experiences within the parental home, in the relationship with parents and experiences in the relationship with the romantic partner should be jointly studied in their influence on later life development (Simpson et al., 2011). Individuals can depart from secure childhood environments and memories of reliable and available parents and then are exposed to a variety of challenges with regard to relationships during life, such as conflicts and violence, and different experiences with romantic partners such as closeness, love, stability but also infidelity, conflicts and break-ups. Taken together, positive and negative relationship trajectories can be imagined. Adult relationship outcome is systematically linked to experiences occurring early in life and influenced by later developments with regard to close relationships such as romantic bonds and family ties. In brief, individuals with positive childhood experiences are hypothesized to show higher satisfaction with their romantic relations, closer adult family ties and less loneliness. Contrary, negative relationship experiences might lead to less satisfaction with the romantic relationship, distanced family ties and a lower perceived quality of the social network, that is higher feelings of loneliness. Additionally, satisfaction with the partner relationship is

expected to positively relate to the quality of family ties and a lack of loneliness. With its central role in the social network of individuals, the romantic relationship may influence both the quality of the relationships with other family members and the way how individuals perceive their social network and whether they experience loneliness. Fig. 1 depicts the hypothesized associations among childhood and adulthood relationships and loneliness.

[Figure 1 about here]

2. Method

2.1 *Participants and Procedure*

The data for the present work stem from the second wave of the NKPS (Dykstra et al., 2012). The NKPS, a collaboration between the Netherlands Interdisciplinary Demographic Institute, the University of Amsterdam, Utrecht University and Tilburg University, was intended to examine family and kinship relationships across the Netherlands with a particular focus on intergenerational solidarity. It is a representative survey among individuals living in private households in the Netherlands aged 18-79 years in the first wave. As part of the study, respondents were asked questions about their relationship with several family members, including for example partner and parents. First wave data were collected from October 2002 until January 2004. Second wave data were collected from September 2006 until June 2007. A total of 6,026 of the former 8,161 NKPS main respondents was interviewed again¹. The questionnaires in Wave 2 focused on the changes that had taken place in the lives of the respondents and their families since the first wave but also included new variables to shed more light on experiences within the parental home; these variables were central to the focus of the present study. In addition, because we were especially interested in the quality of the romantic relationship and its role in association with both the childhood memories and adult

¹ The remaining approximately 2000 respondents could not be re-interviewed because of panel attrition. Reasons for non-participation were inability to trace them, refusal, illness or death.

family and broader network ties, only respondents who currently had a partner, either married or cohabiting, were selected. This procedure resulted in a total sample of 3,980 respondents. Their mean age was 47.80 years ($SD = 13.08$; range 21-85 years) and 57.59% were female.

2.2. Measures

All substantive measures used in the current study were collected by means of a self-completion questionnaire, meaning that social desirable answering of the questions was less an issue as compared to personal interviewing. An overview of the items constituting the below described substantive variables can be found in Appendix A.

2.2.1. Intergenerational relationships. Four scales were used as indicators for intergenerational relationship quality during childhood, that is ‘attachment to mother’, ‘attachment to father’, ‘stressful relation with mother’ and ‘stressful relation with father’. The two attachment scales each consisted of four indicators measuring closeness with, availability of the mother/father and support and understanding within the relationship with mother/father during childhood. An example for measuring closeness in the relationship with mother is “I could always turn to my mother if I had problems.” Items were answered on a five point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The two subscales on stressful aspects within the parent-child relationship (Straus, 1979, 1996) covered screaming, threatening and verbal and physical violence in the relationship with mother/father. An example for measuring stressful aspects in the relationship with father is “In your childhood (the period until you were 15 years old), did any of the following ever happen? That your father yelled at you or cursed you.” Items were answered on a three point scale ranging from 1 = *never* to 3 = *often*. Higher values on the scales indicate stronger attachment and more stress within the intergenerational relationships respectively. These four indicators of the quality of intergenerational relationships with parents are used as explanatory variables in the structural models (cf. Figure 1).

2.2.2. *Romantic relation.* As an indicator of the quality of the romantic relationship, we used a scale of four indicators covering the aspects quality, satisfaction, strength and stability. An example for one of the items is “The relationship with my partner makes me happy.” Respondents evaluated these aspects of their partner relationship on a scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Higher values on this scale indicate more satisfaction with the relationship.

2.2.3. *Family ties.* The quality of family ties was measured on a scale including four indicators covering closeness, strength, information exchange, and cohesion within relationships with members from the extended family, including siblings, aunts, uncles, and cousins. Please note, that no items about ties with members from the nuclear family were included in the present analysis because they could include the partner and parents and therefore overlap with the two earlier measures. One example item is “The members of my extended family are very close.” Respondents evaluated their family ties on a five point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Higher values on this scale represent stronger family ties.

2.2.4. *Loneliness.* As a general measure of social relationships, we used the subscale social loneliness of the De Jong Gierveld and Van Tilburg (1999) loneliness scale. This subscale consists of five items covering the availability of enough people to talk to, sources of support, people to trust, people to feel close to, and friends to call on whenever needed. An example item is “There is always someone I can talk to about my day-to-day problems.” These items were rated on a 3 point scale ranging from 1 = *no*, 2 = *more or less*, and 3 = *yes*. Negative formulated items were reverse coded, such that higher values on this scale indicate less loneliness. Romantic adult relationships, family ties as well as loneliness serve as dependent variables in the analyses (cf. Figure 1).

2.2.5. *Control variables.* As previous work has shown that women and men are inclined to have different networks in size and perception (e.g., Cornwell, 2011), and as networks tend to shrink and change in characteristics with aging (e.g., Lang, 2001), we controlled for gender and age in all analyses. Childhood relationships with father and mother may also be influenced by socio-economic status (Mallers et al., 2010) as well as adult ties and loneliness. We therefore also controlled for education in the current analyses.

2.3. *Modelling Procedure*

Structural Equation Modelling (SEM) was used to investigate the relations between the childhood experience variables, adult relationship variables and loneliness. SEM allows the investigation of direct and indirect associations between latent variables without random error. Maximum likelihood estimation with the software package OpenMx (Boker et al., 2011) was used to fit the proposed models to the observed covariance matrix. Maximum likelihood estimation provides a chi-square (χ^2) test of model fit. A significant χ^2 value indicates a discrepancy between the model implied and the observed covariance matrix. In large samples, however, the overall χ^2 test has very much power and is nearly always significant. Therefore, in addition to the χ^2 statistic, the root mean squared error of approximation (*RMSEA*; Steiger & Lind, 1980), the comparative fit index (*CFI*; Bentler, 1990) and the *SRMR* were used as measures of overall goodness-of-fit. *RMSEA* values smaller than .05 indicate close fit, and values smaller than .08 are considered satisfactory. *CFI* values larger than .95 and *SRMR* values below .08 indicate reasonably good fit (Hu & Bentler, 1999). Correlation residuals were used to guide possible model modification. In case of a correlation residual higher than .10 and based on substantive considerations, a parameter associated with the residual was added to the model. Difference in model fit was tested with the χ^2 -difference test and with the expected cross validation index (ECVI) difference test (Browne & Cudeck, 1989). Significant

differences in model fit are indicated by a significant χ^2 -difference and a significant ECVI-difference.

The final model was a structural model on latent variables. We adopted a two-step modelling procedure (Anderson & Gerbing, 1988) to arrive at the final full model. Step 1 involved fitting a common factor model, where the factors represent attachment to mother, attachment to father, stressful relation with mother, stressful relation with father, satisfaction with the romantic relationship, quality of family ties, loneliness, age, education and gender. Figure 2 graphically represents the common factor model.

In order to test the stability of the coefficients across age, we conducted additional analyses. We created three age groups (Group 1: 18-30 years old, $n = 321$, Group 2: 31-49 years old, $n = 1968$, Group 3: 50 years and older, $n = 1691$) and fitted two multigroup models to these groups. In the first model, measurement parameters (factor loadings and intercepts) were constrained to be equal, but all effects between factors were free to be estimated. Next, a model was fitted where the direct effects between factors were constrained to be equal across groups.

[Figure 1 about here]

In case of a satisfactory fit of the factor model, we imposed the hypothesized causal structure among the factors in Step 2. By using this approach, we were able to interpret the relations between the latent variables of interest, accounting for possible measurement error. We controlled for the influence of gender, education and age, by letting these variables have an effect on all factors in Step 2.

3. Results

Correlations and standard deviations of all observed variables are available from the authors upon request. The fit of the factor model to the observed covariances was satisfactory ($\chi^2(422) = 3932.00$, $p < .05$, $RMSEA = .046$, $CFI = .952$, $SRMR = .026$). High correlation

residuals were found between indicators of attachment to mother and attachment to father and between indicators of stressful relation with mother and stressful relation with father. As the correlation residuals concerned the same indicators for the relation with the father and with the mother, we judged it reasonable to include covariances between the residual factors of attachment with father and mother and stressful relations with mother and father (cf. Figure 2). Adding these eight residual covariances resulted into a model with good model fit ($\chi^2(414) = 2013.29, p < .05, RMSEA = .031, CFI = .978, SRMR = .023$). Standardized factor loadings were generally above .70, ranging from .58 to .93. The factor model explained 34-86% of the observed variance in the indicators. Correlations between the seven common factors and education, age and gender are shown in Table 1.

[Table 1 about here]

In Step 2, we imposed the hypothesized structure from Figure 1 to the factor correlations from Step 1. Education, age and gender were included as control variables, meaning they had an effect on all other factors in the model. The model in Step 2 fitted significantly worse than the factor model according to the chi-square difference test ($\Delta\chi^2(4) = 59.81, p < .05$) and according to the ECVI-difference ($\Delta ECVI = .013$, 95% Confidence Interval (CI) [.007,.022]). The overall model fit of the full SEM model, however was still good ($\chi^2(418) = 2073.100, p < .05, RMSEA = .032, CFI = .977, SRMR = .028$).

[Figure 2 about here]

Table 2 gives an overview of the direct, indirect and total effects between the factors. All direct effects were significantly larger than zero, except for the effects of stressful relation with mother on satisfaction with the romantic relationship and on quality of family ties, as well as the effect of stressful relation with father on quality of family ties (cf. Figure 3).

[Table 2 About here]

Both attachment to father and mother had small but significant positive effects on satisfaction with the romantic relationship. A stressful relation with father had a small negative effect on satisfaction with the romantic relationship, which in turn had a small positive effect on quality of family ties. The factor stressful relation with mother was not related to the three adult relationship outcomes. Higher values on the attachment to mother and father factors were associated with higher scores on quality of family ties. For example, one standard deviation increase in attachment to mother was associated with .31 standard deviation increase in quality of family ties (cf. Table 2). Satisfaction with the romantic relationship and quality of family ties had medium size effects loneliness. A higher satisfaction in the romantic relation and closer family ties were predictive of a higher perceived quality of the social network. Inspection of the total effects showed that all variables had a significant total effect on the outcome variable loneliness, except for stressful relation with mother. Attachment to mother was the best predictor for all three adult relationship outcomes. The model explained 17% of the variance in quality of the social network, 23% of the variance in quality of family ties, and 4% of satisfaction with the romantic relationship.

Additionally, we fitted two multigroup models to three age groups described above (i.e., 18-30 years, 31-49 years, and 50 years and older). In the first model, measurement parameters (factor loadings and intercepts) were constrained to be equal, but all effects between factors were free to be estimated. The fit of this model was satisfactory ($\chi^2(1276) = 3073.933, p < .05, RMSEA = .033, CFI = .975, SRMR = .037$), meaning that the factors are measured similarly across age groups (Meredith, 1993). Next, we fitted a model with the direct effects between factors constrained to be equal across groups. This model fitted significantly worse according to the chi-square difference test ($\Delta\chi^2(22) = 39.48, p < .05$), but not according to the ECVI-difference test ($\Delta ECVI = -.001, 95\% \text{ CI } [-.006, .005]$). Moreover,

the overall fit of the multigroup model with equality constraints was satisfactory ($\chi^2(1298) = 3113.409, p < .05, RMSEA = .032, CFI = .975, SRMR = .041$). Based on these fit results we concluded that the effects between the factors can be considered equal across age groups.

4. Discussion

The current study was developed to shed light on the possible origins of adult relationships. We intended to take an approach spanning childhood and adulthood in order to integrate the scattered literature on the role of family relationships of individuals during certain phases in life. The role of childhood experiences as well as the role of partner and family ties during adulthood were examined in their associations with the perceived quality of the adult's social network, i.e., social loneliness. Attachment relationships with mother and father during childhood were directly and indirectly associated with the three adult outcomes, that is satisfaction with the romantic relation, closeness of family ties and loneliness. Interestingly, stressful aspects of childhood relationships with the father only (not with mother) were predictive for adult relationships and loneliness. Below, we discuss these results more fully, consider the unique role of attachment relationships throughout life and offer some directions for future research.

4.1. *Bridging Childhood and Adult Relationships – the Role of Attachment to Mother and Father*

Among the childhood relationship indicators, experiences and memories of the mother as a reliable resource in problem solving, as supportive, a close relationship partner, and understanding has been found to be the strongest predictor for different relationship types in adulthood and loneliness. Although attachment research has always acknowledged the central role of primary caregivers, usually the mother, for the development of children into adolescents and adults, only few studies have extended this work to covering the whole life course (Van IJzendoorn & Bakermans-Kranenburg, 2010). The major attachment

longitudinal studies have succeeded in following infants into young adulthood and demonstrated the importance of primary caregivers (see Grossmann, Grossmann, & Waters, 2005 for an overview). As shown by Grossmann, Grossmann and Kindler (2005), childhood experiences with primary caregivers influence young adults' thoughts and feelings about close relationships. In the current study, both attachment to mother and attachment to father, that is positive memories of reliable and available caregivers was positively associated with satisfaction in the romantic relationship, close adult family ties and less loneliness. Based on large scale survey data, these findings underscore what in-depth and observational attachment studies have shown before. Attachment relationships during childhood are crucial for individual development, also beyond young adulthood and may have far reaching influences throughout the whole adulthood well into old age life.

For a long time attachment research has neglected the role of fathers and mainly focused on one primary caregiver, usually the mother. More recent work however has shown that fathers play a special and sometimes unique role in upbringing children and contribute specific features to the social and emotional development of children (Mallers et al., 2010). Especially in stimulating exploration fathers have been shown to be important figures in children's development (Grossmann et al., 2008). The current work gives some insight into the far reaching influences that especially the father relationship in childhood can have on adult relations. Positive memories, as well as memories of stressful aspects in the childhood relationship with father were predictive for adult outcome in the expected way. It may well be that fathers are important in stimulating social contact and that their influence is mainly on the *relational* outcomes. Mothers have been shown to play important roles in reassuring, comforting and soothing (Baumrind, 1980; Grossmann et al., 2008) and in shaping *emotional* experiences in adulthood (Mallers et al., 2010). Grossmann, Grossmann and Kindler (2005) have shown that father's open rejection and limited involvement in children's interactive play

at age ten were influencing later attachment relationship representations. Similarly, although with very different operationalizations, that is retrospective questionnaires as compared to observations and in-depth interviews, the current study found stressful aspects in the *father-child* relationship to be predictive of adult relationship outcomes.

4.2. *Romantic Attachment and its Role Between Childhood and Adulthood*

Relations

Relationship research has extensively investigated romantic partnerships as special type of attachment relationships. The salutatory effects romantic relations and marriage can have for wellbeing and social functioning have widely been demonstrated. In the current work too, satisfaction with the romantic relationship has been identified an important predictor of family ties and loneliness. Additionally, we have shown that the romantic relationship in turn was predicted by experiences with mother and father during childhood. However both types of attachment (with parents and partner) and their associations for the evaluation of one's family and social network have hardly been studied so far; neither the *interplay* of both types of attachment nor its relations with different types of social relations across life, beyond young adulthood. The current results do show that both types may be influential for outcome throughout adulthood. Romantic relations do depend on childhood memories and have direct and indirect influences on loneliness. Romantic partners may be important resources in accessing and maintaining network partners. Indirectly, romantic partnership influenced loneliness through the family ties, but this effect was small in magnitude. Still, it demonstrates the very special and central role the romantic bond may have in the broader network of individuals.

4.3. *Limitations and Concluding Remarks*

Although representing a contribution to the study of the relational origins of adult social ties in a large sample of adults spanning the whole adult life course, the current work is

not without limitations. In our endeavour to capture a large age range covering the whole adult life span we had to rely on retrospective measuring of childhood experiences. Adult respondents were asked to recall their experiences with parents before age 15. Evidence in childhood abuse and neglect studies (cf. Hardt & Rutter, 2004 for an overview) showed that adverse life events in childhood tend to be correctly recalled or underestimated when retrospectively asked for in adulthood. As the current study failed to find effects of stressful experiences in the child-mother relationship on adult outcome, this may be due to an underreporting in the retrospective measuring. Less is known about the correct recalling of positive attachment aspects in their childhood experiences by adults. McCormick and Kennedy (1994) do find continuity between retrospective childhood attachment and current adolescent attachment measures. If this continuity holds until early and late adulthood remains however uncertain.

Similarly, while examining a sample covering the whole adult age range, we do rely on cross-sectional data. Strictly, no conclusions on the causality of the associations can be drawn. Experiences and memories of childhood relationships have chronologically taken place before adult relationships are established. Even though, these were measured retrospectively, we think that the arguing based on a solid theoretical attachment basis, allows for some preliminary conclusion that indeed childhood attachment influences adult outcome and not the reverse. Ongoing longitudinal work will enable a more careful disentangling of these complex influence and interplays among childhood and adulthood relationships, compensating for both flaws in the current work, the retrospective measuring and the cross-sectional design.

As only respondents who currently had a romantic partner were included in the analyses, a selection effect might be at work; respondents in a romantic relationship may have slightly better capacities in establishing and maintain satisfying relationships compared

to those respondents who reported to be single and have been shown to be less lonely (De Jong Gierveld et al., 2009). Another limitation worth noting in the present work is that the sampling scope meant sacrificing a detailed and in-depth approach of measuring attachment (e.g., using observations or semi-structured interviews). Compared to traditional attachment research the current operationalization of childhood attachment was rather superficial using two four-item scales, representing closeness and reliability and stressful aspects of the relationship with mother and father. Given the importance of childhood attachment future studies might expand the measurement of attachment quality along several dimensions (cf. Carpenter, 2001; Marcoen, Verschueren & Geerts, 1997) to more fully capture the breadth and depth of this concept.

Finally, the current study may be criticized for its lack of a gender perspective.

Although gender was controlled for in all analyses, different developmental paths for women and men are imaginable. Major attachment theoretical evidence suggests that the mechanism and processes of establishing childhood attachment are the same for boys and girls, but adult and gerontological research has shown that romantic relationships and social networks are experienced differently by men and women (e.g., Cornwell, 2011).

Investigating relational processes from childhood to old age for men and women separately was beyond the scope of the current analysis but should be on the future research agenda.

In sum, the current analysis of a large and representative sample of adults aged from 21 to 85 years has enabled a genuinely life course approach. Another distinctive feature included the application of attachment theory to a sociological analysis. Most of our expectation based on this theoretical account were confirmed by the current results. Hence, attachment theory might be considered a useful concept linking personal experiences to social circumstances (Merz, Schuengel, & Schulze, 2008) as attachment ties can be considered the first social ties through which children develop and experience future relationships. This

process may be key to elucidating the complex interplay among family relations throughout the whole life course, from childhood well into old age. Given the importance of social relationships for health, mortality and all other kinds of adaptive outcome, work detailing how relationships are established and maintained is a central issue on the social research agenda.

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Table 1

Correlations from the Common Factor Model

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Attachment mother	-								
2. Attachment father	.426*	-							
3. Stress mother	-.557*	-.235*	-						
4. Stress father	-.203*	-.485*	.395*	-					
5. Satisfaction romantic relation	.138*	.150*	-.076*	-.113*	-				
6. Family ties	.402*	.351*	-.236*	-.203*	.158*	-			
7. Loneliness ^a	.186*	.234*	-.128*	-.153*	.273*	.290*	-		
8. Age	-.021 ^b	.038*	.008 ^b	-.026 ^b	-.046*	.041*	-.110*	-	
9. Gender	-.097*	-.039*	.041*	-.068*	-.072*	.078*	.120*	-.165*	-
10. Education	-.021	-.025	-.086*	-.037*	.050*	-.065*	.100*	-.223*	-.116*

Note. ^a Loneliness is reverse coded, meaning that higher values indicate less loneliness.

^b Not significant at $\alpha = .05$

* $p < .05$

Table 2

Direct, Total Indirect and Total Effects of Causal Variables (Columns) on Dependent Variables (Rows)

		Explanatory variables																	
		Attachment mother			Attachment father			Stress mother			Stress father			Romantic relation			Family ties		
Dependent variables	Effects	B	CI	β	B	CI	β	B	CI	β	B	CI	β	B	CI	β	B	CI	β
Romantic relation	Direct	.07*	.03;.11	.10	.06*	.03;.10	.08	.06	-.03;-.15	.04	-.15*	-.24;-.06	-.07						
	Total indirect																		
	Total	.07*	.03;.11	.10	.06*	.03;.10	.08	.06	-.03;-.15	.04	-.15*	-.24;-.06	-.07						
Family ties	Direct	.29*	.25;.33	.31	.18*	.14;.22	.20	-.02	-.13;.09	-.01	-.05	-.15;.05	-.02	.12*	.08;.16	.10			
	Total indirect	.01*	.00;.01	.01	.01*	.00;.01	.01	.01	-.01;.02	.00	-.02*	-.03;-.01	-.01						
	Total	.30*	.25;.34	.32	.19*	.15;.23	.21	-.01	-.12;.10	-.01	-.06	-.16;.05	-.03	.12*	.08;.16	.09			
Loneliness ^a	Direct													.11	.09;.12	.23	.10*	.08;.11	.26
	Total indirect	.04*	.03;.04	.11	.03*	.02;.03	.07	.00	-.01;.02	.01	-.02*	-.04;-.01	-.02	.01*	.01;.02	.02			
	Total	.04*	.03;.04	.11	.03*	.02;.03	.07	.00	-.01;.02	.01	-.02*	-.04;-.01	-.02	.12*	.10;.13	.25	.10*	.08;.11	.26

Note. ^a Loneliness is reverse coded, meaning that higher values indicate less loneliness.

B = unstandardized effect, *CI* = 95% confidence interval, β = standardized effect. * $p < .05$

Figure 1. Theoretical model.

Figure 2. Common factor model.

Note. $\chi^2(414) = 2013.29, p < .05, RMSEA = .031, CFI = .978, SRMR = .023$. Education, age and gender are not shown in the figure. Squares represent observed variables, ellipses represent common factors. Double sided arrows represent covariances, one sided arrows pointing from a latent variable to an observed variable represent factor loadings. Non-connecting single headed arrows represent residual variance.

Figure 3. Hypothesized model for the common factors with standardized parameter estimates.

Note. Loneliness is reverse coded, meaning that higher values indicate less loneliness. All results are controlled for the effects of education, age and gender. $\chi^2(418) = 2073.100, p < .05$, $RMSEA = .032$, $CFI = .977$, $SRMR = .028$. Squares represent observed variables, ellipses represent factors. Double sided arrows represent covariances, one sided arrows pointing from a factor to another factor represent direct effects or regression coefficients. Non-connecting single headed arrows represent residual variance.

Figure caption

Figure 1. Theoretical model.

Figure 2. Common factor model.

Figure 3. Hypothesized model for the common factors with standardized parameter estimates.

Appendix

Overview of all observed items.

Attachment to mother/father

The following questions are about your relationship with your mother/father when you were 15 years old. If your father had already died by that time, think of how it was before that time.

I could always turn to my mother/father if I had problems
 My mother/father and I were very close
 I always felt that my mother/father supported me
 My mother/father understood very well what was on my mind

- 5 strongly agree
- 4 agree
- 3 neither agree nor disagree
- 2 disagree
- 1 strongly disagree

Stressful relationship with mother/father

We list a few things that can happen in a relationship between mother/father and child. In your childhood (the period until you were 15 years old), did any of the following ever happen?

That your mother/father yelled at you or cursed you?
 That your mother/father threatened you or scared you in another way?
 That your mother/father slapped you in the face or hurt you in another way?
 That your mother/father said nasty things about you when other people were around?

- 1 never
- 2 occasionally
- 3 often

Satisfaction with romantic relationship

We have a good relationship
 The relationship with my partner makes me happy
 Our relationship is strong
 The relationship with my partner is very stable

- 5 strongly agree
- 4 agree
- 3 neither agree nor disagree
- 2 disagree
- 1 strongly disagree

Family ties

The ties between members of my extended family are tightly knit
My extended family is more of a collection of individuals rather than a single unit
In our extended family we keep each other informed about the most important events
The members of my extended family are very close

- 5 strongly agree
- 4 agree
- 3 neither agree nor disagree
- 2 disagree
- 1 strongly disagree

Loneliness

There is always someone I can talk to about my day-to-day problems
There are plenty of people I can lean on when I have problems
There are many people I can trust completely
There are enough people I feel close to
I can call on my friends whenever I need them

- 3 yes
- 2 more or less
- 1 no