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Inter-generational relationships at different ages: an attachment perspective

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ABSTRACT
This study examines the characteristics of parent-child relationships after childhood from a theoretical attachment perspective. It describes how relationships between adult children and their parents vary by age group of the child on three dimensions that were derived from attachment theory: direction, penetration and quality. Data from 4,589 respondents to the Netherlands Kinship Panel Study were analysed to describe relationships between adult-children and their parents. Analyses of covariance were used to specify differences by age group. The results showed that age had notable effects on relationships between adult children and parents, especially their direction and penetration or centrality. The direction was reversed for parents of children in the two oldest age groups. The level of penetration was lower for the older age groups, and quality was higher in the younger age groups, but the effect size was small. The age effects on the dimensions were qualified by the personal circumstances of the adult children. Having one's own children was associated with different patterns of attachment at different ages. Adult children may be an important source of support for their elderly parents and may even become 'attachment figures'. Given the current increases in longevity, there could be increasing pressure on adult children to support their parents. Attachment theory is a useful framework for studying the characteristics of inter-generational relationships, also after childhood.

KEY WORDS – inter-generational solidarity, adult attachment, adult-child parent relationships.

Introduction

Close inter-personal relationships are important at all stages of the life span. People at any age may turn to a trusted figure when faced with educational, occupational or personal challenges, a phenomenon that is

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explained by attachment theory as an evolutionarily selected and in-born tendency (Ainsworth 1991; Cassidy 1999). Young children use their parents as a secure base from which to explore the environment and rely on them for support and comfort (Cassidy 1999). Attachment theory was developed as a unifying theory that could explain dynamic processes in intimate relationships across the life span (Bowlby 1982).

From the perspective of attachment theory, inter-generational relations manifest universal components of human relationships and their interactions with the environment, and also depict the unique experiences of individuals, families and societies (for a theoretical discussion, *see* Merz, Schuengel and Schulze 2007). These generalisations emphasise the importance of, on the one hand, the environment and context and, on the other hand, of the personal, biologically-rooted and experientially-modified affective basis for inter-personal relationships (*see* Hinde and Stevenson-Hinde 1990). Deep emotions, affections and conflict are strongly connected in the family context; they play an important role in inter-generational solidarity as certain cultural expectations of love, close bonding and solidarity are intimately associated with family affiliation (Schulze, Tyrell and Künzler 1989). Given current societal trends, such as increasing longevity, the high vulnerability to chronic diseases of the oldest age groups, and decreasing state-funded social welfare, it seems likely that adult children will become a more important source of support, help and advice for their parents (Attias-Donfut 2001; Grundy and Henretta 2006). They may even become 'attachment figures' for their elderly parents. This paper contributes to our understanding of parent-child relationships in later life. It addresses questions such as, who provides support and security for whom during different phases of life? How important and central adult-child parent relationships remain in late adulthood? Is the quality of the adult-child parent relationship independent of age?

John Bowlby formulated the general frame of attachment theory by drawing together concepts from ethology, biology and psychoanalysis in an evolutionary framework. Subsequently, Robert Hinde (1979) made important contributions to the theory on the conception of relationships and their effects. He argued that attachment links psychological states to social phenomena across contexts and time. In addition, he saw social and cultural values as distal influences on the child-parent relationship. Attachment theory, however, does not claim to cover all aspects of all relationships, but rather refers to unique and exclusive relationships in which one or both partners provide, or are expected to provide, security for the other (Hinde 1997). The characteristics of attachment relationships can be described along three *a priori* dimensions: direction,

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penetration and quality (Hinde 1979). *Direction* refers to the inherent asymmetry of the relationship. One person is generally perceived as stronger and wiser, and so offers support and protection to the other (Hill *et al.* 2003; Schuengel and Van IJzendoorn 2001). The direction of an attachment relationship from children to their parents in childhood is a universal given. During unintended separations and other stressful events, children use their parent attachment figures as a secure base (Cassidy 1999). Later in life, attachment relationships to peers, friends and romantic partners may become alternative sources of support and comfort. Attachment to the primary care-givers remains important in adolescence, however, and it has been shown that young adults continue to rely on their parents for advice and support (Cicirelli 1993; Colin 1996).

Little is known, however, about attachment relationships between parents and *adult* children. It is not self-evident that these relationships continue to be ones of attachment, as both parent and child may turn to other sources of 'secure base' support, or may cease to offer themselves as a source of support. The direction of exchange may also reverse, from the children deriving security from the relationship with their parents, to parents deriving security from their relationship with their children (Ainsworth 1989). Parent-child relationships may gradually become symmetrical or may even reverse, as when the parent's mental and physical state deteriorates in old age or through poor health, while the child gains in knowledge, experience and other personal resources (Colin 1996; Doherty and Feeney 2004). From a study of adult daughters and their mothers who suffered from dementia, Steele, Phibbs and Woods (2004) found that the daughters were care-givers and the mothers were dependent on them for protection and care. This can also be a consequence of the decreased capacities of older mothers, as a result of ageing processes and changed personal circumstances.

The social networks of older people tend to be concentrated on the nuclear family and close kin (Van Tilburg 1998), and it is common for their children to play a central role in elderly parents' lives and even to function as attachment figures. The *penetration* of a relationship refers to the importance and breadth of the relationship and the role that it plays in the life of a person (Hinde 1979). The term was suggested as an alternative to 'strength' or 'intensity' to emphasise the centrality of the attachment relationship in a person's life (Cassidy 1999). The more an attachment relationship is integrated into different areas of a person's life, the greater its importance and penetration. Whether or not parents and children are attachment figures for each other, they may play a central instrumental role in the other's life, as

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reflected by frequent contacts and exchanges of help. The penetration concept is especially useful when considering the changing nature of an attachment relationship through the life span. An attachment relationship does not necessarily generate weaker affect over time, but it may penetrate fewer aspects of the other person's life or do so to a lesser extent (Cassidy 1999). The decreased capacities that accompany advanced old age may result in the parent-child relationship having low penetration at this stage.

Research on attachment relationships has focused on their *quality*, very often in terms of the organisation of behaviours and interactions by which both members of the dyad seek to establish harmonious interactions (Sroufe and Waters 1977). There are striking individual differences in the quality of attachment, and they are related to the history of care-giving as well as developmental sequelae (Van IJzendoorn, Schuengel and Bakermans-Kranenburg 1999). If the attachment relationship is well organised, the partners experience more harmony and less conflict. As the organisation of the interactions seems to be crucial for their quality, age might be less important for this dimension. Differences in the direction and the level of penetration of attachment relationships may partially depend on age. It is not clear whether the age effects are autonomous or moderated by other factors, such as a person's private circumstances (*e.g.* having a partner, or being a parent or single). Two aspects seem to be central for forming and consolidating strong emotional relationships. A person's own resilience at times of vulnerability and stressful events determines whether the attachment system activates contacts with a trusted figure (Bowlby 1982). Who this trusted figure is depends on an individual's social network. The size of the social network is unlikely to be the same at all phases of life. In young adulthood, the network usually expands to allow peers, friends and romantic partners to play important roles, whereas at a later age, as non-kin relationships dwindle, family members generally again become more central (Cavallero, Morino-Abbele and Bertocci 2007; Kuypers and Bengtson 1973; Routasalo *et al.* 2006; Van Tilburg 1998).

The potential determinants of attachment relationships in adulthood, and the resilience, size and nature of the relational network may depend not only on age but also on the form of the individual's private and intimate life. Romantic partners are a main source of trust and comfort at particular phases of the life span, and the child-parent relationship may be an attachment relationship only if a romantic partner is unavailable. The presence of a romantic partner also has a beneficial influence on the quality of the adult-child parent relationship. A positive romantic relationship might influence the mental construction of attachment (Hesse

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1999). Furthermore, it has been found that those who have children are generally more competent in life than those without, and it has been claimed that motherhood brings benefits in cognitive functioning, attention, sensitivity, resilience and the ability to cope with challenges (Kinsley and Lambert 2006). Parenthood seems to intensify the attachment relationship with one's parents, whereas prior to the birth of children the romantic partner plays the most important role. Different people can be primary attachment figures at different life phases (Antonucci, Akiyama and Takahashi 2004).

Research questions and hypotheses

This study has investigated the characteristics of the adult-child parent relationship at different adult ages, with particular reference to the influence of different forms of people's private lives. The focus is on the effects of greater age on attachment relationships between adult children and their parents, especially on the direction of the regard and exchange. We were particularly interested in the forms of the adult children's private lives (being a parent or not, living with a partner or as a single person) and how the household context affected inter-generational attachment. It was hypothesised that the direction of the relationship would differ by age, with, in general, older children functioning as attachment figures for their elderly parents, and the converse being true for young-adult children. The balance of interest, advice and initiative was taken as an indication of the direction of the attachment relationship. Concerning the penetration of the relationship, it was hypothesised that the centrality of the relationship between adult children and their parents decreases with age. As a result of decreasing flexibility and mobility on the parent's side, and of family responsibilities on the adult child's side, it was expected that inter-generational personal contacts would become less frequent with increasing age.

Attachment theory holds that experiences in childhood and adolescence are incorporated in the individual's internal representations of attachment relationships. Adults' evaluations of their childhood experiences and their influences on current functioning are manifested as a relatively stable understanding of attachment (Van IJzendoorn 1995). We therefore hypothesised that the quality of the relationship is stable across the life span. However, the existence of a partner or children can influence and even change the quality of the attachment relationship. Having a partner or children might improve the quality of the relationship with parents, through their similar experiences of having partnership or parenting responsibilities.

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Method

Design and sample

The data on parent-child relationships were drawn from The Netherlands Kinship Panel Study (NKPS) (Dykstra *et al.* 2004). The NKPS is a representative survey of 8,161 people living in The Netherlands; 58.1 per cent of the respondents were women. Wave 1 data collection was during 2002–04, and the overall response rate was 45 per cent, about average for such surveys in The Netherlands (Dykstra *et al.* 2004). Of the 8,161 respondents, 4,589 gave details of the relationship with their mothers and 3,247 of the relationship with their fathers.[1]

Measures

The respondents (*i.e.* the adult children) were divided into four age groups (18–29, 30–39, 40–49 and 50–79 years), each spanning about 10 years; the last age group was wider to generate more evenly-populated groups. The sample was further divided by whether respondents had children and a marital or cohabiting partner. The analyses were conducted separately for respondent-father and respondent-mother dyads. To operationalise the dimensions of attachment relationships using our definitions of direction, quality and penetration, 15 variables were selected from the NKPS dataset (*see* Table 1). Items 1 and 2 were combined to obtain a single score for the predominant *direction* of the interest in the personal life by the parent or child towards the other. A score '1' was assigned if interest shown by the child exceeded the interest shown by the parent, '2' was assigned if both showed equal interest in each other, and '3' was assigned if the parent's interest exceeded the child's. Similarly, items 3 and 4 were combined into a single score for the direction of counsel or advice received. The absolute level of interest and advice was therefore not reflected, to avoid overlap with the measures of *penetration*, for which items 7, 8 and 9 were combined into an aggregate measure of *help received* from the parent. A combination of items 10 and 11 provided the measure of *help given* to parent. The help exchange items were combined because, from the attachment perspective, it is less important which types of help are provided than who provides them.

Results

Factor analyses

Two factor analyses, beginning with principal components analysis (PCA) followed by varimax rotation, were performed on the 10 measures distilled

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TABLE 1. *Item measures of the three dimensions of attachment relationships*

Dimensions and items	RC[1]
Direction	
1. Has father/mother shown an interest in your personal life in the last three months?	A
2. Have you shown an interest in the personal life of father/mother?	A
3. Have you received counsel or good advice from father/mother during the last three months?	A
4. Have you given counsel or good advice to father/mother during the last three months?	A
5. Giving and receiving is an important aspect of relationships. How would you describe your relationship with father/mother? Do you both give about the same amount, do you give more than your father/mother, or does your father/mother give more than you?	B
6. When you are in touch with father/mother, do you usually get in touch at your initiative, at yours father's/mother's initiative, or is it more or less equal?	C
Penetration	
7. During the last three months, have you received help from father/mother with housework, such as preparing meals, cleaning, fetching groceries, and doing the laundry?	A
8. During the last three months, have you received help from father/mother with taking care of the children, such as babysitting, care, bringing and fetching?	A
9. During the last three months, have you received help from father/mother with practical matters such as chores in and around the house, lending things, transportation, and moving things?	A
10. During the last three months, have you given help to father/mother with housework, such as preparing meals, cleaning, fetching groceries, and doing the laundry?	A
11. During the last three months, have you given help to father/mother with practical matters such as chores in and around the house, lending things, transportations, and moving things?	A
12. How often have you seen father/mother during the last 12 months?	D
13. How often have you been in contact with father/mother by phone, letter or email during the past 12 months?	D
Quality	
14. Taking everything together, how would you describe your relation with your father/mother?	E
15. Have you had any conflicts, strains or disagreements with father/mother during the past three months?	A

Notes: 1. RC: response categories, differentiated by A to E, as follows. A: 1 'not at all', 2 'once or twice', 3 'several times'. B: 1 'respondent (adult child) gives more', 2 'both give about the same', 3 'father/mother gives more'. C: 1 'usually at my initiative', 2 'more or less equal', 3 'usually at the initiative of my father/mother'. D: 1 'not at all', 2 'once', 3 'a few times', 4 'at least once a month', 5 'at least once a week', 6 'a few times a week', 7 'daily'. E: 1 'not great', 2 'reasonable', 3 'good', 4 'very good'.

from the 15 NKPS items. One analysed the respondent-father dyads, the other the respondent-mother dyads. The sample sizes were 3,247 for relationships with fathers, and 4,589 for relationships with mothers. The scree plots pointed to a three factors solution. All three components had eigenvalues above 1.0, and together they accounted for 50.3 per cent of the variance in the dyads with fathers, and 51.8 per cent of the variance in the dyads with mothers. After varimax rotation, the factor contents or

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TABLE 2. *The structure of the three factors of child-parent relations*

	Father relationships			Mother relationships		
Items or variables	P	D	Q	D	P	Q
			Factor loadings			
Quality	0.57	–	0.53	–	–	0.63
Balance	–	0.66	–	0.69	–	–
Initiative	–	0.55	–	0.64	–	–
Conflicts	–	–	0.87	–	–	0.89
Face-to-face contacts	0.76	–	–	–	0.75	–
Phone, letter, email contacts	0.52	–	–	–	0.58	–
Help received	0.62	–	–	–	0.54	–
Help given	0.70	–	–	–	0.71	–
Direction of interest	–	0.62	–	0.60	–	–
Direction of advice	–	0.62	–	0.62	–	–
Eigenvalue	2.3	1.5	1.1	2.4	1.6	1.2
Explained variance (%)	23.8	15.0	11.5	24.3	15.7	11.8

Notes: Factor labels: P = Penetration, D = Direction, Q = Quality. Loadings <0.50 are not shown.

structures were examined for items that had loadings exceeding 0.5. The analyses for respondent-fathers and for respondent-mothers grouped the items similarly (*cf.* Table 2).

One factor comprised items that describe contact and mutual help in different areas of life and was labelled *penetration* – these items indicated the quantitative importance and the centrality of the relationship in the attached person's life, and the different areas of life in which the other person was involved. A second factor comprised items on the balance of the relationship, as between giving and receiving interest and advice, and was labelled *direction*. A third factor contained items that assessed relationship quality and conflict, and was labelled *quality*. The results of the factor analyses were consistent with the three dimensions that were proposed *a priori* as distinct dimensions along which parent-child relationships might vary by age group.

Diversity of inter-generational relationships across age groups

The next step in the analysis was to test the hypotheses regarding the direction, penetration and quality of the adult-child parent relationship using multivariate analyses of covariance, treating the items loading on a factor as dependent variables. Table 3 shows the bivariate associations among the study variables. There were very similar results for the respondent-father and respondent-mother dyads. The items loading on each attachment relationship dimension correlated moderately with each other, whereas the items for the different dimensions had lower correlations. All attachment relationship items correlated strongly with age group, whereas

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TABLE 3. *Bivariate associations between attachment dimensions and age group and private forms of living in adult-child with father and adult-child with mother relationships*

	Items or variables													
Items or variables	2	3	4	5	6	7	8	9	10	11	12	13	Mean	SD
Fathers														
1. Direction of advice	0.23**	0.25**	0.10**	0.15**	−0.07**	0.05**	0.06**	0.15**	0.03	−0.31**	0.11**	0.20**	2.12	0.70
2. Direction of interest		0.22**	0.14**	0.11**	−0.06**	0.03	0.07**	0.10**	0.06**	−0.19**	0.07**	0.12**	1.98	0.53
3. Balance of relationship			0.22**	0.21**	−0.01	0.06**	0.10**	0.24**	0.08**	−0.21**	0.08**	0.15**	1.95	0.51
4. Initiative in relationship				0.13**	0.02	0.03	0.11**	0.08**	−0.05**	−0.14**	0.03	0.04*	1.73	0.57
5. Help received					0.55**	0.44**	0.27**	0.30**	0.02	−0.48**	−0.08**	0.15**	1.22	0.41
6. Help given						0.42**	0.24**	0.24**	−0.02	−0.36**	−0.06**	0.16**	1.22	0.41
7. Face-to-face contact							0.34**	0.44**	−0.04*	−0.06**	−0.04*	−0.04*	4.36	1.38
8. Phone, letter, email contacts								0.42**	−0.02	−0.08**	−0.01	0.07**	4.17	1.49
9. Quality of relationship									0.21**	−0.07**	−0.04*	0.05**	3.09	0.89
10. Conflict in relationship										0.11**	−0.17**	−0.13**	1.79	0.41
11. Age group											0.01	−0.43**		
12. Has partner												0.29**		
Mothers														
1. Direction of advice	0.24**	0.29**	0.19**	0.17**	−0.09**	0.04**	0.07**	0.16**	0.02	−0.34**	0.13**	0.20**	2.02	0.71
2. Direction of interest		0.26**	0.21**	0.15**	−0.05**	0.04**	0.07**	0.13**	0.03*	−0.24**	0.07**	0.12**	1.99	0.51
3. Balance of relationship			0.31**	0.25**	−0.03*	0.05**	0.11**	0.23**	0.09**	−0.30**	0.10**	0.16**	1.97	0.57
4. Initiative in relationship				0.22**	0.01	0.03	0.16**	0.10**	−0.04*	−0.26**	0.02	0.11**	1.86	0.59
5. Help received					0.47**	0.36**	0.28**	0.25**	0.01	−0.50**	−0.09**	0.10**	1.28	0.45
6. Help given						0.41**	0.25**	0.21**	−0.03	−0.31**	−0.09**	0.12**	1.36	0.48
7. Face-to-face contact							0.33**	0.37**	−0.03	−0.09**	−0.03	−0.02	4.58	1.33
8. Phone, letter, email contacts								0.39**	−0.06**	−0.18**	−0.02	0.07**	4.69	1.47
9. Quality of relationship									0.23**	−0.18**	−0.01	0.10**	3.22	0.84
10. Conflict in relationship										0.09**	−0.12**	−0.12**	1.79	0.42
11. Age group											0.01	−0.43**		
12. Has partner												0.29**		

Notes: Item 13 is 'respondents have own children'. SD: standard deviation. The tabulated statistics are Pearson correlation coefficients.
Significance levels: * $p<0.05$, ** $p<0.01$.

TABLE 4. *Main effects of age group on attachment dimensions in respondent-father and respondent-mother dyads*

Relationship and dimensions	*F*	*df*1	*df*2	*p*	η
Father dyads					
Direction of advice	89.8	3	3,242	0.000	0.28
Direction of interest	40.4	3	3,242	0.000	0.19
Balance of relationship	45.4	3	3,242	0.000	0.20
Initiative in relationship	25.3	3	3,242	0.000	0.15
Help received from father	138.1	3	3,391	0.000	0.33
Help given to father	4.7	3	3,391	0.003	0.06
Face-to-face contact	4.9	3	3,391	0.002	0.06
Phone, letter, email contacts	7.8	3	3,391	0.000	0.08
Quality of relationship	7.1	3	3,504	0.000	0.07
Conflict in relationship	18.3	3	3,504	0.000	0.12
Mother dyads					
Direction of advice	164.9	3	4,584	0.000	0.31
Direction of interest	97.3	3	4,584	0.000	0.24
Balance of relationship	153.5	3	4,584	0.000	0.30
Initiative in relationship	121.2	3	4,584	0.000	0.27
Help received from mother	385.1	3	4,678	0.000	0.44
Help given to mother	12.1	3	4,678	0.000	0.09
Face-to-face contact	16.6	3	4,678	0.000	0.10
Phone, letter, email contacts	52.2	3	4,678	0.000	0.18
Quality of relationship	53.5	3	4,854	0.000	0.18
Conflict in relationship	18.7	3	4,854	0.000	0.10

Notes: Age group refers to the age of adult-children and had four categories: 18–29, 30–39, 40–49 and 50–79 years. *df*1: hypothesis degrees of freedom. *df*2: error degrees of freedom. η: general measure for effect size, comparable to Pearson's correlation coefficient (Cohen 1988).

correlations with 'having children or not' and 'having a partner or not' were inconsistent and particular to items or factors. Further analyses of covariance to identify differences by age group were conducted for the three dimensions of the attachment relationships. In all the following analyses, the age difference between respondents and their fathers or mothers was added as a covariate.[2]

Direction of respondent-father and respondent-mother relationships

Multivariate analyses of covariance (MANCOVA) were run to determine the effects of age group and the form of the adult-child's private life (the independent variables) on the direction of the relationship between the respondents and their fathers, the dependent variable (*viz*. the direction of advice, interest, balance and initiatives). Significant differences on the dependent variables were found by age group.[3] These multivariate effects were examined further by ANCOVAs of the associations between each age group and each dependent variable. Table 4 shows that the age groups

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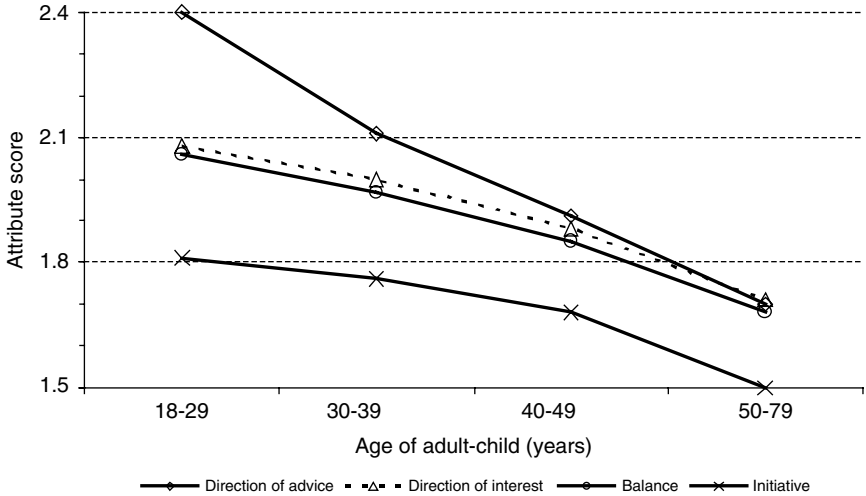


Figure 1. Direction of relationship between respondents and fathers. *Note*: A score of 2.0 indicates balance in the relationship. Scores above 2.0 indicate that the net direction is from the child to the parent; scores less than 2.0 indicate that the net direction is from the parent to the child.

differed on all dependent variables. The younger the respondents, the more interest and advice they received from their fathers; and the older the respondents, the more they provided their fathers with interest and advice. Balance and initiative were almost balanced in the youngest age group and depended on age, in the sense that adult children were the primary initiators in the relationship in the older child-parent dyads. Figure 1 displays the differences between the age groups, and shows that the direction was reversed among adult children aged 30–39 years and older compared to younger age groups.

For the direction of the relationship between respondents and their mothers, age group had a significant effect on the four dependent measures. Furthermore the interaction between age group and partner was also significant.[4] Separate ANCOVAs to investigate the main effect of age group on each of the dependent variables showed that the younger the respondent, the more interest and advice they received from their mother, and the older the respondent, the more they provided their mother with interest and advice (*see* Table 4). Concerning the balance and initiative of the relationship, the results were similar to those for the respondent-father relationship. In the older age groups, children were the initiating partner in the relationship (*see* Figure 2). The interaction between age group and partner was probed by separate ANCOVAs for the four age groups that compared the respondents with and without partners

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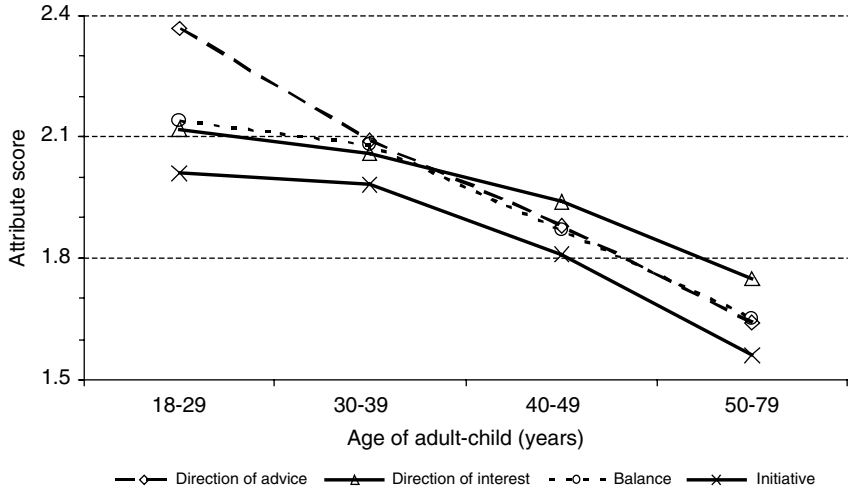


Figure 2. Direction of relationship between respondents and mothers. *Note*: A score of 2.0 indicates balance in the relationship. Scores above 2.0 indicate that the net direction is from the child to the parent; scores less than 2.0 indicate that the net direction is from the parent to the child.

(*see* Table 5). Respondents without a partner relied more on their mothers for advice and interest than those with a partner, and the relationship was imbalanced in the sense that children with a partner invested more in the relationship with their mothers than did single children.

Penetration of respondent-father and respondent-mother relationships

Penetration was measured by the items 'help received', 'help given', 'face-to-face contact' and 'phone, letter and email contact'. Multivariate tests of penetration in the respondent-father dyad revealed significant effects of age group and of the interaction between age group and children.[5] Multivariate tests of the effects of age group and of forms of private life on penetration in the respondent-mother dyad revealed significant effects of age group and of the interaction between age group and having children.[6] Probes of these results with separate ANCOVAs revealed that help-exchange and contact between adult children and both fathers and mothers were generally higher in the younger age groups. Help given by adult children to their parents was also high in the oldest group (*see* Table 4). A test of the effect of the interaction between age group and having children on the penetration of the relationship showed that respondents with children received more help from their parents than respondents without children (*see* Table 6). In the oldest age group,

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TABLE 5. *Interaction effects between age-group and partner on attachment dimensions in respondent-father and respondent-mother dyads*

Relationship and dimensions	*F*	*df*1	*df*2	*p*	η
Father dyads					
Quality of relationship	4.9	7	3,500	0.000	0.10
Conflict in relationship	22.4	7	3,500	0.000	0.21
Mother dyads					
Direction of advice	76.0	7	4,580	0.000	0.32
Direction of interest	43.2	7	4,580	0.000	0.25
Balance of relationship	70.7	7	4,580	0.000	0.31
Initiative in relationship	53.0	7	4,580	0.000	0.27
Quality of relationship	23.3	7	4,850	0.000	0.18
Conflict in relationship	17.4	7	4,850	0.000	0.16

Notes: Age group refers to the age of adult-children and had four categories: 18–29, 30–39, 40–49 and 50–79 years. *df*1: hypothesis degrees of freedom. *df*2: error degrees of freedom. η: general measure for effect size comparable to Pearson's *r* (Cohen 1988).

TABLE 6. *Interaction effect of age-group and children on attachment dimensions in respondent-father and respondent-mother dyads*

Relationship and dimensions	*F*	*df*1	*df*2	*p*	η
Father dyads					
Help received from father	62.3	7	3,387	0.000	0.34
Help given to father	4.0	7	3,387	0.000	0.09
Face-to-face contact	4.9	7	3,387	0.000	0.10
Phone, letter, email contact	5.2	7	3,387	0.000	0.10
Mother dyads					
Help received from mother	183.0	7	4,674	0.000	0.46
Help given to mother	7.0	7	4,674	0.000	0.10
Face-to-face contact	12.2	7	4,674	0.000	0.13
Phone, letter, email contact	24.0	7	4,674	0.000	0.19

Notes: Age group refers to the age of adult-children and had four categories: 18–29, 30–39, 40–49 and 50–79 years. *df*1: hypothesis degrees of freedom. *df*2: error degrees of freedom. η: general measure for effect size comparable to Pearson's *r* (Cohen 1988).

however, this difference was not found. In the two younger age groups, respondents with children also had more contact with their parents than respondents without children.

Quality of the respondent-father and respondent-mother relationship

A MANCOVA on the quality of respondent-father relationship using the two single items 'quality' and 'conflict' revealed significant effects for age group and for the interaction between age group and having a partner.[7]

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Similar effects were found for the respondent-mother relationship.[8] Separate ANCOVAs on the quality items revealed an overall trend, of higher relationship quality for younger compared to older parent-child dyads, and a departure from the trend, higher quality in relationships with fathers for the oldest age group of respondents (*see* Table 4). The rate of conflict, however, was lower in the older than the younger age groups for both respondent-mother and respondent-father dyads. A test of the interaction between age group and partner on the quality items showed, first, that among those aged 30–39 years, those with a partner had a better relationship with their fathers; secondly, that in respondent-mother relationships no differences between single and partnered respondents were found; and thirdly, that respondents with partners also had less conflict with their parents than single respondents except in the oldest age group.

Generally, the strongest effects of age were found on the direction items and on help received, while those on other items of penetration and quality were rather low (*see* Table 4). The interaction between age and having a partner had a slightly stronger effect on the quality items than did age as a main effect (see Table 5). For the respondent-mother relationship, this interaction and that between age group and having children had considerable effects on direction. Furthermore, the interaction between age and having children had a strong effect on help received for both the respondent-father and respondent-mother relationships, but small effects on the other penetration items (*see* Table 6).

Discussion

As hypothesised from attachment theory, and as consistent with previous research on intergenerational relationships, the direction of provision and receipt exchanges in relationships between adult-children and parents depended on age. More specifically, young adults perceived their parents more as providers than recipients of interest and advice, which may be an extension of the role in childhood of the parent as an attachment figure. The analysis has suggested that the direction of the relationship reverses after a child reaches 40 years of age. The older the children and their parents, the more it was that the children showed interest in their parents' activities and whereabouts, and provided them with advice; while for older parents, children were a source of support and the initiators in the relationship.

The analyses have also shown that after a low value in middle age, the penetration of the parental relationship was again high in the oldest

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parent-child dyads. In other words, parent-child relationships in old age were characterised by more intensive help exchange and personal contact than for middle-aged children and their parents. Unexpectedly, the quality of the relationship also associated with age, but to a lesser degree than the other two dimensions. Some of the age differences depended on the living situation of the adult children, particularly whether they had a partner or children of their own.

An attachment theory perspective on intergenerational support

This section discusses the implications of the findings for our understanding of the role of attachment in inter-generational relationships. Attachment theory suggests that the direction of relationships between adult-children and parents is likely to change as children become stronger and wiser and as parents become weaker and more vulnerable. The differences that we have observed are consistent with this hypothesis. Nevertheless, older parents who look to their children for support and comfort might also wish still to provide their children with support. Given that reciprocity and mutual caring are central to inter-generational attachment relationships, the direction of the relationship will seldom be completely reversed (Berger and Fend 2005; Logan and Spitze 1996). Furthermore, when children become adults, patterns of support and care change. Some children will be more likely to attend to their parents' needs than others, but most adult children attain a degree of 'filial maturity', in other words are prepared to take on a caring role (Brody 1985). Not only is the balance of strength and wisdom likely to determine the direction of an attachment relationship, but it also influences parental attitudes and the child's adult development.

As noted, the age-group differences in the help received from the parents and the amount of contact indicated that a young adult's relationship with their parents is more important, penetrating and central than when they are older. The amount of help given by children to their parents was high, however, in the youngest and oldest age groups, which might indicate that adult children become important attachment figures for very old parents. Unexpectedly, the quality of the relationship was also associated with age but to a lesser extent than the other two dimensions. In the younger age groups, both relationship quality and conflict were high. This may be related to the high level of penetration in the younger groups. When there is more contact, there is more potential for conflict, and young adult children may be more spirited and disputatious than later in their lives.

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The age differences on the dimensions of the attachment relationships depended in certain age groups on the child's living situation. Living with a partner appeared to be especially important for the quality of the parent-child relationship. Single respondents reported significantly more conflict with their parents than cohabiting or married respondents. Single respondents aged in the thirties also reported a lower quality of relationship with their fathers. These effects may indicate the effect of parent-child relationships on the ability to form and maintain romantic relationships. Doyle and colleagues (2003) reported that secure attachments with parents compromise adjustment in early romantic relationships, but the effect may also work the other way around. Because romantic partners increasingly function as attachment figures and sources of comfort and security in adulthood (Markiewicz *et al.* 2006), it is conceivable that a qualitatively good and secure romantic relationship stimulates and even ameliorates the adult-child parent relationship.

Having children of one's own was particularly influential on the direction and penetration of the parental relationship. Contact and help exchange was also determined by available opportunities and the personal and familial situations of the adult children. Having children was associated with more intense contact in the younger age group and with giving less help to parents. A study by Ikkink, Tilburg and Knipscheer (1999) found that elderly parents offer support to their adult children because they wish the relationship to be balanced and do not want to be a burden. This too might be an explanation for the lower penetration levels when there are grandchildren.

Conclusions

This analysis of a large and representative sample of adult children and their parents, aged from 18 to 99 years, has enabled a genuinely intergenerational approach. Other distinctive features include the application of attachment theory to a sociological analysis, and a sufficiently large sample to investigate adult-child parent relationships over a wide age range. Most of the observed effects not only confirmed our expectations but were also notable in effect-size, particularly when compared to those found by other attachment studies. For example, De Wolff and Van IJzendoorn's (1997) meta-analysis of studies of one of the central hypotheses of attachment theory, namely the positive association between maternal sensitive responsiveness and the security of attachment between infants and mothers, found a moderate effect size (Pearson's $r = 0.24$).

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Some of the presented findings showed socio-demographic effects on the attachment dimensions in excess of 0.24.

The limitations of the study should be noted. First, the use of secondary data sacrificed the gold-standard approach to measuring attachment (*i.e.* observations or semi-structured interviews). A limited set of variables was available to measure the three dimensions of attachment. Compared to mainstream attachment research, the several measures were rather superficial, particularly for the quality of relationships. Nonetheless, the factor analyses confirmed the basic dimensions as described by Hinde (1979). It would be useful if future surveys collected an expanded range of items that tap these dimensions of attachment. Improved data would allow the construction of sound psychometric scales and lead to more parsimonious descriptions.

In conclusion, it has been shown that attachment is a useful concept that links personal experience to social circumstances – this is because attachment relationships are the first social ties through which human beings learn to organise meaning within the broader societal context (Marris 1991). This process might be the key to the explanation of inter-generational relations during different phases of the lifecourse. This study has investigated certain socio-demographic influences of relationships between adult children and their parents. Although the study was cross-sectional, the results evince the expected shift with increasing age in the balance and direction of these relationships. The findings showed that from a life span perspective, attachment is not a phenomenon driven only by complex psychological processes and dyadic interactions, but also by differences in age and variations in children's private lives.

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NOTES

1 The respondents answered questions about randomly-selected family members, so not all respondents were asked questions about their parents. The data were collected

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using computer-assisted personal interviews in Wave 1 from October 2002 to the end of 2004.

2 To control for Type I errors, alpha was set at 0.001 for the multivariate tests. For the ANCOVA analyses, which *posthoc* probed the effects on single dependent variables, α was set at 0.01.

3 Wilk's Λ (age group) = 0.94, F (degrees of freedom 12, 8,548) = 18.2, $p < 0.001$.

4 The respective test statistics were Wilk's Λ (age group) = 0.89, F (12, 12,099) = 45.0, $p < 0.001$, and Wilk's Λ (age group*partner) = 0.99, F (16, 13,791) = 3.5, $p < 0.001$.

5 Wilk's Λ (age group) = 0.92, F (12, 8,940) = 22.6, $p < 0.001$, Wilk's Λ (age group*children) = 0.98, F (16, 10,323) = 4.7, $p < 0.001$.

6 Wilk's Λ (age group) = 0.87, F (12, 12,348) = 56.3, $p < 0.001$, Wilk's Λ (age group*children) = 0.97, F (16, 14,258) = 9.6, $p < 0.001$.

7 Wilk's Λ (age group) = 0.99, F (6, 6,990) = 4.7, $p < 0.001$; Wilk's Λ (age group*partner) = 0.98, F (8, 6,990) = 9.8, $p < 0.001$.

8 Wilk's Λ (age group) = 0.98, F (6, 9,690) = 19.5, $p < 0.001$, Wilk's Λ (age group*partner) = 0.99, F (8, 9,690) = 6.5, $p < 0.001$.

References

Ainsworth, M. D. S. 1989. Attachments beyond infancy. *American Psychologist*, **44**, 4, 709–16.

Ainsworth, M. D. S. 1991. Attachments and other affectional bonds across the life cycle. In Parkes, C. M., Stevenson-Hinde, J. and Marris, P. (eds), *Attachment Across the Life Cycle*. Tavistock/Routledge, London, 33–51.

Antonucci, T. C., Akiyama, H. and Takahashi, K. 2004. Attachment and close relationships across the life span. *Attachment and Human Development*, **6**, 4, 353–70.

Attias-Donfut, C. 2001. The dynamics of elderly support: the transmission of solidarity patterns between generations. *Zeitschrift für Gerontologie und Geriatrie*, **34**, 1, 9–15.

Berger, F. and Fend, H. 2005. Kontinuität und Wandel in der affektiven Beziehung zwischen Eltern und Kindern vom Jugend- bis ins Erwachsenenalter [Continuity and change in affective parent-child relationship from adolescence to adulthood]. *Zeitschrift für Soziologie der Erziehung und Sozialisation*, **25**, 1, 8–31.

Bowlby, J. 1982. *Attachment*. Volume 1 of *Attachment and Loss*, second edition, Basic, New York.

Cassidy, J. 1999. The nature of the child's ties. In Cassidy, J. and Shaver, P. R. (eds), *Handbook of Attachment: Theory, Research, and Clinical Applications*. Guilford, New York, 3–20.

Brody, E. M. 1985. Parent care as a normative family stress. *The Gerontologist*, **25**, 1, 19–29.

Cavallero, P., Morino-Abbele, F. and Bertocci, B. 2007. The social relations of the elderly. *Archives of Gerontology and Geriatrics*, **44**, supplement 1, 97–100.

Cicirelli, V. G. 1993. Attachment and obligation as daughters' motives for caregiving behavior and subsequent effect on subjective burden. *Psychology and Aging*, **8**, 2, 144–55.

Cohen, J. 1988. *Statistical Power Analysis for the Behavioural Sciences*. Second edition, Erlbaum, Hillsdale, New Jersey.

Colin, V. 1996. *Human Attachment*. McGraw-Hill, New York.

De Wolff, M. S. and Van IJzendoorn, M. H. 1997. Sensitivity and attachment: a meta-analysis of parental antecedents of infant attachment. *Child Development*, **68**, 4, 571–91.

Doherty, N. A. and Feeney, J. A. 2004. The composition of attachment networks throughout the adult years. *Personal Relationships*, **11**, 4, 469–88.

Doyle, A. B., Brendgen, M., Markiewicz, D. and Kamkar, K. 2003. Family relationships as moderators of the association between romantic relationships and adjustment in early adolescence. *Journal of Early Adolescence*, **23**, 3, 316–40.

https://doi.org/10.1017/S0144686X08007046 Published online by Cambridge University Press

Dykstra, P. A., Kalmijn, M., Knijn, T. C. M., Komter, A. E., Liefbroer, A. C. and Mulder, C. H. 2004. *Codebook of The Netherlands Kinship Panel Study: A Multi-Actor, Multi-Method Panel Study on Solidarity in Family Relationships, Wave 1*. NKPS Working Paper 1, Netherlands Interdisciplinary Demographic Institute, The Hague.

Grundy, E. and Henretta, J. C. 2006. Between elderly parents and adult children: a new look at the intergenerational care provided by the 'sandwich generation'. *Ageing & Society*, **26**, 5, 707–22.

Hesse, E. 1999. The adult attachment interview. In Cassidy, J. and Shaver, P. R. (eds), *Handbook of Attachment: Theory, Research, and Clinical Applications*. Guilford, New York, 395–433.

Hill, J., Fonagy, P., Safier, E. and Sargent, J. 2003. The ecology of attachment in the family. *Family Process*, **42**, 2, 205–21.

Hinde, R. A. 1979. *Towards Understanding Relationship*. Academic, London.

Hinde, R. A. 1997. *Relationships: A Dialectical Perspective*. Psychology Press, Hove, Sussex, UK.

Hinde, R. A. and Stevenson-Hinde, J. 1990. Attachment: biological, cultural and individual desiderata. *Human Development*, **33**, 1, 62–72.

Ikkink, K. K., Van Tilburg, T. and Knipscheer, K. C. P. M. 1999. Perceived instrumental support exchanges in relationships between elderly parents and their adult children: normative and structural explanations. *Journal of Marriage and the Family*, **61**, 4, 831–44.

Kinsley, C. H. and Lambert, K. G. 2006. The maternal brain. *Scientific American*, **294**, 1, 58–65.

Kuypers, J. A. and Bengtson, V. L. 1973. Social breakdown and competence: a model of normal aging. *Human Development*, **16**, 3, 181–201.

Logan, J. R. and Spitze, G. D. 1996. *Family Ties: Enduring Relations Between Parents and their Grown Children*. Temple University Press, Philadelphia, Pennsylvania.

Markiewicz, D., Lawford, H., Doyle, A. B. and Haggart, N. 2006. Developmental differences in adolescents' and young adults' use of mothers, fathers, best friends, and romantic partners to fulfil attachment needs. *Journal of Youth and Adolescence*, **35**, 1, 127–40.

Marris, P. 1991. The social construction of uncertainty. In Parkes, C. M., Stevenson-Hinde, J. and Marris, P. (eds), *Attachment Across the Life Cycle*. Tavistock/Routledge, London, 77–90.

Merz, E.-M., Schuengel, C. and Schulze, H.-J. 2007. Intergenerational solidarity: an attachment perspective. *Journal of Aging Studies*, **21**, 2, 175–186.

Routasalo, P. E., Savikko, N., Tilvis, R. S., Strandberg, T. E. and Pitkälä, K. H. 2006. Social contacts and their relationship to loneliness among aged people: a population-based study. *Gerontology*, **52**, 3, 181–7.

Schuengel, C. and Van IJzendoorn, M. H. 2001. Attachment in mental health institutions: a critical review of assumptions, clinical implications, and research strategies. *Attachment and Human Development*, **3**, 3, 304–23.

Schulze, H.-J., Tyrell, H. and Künzler, J. 1989. Vom Strukturfunktionalismus zur Systemtheorie der Familie [From structural functionalism to systems theory of the family]. In Nave-Herz, R. and Markefka, M. (eds), *Handbuch der Familien- und Jugendforschung, Band I, Familienforschung* [*Handbook of Research on Family and Youth. Part I, Research on the Family*]. Luchterhand, Neuwied/Frankfurt, Germany, 31–43.

Sroufe, L. A. and Waters, E. 1977. Attachment as an organizational construct. *Child Development*, **48**, 4, 1184–99.

Steele, H., Phibbs, E. and Woods, R. T. 2004. Coherence of mind in daughter-caregivers of mothers with dementia: links with their mothers' joy and relatedness on reunion in a strange situation. *Attachment and Human Development*, **6**, 4, 439–50.

Van IJzendoorn, M. H. 1995. Adult attachment representation, parental responsiveness and infant attachment: a meta-analysis on the predictive validity of the adult attachment interview. *Psychological Bulletin*, **117**, 3, 387–403.

https://doi.org/10.1017/S0144686X08007046 Published online by Cambridge University Press

Van IJzendoorn, M. H., Schuengel, C. and Bakermans-Kranenburg, M. J. 1999. Disorganized attachment in early childhood: meta-analysis of precursors, concomitants, and sequelae. *Development and Psychopathology*, **11**, 2, 225–49.

Van Tilburg, T. 1998. Losing and gaining in old age: changes in personal network size and social support in a four-year longitudinal study. *Journal of Gerontology: Social Sciences*, **53**, 6, S313–23.

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