

Sibling support

The exchange of help among brothers and sisters
in the Netherlands

voor mijn ouders

Sibling support

The exchange of help among brothers and sisters
in the Netherlands

Steun tussen broers en zussen
(met een samenvatting in het Nederlands)

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Chapter

Introduction



Introduction

*I don't believe an accident of birth makes people sisters or brothers.
It makes them siblings, gives them mutuality of parentage.
Sisterhood and brotherhood is a condition people have to work at.
~Maya Angelou*

1.1 The study of sibling relationships

Of all the relationships people have, the bond with a sibling is potentially the longest-lasting. The vast majority (about 92%) of the Dutch population has at least one living brother or sister, and about half of them have contact at least once a month (Dykstra et al., 2005). Siblings may not always be very prominent in everyday life, but over the life course they share a genetic, family, social class and historic background. One is tied to a sibling for a lifetime. In the Netherlands, people have on average three siblings (Dykstra & Komter, 2006), and exchange all kinds of services with them. For instance, about one-fifth of the Dutch have given to or received from a sibling help with housework, odd jobs or financial assistance in the last three months (Knijn & Liefbroer, 2006). The duration of the tie and the fact that most siblings play an active part in each other's lives make sibling ties into important relationships for most people across the life course.

In addition to the importance of the sibling relationship in the lives of most people, at least two reasons can be given for why studying the sibling relationship is scientifically interesting. First, many contradictory statements have been made about the sibling relationship, which plead for insight into the dynamics that underlie behavior in that relationship. For instance, the sibling relationship is often characterized by closeness as well as rivalry (Ross & Milgram, 1982), because siblings grow up together spending much time in each other's company, at the same time having to compete for their parents' resources and attention. The sibling tie is further characterized by egalitarianism as well as inequality. On the one hand siblings are egalitarian because they are usually age peers and go through the same life-course transitions. On the other hand, their relationship is not entirely egalitarian because a different ordinal position in the sibling group is associated with a different function in the family (Cicirelli, 1995). For instance, older siblings are often involved in caretaking for their younger siblings (Goetting, 1986). Siblings are both similar and different: they are similar with regard to their background and different in competencies and interests (Teti, 1992). Siblings can be very close and still not see each other regularly (Connidis, 1992), and the confidence that one can rely on a sibling in times of need goes hand in hand with

relatively low levels of actual support from siblings (White & Riedmann, 1992a). A shared history and shared relationships with the parents give siblings a strong connection, but the absence of any other interdependencies during adulthood leaves them with no compelling reason to turn to each other. Because of these contradictory statements, sibling relationships are found to be both close and distant, active and dormant (Walker, Allen & Connidis, 2005), and beg the question of how solidarity between siblings can be explained.

Second, studying the sibling relationship provides a new way to study the family. Traditionally, family research has focused on the parent-child relationship and the spousal relationship. This does not do justice to the family as a whole, because the family includes more than only these two relationships: the sibling relationship is part of the family too. An exclusive focus on the parent-child relationship and the spousal relationship omits groups of people from the picture, namely childless individuals and those who never married. Studying the sibling relationship goes beyond this narrow definition of the family, giving a more complete picture of it by adding knowledge to a relatively unexplored relationship, and by including those people who are neglected in studies on parent-child and partner relationships. In doing so, one can examine relationship dynamics common to all family types, including unpartnered or childless individuals (Walker et al., 2005). Especially those without a partner and children are found to be more involved with siblings. Data from the Netherlands Kinship Panel Study (Dykstra et al., 2005) reveal that 20% of unpartnered individuals see their siblings at least once a month, compared to a little less than 17% of partnered individuals. Of those without children, 25% see their siblings at least once a month, compared to 16% of people with children. The family is a network of individuals, and by ignoring the sibling relationship in family research, processes of the wider family context are missed. Investigating sibling relationships thus gives a new perspective on the family and contributes to knowledge on family solidarity.

Even though more and more researchers have acknowledged the importance of brothers and sisters as a source of comfort and support (Spitze & Trent, 2006; Eriksen & Gerstel, 2002), companionship (Campbell, Connidis & Davies, 1999) and well-being (Cicirelli, 1989; O'Bryant, 1988), research on the sibling relationship has been limited so far. Many studies on adult sibling ties have focused on specific populations such as the elderly (e.g., Bedford, 1995; Connidis, 2001) or siblings with special conditions like mental retardation or schizophrenia (e.g., Pruchno, Patrick & Burant, 1996), and lack attention for the connection with other family relationships. Insights from the study into sibling relationships have hardly been used in other family research, as sibling research is rarely cited in other family literature (Walker et al., 2005).

This book sheds light on the sibling relationship during adulthood, by investigating not only sibling relationships of specific groups of people but by including all ages and all family types. It explores the sibling relationship both in itself and in relation to other family ties, to determine the place of siblings in the lives of people as well as their place in the family.

1.2 Sibling solidarity

Family relationships have traditionally been regarded as one of the key elements of social cohesion. The family is the place where future generations are raised and where norms and values are transmitted. The family is also an important source of informal care and support. Not surprisingly, one main interest in family sociology has been the study of what holds families together — in other words, the question of solidarity in the family.

The term solidarity has often been used to describe the “‘glue’ which overcomes the centripetal tendencies of human self-interest” (Roberts, Richards & Bengtson, 1991, p. 12). What is this “glue” holding the family together? Answers come from sociology as well as social psychology. According to Durkheim, who focused on solidarity in society, pre-industrial societies were held together by common culture (mechanical solidarity), while structural interdependency (organic solidarity) was thought to be the basis of solidarity in industrial societies, with their division of labor (Lindenberg, 1998; Roberts et al., 1991). Tönnies distinguished two types of relationships: *Gemeinschaft*, with strong bonds based on normatively prescribed obligations, and *Gesellschaft*, based on consensus over the rules of reciprocity. The importance of norms, suggested by both Durkheim and Tönnies, has been found particularly important in the family (Komter & Vollebergh, 2002), which is traditionally regarded as the key example of mechanical solidarity. Yet, an economic approach to the family has demonstrated the existence of a division of labor in the family (Becker, 1991), suggesting that in families organic solidarity can be found too. Social psychologists have addressed the question of solidarity, especially at the relationship level. Homans (1992 [1951]) and Heider (1958) stressed the importance of the interconnectedness between actions of different group members, which is consistent with Durkheim’s functional interdependence, as well as mutual affection and norms. The concept of solidarity thus includes behavioral aspects as well as feelings and attitudes (Roberts et al., 1991) and can be examined at the level of groups (societies, families) or relationships.

The interest in solidarity in sibling relationships is not completely new. Early functionalist studies, intent on examining the implications of a strongly age-graded society, focused on sibling relationships because of their horizontal nature. While most family relationships are vertical in nature, the horizontal nature of the sibling relationship pointed at consistency between kinship and other social institutions (Cumming & Schneider, 1961). The sibling relationship was thought to be the counterpart in the kinship structure of a general tendency toward horizontal solidarity in society. Cumming and Schneider found support for this argument by studying patterns of sociability and aid among siblings. Subsequent studies revealed that siblings did not tend to occupy central roles in people’s adult lives (Allan, 1977; Rosenberg & Anspach, 1973), after which the topic of sibling solidarity largely disappeared from social-scientific consideration. In recent years, sibling research has regained popularity. Bank and Kahn (1982) suggest that a number of cultural transformations lend greater relevance to the sibling relationship. First, the reduction in family size implies greater potential for closeness among siblings. Second, increased

co-longevity brings increased opportunities for joint experiences. Third, the discontinuities accompanying modernity (e.g. geographic and social mobility, divorce and remarriage) may serve to strengthen the sibling bond: with the flux of change in their lives, people might be increasingly inclined to turn to siblings for the constancy, coherence and permanency the relationship provides. We further explore the subject of sibling solidarity in today's society, and approach the sibling relationship from a family sociology perspective, viewing sibling solidarity as an expression of family solidarity.

In the last decades, solidarity in the family has been studied mainly by examining intergenerational relationships (Roberts et al., 1991), and by now we have extensive knowledge of solidarity between parents and children (Blieszner & Wingfield, 2000; Hogan, Eggebeen & Clogg, 1993; Komter & Vollebergh, 2002; Willson, Shuey & Elder, 2003). Compared to the sibling relationship, more support and care is exchanged among parents and children. For example, where 23% of the Dutch have given instrumental support to siblings over a period of three months, 63% has given it to parents and 65% to children (Knijn & Liefbroer, 2006). Still, a significant amount of support is exchanged among siblings, and studying intragenerational solidarity contributes to the literature on family solidarity.

Studying solidarity in the family is important because people's networks contain for a significant part family ties. A recent study on the persons with whom people discuss important matters shows that the number of non-kin ties in people's networks has relatively decreased more than the number of kin ties, making people even more dependent on kin relationships (McPherson, Smith-Lovin & Brashears, 2006). And because there are generally more ties between siblings than between parents and children, siblings are important in the support network of individuals (Wellman & Wortley, 1989, 1990).

At least three reasons can be given for studying solidarity specifically in the sibling relationship. First, it is interesting from a theoretical viewpoint, because solidarity among siblings is not self-evident. One of the explanations of solidarity is that people will help each other if they are dependent on each other in some way. Even though siblings have a long shared history and can be relatively sure of a shared future, there are seemingly only few interdependencies between them. Siblings leave the parental home, pursue their own careers and start their own families, being left with no strong incentive to turn to each other. Nevertheless, the majority of people have active sibling relationships throughout their lives (Cicirelli, 1985, 1995). Studying solidarity in the sibling relationship provides insight into why people express solidarity, even in the absence of interdependency.

Second, for family research purposes it is insightful to study solidarity in the sibling relationship because this relationship provides continuity in family life. Over the last decades, what constitutes a family has become increasingly debatable. Personal and parental divorce and remarriage has led to increasingly complex family constellations. People may gain additional sets of children, siblings, parents and grandparents as a result of remarriage, as well as lose contact

with ties that were previously included in the family network but were cut after divorce. Full biological siblings have a continuing tie that cannot be terminated, even though in rare occasions siblings cease to have contact with each other (according to the NKPS, this is the case for 6.4% of the respondents with siblings). Given that siblings are age peers, for most people this relationship is present throughout the life course. Hence the sibling relationship represents continuity in the family. Studying this horizontal family relationship of such long duration gives insight into what holds the family together.

Third, studying solidarity among adult siblings provides understanding of the relevance of extended kin in contemporary society, a subject that has received little research attention despite its relevance in most people's lives (Bengtson, 2001; Johnson, 2000). When siblings leave the parental home and start their own nuclear families, they move from being part of the same nuclear family, the family of orientation, to the category of extended kin, with their own families of procreation. Furthermore, relationships to more distant family members like uncles, aunts, nephews, nieces and cousins seem to be related to the strength of the sibling relationship (Milardo, 2005). The study of the sibling relationship thus deepens perception of the importance of family relationships outside the nuclear family in daily life.

1.3 Problem formulation

This study examines solidarity in the sibling relationship by looking at supportive behavior. The study of actual behavior, in which something is exchanged, gives insight into what it actually means to have a brother or sister, in what ways and to what extent it is beneficial. In the study of solidarity among siblings we prefer this approach above looking at expected support. Expected support may not always come through in times of crisis (Uehara, 1990) and might be saying more about a person than the actual supportiveness of her relationships, as it blends into a personality trait (Dykstra, forthcoming). A focus on giving and receiving support rather than on expected support provides insight into how people actually succeed in meeting each other's needs.

Existing theoretical traditions in family research provide limited help in explaining supportive behavior among adult siblings, because they do not focus on the choices that are made by individual family members but rather describe the interconnectedness of family relationships (e.g. family systems theory, see Minuchin, 1974), or see the sibling relationship in adulthood merely as the result of attachment during childhood (e.g. attachment theory, see Bowlby, 1979) or as a "back up" when preferred alternatives for support are lacking (e.g. the hierarchical compensatory model, see Cantor, 1979). In these approaches the individuals involved seem to have no active role in their sibling relationships in adulthood. Because we believe that individuals are actors who have the possibility to choose between different alternatives, our research proceeds from the assumption that people choose their relationships. People are relatively free to invest in different relationships and have to make choices on which relationship

they give priority to at certain times. This is the case not only for friendships, but for family relationships as well (Allan, 1977; Dykstra, 1990, p. 203). Blood relatives cannot be chosen, but there is an option in how much time to spend with them and how intimate the relationship should be. This study thus examines how individuals organize their sibling relationships, looking at when they opt to be supportive and how this can be explained. The main question in this book is:

Under what conditions do siblings support each other?

Our research follows the most common distinction in forms of social support: between *emotional support* (behaviors that communicate that an individual is cared for and loved) and *instrumental support* (behaviors that provide assistance in task-directed coping efforts) (Dykstra, forthcoming; Pierce, Sarason, Sarason, Joseph & Henderson, 1996). Emotional support is investigated here by looking at giving and receiving advice and by showing interest in the personal life of a sibling. Instrumental support is assessed by examining help with housework and with odd jobs, such as transportation and chores around the house.

Both giving and receiving support are addressed. Studying the provision of support gives insight into when individuals choose to help out their siblings. Because giving support is costly, it is interesting to see when people are more willing to use their resources to help a sibling. Receiving support shows under which circumstances people can count on a sibling for help. It should be noted that giving support can be beneficial too, because it contributes to self-esteem and healthy functioning (Pierce et al., 1996); receiving support can be costly, because it may lead to feelings of loss of autonomy, which is related to lower levels of well-being (Silverstein, Chen & Heller, 1996). Because an individual is in most relationships both a source and a recipient of social support, the exchange of support will also be analyzed.

The other side of social support must not be ignored, as relationships are characterized by both positive and negative interactions (Akiyama, Antonucci, Takahashi & Langfahl, 2003) and exchange (Rook, 2003). Recently, there has been an increasing interest in ambivalence in relationships, illustrating the co-existence of positive and negative aspects in relationships (Connidis & McMullin, 2002; Fingerman, Hay & Birditt, 2004; Luescher & Pillemer, 1998; Van Gaalen & Dykstra, 2006). This side of solidarity is examined in the sibling relationship as well.

1.4 The exchange framework

This thesis takes a widely used perspective on relationships: the exchange framework. According to this framework, much of people's social behavior can be understood in terms of exchange. In daily life people engage in many exchanges with each other, giving and reciprocating both material as well as intangible matters that vary from money to ideas or favors. Non-economic

goods, such as social approval, can be exchanged too (Blau, 1964). Exchange theory is congruent with rational choice theory, following the idea that in a world of scarcity people have to choose between alternative actions and that they will act rationally, by making cost-benefit analyses (Heath, 1976).

People engage in exchange because some of the desired rewards are dependent on the cooperation of others. Receiving a favor from someone is beneficial but also involves costs, because of the obligation to return the favor in the future (Coleman, 1990). In other words, ties come about because people invest in other people (Flap, 1999; Rusbult & Martz, 1995). When someone perceives the costs of a relationship as outweighing the perceived benefits, this person is likely to choose leaving the relationship. Nevertheless, a rational person is willing to incur some temporary losses to maintain profitable relationships (Dilworth-Anderson, Burton & Klein, 2005; Klein & White, 1996).

Conceptually, a distinction can be made between economic and social exchange. Economic exchange involves a focus on the material outcome of the exchange rather than social rules governing exchange. Social exchange, on the other hand, involves a focus on the reciprocity obligations created by exchange, acknowledging more fully the social complexity surrounding exchange (Uehara, 1990).

Important contributions to the economic approach of the family have been made by Becker (1976; 1991), by analyzing marriage, birth, division of labor and several other family matters “with the tools and framework developed for material behavior” (Becker, 1991, p. ix). Even though his attention to the sibling relationship was minimal and mostly dealt with sibling rivalry over parental resources, the sibling relationship can also be seen in this light. Siblings are interesting “economic” exchange partners for each other, not in the least because they are there across the entire life span.

The basis of social exchange theory is laid by the work of Thibaut and Kelley (1959) and Gouldner (1960); also Homans (1992 [1951]) and Blau (1964) are usually mentioned as major founders. While there are many differences between them, they are all concerned with exchange of some activity between at least two people, which is more or less rewarding or costly. They are not so much concerned with the outcomes of the exchange, but more with the consequences this has for the relationships. According to Homans, social relations emerge in social interaction. In social interaction, people communicate to end up with a result that is rewarding to both, and successful interaction is likely to be repeated (Homans, 1974). Even though the sibling relationship is in essence an ascribed relationship, exchange over the life course forms the relationship in aspects like intimacy, companionship and supportiveness.

Because all relationships are characterized by exchange, family relationships can be regarded in terms of exchange as well, notwithstanding the fact that families are often the site of extreme emotion, attachment, and seemingly irrational decisions (White, 2005). Siblings too can be expected to regard their relationships in terms of costs and benefits, where for instance it may

be more beneficial to help a sibling who is more likely to reciprocate or liked more. Siblings can be profitable exchange partners for each other, because the shared context of the family brings them together their whole lives, evidenced by ongoing interaction and exchange of services (White, 2001; White & Riedmann, 1992a).

Advancement in sibling research can be made by treating the sibling relationship as one whose content is determined by previous exchanges and expectations about the future of the individuals involved. Regarding siblings as rational actors who let cost-benefit analyses determine whether they will support each other makes siblings actors who actively make choices, rather than subjects whose behavior is determined by the structure of the family or the existence of norms. Also, by applying a general exchange framework, progress can be made by investigating to what extent this framework can be generalized to other relationships.

1.5 Research questions

1.5.1 *Exchange among siblings: similarities and differences*

A first step that is taken in this thesis to assess support in the sibling relationship from an exchange perspective is to start with two general expectations derived from exchange theory to test the sibling relationship. The first expectation is that similarity leads to more support exchange among siblings, the second one is that differences lead to more exchange.

According to social exchange theory, interaction is more likely to be successful if the actors involved share opinions or are similar in another way (Heider, 1958). Being similar makes it easier to understand each other and to anticipate each other's needs. It also leads to liking the other person, which makes exchange more pleasant as well. This increased understanding and liking reduces the costs of exchange with similar others. Lazarsfeld and Merton (1954) introduced the term "homophily" for the tendency of friendships to be formed between those who are alike in some designated respect, which motivates continued contact also as a result of gratifying experiences, and results in strong personal attachment.

Even though most of homophily research is on chosen relationships, such as coworkers, friends and acquaintances (McPherson, Smith-Lovin & Cook, 2001), being similar in certain respects may lead to increased exchange of support between siblings too. Notwithstanding obvious similarities (shared genes and childhood environment), biological siblings in adulthood can live in different social worlds, where differences in age, gender, educational attainment, partner status and parental status may lead to less involvement with each other. There is research supporting this claim (e.g., Adams, 1968; Ross & Milgram, 1982). When such differences between siblings are smaller, support exchange may be higher.

An economic exchange perspective draws attention to differences rather than similarities. Exchange is especially rewarding if exchange partners have different kinds of resources and have an interest in both. Studying exchange among siblings from this perspective is rare, even though

some findings do support this expectation. For example, a childless sibling may be very well suited to provide help with child care (Allen & Pickett, 1987), whereas an older sibling may be able to provide guidance (Johnson, 1982; Yourglic, 1964). These considerations on exchange are summarized in the following research question:

1. *Do similarities or do differences between siblings influence support provision?*

The provision of four different tasks will be assessed: help with housework, help with odd jobs, giving advice and showing interest in the personal life of a sibling.

1.5.2 Opportunities and restrictions for support: siblings compared to friends

Expanding on the exchange perspective discussed above, exchange of support in sibling relationships should be comparable to exchange in other close relationships. Therefore, to investigate exchange in sibling relationships, it is informative to compare support in the sibling relationship to another relationship in which exchange has been studied. This will shed light on the extent to which exchange in the sibling relationship is like exchange in other relationships. In doing so, insight is gained into how siblings organize their relationships as rational actors and into the general applicability of the exchange framework.

A non-family relationship that holds similarities to the sibling relationship is the relationship with a friend. Both siblings and friends are age peers, and have a horizontal, egalitarian relationship with limited obligations and an emphasis on sociability (Cicirelli, 1995; Connidis, 2001). Compared to the parent-child relationship, which is complementary, dependent and based on differences, the sibling relationship is one of similar individuals who are equals (Bedford, 2005), includes a strong element of choice, and is, in contrast to friendship, not completely voluntary (Walker et al., 2005).

It is assumed that both siblings and friends will try to minimize costs and maximize rewards, meaning that support is most likely to be exchanged in situations where costs are as low as possible and enough resources are available (Klein & White, 1996) — for instance if the other lives nearby and there is high contact frequency. If the sibling relationship is comparable to friendship, restrictions and possibilities for the provision of support are expected to be equally influential for siblings as for friends. But the sibling relationship is part of the family, a network which is denser than that between friends (Wellman & Wortley, 1989), providing a context in which obligations are likely to develop (Finch & Mason, 1993) and strengthened by societal norms (Himes & Reidy, 2000; Stein et al., 1998). This embeddedness in a dense network with a normative obligation to help each other will make it harder for siblings to refrain from providing support. In other words, there are costs associated with not helping, leading to a different outcome of cost-benefit calculations than in friendships. Hence it is expected that restrictions

and possibilities for support provision are less influential for actual support exchange between siblings than between friends. This leads to the following research question:

2. *Do opportunities and restrictions contribute differently to support exchange between siblings and friends?*

The four different support tasks are combined into two dimensions, one reflecting instrumental support (housework and odd jobs) and one emotional support (advice and interest). Giving as well as receiving instrumental and emotional support will be assessed.

1.5.3 *Fairness and accountability: negative life events and the limits of sibling solidarity*

Exchange is contingent upon the just allocation of rewards. Support provision depends not only on the opportunities and restrictions to support, but also on the extent to which people evaluate the outcome of the exchange as fair. Relationships are tested on their solidarity in the face of adversity. To understand sibling solidarity we will therefore look at the occurrence of problems in the lives of siblings and search for the limits of solidarity. The extent to which siblings are willing to support each other is likely to be related to the neediness of the other person, but also to whether one deserves to receive help given the nature of the problem. Therefore, it is important to incorporate issues of justice and accountability.

An unequal outcome of exchange is not necessarily experienced as unjust. One may be better off than the other, while both may perceive this distribution as just (Bylsma, Major & Cozzarelli, 1995; Major, 1994). One important aspect of justice is the principle of accountability, which states that someone's fair allocation varies "in proportion to the relevant variables that he can influence (e.g. work effort), but not according to those that he cannot reasonably influence (e.g. a physical handicap)" (Konow, 2000, pp. 1073-1074). In line with this argument, one may be more willing to help a sibling who has a problem that is the result of bad luck than one resulting from poor judgment. If a sibling is in trouble as a result of his own conduct, it is not evident that support will be provided. Furthermore, negative aspects of the relationship may become more pronounced when there are problems, especially those due to poor judgment. The following research question is addressed in this book:

3. *Do the occurrence and nature of problems influence sibling solidarity and conflict?*

Support in general will be addressed by taking all four tasks together and looking at both giving and receiving support. The occurrence of conflict will be assessed, as well as other relationship characteristics related to solidarity: contact frequency, relationship quality and perceived balance in the relationship.

1.5.4 Family solidarity: the sibling relationship as a family relationship

Exchange in the sibling relationship does not take place in a vacuum. In considering the costs and rewards of helping a sibling, people will also include the wider family. Families constitute unique groups with their own identity. For most, families are lifelong social groups, entered at birth and left at death. People name the group they belong to, have a distinct feeling about it, and often incorporate this name and feeling into their identities (Fararo & Doreian, 1998). Families have their own characteristics: not all families are equally close and supportive (Pyke & Bengtson, 1996). Apart from individual characteristics and characteristics of the sibling relationship, the family one belongs to is likely to influence how one feels and behaves toward a sibling.

In what way does the family context influence sibling support exchange? We argue that in close groups the costs of providing support are lower, because the flow of goods and communication among members are facilitated (Uehara, 1990). Family members jointly produce and share “family life” (Lindenberg, 1997, 1998), and all members are expected to contribute to it. In close families these normative expectations to provide help are more difficult to ignore (Hechter, 1987). It is argued that solidarity in other family relationships therefore leads to more sibling support, by lowering the costs to provide support. This is in line with work on contagion between different family relationships, where it was found that parents’ affect for a child is positively related to marital quality and a child’s affect for one parent is positively related to the affect to the other parent (White, 1999). This shows that a positive relationship with one family member improves the relationships with other family members.

We aim to gain insight into the interplay of the different family relationships by investigating the interplay of the sibling relationship with another family relationship. This not only sheds light on the position of the sibling relationship within the family, but on the interrelatedness of different family relationships as well. The most likely candidate for this is the relationship to the parent, given that parents as principal socializing agents form the context in which the children have grown up (Cavalli-Sforza, 1993; Maccoby, 1992). It is likely that for their children, parents represent characteristics of the family at large. The following research question is formulated:

4. Does solidarity in the relationship with parents influence support exchange among siblings?

Support exchange will be addressed directly, by looking at giving and receiving support simultaneously, rather than analyzing them separately. A distinction is made between instrumental and emotional support.

1.6 Data: the Netherlands Kinship Panel Study

The data used in this thesis come from the Netherlands Kinship Panel Study (NKPS).ⁱ The NKPS is a large-scale dataset on the nature and degree of solidarity within family relationships and has several advantages that make it useful for this research. First, the data is gathered from a large random sample of the Dutch population, which makes it possible to study the sibling relationship in adulthood in general, and not only specific groups of siblings. Second, data is gathered on a randomly chosen sibling rather than the closest one, which gives a reliable picture of the sibling relationship and not an unrealistically positive one. Third, the NKPS contains data on different family members as well as data gathered directly from these family members. This makes it possible to investigate the sibling relationship from both ends of the dyad as well as to incorporate the family context.

Solidarity in the NKPS is defined as “feelings of mutual connectedness in family relationships and how these are expressed in behavioral terms”. Instrumental, social and emotional solidarity are assessed in several family relationships. The NKPS is the first large-scale panel study on family relationships in the Netherlands. Wave 1 of the NKPS is used; its fieldwork was completed in 2004. Data from the second wave will become available in 2007. Here we give a short description of the study; more detailed information can be found in the NKPS Codebook (Dykstra et al., 2005).

The NKPS uses data from two samples: a main, random sample of individuals within private households in the Netherlands with a minimum age of 18 and a maximum age of 79, and a migrant sample in collaboration with the Social Position and Use of Welfare Provisions by Migrants (SPVA, *Sociale Positie en Voorzieningsgebruik van Allochtonen*). This book relies on data from the main sample only, which was drawn from all addresses of private residences in the Netherlands. A total of 8,161 primary respondents were interviewed. The response rate was 45%.

The data were collected from multiple actors using multiple methods. The focus was on relationships and networks of relationships rather than on individuals. Data were collected from primary respondents (“Anchors”) on several family relationships and relationships to friends, as well as from family members directly (“Survey Alters”). Within households an adult was randomly selected to be the Anchor. Anchors were asked for permission to contact the Survey Alters during the interview. Survey Alters were the partner, a maximum of two children aged 15 or older, the father or mother, and a brother or sister aged 15 or older. Survey Alters did not necessarily co-reside with the Anchor. Anchors were interviewed face-to-face using Computer Assisted Personal Interviewing (CAPI). Self-completion questionnaires were also administered. Survey Alters filled out only a self-completion questionnaire.

The studies in this book examine the sibling relationship by analyzing information on both siblings in the relationship, and the relationship itself using information provided by the Anchor (chapters 2, 3, 4 and 5). The family context is examined by using information provided by both siblings (the Anchor and the Survey Alter) and a parent (also a Survey Alter) (Chapter 5).

1.7 Outline of the book

The structure of the book follows the order of the research questions. In Chapter 2 research question 1 is answered, investigating to what extent similarities and differences between siblings contribute to support exchange. The provision of four support tasks are analyzed separately, to give a broader picture of what support among siblings entails. The four tasks are help with housework, help with odd jobs, giving advice and showing interest in the personal life of a sibling.

In Chapter 3 the second research question is addressed, examining to what extent the influence of opportunities and restrictions on support exchange differs for siblings and friends. In this chapter giving as well as receiving support are analyzed, and the four tasks are grouped into an instrumental support dimension (help with housework and help with odd jobs) and an emotional support dimension (giving and receiving advice and interest in the personal life of a sibling). This provides insight into parallels between giving and receiving support.

Chapter 4 investigates the occurrence of problems in the lives of siblings, and focuses on the third research question. Here the question is posed of the extent to which the occurrence of problems and the nature of those problems in the life of a sibling affect sibling solidarity. Next to giving and receiving support, in which all four tasks are summed, other outcome measures are included: contact frequency, relationship quality, perceived relationship balance and the occurrence of conflicts.

The context of the family is included in Chapter 5, which provides the answer to research question 4, assessing the extent to which solidarity in the relationship with parents influences support exchange among siblings and in what way. A distinction is made between instrumental support and emotional support. Giving and receiving support among siblings is analyzed simultaneously, thus focusing on exchange directly.

Chapter 6 summarizes the main findings of the study and presents general conclusions on sibling support. The chapter ends with a discussion on the findings and their implications for further research in the field of family sociology in general and sibling relationship research in particular.

Tabel 1.1

Outline of the book

Chapter	Exchange framework	Relationships	Kind of support	Direction of support	Source of information
1	Introduction				
2	Giving support in the sibling relationship	Sibling relationships	Four different tasks: housework, odd jobs, advice and interest	Giving	Anchor
3	Sibling support exchange compared to friends	Sibling relationships and friendships	Two dimensions: Instrumental and emotional support	Giving and receiving analyzed separately	Anchor
4	Exchange within the context of problems	Sibling relationships	One dimension: all four tasks taken together	Giving and receiving analyzed separately	Anchor
5	Exchange within the context of the family	Sibling relationships and parent-adult child relationships	Two dimensions: instrumental and emotional support	Giving and receiving analyzed simultaneously	Anchor, sibling and parent
6	Conclusion and discussion				

Notes

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Chapter
Similar or different?

II

Similar or different?

The importance of similarities and differences
for support among siblings¹

*A sister can be seen as someone who is both ourselves
and very much not ourselves - a special kind of double.*

~Toni Morrison

Abstract

Using a large-scale Dutch national sample (N = 7,126), we examined the importance of similarities and differences in the sibling dyad for the provision of support. Similarities are assumed to enhance attraction and empathy; differences are assumed to be related to different possibilities for exchange. For helping with housework, helping with odd jobs, giving advice and showing interest, logistic regression models were estimated and similarities and differences in gender, age, educational level, partner status, and whether or not the siblings have children were examined. We found only limited corroboration for the relevance of similarities, both siblings being sisters, or both being childless. Validation for the importance of differences was also found, relating to different roles. For instance, older siblings were more supportive toward their younger siblings than the other way around, and the childless supported their parenting siblings, especially in young adulthood.

Keywords: adult siblings, social exchange, support, functional specificity model

¹ This study is co-authored by Tanja van der Lippe, Pearl Dykstra and Henk Flap. A slightly different version of this chapter is forthcoming in *Journal of Family Issues*.

2.1 Introduction

In the past decade, researchers in the field of family sociology have become increasingly interested in the adult sibling relationship. Until quite recently, attention for the sibling relationship was only minimal compared to the interest in other family relationships, such as the parent-child or the spousal relationships (Bedford, 1989), but more and more researchers have come to acknowledge the importance of brothers and sisters as a source of comfort and support (Bedford, 1995; Eriksen & Gerstel, 2002), companionship (Connidis & Davies, 1990) and well-being (O'Bryant, 1988). Even though siblings do not always play a major role in most adults' day-to-day interactions, they tend to be permanent members of people's social networks over the life course, since the sibling bond is potentially the longest relationship people have.

We will focus on the support function of the sibling relationship in the lives of adults in the Netherlands among a representative sample of the Dutch population. We start from the functional specificity model, which allows specific characteristics of individuals and their relationships to influence social support (Campbell, Connidis, & Davies, 1999). Following previous studies on support in general (Wellman & Wortley, 1990) and in the sibling tie specifically (Eriksen & Gerstel, 2002), we examine the importance of similarities and differences between siblings for the provision of sibling support. To give a broad perspective on the tasks that siblings may help each other with, we include four different types of support: help with housework, help with odd jobs, giving advice and showing interest in a sibling's personal life.

We advance on previous work by shifting the focus from merely looking at what characteristics influence sibling support toward a broader theoretical perspective of similarities and differences. Furthermore, by using a large representative sample of the Dutch population, the sibling relationship can be studied for all age groups and not only for the elderly, as many current studies do. By distinguishing between different age groups, the sibling relationship can be investigated during different phases of the life course.

2.2 Background

Existing theoretical traditions in family research provide limited help to explain support behavior between adult siblings, because they do not focus on the choices that are made by the individual family members involved, but rather on the family as a whole or the family history. Examples of this are family systems theory (Cicirelli, 1980; Minuchin, 1974), attachment theory (Bowlby, 1979; Cicirelli, 1989) and models on social support, such as the hierarchical compensatory model (Cantor, 1979) and the task specification model (Litwak, 1985; Litwak & Szelenyi, 1969).

Family systems theory treats the family as a set of separate relationships that are all interconnected, and aims to understand how families function. This approach is less concerned with the sibling bond in itself and is more descriptive in nature (Dilworth-Anderson, Burton, & Klein, 2005). Attachment theory explains different kinds of behavior as the result of attachment styles individuals develop during infancy and childhood (Crosbie-Burnett, Lewis, Sullivan,

Podolsky, & Mantilla de Souza, 2005), therefore treating the behavior siblings display toward each other merely as a result of the development of a close bond during childhood. The hierarchical compensatory model sees the sibling relationship as one that will only become active when preferred alternatives are lacking (Cicirelli, Coward, & Dwyer, 1992; Connidis & Campbell, 1995; Miner & Uhlenberg, 1997). The presence or absence of preferred alternatives for assistance is not enough to explain sibling support by itself though. Characteristics of the individuals and their relationships are relevant too (Eriksen & Gerstel, 2002; White & Riedmann, 1992a). The task specification model (Litwak, 1985; Litwak & Szelenyi, 1969), finally, poses that the function required by a particular helping task determines who will help, but it has difficulty explaining why some helpers with similar ability do not always provide comparable amounts and types of support (Cicirelli, 1995).

The models of hierarchical compensation and task specificity focus on social support, as does the functional specificity model. The latter model incorporates the idea that relationships may perform specific functions, but that functions are not necessarily restricted to specific relationships, taking account of the fact that family relationships are negotiated over time. In their study on sibling ties of older adults, Campbell, Connidis and Davies compared the three different social support models, and found the most support for the functional specificity model (Campbell et al., 1999). A British study by Finch and Mason (1993) on family obligations stressed that family relationships develop over time and responsibilities do not flow automatically from specific relationships. For instance, unpartnered childless siblings may have a very different relationship in terms of support than married siblings with children, because they have developed different expectations and exchange patterns over time.

But how can we predict the outcome of these negotiations for people in different social situations? When will siblings be more likely to support each other? The functional specificity model does not predict which relationship is most likely to provide help (Cicirelli, 1995), which characteristics are important, or how they are important. In their study on older adults' sibling relationships, Campbell et al. (1999) found differences related to gender, partner status and marital status, but only investigated one side of the dyad, while negotiations are a result of characteristics of both individuals in the dyad.

To predict which subsets of siblings can be expected to be more supportive, we turn to exchange theory. According to exchange theory people's social behavior can be understood in terms of exchange of rewards of some sort. In daily life people have to choose between alternative actions and people will do so rationally, by making cost-benefit calculations (Blau, 1964; Homans, 1974). We investigate two possible arguments: the first states that similarity breeds attraction, which makes exchange with a similar person more rewarding (Lazarsfeld & Merton, 1954; McPherson, Smith-Lovin, & Cook, 2001). The second contends that differences foster exchange, because there is more to gain from a person with different resources than from a

similar person (Becker, 1976). Known relevant influences on sibling support are incorporated into this general theoretical framework.

To learn about the adult sibling relationship in general, siblings of all ages need to be incorporated. Existing research on the sibling relationship in adulthood often focuses on specific age groups, such as the elderly (Cicirelli et al., 1992; Dykstra & Knipscheer, 1995; Dykstra, 1990). Of course, there are some exceptions of studies that use large representative samples, for example for the United States (White, 2001; White & Riedmann, 1992a), Great Britain (McGlone, Park, & Roberts, 1999) or the Netherlands (Verbakel & De Graaf, 2004), allowing conclusions on aspects such as frequency of contact, closeness or helping behavior in the adult sibling relationship. We not only include siblings of all age groups but also distinguish between different age groups, because what is relevant for older siblings does not need to be influential in earlier phases of the life course, and vice versa. For instance, being unpartnered and childless means something different for young adults than for older adults, because many young adults will eventually make the transition into parenthood, which is not the case for older adults.

We advance on previous work by using data from a large representative sample of the Dutch population. This provides insight into sibling support and the relevant influences on support not limited to specific groups. In this study we analyze sibling relationships of all ages taken together, as well as distinguish between three age groups: up to age 35, ages 36 to 55, and older than 55.

2.3 Theory and hypotheses

The functional specificity model allows for the unique nature of relationships to influence the provision of support. This implies that the content of the sibling relationship in terms of support varies for different groups of persons. To explain which sibling dyads are most likely to be supportive, we examine which dyadic characteristics are related to support provision. By taking a general exchange approach and look at whether similarities or differences are important for support, we aim to further specify the functional specificity model for siblings.

Similarity. The first hypothesis comes from social psychological approach to exchange and argues that people who are alike have more rewarding interactions and will therefore be more supportive. People who share similar values or status are attracted to each other, because as they express their views to each other they have more rewarding interactions (Lazarsfeld & Merton, 1954). Rewarding interactions are likely to be repeated, which leads to liking the other person (Homans, 1974). This increased understanding and liking reduces the costs of exchange with similar others compared to dissimilar others, thereby making the provision of support less costly as well. Such predilection is also enhanced by people thinking they are liked more by a similar other (Condon & Crano, 1988). Attraction is related to supportive behavior (see for the sibling relationship, Riggio, 2000), and support is further stimulated by similarity, because higher

similarity generally leads to increased empathy, which in turn enhances helping behavior (Batson, 1991).

This line of research has focused almost exclusively on achieved relationships such as those between spouses (Kalmijn, 1998) and friends (Marsden, 1988). The importance of similarity in ascribed relationships such as the one between siblings has only rarely been investigated (see Eriksen & Gerstel, 2002; Verbakel & De Graaf, 2004, for an exception). Results are somewhat contradictory, though, where some studies find some support for the similarity claim (Eriksen & Gerstel, 2002) while others find none (Verbakel & De Graaf, 2004).

Difference. A second and contrasting approach to the provision of support in the adult sibling relationship originates in a more economic approach to exchange theory, which is more widely used in sociology. “The exchange approach in sociology might be described, for simplicity, as the economic analysis of non-economic social situations” and implies a two-sided mutually contingent, and mutually rewarding process involving ‘transactions’ or simply ‘exchange.’” (Emerson, 1976, p.336). The basic idea behind exchange in economics is that people with different resources engage in exchange to maximize their rewards (Klein & White, 1996). This exchange perspective has been used to explain behavior in family relationships on the whole (Becker, 1991), and in this study will be applied to the sibling relationship as well. For siblings too, differences in amount and type of resources they dispose of can create opportunities for exchange of support.

To achieve a broad perspective on supportive behavior among siblings, we examine several support tasks. Included are instrumental as well as emotional support tasks; gender specificity of certain tasks is also taken into account, since this is found central to supportive behavior in family relationships (Hoyt & Babchuk, 1983). The instrumental support tasks are help with housework (female-typed) and help with odd jobs (male-typed), the emotional support tasks are giving advice and showing an interest in the personal life of a sibling. In the remainder of this section, we formulate hypotheses on effects of similarities as well as differences in characteristics found to be important for support in sibling relationships: gender, age, education, partner status and the presence of children.

Gender. The gender composition of the dyad is expected to be important for support. There are arguments for both same-gender and mixed-gender composition to improve support in the sibling relationship, and there is much disagreement about this in the literature (Bedford, 1995).

It can be argued that same-gender siblings are more supportive because they are emotionally closer than mixed-gender sibling pairs. Gender commonality is found to be important in non-family relationships, especially in friendships (Kalmijn, 2002; Marsden, 1988), and there is empirical support for this in sibling relationships as well. Erikson and Gerstel (2002) found in their study on sibling support that more support was given in same-gender pairs. In her overview of sibling studies, Connidis (2001) discusses studies espousing that both men and

women feel closer to a sibling of the same gender, but also reports empirical evidence demonstrating otherwise.

Following exchange theory, differences between men and women lead to opportunities to exchange all kinds of services. With regard to the provision of emotional support, the centrality of women is well known (Felling, Fiselier, & Van der Poel, 1991; Wellman & Wortley, 1990). Women are often expected to fulfill the role of ‘nurturer’ (McGoldrick, 1991) or ‘kin keeper’ (Rosenthal, 1985), which explains why both men and women are found to be more likely to turn to a woman than to a man in times of stress (Buhrke & Fuqua, 1987). It can therefore be argued that it is the involvement of women which is relevant, rather than gender commonality. According to this approach, sisters are supposed to be most supportive, followed by brother-sister pairs, and brother-brother pairs are expected to be least supportive. Several studies point to the fact that having sisters is important for well-being and emotional support (Bedford, 1995; Connidis, 2001; O'Bryant, 1988).

A second argument as to why differences may matter for support is that tasks can be gender-specific, leading to specialization by brothers and sisters. A gender-specific division of tasks in and around the house is often found, with women more likely to provide help with domestic tasks and men helping out more often with home maintenance (Felling et al., 1991; Liebler & Sandefur, 2002). From an economic exchange perspective, most can be gained from being part of a mixed-gender sibling dyad, where the skills of a sister complement those of her brother. According to this view, we expect that help with housework is most likely to be provided by sisters to brothers, and that help with odd jobs is most likely to be provided by brothers to sisters.

We will investigate whether support with the four different tasks is more likely to be exchanged in same-gender dyads (H1a), in dyads involving more women (H1b), or whether the gender specificity of the task is of influence (H1c).

Age difference. Does closeness or rather difference in age enhance sibling support? On the one hand, siblings closer in age can be expected to be more supportive because closeness in age often means more shared experiences during childhood (Ross & Milgram, 1982), leading to enhanced closeness in adulthood. In other kinds of relationships too, those closer in age tend to relate more closely and personally (Marsden, 1987; McPherson et al., 2001; Verbrugge, 1977).

On the other hand, an argument can be made for why a larger age difference may increase support. A difference in age may be associated with different resources as a result of more life experience and, for siblings, another role in the family. Research on birth order and sibling roles shows that the relationship between siblings is not totally egalitarian but that age differences can be associated with different roles. Especially early in the life course, older siblings function as a model for their younger counterparts (Cicirelli, 1995), and younger siblings imitate their older siblings, which in turn helps the latter develop social skills (Teti, 1992). Among a population of college students, Yourglic (1964) found that younger siblings look to their older siblings for

leadership and decision-making. In Italian-American families, older siblings were found to look after their younger ones (Johnson, 1982). A study among college students showed that, even though ordinal position did not have an effect on affection, older siblings did influence their younger siblings more than the other way around (Newman, 1991). The roles that siblings learn when they grow up may perpetuate into adulthood. Therefore, an alternative hypothesis is that older siblings are more likely to provide support to younger siblings.

An age difference may also be related to a difference in opportunities to provide support and a need for support. Among older adults, a much younger sibling is more likely to provide support than an older sibling. Siblings who are in approximately the same phase of the life course are confronted with similar needs for support, which makes them less suited for support exchange. Gold found in her study among older adults that limitations in terms of health decline or financial restrictions made siblings stop providing instrumental help (Gold, 1989). Similar health limitations are less likely when there is a greater age difference.

We will test whether support is more likely to be provided to a sibling closer in age (H2a) or to a sibling that is much younger (early and middle adulthood) (H2b) or older (late adulthood) (H2c), and whether this differs for different tasks of support.

Education. Similarity in education may be important, because a different educational background is related to different experiences in the past and to a different lifestyle associated with a different social status (Zablocki & Moss Kanter, 1976), making mutual understanding and empathy more difficult. Indeed, in chosen relationships the most important of the achieved characteristics by which people shape their network is similarity in educational attainment (McPherson et al., 2001). Among siblings, a differential educational attainment sometimes leads to sibling rivalry, causing strain in the relationship (Ross & Milgram, 1982), and such rivalry may last until late adulthood (Cicirelli, 1985). Adult siblings are seen as measuring sticks to evaluate their own success or lack thereof (Troll, 1975), and different occupational levels are found to be related to poor relationships among brothers (Adams, 1968). Nowadays this may have become increasingly relevant for sisters as well, given women's increased labor force participation. From this perspective, similarity in educational level between siblings is likely to enhance support.

In contrast, since educational attainment is a form of human capital, different educational levels imply differences in resources, increasing the possibilities for exchange. Those with a higher education tend to have higher social status, higher income and better health (Monden, 2003). Education can therefore be seen as a resource in many different ways. Seen this way, siblings with a higher educational level are more likely to support siblings with fewer resources. There is some empirical support for this idea. A study among older siblings by Suggs (1989) showed that among black siblings educational disparity was related to enhanced closeness. Ross and Milgram (1982) found in their qualitative study among siblings that even though most consequences of employment or educational discrepancies were negative, in certain cases increased admiration for the more highly educated or more successful sibling enhanced sibling ties.

We will test whether similarity (H3a) or difference (H3b) in educational attainment enhances the likelihood of support provision for the four different tasks.

Partner status. For partner status too, it can be argued that similarity breeds closeness and empathy, leading to more support exchange. Especially enhanced closeness, contact and support exchange between never-married and widowed siblings is widely documented (Campbell et al., 1999; Cicirelli, 1991; Connidis, 1989, 2001; O'Bryant, 1988). This finding is often explained by the hierarchical compensatory model of support, assuming that a sibling becomes more important as a provider of support when a partner is absent (Cicirelli, 1995; Cicirelli et al., 1992), making two unpartnered siblings especially likely to be close and supportive. The functional specificity model does not assume that siblings compensate for absent partners, but that unpartnered siblings have developed different relationships with each other than their partnered counterparts (Campbell et al., 1999).

For married sibling pairs there also is evidence that similarity in marital status improves closeness in the relationship, as a result of sharing the common experience of being married (Connidis, 1992) — despite some research indicating the opposite (Ross & Milgram, 1982). The positive effect of similarity of marital status is therefore expected to be stronger for unpartnered (never married, divorced or widowed) sibling pairs.

An argument can also be made for a discrepancy in partner status enhancing sibling support. A partner may be a resource for supporting an unpartnered sibling. Some evidence backing this comes from a study on sibling support to older widows by O'Bryant (1988), who found that for widows a married sister living close-by is a significant predictor of support. Indeed, in this study, the sisters' partners were also found to be engaged in support provision to the widow. This leads to the expectation that support is most likely to be provided by a partnered sibling to an unpartnered sibling.

We will test whether support is most likely provided in a sibling dyad with homogeneity in partner status (H4a), or whether a different partner status stimulates support provision (H4b) for four different tasks.

Presence of children. Similarity in parental status is expected to influence support in the sibling dyad because being in the same phase of the life course is expected to facilitate the provision of emotional support (see for instance Connidis, 2001, for the shared experience of parenthood by siblings), as it is easier to understand each other and be empathetic. Furthermore, the presence of a new generation tends to open up the family, giving family members access to their new grandchild, niece or nephew, intensifying bonds with kin such as siblings (Schvaneveldt & Ihinger, 1979). Previous research indeed found an effect of same parental status in the sibling dyad on the provision of instrumental help (Eriksen & Gerstel, 2002).

The absence of children is an alternative reason for why siblings might be more focused on each other. Again, following the functional specification model, this closer relationship

between childless siblings may be the result of negotiation across the life course, making them more focused on each other (Campbell et al., 1999).

Differences in parental status may also lead to increased support between siblings, and this is expected to vary for different phases of the life course. When one sibling has young children, the childless sibling may be best able to help out and to function as a surrogate parent, because of fewer competing family obligations. This is found indeed in research among older, never-married childless women (Allen & Pickett, 1987), and this role is not limited to women (Milardo, 2005).

When children are grown-up, resources may be distributed differently. Children can be regarded as a resource in late adulthood, given that much support flows between parents and children (Komter & Vollebergh, 2002), and that older adults are most likely to turn to adult children for support (Quadagno, 2005). When children are there to help out their parents, these parents may have more possibilities to help out their own siblings.

We will test whether similarity (H5a) or difference (H5b) in parental status results in more support exchange for the four different support tasks, and how this varies for different age groups.

2.4 Method

2.4.1 *Data: the Netherlands Kinship Panel Study*

We used data from the Netherlands Kinship Panel Study (Dykstra et al., 2005), a large-scale data collection among a representative sample of the Dutch population on the subject of family solidarity. The fieldwork of the first wave we are working with was completed in 2004. Using a structured questionnaire, 8,161 individuals between ages 18 and 80 were interviewed face-to-face at home. A self-completion questionnaire was also filled out by respondents. The response rate was 45%.

Compared to the Dutch population, women were overrepresented, especially in the 35-54 age group. Young men were underrepresented (ages 18 to 30). Considering household status, there was an overrepresentation of people with children at home in the dataset and an underrepresentation of children still living with their parents.

Respondents reported on various family relationships, including the sibling relationship. On all living siblings, data were collected on gender, age, contact frequency and place of residence. An additional set of questions (e.g. partner status and parental status, educational level and support exchange) was asked about a maximum of two randomly selected siblings aged 15 or older. We selected one of these two siblings for our analysis. Of all respondents, 92.2% had at least one biological sibling, sharing both parents, aged 15 or older. Respondents with only half siblings, step siblings, adopted siblings or no siblings at all were excluded from the analysis (896 respondents), as were respondents who still lived with their parents or who lived with the sibling in the same household (135 respondents). Further, respondents with missing values on the

dependent variables and with unreliable values (such as an age difference of 79 years) were excluded (4 respondents). A dataset of 7,126 respondents remained. Missing values for the independent variables were estimated by single imputation using EM (Acock, 2005).

2.4.2 Measures

Dependent variables. Four tasks were analyzed: help with housework, help with odd jobs, giving advice and showing an interest in the other's personal life. The first two can be characterized as instrumental support, the latter two as emotional support (Pierce, Sarason, Sarason, Joseph, & Henderson, 1996). These tasks were measured in the dataset with the following four questions: (a) *In the last three months, did you help [name of sibling] with housework, by preparing meals, cleaning, grocery-shopping, doing the laundry?* (b) *In the last three months, did you help [name of sibling] with practical matters, such as chores in and around the house, lending things, transportation, moving things?* (c) *Did you give counsel or advice to [name of sibling] in the last three months?* (d) *Have you shown an interest in the personal life of [name of sibling] in the last three months?* Response categories were 0 = none, 1 = once or twice, 2 = several times. Given the limited number of categories and the non-normal distribution of the variables, the responses were dichotomized, creating four binary variables indicating whether this kind of support was provided or not.

Table 2.1 presents descriptive statistics for all variables in the model, showing that help with housework was least common; 10% of all respondents provided this kind of help. Of all respondents, 17% helped with odd jobs, 41% gave advice and 75% showed interest in the personal life of their siblings.

Independent variables. Variables concerning the following characteristics of the sibling dyad were included for each sibling: gender composition, age heterogeneity, educational heterogeneity, partner status and whether or not children were present. Statistics of the independent variables are given in Table 2.1.

For the gender composition of the dyad, four dummy variables were constructed: sister-sister dyad (29% of the dyads), brother-sister dyad (21%), sister-brother dyad (30%) and brother-brother dyad (21%). In the analysis, the brother-sister dyad was the reference category.

For age difference, three dummy variables were constructed that distinguished between both siblings being of approximately the same age, the providing sibling being older, and the providing sibling being younger than the sibling receiving support. For having the same age, a range of three years was chosen, assuming that a difference of three years or less is small enough for siblings to consider each other as age peers. This resulted in one dummy variable indicating that the siblings were approximately of the same age (47%), the reference group in the analysis; two for age heterogeneity, distinguishing between dyads in which the support-providing sibling was at least three years older (19%); and one where the support-providing sibling was at least three years younger (34%).

Table 2.1

Descriptive statistics of support variables, independent variables and control variables ($N = 7,126$)

	<i>M</i>	<i>SD</i>	Range
Help with housework given	.10	.30	0-1
Help with odd jobs given	.17	.38	0-1
Advice given	.41	.49	0-1
Interest shown	.75	.43	0-1
Brother to sister	.21	.41	0-1
Sister to sister	.29	.45	0-1
Brother to brother	.21	.41	0-1
Sister to brother	.30	.46	0-1
Same age ^a	.47	.50	0-1
Younger to older	.34	.47	0-1
Older to younger	.19	.40	0-1
Same educational level ^b	.58	.49	0-1
Higher to lower educated	.26	.44	0-1
Lower to higher educated	.16	.37	0-1
Partnered ^c to unpartnered	.14	.35	0-1
Partnered to partnered	.52	.50	0-1
Unpartnered to partnered	.22	.42	0-1
Unpartnered to unpartnered	.11	.31	0-1
Parent to childless	.15	.35	0-1
Parent to parent	.56	.50	0-1
Childless to parent	.15	.35	0-1
Childless to childless	.15	.35	0-1
Relationship quality	2.85	.92	1-4
Age	47	14.56	18-79
Education	5.95	2.34	1-10
Number of siblings	2.98	2.18	1-16
Distance (km)	59	82.18	0-300
Sibling lives abroad	.08	.27	0-1
Income/1000 (in euros)	2146	2394	0-98606
Family obligation ^d	3.71	.72	.96-5.12
Health problems	1.97	.80	1-5

^aSame age: aged difference smaller than three years. ^bSame educational level: same educational level or +/- one level.

^cPartnered: living with a partner. ^dFamily obligations: feelings of normative obligations toward the family.

Educational level was measured according to an ordinal scale ranging from 1 to 10, where 1 stood for not having finished primary school and 10 indicated a post-doctoral level of education. A difference of at least two categories was treated as an educational difference. Being in the same category or one lower or higher was treated as having attained the same educational level (58%). One dummy variable indicated that the providing sibling had a higher level of education than the receiving sibling (26%), and one dummy variable indicated the opposite (16%).

To indicate the partner status of sibling pairs, four dummy variables were constructed. The first one referred to a sibling dyad in which both siblings were unpartnered, meaning that neither lived together with a partner (11%). The second one referred to dyads in which the provider of support was unpartnered but the sibling was not (22%), the third indicated a dyad in which the provider of support was partnered but the sibling was not (14%), and the fourth referred to those dyads in which both siblings were partnered (52%). In the middle-age group most partnered-partnered dyads were found, and the fewest unpartnered-unpartnered dyads. In the analysis the partnered-unpartnered dyad was the reference group.

Finally, whether one had children was taken into account. A distinction was made between sibling dyads in which both siblings were childless (15%), both had children (56%), the providing sibling had children and the other did not (15%), and the other way around (also 15%). Childless sibling dyads were rare after the age of 35 (6% and 3%), quite unlike siblings who both had children (62% and 76%).

Control variables. Relationship quality was taken into account, because this is often found to be related to support exchange in relationships (Wellman & Wortley, 1990). Relationship quality was measured by asking the support-providing sibling: *Taking everything together, how would you describe your relationship with [name sibling]?* Response categories were 1 = *not so good*, 2 = *reasonable*, 3 = *good* and 4 = *very good*. By including relationship quality in a separate step, we tested to what extent the link between similarities and differences on the one hand and support provision on the other was mediated by relationship quality.

In addition to the dummy variables that indicated differences between siblings, the main effects of age and education were included. Research has shown that support tends to become less frequent with increasing age and more frequent for the higher educated (Eriksen & Gerstel, 2002; Felling et al., 1991; White & Riedmann, 1992a). Table 2.1 shows that the average age of the respondents was approximately 47, and the average educational level was 5.95 on a scale of 1 to 10.

When people have more siblings, attention and support is often divided among them, decreasing the amount of contact or support with a specific sibling (Eriksen & Gerstel, 2002; Lee, Mancini, & Maxwell, 1990; Wellman & Wortley, 1989), even though contact and support may be greater for the whole sibling group (White, 2001; White & Riedmann, 1992a). The size of the sibling group, consisting of the number of living siblings, was included as a control variable. The average number of siblings the respondents had was 2.98 (Table 2.1). Geographical

proximity to the sibling was included too. It is known that proximity facilitates support, especially instrumental support, because physical presence is often needed (see for instance Eriksen & Gerstel, 2002; Lee et al., 1990; White & Riedmann, 1992a). Proximity was included as the distance in kilometers between siblings' residences. The range of this variable was 0-300 kilometers; the highest value was given to siblings living abroad, and a dummy was included to test whether they differ from siblings living far apart within the Netherlands. On average, siblings lived 59 kilometers (about 37 miles) apart, and older respondents tended to live further away from their siblings than their younger counterparts (Table 2.1).

It is known from previous research that when families have less money at their disposal, less emotional as well as instrumental support is exchanged between the family members in general — emotional support in the form of advice, instrumental support by way of assistance and care — (Hogan, Eggebeen, & Clogg, 1993) and more specifically between siblings (Eriksen & Gerstel, 2002; White & Riedmann, 1992a). Therefore, household income of the provider was controlled for in the analysis. Household income was the sum of the monthly incomes of the respondent and the respondent's partner. The average income per month was 2,146 euros (Table 2.1). Because the scale of this variable was relatively large compared to the other variables in the model, for the analyses the income was divided by a thousand, to avoid coefficients for income from being represented as .00 in the table. The data did not contain information on the income of the sibling.

The attitude concerning family obligations of the provider of support was also included. From research on intergenerational relationships it is known that normative expectations are positively related to support exchange and caregiving (Parrott & Bengtson, 1999; Stein et al., 1998), and this is likely to be relevant for sibling relationships as well. This attitude was measured by combining the scores on the following four items about family obligation, taking the mean score: (a) *One should always be able to count on family*; (b) *Family members should be ready to support one another, even if they don't like each other*; (c) *If one is troubled, family should be there to provide support*; and (d) *Family members must help each other, in good times and bad*. Scores were on a five-point scale, and higher scores represented stronger feelings of obligation toward the family. The reliability of this scale was high (alpha is .87). When only one or two out of four items were missing, the conditional item mean method was used to replace missing values. This method imputes the missing value by taking into account the scores of the other respondents on the missing item, in addition to the respondent's scores on the other items. When all items were missing, the average score was estimated by single imputation (Acock, 2005).

The self-reported health of the respondent was included to control for limitations for providing help. Health was measured by asking how respondents would judge their own health: 1 = *excellent*, 2 = *good*, 3 = *not good not bad*, 4 = *bad* and 5 = *very bad*. The average score was 1.97 (Table 2.1).

2.4.3 Analysis

Logistic regression models were estimated for all four tasks. Results are shown in Table 2.2. To examine differences for age groups, additional analyses were run for three age groups: one for the age group younger than 36 ($n = 1,850$), one for the 36-to-55 age group ($n = 3,274$), and one for age 55 and older ($n = 2,002$). Relevant findings for these analyses are discussed in the text. Coefficients can be interpreted by taking the antilog (e^b), to determine how strong the odds of support increase or decrease when the independent variable increases by one unit (e.g. from 0 to 1 for the dummy variables).

2.5 Results

Housework. Table 2.2 presents the results for help with housework (Model 1), a female-typed task that was most likely given in a sister-sister dyad, supporting hypotheses 1a and 1c for women. With regard to age difference, younger siblings were found to be more likely to help out older siblings than was the case in same-age dyads, supporting Hypothesis 2b. A partner was not a resource for help with housework, as indicated by the absence of difference between the partnered sibling helping the unpartnered sibling and the unpartnered sibling helping the partnered sibling. Support was least likely provided in partnered sibling dyads and most likely in unpartnered sibling dyads, indicating that absence of a partner made siblings turn to each other, but only when both were without a partner. This supports the similarity hypothesis (H4a), but only for unpartnered siblings. No significant effects were found for differences or similarities in education (H3) or parental status (H5).

Additional analyses of three separate age groups revealed that especially young sisters (under age 36) helped each other with housework. The finding of partnered siblings being least likely to help each other out with housework was found for all age groups. *Odd jobs.* Model 2 in Table 2.2 presents the findings on help with odd jobs. With regard to gender, help with odd jobs was a more masculine-typed task. Especially sisters were less likely to give this help to brothers or to sisters. This supports our hypothesis on the importance of gender specificity of the task (H1c). A difference in age enhanced support with odd jobs; help with odd jobs was most likely to come from an older sibling, supporting Hypothesis 2b. This finding suggests that ordinal position is related to different roles in the family. Again, support was least likely in partnered sibling dyads. For help with odd jobs, the special bond between unpartnered siblings was not found. Unpartnered siblings were more likely to receive help, but this help came from partnered as well as unpartnered siblings — not supporting our hypotheses on similarity or difference (H4), but supporting the hierarchical compensation model. No effects were found for whether or not children were present (H5).

Table 2.2

Results of logistic regression analysis on help provided to sibling with housework (Model 1), odd jobs (Model 2), giving advice (Model 3) and showing interest (Model 4) ($N = 7,126$)

	Model 1- Housework			Model 2 - Odd jobs			Model 3 - Advice			Model 4 - Interest		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Sister to sister ^a	.41**	.12	1.51	-.25*	.10	.78	.54***	.08	1.72	.87***	.10	2.39
Brother to brother ^a	-.26	.14	.77	.03	.10	1.03	.02	.09	1.02	-.20*	.10	.82
Sister to brother ^a	-.09	.13	.91	-.68***	.10	.51	-.04	.08	.96	.40***	.10	1.50
Older to younger ^b	-.06	.13	.94	.19*	.10	1.21	.19*	.08	1.21	.06	.09	1.06
Younger to older ^b	.19*	.10	1.21	-.06	.08	.94	-.23***	.06	.79	-.11	.08	.90
Higher to lower educated ^c	-.08	.11	.92	-.01	.09	.99	-.05	.07	.95	-.26**	.09	.77
Lower to higher educated ^c	-.13	.13	.88	.09	.11	1.09	.00	.08	1.00	.22*	.10	1.25
Partnered to partnered ^d	-.68***	.13	.51	-.63***	.10	.53	-.72***	.08	.49	-.39***	.11	.68
Unpartnered to partnered ^d	-.16	.15	.85	-.42**	.12	.66	-.82***	.10	.44	-.46***	.13	.63
Unpartnered to unpartnered ^d	.31*	.15	1.36	-.05	.13	.95	-.17	.11	.84	-.03	.15	.97
Parent to parent ^e	.04	.14	1.04	-.05	.11	.95	.07	.09	1.07	.24*	.11	1.27
Childless to parent ^e	-.01	.16	.99	.09	.13	1.09	.15	.11	1.16	.33*	.14	1.39
Childless to childless ^e	.09	.15	1.09	.21	.13	1.23	.28*	.11	1.32	.64***	.15	1.90
Relationship quality	.70***	.06	2.01	.79***	.05	2.20	.85***	.04	2.34	1.49***	.04	4.44
Age	-.03***	.00	.97	-.03***	.00	.97	-.03***	.00	.97	-.01***	.00	.99
Education	.04	.03	1.04	.05*	.02	1.05	.09***	.02	1.09	.23***	.02	1.26
Number of siblings	-.05*	.02	.95	-.08***	.02	.92	-.10***	.01	.90	-.09***	.02	.91
Distance	-.01***	.00	.99	-.01***	.00	.99	-.00	.00	1.00	.00	.00	1.00
Sibling lives abroad	.64	.37	1.90	1.18***	.32	3.25	.11	.19	1.12	-.52*	.24	.59
Income/1000 (in euros)	.05	.03	1.05	.03	.02	1.03	.02	.01	1.02	.00	.01	1.00
Family obligation ^f	.09	.06	1.09	.06	.05	1.06	.05	.04	1.05	-.04	.05	.96
Health problems	.01	.06	1.01	-.02	.05	.98	.08*	.04	1.08	-.01	.04	.99
Constant	-2.81***	.44	.06	-1.82***	.35	.16	-1.83***	.27	.16	-3.20***	.33	.04
<i>Chi</i> ²	619			1098			1578			2413		
<i>Df</i>	22			22			22			22		
Nagelkerke <i>R</i> ²	17.5			23.8			26.8			42.6		

Note: e^B = exponentiated *B*

^aGender composition: reference category is the brother to sister dyad. ^bAge composition: reference group is an age difference smaller than three years. ^cEducational composition: reference group is same educational level or +/- one level. ^dPartner status composition: reference group is partnered to unpartnered. ^eParental status composition: reference group is parent to childless. ^fFamily obligation: feelings of normative obligation toward the family.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Additional analyses of the separate age groups provided some interesting results. First, with regard to age difference, the idea that age difference would matter less among older people (Connidis, 2001) was supported by the finding that only for the 18-36 age group were older siblings more likely to help their younger ones; for the older groups no effect was found. Second, there were differences between the three age groups in terms of parental status. In the youngest age group, help with odd jobs was more likely to be provided in childless sibling dyads. In this age group, childless siblings were also more likely to help out siblings with children than the other way around. This indicates that childless siblings are helping out their parenting siblings in a very busy period of their lives — when the children are young. For the oldest group (55 and older) this was different: when both had raised children, they supported each other less, possibly because adult children filled in this need.

Advice. Model 3 (Table 2.2) shows the results for advice. Advice was most likely provided in sister-sister dyads. This implies that gender similarity is only important for sisters (H1a), supporting the special bond between sisters (Neale, 2004). An older sibling seemed to be regarded as wiser, given that advice was most likely to come from an older sibling than from a younger one. Siblings who differed in age appeared to have different roles, where older siblings advised the younger ones. As was also found for the instrumental support tasks, advice was less likely given in partnered sibling dyads. In fact, unpartnered siblings seemed to receive most advice, be it from an unpartnered or a partnered sibling. Similarity of partner status was therefore not important and neither was a different partner status, refuting both our major theoretical intuitions (H4a and H4b). Unpartnered individuals were more likely to receive advice than partnered ones, and this could come from unpartnered or partnered siblings. Results further showed that advice was most likely provided in childless sibling dyads, arguing in favor of childless siblings having a more supportive relationship.

When the model was run for the three different age groups separately, some interesting differences between the groups emerged. First, age difference seemed to become less influential among older siblings, given that significant effects were not found among the oldest group of respondents. Second, for the middle-aged group (36-55) more highly educated siblings were less likely to give advice to their less educated siblings. Educational attainment may be most relevant for this age group, because the impact on labor market position and lifestyles becomes most apparent.

Results for partner status were stable across all age groups, but for parental status interesting differences emerged. Both siblings having children increased the likelihood of young adults giving advice, as experiences with raising young children were probably exchanged. In the middle-age group no effect was found for the presence of children. For older adults, whose children were most likely grown up, advice was likely to come from childless siblings. Perhaps they shared their experience of not having children around. For the older adults, advice was also likely to be provided among childless siblings. On the whole, most support was found for

similarity of parental status (H5a), for childless siblings in general, and for siblings with children in young adulthood.

Interest. Results for showing interest in the personal life of a sibling are displayed in Table 2.2, Model 4. For taking an interest in a sibling, femaleness of the dyad was clearly important, supporting Hypothesis 1b. The more women were involved, the more likely interest was shown, and in mixed-gender dyads more interest was shown by a sister. In addition to a positive effect of educational level, more highly educated siblings showed less interest in their less educated siblings, while the less educated siblings showed more interest in their more highly educated siblings. A similar educational level did not breed interest: more highly educated siblings seemed to be more ‘interesting’ rather than more interested compared to less educated ones, supporting the argument of differences (H3b). With regard to partner status, results were comparable to those found for giving advice. Interest was most likely shown in unpartnered siblings, by partnered as well as unpartnered siblings. As for parental status, those with children showed less interest in their childless siblings than any other combination.

Several findings for the analyses for the different age groups separately are worth discussing. First, for the separate age groups age difference mattered in several ways. For the middle-aged group (ages 36-55), being older than the sibling enhanced interest, and for the oldest group (55 and older) it was the other way around: those similar in age and those who were younger than their siblings were more likely to show interest. To further investigate these results, we estimated the model with different categories for age difference. Results (not shown) revealed that when someone was much younger or much older, interest was less likely to be provided. Interest was likely to be equally shown within the middle categories. Similarity of age can thus be defined very broadly; only when differences became really large — at least seven years younger or ten years older — was less interest shown.

With regard to parental status, it becomes apparent that the findings in the model for all ages were especially based on the middle-age group. The presence or absence of children had no effect on showing interest for the youngest age group.

Control variables. Because our argument for similarity was that it breeds attraction and liking, it is possible that relationship quality mediated the relation between similarity and support. We investigated this by analyzing the four tasks without including relationship quality. On the whole, the results were stable. Relationship quality was linked to support fairly independently of similarities or differences.

All support tasks were less likely to be provided by older respondents. Results were significant for all age groups separately as well, indicating that even within age groups there was a difference between younger and older individuals. With the exception of help with housework, higher educated people were more supportive towards their sibling than the less educated ones. Having more siblings made support less likely to be provided for all four tasks. Living further away also inhibited support provision, but only for the tasks that required physical proximity such

as help with housework and odd jobs. No significant effects were found for income. Normative obligation toward the family was not related to support provision when relationship quality was included. Good health increased the likelihood of giving advice to a sibling.

2.6 Conclusion and discussion

In this study we examined sibling support, starting from the functional specificity model. This model argues that supportive relationships are negotiated over time, leading to variation in supportive behavior for different subgroups of people. We added to this by investigating which subgroups of siblings are more supportive. Taking an exchange perspective we investigated the importance of similarities and differences within the sibling dyad. We investigated subgroups based on gender composition of the dyad, similarity and difference in age and educational attainment, partner status composition and the presence of children. Not much convincing evidence was found for the importance of similarity between siblings; mostly, only specific similar characteristics are important, such as the sister-sister dyad in terms of the gender composition of the dyad and childless siblings in terms of parental status. It seems that similarity in itself does not foster support, except in specific instances. Limited validation is found for the importance of differences, which we related to different resources and sibling roles. Relationship quality is connected to support provision, however in most cases evidence for similarity or difference could not be reduced to differences in relationship quality, but were important regardless of how siblings valued their relationship.

With regard to the gender composition of the dyad, most empirical support is found for femaleness of the dyad and for a special bond between sisters, yet not for masculine-typed tasks such as chores around the house. For help with housework and giving advice, a clear distinction between sister-sister pairs and all other combinations was found. For help with housework, giving advice and showing interest, it is found especially when only siblings under age 36 are considered. This supports research by Weaver, Coleman and Ganong (2003), who found in their study on sibling relationships in young adulthood that only sister-sister pairs differed from other combinations when the provision of services is considered, and femaleness of the dyad was not found important. We conclude from this that sisters have a special bond (Millman, 2004; Neale, 2004), although this shows only for specific tasks and seems to become less important over the years. The diverging findings on gender composition of the dyad for the four tasks and the different age groups helps to understand the disagreement in the literature regarding how exactly gender is important for support provision (Bedford, 1995) — apparently, gender is important in several ways, depending on the task of support and the age group under consideration.

Closeness in age does not foster support. Even though siblings who are closer in age may feel they have more in common and have shared more experiences together (Ross & Milgram, 1982), we believe that the finding that older siblings are more likely to help out younger siblings with odd jobs and give them advice indicates that siblings of different ordinal positions perform

different roles and continue to do so early in adulthood up to middle adulthood. This supports earlier research among children (Cicirelli, 1995; Teti, 1992) and young adults (Newman, 1991; Yourglic, 1964), and extends it into middle adulthood. That age differences are not important for the oldest age group in our model indicates that age differences are relative and tend to become less influential in old age (Connidis, 2001).

We did not find support for our expectation that an educational difference is important for instrumental support, such as housework and odd jobs, because different educational levels reflect different amounts of resources. One could argue that this may result from the fact that education reflects different resources than those needed for tasks like help with housework and transportation. However, while a difference in education was not important, a higher educational level in general increased help with odd jobs as well as emotional support, showing that educational level is important.

That those who are more highly educated compared to their less educated siblings show less interest in them indicates less involvement with their siblings. There may be issues of sibling rivalry, where the more highly educated sibling is resented (Cicirelli, 1985; Ross & Milgram, 1982), but given the fact that less educated siblings show more interest in their more highly educated siblings suggests otherwise. A large educational difference may make more highly educated siblings compared to less educated siblings feel less connected to their siblings, while less educated siblings are motivated to associate with someone who has a higher social status, in line with admiration of the more highly educated sibling, as was found by Ross and Milgram (1982).

For all tasks, partnered siblings are the least involved with each other. It is not sustained by our study that unpartnered siblings are most involved with each other, as is found in a number of studies among older adults (Connidis, 2001; Connidis & Campbell, 1995; O'Bryant, 1988). As suggested by Connidis (2001), people may feel a stronger sense of obligation toward their unpartnered siblings than toward partnered siblings, which is reflected by our findings that unpartnered siblings receive more support, from partnered as well as unpartnered siblings. An exception here is help with housework, which is most common in an unpartnered sibling dyad.

How the presence of children influences sibling support appears to fluctuate over the life course. Interesting is the role that childless siblings play in the different phases of life. Our findings sustain the idea that childless individuals have a different "family career" than those who have children, as was found for unmarried childless older women by Allen and Pickett (1987). Remaining childless provides opportunities to be more actively engaged in the lives of siblings, who become more family-oriented once children arrive (Schvaneveldt & Ihinger, 1979). The childless should therefore not be regarded as people who are "needy", who have missed out on something, but as having more opportunities to help out their family members, thereby having a different family role. This is corroborated by our findings that in the youngest age group childless siblings assist their parenting siblings with odd jobs, probably helping them cope with the day-to-

day challenges of raising young children. Also, among the oldest group, the childless are most likely to have the advisory role, for childless as well as parenting siblings. For advice, the youngest age group with children tends to turn to siblings with children, probably since they share the experience of parenthood and are best able to provide advice. This is one case in which similarity enhances support.

In terms of the theoretical approach to similarity, our lack of corroboration for the importance of similarity for sibling support may be telling. When looking for friends, people turn to those who are like themselves (Lazarsfeld & Merton, 1954; McPherson et al., 2001). Siblings, however, do not appear more likely to support each other when they are more similar, except in specific instances such as between childless siblings and between sisters. A study by Eriksen and Gerstel (2002) on the importance of similarity for support between siblings demonstrated some effects of similarity in certain respects. Still, the authors' overall conclusion is that the effect of homogeneity was limited. Given the findings of our study and previous research, we can conclude that similarity is of little significance in adult sibling relationships; this validates earlier findings on the lacking influence of similarities on contact frequency (Verbakel & De Graaf, 2004) and confiding (Hoyt & Babchuk, 1983) within the sibling relationship.

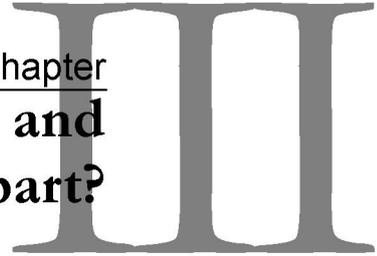
We should be careful in making a definitive statement on exchange theory, because exchange is a process of which we only investigated one side, namely help being provided by one side of the dyad. Nevertheless, our results indicate that differences are important, especially when related to different roles, and depending on age spacing and birth order as well as the presence of a partner and children. Siblings who are older and childless are more supportive when it comes to specific tasks; this raises the question of what they receive from their siblings in return, as is assumed by exchange theory. According to exchange theory, the one who has more resources has more to give, while the one with fewer resources is dependent on the other. These issues could not be addressed since our study is restricted to four specific tasks and a limited amount of resources and other services may be offered in return which require different resources.

Several limitations of this study deserve attention. First, we investigated the sibling dyad, but only used information gathered from one member of the dyad. Even though characteristics like age and educational level can be reliably gathered from another person, in contrast to characteristics like attitudes, to truly investigate the dyad it would be preferable to include information gathered from both members of the dyad. Second, we lost information by dichotomizing the dependent variables. As a result, we studied whether or not support was provided, and not the degree of support. Third, by focusing on the sibling dyad we did not acknowledge the importance of the family context. We controlled for the presence of children and partner, but did not include the relationship with parents and other siblings. Even though, to a certain extent, individuals shape their personal relationships independently of others, the network of the family can be expected to have a strong influence on the sibling relationship. Fourth, besides family members such as parents and other siblings, limitations of the data

prevented us from incorporating siblings-in-law. Given the primary place of the partner in a person's life, if the partner does not get along with a sibling this will have a major impact on the sibling relationship, which is indeed suggested by previous studies (Allan, 1977; Floyd & Morr, 2003).

By including several characteristics of the siblings and their relationship into two theoretical perspectives on similarities versus differences, we attempted to advance theory development in the area of sibling relationships, which goes beyond treating the sibling dyad as secondary to other relationships or solely as the result of the bond developed in childhood. Incorporating other aspects besides gender, age, education, partner status and the presence of children into this similarity/difference perspective would advance this further. Especially a direct measure of value similarity would make a good test of whether similarities really are not important at all for siblings. Further, including a wide age range as well as examining different age cohorts within this group has shed light on how the sibling relationship functions for age groups other than older adults, and gives an indication on how the relationship may change over the life course. Of course, to truly investigate this, longitudinal data is necessary.

Chapter
**Support between siblings and
between friends: two worlds apart?**



Support between siblings and between friends: two worlds apart?¹

*I, who have no sisters or brothers,
look with some degree of innocent envy
on those who may be said to be born to friends.
~James Boswell*

Abstract

This research examines whether siblings and friends resemble each other in supportive behavior. Using a subset of a Dutch national sample of 6,289 individuals containing 12,578 relationships with a sibling or friend, we investigated the relative importance of gender composition, geographical proximity, relationship quality and contact frequency for support exchange with siblings and friends. Results show that, controlled for other influences, siblings exchange more instrumental and less emotional support. High relationship quality and contact frequency increase exchange of emotional support with siblings more than with friends, as does — unexpectedly — living further away. Fewer differences exist in instrumental support exchange. In conclusion, siblings and friends are similar with regard to instrumental support but different when it comes to emotional support.

Keywords: social support, adult siblings, friendship, dyadic data

¹ This chapter is co-authored by Tanja van der Lippe.

3.1 Introduction

The best compliment one can give to a friend is to say that he or she is like a brother or sister to you. This is also true the other way around: “My brother (or my sister) is really my best friend.” Some friendships may be almost as long-lasting as the sibling relationship, and some siblings may be as close as best friends. In this study we address the question of the extent to which siblings and friends resemble each other in supportive behavior, and how this can be explained.

Siblings resemble friends in certain respects (Walker, Allen, & Connidis, 2005): they are both age peers and have an egalitarian and horizontal relationship that is characterized by an emphasis on sociability (Connidis, 2001). Siblings are different from friends in that they are family. Family relationships are characterized by normative expectations more strongly than friendships, and less strongly by reciprocity (Allan, 1989). Both friendships and sibling relationships come in a wide variety (Hartup & Stevens, 1997; Stewart et al., 2001). Sibling relationships can be dormant, obligatory, close, or anything in between. Friendships may be limited to sociability without intimacy or exchange of favors, or may be very close, keeping each other informed about private matters (Allan, 1989).

So far, a direct comparison between siblings and friends has hardly been made (see for an exception, Sherman, Lansford, & Volling, 2006). Given that the two relationships have so much in common, such a comparison may add to our knowledge on the functioning of the relationship between siblings. We will examine whether sibling relationships are as strongly influenced by the same relational and individual characteristics as friendships are.

When comparing siblings to friends, it is insightful to look at supportive behavior, because studying support gives us information about the content of relationships. Taking a utilitarian perspective, we will examine what contributes to giving and receiving support among siblings and friends, and see whether these conditions are equally important for both relationships.

3.2 Background

The literature suggests that support exchange in sibling relationships differs from friendships. More emotional support seems to be exchanged in friendships than in sibling relationships, whereas results for instrumental support are inconclusive (Campbell, Connidis, & Davies, 1999; McGlone, Park, & Roberts, 1999). Some studies suggest that differences in instrumental support exchange are very small (e.g., McGlone et al., 1999), others suggest that men are more likely to turn to a friend and women to a sibling living nearby (Campbell et al., 1999).

The amount of support exchanged between siblings may differ from that what is exchanged between friends, but the mechanisms underlying support exchange may be similar. Following Wellman and Wortley (1990), we identify four mechanisms that affect support: resources, similarity and dissimilarity, access and strength. We investigate gender (resources) and gender composition of the dyad (similarity and dissimilarity), geographical proximity and contact

(access) and relationship quality (strength). Before elaborating on these mechanisms, we first explain why we do not expect them to be equally important for siblings and for friends. Kinship networks tend to be denser than friendship networks (Wellman & Wortley, 1989), creating a context in which responsibilities toward family members develop (Finch & Mason, 1993); this is further strengthened by societal norms (Himes & Reidy, 2000; Stein et al., 1998). From this we expect that refraining from helping a sibling is more costly than is the case for friends. Strong normative obligations in families lead to a diminished amount of free choice in whether or not to help a sibling, which makes it less dependent on restrictions or resources. This is also reflected in the fact that family relationships are continued, even if there is a degree of animosity and conflict (Allan, 1996). Friendship, on the other hand, can be seen as an independent dyadic relationship that tends to be based strongly on reciprocity (Buunk & Prins, 1998) and usually needs an active input to survive (Allan, 1989) which makes it more susceptible to restrictions inhibiting support. We therefore expect sibling relationships to be less strongly influenced by these mechanisms than friendships.

Gender composition of the dyad. Women are often expected to fulfill the role of nurturers (McGoldrick, 1991). They are found to be greater support-givers than men (Blieszner & Adams, 1992; Weaver, Coleman, & Ganong, 2003), especially to women, and especially when emotional support is concerned (Liebler & Sandefur, 2002). Hence female dyads are expected to be most supportive, at least emotionally (Weaver et al., 2003). Because there is a stronger normative obligation to help out a family member than there is to help out a friend, we expect that siblings have less choice in whether to help and therefore that gender will matter less. This leads to the expectation that the effect of gender is stronger for friends than for siblings (H1).

Geographical proximity. People in general are more likely to provide instrumental support to those living nearby, because the restriction of physical distance inhibits support (Magdol & Bessel, 2003). For emotional support, the importance of geographical proximity is contradictory. Dykstra (1990) found that geographical proximity is important for emotional support, but Magdol and Bessel (2003) demonstrated the opposite. It can be expected that living at a greater distance puts more strain on a relationship with a friend than with a sibling (Bedford, 1995), resulting in the hypothesis that the positive effect of geographical proximity on the exchange of instrumental and emotional support is stronger for friends than for siblings (H2).

Quality of the relationship. People who like each other are assumed to have more rewarding interactions with each other (Homans, 1974), because they have more knowledge of each other's needs and preferences. Indeed, support is exchanged more in relationships that are of a higher quality (Miner & Uhlenberg, 1997; Riggio, 2000; Wellman & Wortley, 1990). It also works the other way around, as the relationship is probably evaluated on the basis of supportive interactions. We expect that family members in general provide support even when the relationship with a particular family member is less positive, leading to the expectation that the

positive effect of the quality of the relationship on the exchange of instrumental and emotional support is stronger for friends than it is for siblings (H3).

Contact. Frequent contact encourages the exchange of support, because it enhances mutual awareness of needs and resources, cultivates shared values, and makes the delivery of aid easier (Wellman & Wortley, 1990). Contact is necessary to sustain friendships. Friendships are to a large extent based on sociability and shared activities, and may not even comprise the exchange of small services (Allan, 1989). Family relationships continue even in the absence of contact (Allan, 1996) as do normative obligations to help family members. Yet, contact is important for support exchange among siblings (White & Riedmann, 1992a). Because friendships by definition need contact, and sibling relationships do not, the positive effect of contact on support may be greater for siblings than for friends. Siblings can be expected to feature more strongly as support givers when there is more contact. This leads to the hypothesis that the positive effect of frequency of contact on the exchange of instrumental and emotional support is weaker for friends than it is for siblings (H4).

Other influences on support should be noted. Previous research indicates that more support is exchanged among younger and among higher educated individuals (Eriksen & Gerstel, 2002; White, 2001). Living with a partner and the presence of children inhibits support to siblings (Cicirelli, Coward, & Dwyer, 1992) and to friends (Himes & Reidy, 2000). The same is true for the number of siblings: in larger sibling groups, support for a specific sibling is lower (Eriksen & Gerstel, 2002); this can be expected for the number of friends too.

Given that this study uses data from the Netherlands, it is important to briefly discuss differences and similarities in context between the Netherlands and the United States. Western European countries as well as the USA are comparable in that they all are modern, industrialized and urbanized societies with the nuclear family as the predominant family type. The Netherlands is a small but densely populated country with a low mobility rate, where people generally live at shorter distances from each other compared to the USA. In general, Americans have a greater number of friendships which are more casual and can be more easily terminated compared to friendships in Europe (Höllinger & Haller, 1990).

3.3 Method

3.3.1 Data

Data from the Netherlands Kinship Panel Study (Dykstra et al., 2005) were used. The Netherlands Kinship Panel Study is a large-scale data collection among a representative sample of the Dutch population on the subject of family solidarity, gathered in 2002-2004 from 8,161 individuals between ages 18 and 80 who were interviewed face-to-face in their home using a structured questionnaire. The response rate was 45%. Using population data from Statistics Netherlands, the sample was compared with the Dutch population (Dykstra et al., 2005), and showed that women were overrepresented, especially in the 35-54 age group. Young men were

somewhat underrepresented (ages 18 to 30). There was also an overrepresentation of people with children at home and an under-representation of children still living with their parents.

Respondents reported on different family relationships, including the sibling relationship. They gave demographic information on all siblings, and answered additional questions about a maximum of two randomly selected siblings aged 15 or older. For our study, one of these two randomly selected siblings was chosen to compare to a friend.

Selecting a random sibling rather than asking the respondent to choose a sibling has two main advantages. First, when there is the possibility to choose a sibling, the respondent is more likely to choose the one who is most favored, resulting in an unrealistically positive picture. Second, it improves the comparability of large and small families. If someone has more than one sibling one can choose, whereas respondents with just one brother or sister have no choice at all. This difference is eliminated when a sibling is chosen randomly.

The respondents were also asked to give the names of “*friends, acquaintances, colleagues, neighbors or other people you meet through a club or association, or otherwise with whom you are in touch regularly and who are important to you.*” A maximum of five names could be entered. Because the question was phrased in a broad sense, these non-family contacts could be acquaintances or intimate friends. We assume, however, that the names mentioned were those of people who are most important to the respondent, therefore they are given the label of *friend*. Of the available friends, one was picked randomly.

Respondents who had access to at least one friend as well as at least one sibling were included, to study the differential influences on support exchange with siblings and friends. A sibling who is a best friend, or a best friend who is like a sibling, has a different meaning if one only has one or the other. Of all 8,161 respondents, 92.2% had at least one full biological sibling, sharing both parents, aged 15 or older, and 88% reported at least one friend. Of all respondents, 1.3% had neither friends nor living siblings aged 15 or older and were removed; these 101 respondents were more often male, older and lower educated. Respondents coresiding with the sibling were also removed ($n = 139$), because not all questions related to support exchange were asked to this group. These respondents were mostly young adults still living at the parental home. After deleting respondents with only biological siblings and no friends, or with only friends and no biological siblings, the dataset contained 6,300 respondents. 11 respondents were deleted because they had many missing values or unreliable values (such as an age difference of 78 years with a sibling); the final dataset contained 6,289 respondents. This selection of respondents is somewhat more likely to be younger, female and higher educated than the rest. Of these respondents, no individual characteristics were missing, but reports on the relationships were sometimes incomplete. Missing values on reports on relationships are not missing at random. Respondents who did not know all the information on their sibling or friend were significantly older and more likely to be male. Missing values were imputed by single imputation using EM

(Acock, 2005). The final dataset contained 6,289 respondents in relation to a sibling and a friend, yielding a total of 12,578 relationships.

3.3.2 Measures

Instrumental and emotional support. We distinguish between instrumental support (i.e. behaviors that provide assistance) and emotional support (i.e. behaviors that communicate that an individual is cared for and loved) (Pierce, Sarason, Sarason, Joseph, & Henderson, 1996). Giving as well as receiving was included in the analyses. Instrumental support was measured with two questions: *In the last three months, did you give help to / receive help from [name of sibling or friend] with (a) housework, such as preparing meals, cleaning, grocery-shopping, doing laundry? (b) practical matters, such as chores in and around the house, lending things, transportation, moving things?* Response categories were 0 = *not at all*, 1 = *once or twice*, and 2 = *several times*.

We combined these responses and created four dummy variables, coded 1 if any of the two types of help was given or received, which is in line with other work on support exchange (e.g., Eriksen & Gerstel, 2002; Magdol & Bessel, 2003; Miner & Uhlenberg, 1997; Wellman & Wortley, 1990). Relationships that have provided one type of instrumental support are thus treated the same as those that have provided two types of support. This dichotomous coding addresses the basic question of support versus non-support, and avoids assumptions about the number of types of support being an interval-level variable. For receiving instrumental support, α was .49 for siblings and .45 for friends, for providing support this was .60 and .57. Even though we recognize that the α -values are relatively low, we argue that it is justified to use this measure of instrumental support for two reasons. First, the variables are constructed of only two items with only two response categories, making it more difficult to reach high α -values. Second, α is meant for scales with interchangeable items (Nijdam, 2003), and help with housework and help with odd jobs are not intended to be interchangeable. They represent different tasks within the larger collection of “instrumental support.” Table 3.1 shows that more respondents reported providing than receiving instrumental support, and more often to friends than to siblings. Percentages vary from 18% for support received from siblings to 27% for support provided to friends.

Two questions were formulated for emotional support: (a) *Have you shown an interest in the personal life of [name of sibling or friend] in the last three months?* (b) *Did you give counsel or advice to [name of sibling or friend] in the last three months?* The same questions were also asked for receiving these types of support. Response categories were the same as for instrumental support. By adding and then dichotomizing these variables, the variables for emotional support were constructed. For receiving support, α -values were .56 (siblings) and .38 (friends), for providing support .58 and .45, again relatively low. Table 3.1 shows that the percentages of respondents giving or receiving emotional support vary from 76% (support received from a sibling) to 92% (support given to a friend).

Table 3.1

Exchange of instrumental and emotional support (% of respondents providing or receiving support at least once during last three months) and independent variables for relationships with siblings and friends ($N = 6,289$)

		% Sibling	% Friend
Instrumental support received ^a		18.0	23.9
Instrumental support provided ^a		21.2	27.3
Emotional support received ^b		76.4	92.4
Emotional support provided ^b		77.8	89.5
Gender composition	Male-male	20.4	31.0
	Female-female	29.0	48.7
	Male-female	19.5	9.0
	Female-male	31.1	11.3
Geographical distance	0-2 km	14.0	39.2
	3-19 km	32.3	37.3
	20-79 km	38.7	15.7
	> 80 km	25.0	7.8
Living abroad		7.2	1.8
Relationship quality	Not great	10.7	0.3
	Adequate	17.3	5.4
	Good	46.7	59.3
	Very good	25.2	35.0
Face-to-face contact	None	7.8	0.6
	Once or a few times a year	42.0	22.4
	Once a month or once a week	44.5	55.2
	A few times a week or daily	5.7	21.8
Other contact (phone, e-mail, letter)	None	10.5	9.8
	Once or a few times a year	37.1	29.0
	Once a month or once a week	46.0	50.2
	A few times a week or daily	6.4	10.9

^aInstrumental support = *either help with housework or odd jobs*. ^bEmotional support = *either interest or advice*.

Independent variables. Gender of the respondent and the sibling and friend as reported by the respondent was used. Dummy variables were created representing the different gender combinations. Same-gender dyads are more common among friends than among siblings. Approximately 20% of the friendship dyads are of mixed gender, whereas for siblings this was approximately 50% (Table 3.1).

Geographical proximity was measured as a straight line in kilometers. In the multivariate analysis the natural logarithm of distance in kilometers was used, because it is likely that the effect of distance will diminish over larger distances. Table 3.1 shows that friends tend to live closer to each other than siblings. A substantive number of siblings live abroad (7.2% opposed to 1.8% of the friends). These siblings were given the maximum distance (300 km), and a dummy variable was included to check for differential effects for this group (0 = *sibling lives within the Netherlands*, 1 = *sibling lives abroad*).

Respondents were asked how they judged the quality of the relationship with the other. Answering categories were 1 = *not great*, 2 = *adequate*, 3 = *good*, 4 = *very good*. Overall, friendships were rated more positively than sibling relationships (Table 3.1). Frequency of contact was measured by asking about face-to-face contact and other contact (by phone, letter or e-mail) in the past twelve months. Answering categories varied from 1 = *never* to 7 = *daily*. The scores on face-to-face contact and other contact were added creating one variable with a range of 2 to 14. Contact is more frequent with friends than with siblings (Table 3.1).

Control variables. Six control variables that are known to influence the exchange of instrumental or emotional support were added to the model (see Table 3.2 for descriptive statistics): age of the respondent in years; educational level of the respondent, varying from 1 = *did not complete elementary school* to 10 = *postgraduate*; living together with a partner (0 = *unpartnered*, 1 = *partnered*); the presence of children (0 = *childless*, 1 = *with children*); number of siblings, included as a continuous variable; and number of friends, included as a dummy variable, where 0 = *fewer than five friends mentioned* and 1 = *five friends mentioned*.

Table 3.2

Respondents' demographic variables: descriptive statistics ($N = 6,289$)

Variables	<i>M</i>	<i>SD</i>	Range
Age	46	14.42	18 - 79
Education	6.08	2.29	1 - 10
Partner status ^a	.67	.47	0 - 1
Children ^b	.69	.46	0 - 1
Number of living siblings	2.98	2.14	1 - 16
All five friends mentioned ^c	.42	.49	0 - 1

^aPartner status: 0 = *not living with a partner*, 1 = *living with a partner*. ^bChildren: 0 = *childless*, 1 = *with children*. ^cAll five friends mentioned: 0 = *fewer than five friends mentioned*, 1 = *five friends mentioned*.

3.3.3 Analysis

The dataset includes individual respondents (6,289) and their relationships with siblings and friends (12,578). An analysis of the relationships would be based on 12,578 cases, yet we only have information from 6,289 individuals. This phenomenon is referred to as the “miraculous multiplication of the number of units” (Snijders & Bosker, 1999, p. 15) and increases the risk of overstating some of the effects. Related to this is the fact that analyzing at the level of the relationships means that we would analyze observations that are not independent from each other. When the assumption of independence of the observations is violated, estimates of the standard errors will be too small, which results in spuriously significant effects (Hox, 2002).

Because we have to take the individuals who reported on the relationships into account, we regard the dataset as *nested*, where two relationships are nested in each respondent. The hierarchical linear model (HLM) or multilevel model is a useful tool for such nested data, because it takes the nonindependent nature of the data into account (Sayer & Klute, 2005; Snijders & Bosker, 1999). The basic idea behind HLM is that the dependent variable, support, can be explained by characteristics related to the individual as well as to the relationships within the individual. The multilevel model models respondents and relationships within respondents by estimating regression equations for both the individuals and the relationships simultaneously. Multilevel models therefore take account of the nested structure of the dataset and calculate with the right number of cases for the different levels (6,289 individuals and 12,578 relationships).

Given that the dependent variables are dichotomous, we estimated hierarchical logistic models, or multilevel logistic regression models. Logistic regression analysis models the odds of “success” (Agresti & Finlay, 1997) (providing or receiving support versus not providing or receiving support), and takes account of the non-normal distribution of the dependent variable and its restricted range (Snijders & Bosker, 1999). All variables were centered around their mean value, except the dummy variables. Coefficients can be interpreted by taking the antilog (e^{β}) to determine how strongly the odds of support increase or decrease when the independent variable increases by 1. Explained variance was calculated using an extension of the McKelvey and Zavoina measure (Snijders & Bosker, 1999).

In order to test our hypotheses interaction, terms were computed between gender composition, geographical proximity, the quality of the relationship and contact frequency, and a dummy indicating whether the relationship was with a sibling or with a friend. This resulted in six interactions with type of relationship (sibling or friend): three interaction variables for gender (male-male * sibling, female-female * sibling and male-female * sibling), one for distance (distance * sibling), one for relationship quality (quality * sibling) and one for contact frequency (contact * sibling). For instance, a negative coefficient for the main effect of distance indicates that the further away siblings and friends live, the less likely it is that support will be given or received. A positive interaction effect of distance with type of relationship (where 1 = sibling) indicates that this negative effect is less strong for siblings than for friends.

A total of eight logistic multilevel models were estimated. Results of the analyses on instrumental support are presented in Table 3.3 and on emotional support in Table 3.4. Two models were estimated for all four dependent variables: one model with the main effects (all A models) and one in which the interaction terms are added (all B models).

Two additional analyses were run, one to see to what extent respondents with at least one sibling as well as one friend differed from those who had only one or the other, and one to see whether less availability of one relationship makes people more likely to turn to the other (Sherman et al., 2006). The first analysis was done using Mann-Whitney tests (comparing distributions of ordinal variables for two independent samples). In the second analysis the two relationships were analyzed separately using ordinal regression analysis, while including characteristics of both relationships, to test to what extent they influence each other.

3.4 Results

Table 3.3 presents the results for instrumental support exchange. The dummy for whether the response relates to the sibling relationship or to the relationship with a friend showed that, controlled for the other variables, people were more likely to exchange instrumental support with a sibling than with a friend (models 1A and 2A), an effect that disappears after inclusion of the interaction effects in models B. Further, when models A and B are compared, main effects hardly change; therefore we focus on the B models.

With regard to the gender combination of the dyad, the first hypothesis, the nonsignificant interactions in models 1B and 2B indicate that the pattern of instrumental support exchange between men and women was similar for siblings and friends, with the exception of the female-female dyad in the model on instrumental support received (1B); contrary to our hypothesis, a same-gender dyad was especially important for sisters, increasing instrumental support received.

The main effects show that compared to women receiving support from men, the reference group, support was less likely to be received in all other gender combinations. Effects were more negative when support was received from women than from men (-.73 and -.50 compared to 0 and -.25 in Model 1A). Model 2B shows that women were less likely to provide support than men, regardless of whether this was to a female or a male sibling or friend (the female-female coefficient did not differ significantly from the female-male coefficient). These results indicate that men were more likely to provide instrumental support and women were more likely to receive it.

All models in Table 3.3 (1A, 1B, 2A, 2B) support the expectation that geographical distance has a negative effect on the exchange of instrumental support. The nonsignificant interaction terms in models 1B and 2B further show that these effects were equally strong for siblings and friends. Hypothesis 2 was not supported by the data on instrumental support.

Table 3.3Multilevel logistic regression results predicting receiving and providing instrumental support to siblings and friends ($N = 6,289$)

Predictor	Instrumental Support Received						Instrumental Support Provided					
	Model 1A			Model 1B			Model 2A			Model 2B		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Gender composition ^a												
Male-male	-.25*	.10	.78	-.34*	.14	.71	.61***	.10	1.83	.53***	.15	1.69
Female-female	-.73***	.09	.48	-.96***	.13	.38	.02	.10	1.02	-.11	.14	.90
Male-female	-.50***	.11	.61	-.59**	.18	.56	.73***	.11	2.07	.66***	.18	1.94
Distance ^b	-.07***	.01	.93	-.07***	.01	.94	-.05***	.01	.95	-.05***	.01	.95
Relationship quality	.70***	.06	2.02	.69***	.08	1.99	.58***	.05	1.79	.56***	.08	1.75
Contact frequency	.45***	.02	1.57	.39***	.02	1.48	.51***	.02	1.66	.42***	.02	1.52
Male-male * sibling				.03	.19	1.03				.11	.19	1.12
Female-female * sibling				.45*	.18	1.58				.22	.19	1.24
Male-female * sibling				.14	.22	1.15				.13	.22	1.14
Distance * sibling				-.02	.02	.98				-.03	.02	.97
Quality * sibling				-.03	.10	.97				-.05	.10	.95
Contact * sibling				.14***	.04	1.15				.22***	.04	1.24
Sibling ^c	.25***	.07	1.28	-.04	.14	.96	.36***	.06	1.43	.10	.15	1.11
Age	-.03***	.00	.97	-.03***	.00	.97	-.04***	.00	.96	-.04***	.00	.96
Education	.03	.02	1.03	.03	.02	1.03	.01	.02	1.01	.01	.02	1.01
Partner ^d	-.69***	.08	.50	-.70***	.08	.50	-.49***	.08	.62	-.51***	.08	.60
Children ^e	-.05	.09	.95	-.04	.09	.69	-.07	.09	.94	-.06	.09	.94
Size of sibling group	-.03	.02	.97	-.03	.02	.97	.00	.02	1.00	.01	.02	1.01
Five friends ^f	.15*	.07	1.17	.14*	.07	1.16	.14	.07	1.15	.13	.07	1.14
The other lives abroad	-.48*	.20	.62	-.38	.20	.68	-.59**	.20	.55	-.45*	.20	.64
Constant	-5.84***	.32		-5.15***	.38		-6.17***	.32		-5.28***	.39	
Variance level 2	2.10	.08		2.12	.08		2.53	.08		2.54	.08	
<i>Df</i>	14			20			14			20		
Pseudo- R^2	.34			.35			.32			.35		
% support = 1	20.9			20.9			24.3			24.3		

Note: e^B = exponentiated *B*

^aGender composition: reference category is female-male. ^bDistance is measured as the natural logarithm of distance in km. ^cSibling: 0 = *friend*, 1 = *sibling*. ^dPartner: 0 = *not living with a partner*, 1 = *living with a partner*. ^eChildren: 0 = *childless*, 1 = *with children*. ^fFive friends mentioned: 0 = *fewer than five friends mentioned*, 1 = *five friends mentioned*.

* $p < .05$. ** $p < .01$. *** $p < .00$

All four models also showed that siblings and friends with a more positive relationship exchanged more instrumental support. When the differential influence of the quality of the relationship on support by siblings and by friends was examined, we found no significant differences. Relationship quality was not more strongly related to support exchange with friends than with siblings. The third hypothesis was not supported by the data on instrumental support.

Not surprisingly, frequency of contact was positively related to the exchange of instrumental support. We also found differences in this effect for siblings and friends (models 1B and 2B). As expected, frequency was more strongly related to instrumental support for siblings contact than for friends: a similar amount of contact had more effect on instrumental support exchange among siblings than among friends. This supported our fourth hypothesis for instrumental support.

Further, as was expected, support exchange decreased with age and with the presence of a partner. Respondents who mentioned the maximum of five friends were more likely to receive instrumental support from a random friend or sibling, but not more likely to provide it. Finally, residing in another country made exchanging instrumental support less likely.

Models 1A and 2A fitted well, explaining 34% of the instrumental support received and 32% of the support provided. The models improved slightly, but significantly, after the inclusion of the interaction variables (35% for both).

Table 3.4 presents the results for emotional support exchange. Overall, even though the strength of the effects differ somewhat, coefficients remain relatively stable over models A and B. We will therefore discuss the B models.

With regard to our hypothesis on gender, the nonsignificant interaction effects indicated that there were no differences between the effect of gender for support between siblings and that between friends (3B and 4B). The main effects show that femaleness of the dyad was important for the exchange of emotional support. The male dyad differed negatively and the female dyad positively from mixed gender dyads. Hence, although we found an effect of femaleness of the dyad, this effect was equally strong for siblings as for friends. Our first hypothesis was not confirmed for emotional support.

In line with the second hypothesis, the significant interaction for geographical distance with the dummy for sibling indicated that siblings seemed to overcome distance more easily to exchange emotional support than friends. Contrary to our expectation was the positive sign for the main effect: the further siblings and friends lived apart, the more likely emotional support was received. No main effect was found for giving emotional support.

The third hypothesis on relationship quality stated that relationship quality would be more important for supportive behavior in friendships than in sibling relationships, but the positive interaction effect showed the opposite: Relationship quality was more strongly related to emotional support exchange with siblings than with friends (models 3B and 4B).

Table 3.4Multilevel logistic regression results predicting receiving and providing emotional support to siblings and friends ($N = 6,289$)

Predictor	Emotional Support Received						Emotional Support Provided					
	Model 3A			Model 3B			Model 4A			Model 4B		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Gender composition ^a												
Male-male	-.52***	.13	.59	-.53*	.22	.59	-.88***	.14	.42	-.63**	.22	.53
Female-female	.49***	.13	1.63	.74**	.23	2.09	.44**	.13	1.56	.74**	.22	2.09
Male-female	-.08	.15	.93	-.18	.29	.83	-.66***	.16	.52	-.59*	.28	.55
Distance ^b	.03***	.01	1.03	.02*	.01	1.02	.02	.01	1.02	.00	.01	1.00
Relationship quality	1.82***	.09	6.21	1.52***	.14	4.58	1.71***	.09	5.55	1.36***	.13	3.90
Contact frequency	.63***	.03	1.88	.40***	.04	1.49	.57***	.03	1.77	.39***	.04	1.48
Male-male * sibling				.08	.26	1.08				-.35	.26	.70
Female-female * sibling				-.44	.27	.65				-.45	.28	.64
Male-female * sibling				.15	.32	1.16				-.07	.32	.93
Distance * sibling				.06**	.02	1.06				.09***	.02	1.09
Quality * sibling				.29*	.14	1.34				.33*	.14	1.39
Contact * sibling				.45***	.06	1.57				.39***	.05	1.47
Sibling ^c	-.49***	.10	.61	-.09	.22	.91	.08	.10	1.09	.53*	.22	1.69
Age	-.01***	.00	.99	-.01**	.00	.99	-.02***	.00	.98	-.02***	.00	.98
Education	.23***	.02	1.25	.22***	.02	1.25	.33***	.03	1.39	.32***	.03	1.38
Partner ^d	-.07	.12	.93	-.12	.12	.89	-.10	.13	.91	-.14	.13	.87
Children ^e	-.26	.13	.78	-.24	.14	.79	-.48**	.15	.62	-.47**	.15	.62
Size of sibling group	-.07**	.02	.93	-.06**	.02	.94	-.07**	.02	.94	-.06*	.02	.95
Five friends ^f	.13	.10	1.14	.10	.10	1.11	.17	.11	1.18	.15	.11	1.16
The other lives abroad ^g	-.26	.20	.77	-.18	.21	.84	-.09	.21	.91	-.11	.22	.90
Constant	-6.94***	.43		-4.35***	.57		-6.47***	.43		-4.14***	.57	
Variance level 2	3.66	.12		3.86	.12		5.46	.12		5.63	.12	
<i>df</i>	14			20			14			20		
Pseudo- R^2	.53			.53			.45			.45		
% support = 1	84.4			84.4			83.6			83.6		

Note: e^B = exponentiated *B*

^aGender composition: reference category is female-male. ^bDistance is measured as the natural logarithm of distance in km. ^cSibling: 0 = *friend*, 1 = *sibling*. ^dPartner: 0 = *not living with a partner*, 1 = *living with a partner*. ^eChildren: 0 = *childless*, 1 = *with children*. ^fFive friends mentioned: 0 = *fewer than five friends mentioned*, 1 = *five friends mentioned*.

* $p < .05$. ** $p < .01$. *** $p < .001$

In line with our fourth hypothesis on contact frequency, we found that the positive effect of contact frequency on emotional support was more positive for siblings, as shown by the significant interaction effect. Siblings and friends who had more frequent contact were more emotionally supportive, and this relationship was stronger for siblings than for friends.

Most of the control variables were relevant. Being younger and higher educated increased the likelihood of emotional support exchange. Having children decreased the likelihood that support was provided, but had no effect on receiving emotional support. Finally, having more siblings decreased the likelihood of emotional support exchange with a random sibling. The explained variance was high for emotional support (in the A models 53% for receiving and 45% for providing emotional support).

Comparison between giving and receiving support over all eight models showed that both were generally governed by the same mechanisms, with two exceptions. For instrumental support, it was not the same whether support was received or provided by men and women, and for emotional support distance was positively related to support received but not to support provided. This is remarkable, because distance is a relational characteristic for which giving or receiving would be expectedly comparable. Instead, people reported receiving more support from those siblings and friends living far away, but not providing more emotional support to them.

In order to strengthen our results, some additional analyses were performed. First, we examined to what extent those respondents with both friends and siblings were different from others. Mann-Whitney tests revealed that respondents with only siblings and no friends received less instrumental and emotional support than those who had friends as well. It appears that this was a selective group of more socially isolated people. In the absence of siblings, the few significant results that were found indicated that in certain domains there was increased support exchange with friends. In this sense, a close friend can be like a brother or sister.

Second, we investigated whether the relationship with a friend and with a sibling influenced one another. Ordinal regression models showed that more support was received if the relationship with the other was less available in terms of geographical distance and relationship quality. This was found for siblings (emotional support) and for friends (instrumental and emotional support).

3.5 Conclusion

By comparing the importance of mechanisms for support exchange between siblings and friends, we examined to what extent these two relationships are similar. Siblings and friends showed to be both similar and different. Siblings who are similar to friends in terms of geographical distance, relationship quality and contact frequency exchange more instrumental support and less emotional support than friends.

Siblings and friends are similar with regard to the importance of the gender composition of the dyad for support exchange. Of course, it matters whether instrumental or emotional

support is exchanged with a man or a woman, where men give more instrumental and women more emotional support — yet it does not matter whether this man or woman is a sibling or a friend. One exception to this is that women are more likely to report that they received instrumental support from a sister than from a female friend, but this is not confirmed by a parallel effect for support provided.

Differences between siblings and friends are mainly found for emotional support. How strongly geographical distance, relationship quality and contact frequency were related to support, was different for siblings than for friends. Having a positive relationship and seeing each other frequently mattered more for siblings than for friends, whereas living further apart mattered less. We expected that siblings would be supportive even when their relationship was less positive or accessible. Our results only support that a less accessible relationship in terms of geographical distance is less restrictive for emotional support among siblings than among friends.

Overall, our study suggests that siblings are more similar than different to friends. On the whole, siblings have to make a stronger effort for a supportive relationship, especially when emotional support is concerned. Our study suggests that siblings do not function as a dormant source of support, ready to be activated when there is a need for it. The sibling relationship needs maintenance, just as friendship does, by regular interaction and a positively evaluated relationship. This implies that overall the sibling relationship is subject to restrictions to the same extent as friendship.

One finding that deserves more attention is that a greater distance increases received emotional support, rather than diminishes it. This can be explained by a moderating effect of the amount of contact in the relationship. When siblings or friends live further away, contact is more likely to be interpreted in terms of showing interest or giving advice. Because contact frequency is lower, when people speak to each other this will probably entail asking about the other's personal life, whereas those who live nearby may more often have contact that is instrumental, such as making appointments to get together or meeting at social events, which are not generally associated with emotional support.

This study has several limitations. With regard to the dependent variables, instrumental and emotional support exchange, the relatively low α -values for the two scales need to be mentioned. One way to deal with it is to analyze the tasks separately and see whether the different tasks are explained by the same mechanisms in the same way, as we assumed by taking them together into one construct. We took them together because in our opinion it is more informative to analyze these general constructs than to analyze many different tasks. Also, the tasks that were used to measure emotional support were very general and most of the respondents had provided this kind of support to siblings and friends, leading to loss of variation. Improvement can be made by giving more precise descriptions of different emotional support tasks, creating more variation in the responses.

Further, some relevant influences on support, such as need, could not be included because of limitations of the dataset, whereas people in need for support are not equally likely to ask a sibling or a friend (McGlone et al., 1999). Also, we were unable to include feelings of obligation, because they were only available in family relationships in general and not with regard to friends — this would have made it possible to test directly whether feeling obligated to help leads to actual support exchange for siblings and friends equally. Finally, the focus of this study was on supportive behavior, but not whether this was experienced positively or negatively. Literature on ambivalence shows that supportive behavior can go together with positive as well as negative feelings toward the other (Curran, 2002; Willson, Shuey, & Elder, 2003). Giving and receiving support to friends and siblings may be experienced very differently, leading to more ambivalence in one relationship than in the other. In future research it would be interesting to include to what extent support is experienced positively or negatively.

This study contributes to the literature on social support by investigating differential effects of restrictions and opportunities for support exchange with siblings and with friends. This has enabled us to demonstrate that although both relationships are influenced by restrictions and opportunities to provide support, we need to take into account that not all restrictions and opportunities matter equally for both siblings and friends, especially when emotional support is concerned. The current study shows that siblings can be like friends, and that the content of the relationship encompasses significant amounts of instrumental as well as emotional support. Still, siblings cannot compete with friends when emotional support is concerned. Contact frequency is especially important for brothers and sisters to improve support exchange.

**The effect of problems on sibling
solidarity and conflict**

Chapter

IV

“Am I my brother’s keeper?”

The effect of the occurrence of problems on sibling solidarity and conflict¹

*Happy families are all alike;
every unhappy family is unhappy in its own way.
~opening line from Leo Tolstoy's Anna Karenina*

Abstract

Using data from a Dutch national sample (N = 7,407), we examined how experiencing problems influenced solidarity and conflict among adult siblings. Following theory on justice, problems of poor judgment (encounters with the law) were expected to have a negative effect on solidarity and a positive effect on conflict; cases of bad luck (physical and mental illness, abuse) were expected to lead to ambivalence. Results showed increased solidarity as well as ambivalence toward physical illness and abuse. Low solidarity and high conflict were found for problems with the law and those that could be a result of bad luck or poor judgment (divorce, addiction, financial problems). In conclusion, sibling solidarity in the face of adversity depends on the nature of the problem and perceptions of fairness.

Keywords: solidarity, conflict, support, siblings, family, justice, problems

¹ This chapter is co-authored by Tanja van der Lippe and Henk Flap.

4.1 Introduction

Relationships are tested on their solidarity in the face of adversity. One cannot always deal with serious problems alone, and is forced to seek help from others. When the problems are serious, a considerable amount of solidarity from others may be necessary. Because major demands have to be met, studying the impact of serious problems on solidarity in personal relationships is interesting. The occurrence of problems changes how people behave toward close others and how they experience their relationship with them. Are family members there for each other, for better or for worse?

Previous work on family solidarity has examined different dimensions of family cohesion (Bengtson & Roberts, 1991) as well as the existence of negative aspects of family relationships (Akiyama et al., 2003; Rook, 2003). Recently there has been more attention for ambivalence in relationships, characterized by the simultaneous coexistence of positive and negative experiences of the relationship (Connidis & McMullin, 2002; Fingerman et al., 2004; Luescher & Pillemer, 1998; Van Gaalen & Dykstra, 2006). Solidarity relates to social aspects such as interaction and support exchange, as well as to how the relationship is experienced, for example in terms of relationship quality (Bengtson & Roberts, 1991; Silverstein & Bengtson, 1997). Negative aspects relate to negative feelings and interactions, such as the occurrence of conflict (Rook, 2003). We expand on previous research by investigating the co-occurrence of positive and negative aspects in one family relationship, the sibling relationship, when one sibling has experienced a serious negative life event such as illness, divorce or problems with the law.

The occurrence of problems can be a positive incentive in the relationship by increasing interaction and the exchange of support, or it may stimulate conflict in the relationship. Also, a mixture of positive and negative feelings may be experienced (Fingerman et al., 2004). Starting from the proposition that attribution of responsibility is important in the evaluation of actions (Mikula, 2003), we argue that the amount of solidarity and conflict is related to the type of problem at hand, depending on whether one can be held accountable for the problematic situation. An increased need for support may be perceived as just when one is not responsible for one's own misfortune. In this case it is likely that family members will want to help out. Family members may be less inclined to help when the victim can be blamed for the situation.

The family provides an ideal context to study the impact of serious problems on solidarity. Given the intimate and permanent character of most families, family members are likely to be important for all kinds of support, but especially when the help required is extensive or of long duration (Litwak & Szelenyi, 1969). That a considerable amount of support is provided by family members is indeed supported empirically (McGlone et al., 1999; Neyer & Lang, 2003; Wellman & Wortley, 1989), as is the notion of the importance of family in case of major adversity (Edwards, 1998). The family can help its members to rebound from crises and adversity, by providing warmth, affection and support (Walsh, 1996).

A specific family relationship in which support is exchanged is the sibling relationship. A sibling is unique in being able to function as a source of support throughout the life course, whereas parents are usually outlived by their children; moreover, children first have to be raised. Caring for a sibling is often done lovingly, but it can become a burden, when the support needed is extensive or chronic. This can put a strain in the relationship, which may be perceived as unbalanced, and conflicts may occur.

Another important feature of the sibling relationship is that it is a horizontal one. The relationship between parents and children is vertical, crossing generations, where the balance of give and take is less easy to establish. In the parent-adult child relationship there is a generational difference, there is often more dependence and more feelings of obligation than in the sibling relationship. This implies that in the face of adversity, a disturbance of the balance is expected to be more clearly visible in the sibling relationship than in an intergenerational relationship. Research indeed shows that the quality of personal relationships is a better predictor of sibling support than of parental support (Horwitz, 1994), indicating that support in the sibling relationship depends more on personal factors and less on feelings of obligation. We therefore focus on solidarity and conflict in the sibling relationship in the presence of problems.

This study contributes to research on the family in general, since it provides insight into what is going on in the family when problems occur in the lives of family members. In studying problems in families, we learn more about how important families are in times of need. This also enhances our knowledge of the importance of the sibling relationship in times of trouble. Even though siblings are usually not the primary caregivers (Pruchno et al., 1996), their relationship is influenced by the occurrence of negative life events. By studying a variety of problems instead of focusing on one particular type of problem, which is more common in existing research, we expand our knowledge of when problems affect the sibling relationship and in what way. Finally, this research further elucidates solidarity, conflict and ambivalence, by examining how different problems go hand in hand with different sibling relationships — positive, negative and ambivalent.

4.2 Background

Up to now, several kinds of problems in families have been studied separately. Problems that are due to bad luck, such as illness, are especially dealt with in social support literature (Felling et al., 1991; Tjihuis, 1994). Another line of research on problems is more policy-oriented and deals with interventions for specific target groups, such as the importance of the family for the reintegration of former prisoners (Uggen et al., 2004) and for preventing youth problem behaviors (Spoth et al., 2002), or problems related to caregiver stress and caregiver burden (Boss et al., 1990; Quadagno, 2005). Studying problems separately elucidates specific issues in detail, but lacks the overview and the commonalities that can be identified by studying different problems simultaneously.

In this study, a first step is taken into giving an overview of problems and relating them to sibling solidarity and conflict. It should be noted that the chances of being confronted with problems are not equal for everybody. For several problems personality characteristics such as risk taking and impulsivity will be of influence on the likelihood of getting in trouble (Kreek, Nielsen, Butelman & LaForge, 2005). This means that people who encounter problems constitute a selective group that as a result of certain personality traits may have a more strained relationship with their siblings too. We choose to focus on the occurrence of problems rather than on personality traits for two reasons. First, we assume that in addition to an indirect effect of personality through problems on sibling relationships there is a direct effect of problems as well. The possession of a certain personality characteristic is not a guarantee that this person will be in trouble, nor can it exactly predict what kind of trouble this would be. The second reason is an empirical one: we have information on the occurrence of problems but not on personality traits of siblings.

We will investigate different aspects of the sibling relationship (social support exchange, conflict and how the relationship is experienced), examining all kinds of serious problems such as divorce, serious illness, mental illness, addiction, financial problems, abuse, and problems with the law. These problems of course all have their own dynamics and differ in more than one way from each other. However, since our focus is not limited to a single specific problem, we will not go into these problems in detail but limit ourselves to discuss them briefly in relation to sibling solidarity.

4.2.1 *Problems in families*

Divorce constitutes a negative life event.¹ Longitudinal studies show that divorce is related to a decrease in happiness and self-acceptance and an increase in symptoms of depression (see Amato, 2000, for an overview). Most research on divorce and the sibling relationship features parental divorce (see e.g. Bush & Ehrenberg, 2003), and there is limited empirical evidence regarding the effect of one's own divorce on the sibling relationship in adulthood. No clear picture emerges from the literature on divorce. Some studies indicate solely positive changes of the sibling relationship following divorce, showing increased levels of support and a higher contact frequency (Connidis, 1992), whereas others show mixed results (Bedford, 1995).

Getting a serious mental illness, physical illness or disability is a life event that alters one's whole life, after which support from others is often a necessity. Studies show that most of the caregiving burden rests on the shoulders of the family. Primary caregivers are usually parents, partners or adult children (Bedford, 1995; Horwitz, 1994). Because siblings rarely fulfill the role of primary caregivers for one another, sibling care has hardly been studied. Some studies have been done on siblings as caregivers for frail elders, indicating that siblings are seen as a caregiving resource but are only rarely called upon (Cicirelli et al., 1992).

With the majority of people with a serious mental illness being unmarried, siblings may play a more important role as caregivers than is the case for people with a physical illness

(Horwitz, 1994). In addition, it might be especially difficult to deal with a sibling with a mental illness (including alcohol or drug addiction), because it is linked to functional disabilities in the social, emotional and physical domains of life (Bijl & Ravelli, 2000), complicating the relationship as such.

Criminal behavior of relatives poses serious problems for the family. In the case of incarceration, family life is disrupted and given that going to jail is socially unacceptable, stress is coped with privately (Arditti, 2005; Lowenstein, 1986). Even though the importance of the family for successful reintegration is stressed (Uggen et al., 2004), questions regarding actual expressions of solidarity and conflict by different family members, which include adult siblings, remain unanswered. On the one hand, normative obligations towards kin may promote solidarity toward siblings in distress (Rossi & Rossi, 1990). On the other hand, it may enhance conflict, given the condemnable nature of these types of problems. In any event, empirical evidence is lacking.

To our knowledge, apart from studies on abuse by siblings during childhood (Wiehe, 1997), no research has been conducted on support between siblings in relation to sexual or physical abuse that took place either recently or in the past. Concerning the impact of financial problems as well as the supportive role that siblings may fulfill when financial problems arise, no research has been done either. Apart from empirical evidence that siblings support each other financially only rarely (Felling et al., 1991), the extent to which siblings can alleviate stress related to financial adversity remains unknown.

Apart from literature on the occurrence and impact of separate problems, some work is done on multiple problems in families. In “risky families”, which are characterized by conflict and aggression and by relationships that are cold, unsupportive and neglectful, there is an accumulating risk for offspring to develop mental health problems and major chronic diseases (Repetti et al., 2002). Many problems are found to be reproduced in subsequent generations, such as criminal behavior (Farrington, Jolliffe, Loeber, Stouthamer-Loeber & Kalb, 2001) or divorce (Amato, 1996). In such families it becomes more likely not only for one family member to be dealing with a problem — multiple family members have problems, or one member has multiple problems. In these cases, the family is less equipped to provide social support in coping with serious problems (Walsh, 1996).

4.2.2 *Solidarity, conflict, and ambivalence*

In order to address the relation between problems and solidarity, conflict and ambivalence in the sibling relationship, it is important to discuss these concepts in the context of the family. Solidarity in families has been studied extensively, especially in intergenerational relationships (Bengtson & Roberts, 1991). Family members feel obligated to support each other, a feeling that is stronger for closer relatives (Rossi & Rossi, 1990). Siblings too feel they can rely on each other, even though actual support may be limited (Cicirelli et al., 1992).

A major point of criticism on the solidarity paradigm has been the absence of negative aspects of family relationships. In the solidarity model these aspects are simply treated as the absence of solidarity (Katz et al., 2005). Viewing conflict or other negative exchanges in this way is too limited, given the evidence that negative social interactions may have a greater impact on well-being than positive ones (Lincoln, 2000). As a result, the solidarity model has been extended to the solidarity-conflict model, incorporating conflict as well as negative aspects of too much solidarity, such as distress resulting from loss of independence (Katz et al., 2005; Silverstein et al., 1996).

In recent years the concept of ambivalence has received more attention. Family members can have positive as well as negative feelings toward each other simultaneously. This ambivalence can be psychological (ambivalent feelings) as well as structural (ambivalent roles) (Bengtson et al., 2002; Connidis & McMullin, 2002; Curran 2002). Ambivalence makes it possible to think about relationships as being not solely positive or negative but multidimensional. Following Connidis and McMullin (2002), we argue that relationships can be characterized by being predominantly positive or negative, or being ambivalent. This results in a distinction between close ties, problematic ties and ambivalent ties, which is also found in parent-adult child relationships by Fingerman et al. (2004).

We follow Van Gaalen and Dykstra (2006) in acknowledging the importance of behavior when assessing solidarity, conflict and ambivalence, but we include feelings as well. Ambivalence includes positive aspects such as a positive relationship, high support exchange, or frequent contact together with negative aspects, such as the occurrence of conflicts.

4.3 Theory and hypotheses: accountability and the limits of solidarity

To explain the relation between the nature of the problem and the occurrence of solidarity, conflict and ambivalence in the sibling relationship, we include the *fairness* or *justice* of the outcomes of the exchanges, also referred to as distributive justice. Literature on distributive justice focuses on the just allocation of rewards (Molm et al., 2006): one actor can be better off than another, while both may perceive this distribution to be just, a condition that has been demonstrated many times in laboratory experiments (Bylsma et al., 1995) and in society at large (Major, 1994).

One important aspect of justice is the principle of *accountability* (Folger & Cropanzano, 2001) or *responsibility* (Mikula, 2003). According to the accountability principle, a person's fair allocation varies "in proportion to the relevant variables that he can influence (e.g., work effort) but not according to those that he cannot reasonably influence (e.g., a physical handicap)" (Konow, 2000, pp.1073-1074). Furthermore, people are not only affected by injustice experienced by themselves, but also by injustice experienced by others (De Cremer & Van Hiel, 2006).

4.3.1 *Poor judgment or bad luck?*

We relate the notion of accountability to the type of problem and qualify the different problems by the extent to which they are a result of poor judgment or bad luck. People who encounter problems that are a matter of poor judgment can be held accountable for their situation, as opposed to problems resulting from bad luck. This implies that siblings who are in a difficult situation as a result of their own actions could have prevented this situation if an alternative action had been chosen, with less negative consequences. This person will be viewed as less entitled to solidary behavior on the part of the sibling. On the other hand, one cannot be held accountable for problems that result from bad luck, thereby not jeopardizing entitlement to solidary behavior from a sibling.

We expect that problems resulting from bad luck increase solidarity, due to an increased need for assistance and greater empathy. However, providing large amounts of support or doing this for a long period can be stressful: the costs are considerable, and apart from gratitude, little may be expected in return. We therefore expect these relationships to be characterized by ambivalence, scoring high on different aspects of solidarity and on the occurrence of conflict.

Because individuals who have made unwise decisions can be held accountable for these decisions (they could have opted otherwise, leading to different outcomes), we expect that siblings will express less solidarity towards them. Problems resulting from poor judgment are expected to lead to mainly negative relationships that score low on solidarity and high on conflict.

Illness, mental problems and abuse are usually cases of bad luck. If a sibling is ill, for instance, it is more likely that giving more than receiving in return is acceptable, since this sibling simply needs more help than can be given in return or compensated for in any other way. Because the sibling cannot be held accountable for this increased need, one will be more inclined to provide this help and feel the relationship is still fair. On the other end are problems that can be judged as self-inflicted, a result of poor judgment. The clearest example is having problems with the law. If a sibling gets in trouble as a result of poor judgment or bad choices, family will be less inclined to help. One would more likely feel taken advantage of instead of doing the right thing. We expect this to lead to less solidarity and more conflict.

With some problems, the extent to which they are a result of poor judgment, bad luck, or a combination of both is less clear — divorce and financial difficulties are clear examples. These problems are expected to be in-between the above-mentioned extremes on the continuum of poor judgment versus bad luck.

4.3.2 *The limits of solidarity: multiple problems*

Apart from the presence or type of problem, the number of problems is likely to be important for the solidarity someone can expect from a sibling. Even in the most supportive families there are probably limits to how many problems can be dealt with. Fairness might become less of an issue if there are multiple problems concentrated in the life of one single person. Here one is

likely to be confronted with the limits of solidarity. Assuming that support needed increases with the number of problems, it may be more difficult for a sibling — or any other family member for that matter — to provide the amount of support that is necessary when someone has more than one problem. Also, when a person has more problems, holding it against her may become more probable. Having so many problems may make it less likely for things to be perceived as a matter of bad luck and more likely the result of personality characteristics. This leads to the expectation that next to a diminished level of solidarity, conflicts are more likely to occur.

4.3.3 The limits of solidarity: when both siblings have problems

It is also important to consider whether people who have siblings with problems have problems of their own. For people who have their own difficulties to deal with, it will be more burdensome to help a sibling in trouble. Less solidarity toward each other is expected and is more likely to be perceived as fair when both siblings are confronted with a problem. Given the assumption that there is no perception of unfairness, we expect there to be little conflict in such sibling relationships.

4.4 Method

4.4.1 Data

Data from the Netherlands Kinship Panel Study (NKPS) were used for the analyses (Dykstra et al., 2005). The NKPS is a large-scale data collection among a representative sample of the Dutch population on the subject of family solidarity. The data were gathered in 2002-2004, when 8,161 individuals between ages 18 and 80 were interviewed face-to-face at home using a structured questionnaire. The respondents also filled out a supplementary self-completion questionnaire.

Respondents reported on several family relationships, including those with their siblings, parents and children. Data were collected on gender, age, contact frequency and place of residence of the respondent and the family members. A random selection of a maximum of two siblings was made for gathering additional information on supportive behavior, family activities, and the quality and balance of the relationship. One of these two siblings was selected randomly for the analysis, yielding a maximum of one sibling relationship per respondent in the dataset. Of all respondents, 92.8% ($N = 7,575$) had at least one living sibling, and these respondents were selected. A further selection was made on non-co-residence of the siblings, after which 7,407 respondents remained.

There were only a few missing values in the dataset — a total of 56 values missing on a total of 6 variables. These missing values were replaced by single imputation, using EM (Acock, 2005).

4.4.2 Measures

Dependent variables

The dependent variables regarding social support were contact frequency, support given to and support received from a sibling. How the relationship is experienced was examined by looking at relationship quality and perceived balance. With these five variables, solidarity in the relationship was assessed. For negative aspects of the relationship, the occurrence of conflicts was incorporated.

Contact frequency in the sibling relationship. Frequency of contact was measured by asking about actual face-to-face contact, and contact by phone, letter or e-mail in the past 12 months. Response categories varied from (1) *never* to (7) *daily*. The scores on face-to-face contact and contact by phone, letter or e-mail were summed to obtain one contact variable with a range of 2 to 14, with an average score of 7.0, which can be seen in Table 4.1.

Giving and receiving support in the sibling relationship. Respondents were asked whether they gave to as well as whether they received from the selected sibling in the last three months the following types of support: (1) *help with housework, such as preparing meals, cleaning, fetching groceries, doing the laundry*; (2) *help with practical matters, such as chores in and around the house, lending things, transportation, moving things*; (3) *showing an interest in the personal life of the sibling or respondent*; (4) *counsel or advice*. Response categories for all types of support were 0 = *not at all*, 1 = *once or twice*, and 2 = *several times*. Answers to these four questions were summed, creating a variable on giving support and one on receiving support, both with values ranging from 0 to 12, with an average score of 6.0 on support given and 5.8 on support received (Table 4.1).

Relationship quality. Relationship quality was measured with the question *How would you describe your relationship with [sibling name]?* Response categories were 1 = *not great*, 2 = *reasonable*, 3 = *good*, and 4 = *very good*. Table 4.1 shows that on average, respondents scored a 2.8 on this variable.

Balance in the sibling relationship. The respondent was asked whether the relationship with the sibling was characterized by equal giving and receiving, by giving more than the other, or by giving less than the other. This was recoded into a yes/no variable, indicating whether the relationship was balanced or not, because the majority of respondents who reported imbalance recounted giving more than they received. Furthermore, research indicates that balance is preferred above receiving more than is given (Pierce et al. 1996). Of all sibling relationships, 75,6% were characterized as balanced (Table 4.1).

Conflict in the sibling relationship. Respondents were asked whether they had any conflicts, strains or disagreements with their sibling in the last three months. Response categories were 1 = *not at all*, 2 = *once or twice*, and 3 = *several times*. Because not many respondents reported having conflicts, this variable was recoded into a dichotomous variable, where 1 is the presence of conflicts and 0 indicates their absence. In 10.1% of the sibling relationships, conflicts had occurred (Table 4.1).

Table 4.1Descriptive statistics of the dependent and independent variables ($N = 7,407$)

	Range	Mean	<i>SD</i>
Contact	2 - 14	6.99	2.35
Support given ^a	2 - 12	5.99	1.76
Support received ^a	2 - 12	5.84	1.62
Relationship quality	1 - 4	2.83	.94
Balance ^b	0 - 1	.76	.43
Conflict ^c	0 - 1	.09	.29
Problems of sibling ^d			
Illness	0 - 1	.03	.16
Mental illness	0 - 1	.04	.19
Abused	0 - 1	.01	.11
Problems with the law	0 - 1	.02	.15
Addiction	0 - 1	.01	.11
Divorce	0 - 1	.08	.28
Financial problems	0 - 1	.02	.13
Multiple problems	0 - 1	.03	.17
Personal problems	0 - 1	.43	.50
Characteristics of respondent			
Female	0 - 1	.58	.49
Education	1 - 10	5.93	2.34
Age	18 - 79	46.57	14.57
Married	1 - 0	.56	.50
Respondent has children	1 - 0	.71	.457
Characteristics of sibling relationship/family			
Distance (km)	0 - 279	39.05	44.55
Number of siblings	1 - 22	3.36	2.53
Parent alive ^e	0 - 1	.66	.47
Characteristics of sibling			
Sister	0 - 1	.49	.50
Sibling partnered	0 - 1	.74	.44
Sibling has children	0 - 1	.70	.46
Sibling living abroad	0 - 1	.08	.27

^aSupport: with housework, odd jobs, advice and showing interest. ^bBalance: 0 = *relationship is perceived as unbalanced*, 1 = *relationship is perceived as balanced*. ^cConflict: 0 = *no conflict occurred in the last three months*, 1 = *at least one conflict occurred in the last three months*. ^dProblems of sibling: of all family members, the randomly selected sibling experienced the problem most recently at any time in the past. ^eParent alive: at least one parent still alive.

Independent variables

The occurrence of problems. In the NKPS there were several questions on the occurrence of problems in families. The phrasing of these questions was as follows: *Has anyone in your family ever...* and then the specific problem followed: *separated or divorced, been seriously ill or disabled, had serious mental problems, been in trouble with the law, been convicted in a criminal court, been addicted to alcohol or drugs, gone bankrupt or had serious financial problems, and been physically or sexually abused.* The follow-up question was *which family member was involved?* Next, a list of family members was given, ranging from very close ties, such as parents, children and siblings, to more distant ties such as nephews, nieces, cousins, uncles and aunts, and in-laws. Deceased family members formed a separate category. Respondents were asked to report on the family member who experienced the event most recently. It was also assessed whether the event happened in the last year or longer ago, but given the small group sizes of the different problems and that the majority of the events happened longer than a year ago this information was not used in the analysis.

Of the family members who experienced a problem we took the same randomly selected sibling as mentioned earlier. This implies that we only analyze problems occurring in the lives of these specific siblings, not whether problems occurred in the life of any sibling of the respondent. Of the siblings, 17.7% had experienced at least one of the above-mentioned problems. Having been in trouble with the law was taken together with conviction in a criminal court, since these constituted similar problems, namely encounters with the law. All other problems were analyzed separately. The descriptive statistics of the different problems are presented in Table 4.1. Most common was divorce; 8.4% of the randomly selected siblings experienced divorce and least common was abuse (1.1%). Being confronted with multiple problems was included in the analyses with a dummy, indicating whether the sibling had only one of the problems in the model or more than one. Of all respondents, 3% reported that the randomly selected sibling had experienced more than one problem (Table 4.1). Several problems were likely to occur together with other issues. Divorce, for instance, which occurred in the lives of 8.4% of the siblings, occurred together with several other problems. Of all siblings with financial problems (1.8%), 20.6% also experienced divorce. Of the siblings who experienced mental problems (3.7%), 18.8% was divorced or separated. Of those siblings with addiction problems, 37.1% had also been in trouble with the law, and 24.7% of them experienced serious mental problems.

In the supplementary self-completion questionnaire, respondents reported on their own experience of serious problems, with 42.8% reporting at least one of the problems (Table 4.1). In the analyses this was included as a dummy variable, where 1 indicates the occurrence of a problem in the life of the respondent.

Control variables

Control variables included in the model concerned characteristics of the respondent, of the relationship and the family, and of the sibling. First, since women are generally found to be more

central to family life (Liebler & Sandefur, 2002; Rosenthal, 1985), gender of both the respondent and the sibling were included as dummy variables, where 1 = *female*. Of all respondents, 58% was female (Table 4.1). Second, educational attainment of the respondent was entered, a variable ranging from 1 = *incomplete elementary education* to 10 = *post-graduate*. Age of the respondent measured in years was included too, since it is known that supportive behavior as well as the occurrence of conflicts diminishes over time (Eriksen & Gerstel, 2002; White & Riedmann, 1992a). Age varied from 18 to 79 years, with an average age of 46.6 years (Table 4.1).

Living farther away makes supportive behavior more difficult and is also found to have a negative effect on contact frequency (Eriksen & Gerstel, 2002; White & Riedmann, 1992a), therefore distance to the sibling in kilometers is included. Distance between siblings living within the Netherlands ranged from 0 to 279 kilometers. Siblings living abroad (8.1%) were given the average distance of 39 kilometers. A dummy variable was included indicating whether the sibling was living abroad, to determine differences with siblings living at an average distance from each other (Table 4.1). Because having to distribute time and energy among more siblings may make solidarity toward any specific sibling less likely (Dykstra & Knipscheer, 1995), the size of the sibling group was included. Because parents, partners and adult children play a major part in the provision of support (Cicirelli et al., 1992; Wellman & Wortley, 1990), the presence of at least one parent and the presence of a partner and of children in the life of both the respondent and the sibling were included as well, all as dummy variables. See Table 4.1 for the descriptive statistics.

4.4.3 Analysis

Depending on the type of dependent variable, different methods of analysis were chosen. For contact frequency and giving and receiving support the number of categories was large enough to allow ordinary least squares regression analysis (OLS). The dependent variables that were binary, namely balance and conflict, were analyzed using logistic regression analysis. The categorical dependent variable of relationship quality was analyzed using ordinal regression analysis.

4.5 Results

Table 4.2 presents bivariate statistics on the problems and the solidarity measures. Average contact frequency was highest for respondents with a sibling who experienced illness or abuse and lowest for siblings with a history of addiction. Respondents gave more support to siblings who experienced any problem than to those who did not, and most when the problem involved illness or abuse. Most support was received from siblings with a history of abuse, and least from siblings with a history of addiction, problems with the law or financial difficulties. Respondents with a sibling who experienced illness were most likely to report a good or very good sibling relationship (75.6%), more than those with siblings without problems (71.7%). This percentage

Table 4.2

Bivariate results for the type and number of problems experienced by a sibling, and problems experienced by the respondent on the different solidarity and conflict measures

		Contact	Support given ^a	Support received ^a	Quality	Balance ^b	Conflict ^c
	<i>n</i>	mean	mean	mean	% good/very good	% balanced	% conflict
No problems	6,132	7.0	5.9	5.9	71.7	77.5	8.3
Illness	205	7.3	6.7	5.8	75.6	67.8	9.3
Mental illness	277	6.9	6.4	5.7	55.9	59.9	19.5
Abused	84	7.3	6.9	6.1	64.3	64.3	26.2
Divorce	235	6.7	6.1	5.8	66.5	69.0	12.3
Problems with the law	162	6.6	6.0	5.5	42.6	62.3	25.3
Addiction	89	6.2	6.0	5.3	45.0	58.4	27.0
Financial problems	136	6.9	6.1	5.5	55.2	55.1	22.8
More problems	224	6.6	6.4	5.6	53.6	56.7	21.0
Own problems	3,173	6.7	5.9	5.7	63.7	72.4	10.7

^aSupport: with housework, odd jobs, advice and showing interest. ^bBalance: 0 = *relationship is perceived as unbalanced*, 1 = *relationship is perceived as balanced*. ^cConflict: 0 = *no conflict occurred in the last three months*, 1 = *at least one conflict occurred in the last three months*

was lowest for siblings who experienced problems with the law (42.6%). Respondents were most likely to perceive their sibling relationship as balanced if this sibling had no problems, and least likely when having a sibling who encountered financial difficulties. Conflict was most likely to occur with siblings who experienced abuse or addiction problems.

Having a sibling with multiple problems was related to lower levels of contact, more support provided and less received, low likelihood of a good relationship and high likelihood of conflict. Respondents with personal problems had lower levels of contact, were less likely to have a good relationship and somewhat less likely to perceive the relationship as balanced, but on the whole their relationship was relatively positive.

Table 4.3 shows the results for the multivariate analyses, with the columns representing the different dependent variables. All problems were included as dummies, where 1 indicates that the sibling encountered the specific problem, and 0, the reference category, represents all others without the specific problem. Note that these others might have experienced other problems. For example, someone who did not experience divorce might have faced serious financial difficulties.

Respondents expressed more solidarity toward siblings with an illness than toward those who had been physically healthy. These siblings were spoken to more often, more support was given, and the quality of the relationship was higher as well. They did not receive less support from their ill siblings, compared to siblings who were healthy, and they were equally likely to perceive the relationship as balanced. No higher likelihood of conflict occurred. All in all, high amounts of solidarity were expressed and low amounts of conflict occurred in a relationship with an ill sibling (or with a history of illness), and the relationship was evaluated more positively.

The same cannot be said when a sibling was (or had been) mentally ill. Even though contact frequency and support given to siblings with a mental illness was comparable to that given to healthy siblings, less support was received from them. Relationship quality was poorer, likelihood of conflict was higher, and such relationships were more likely perceived as unbalanced. These relationships can be characterized as mainly negative.

Respondents gave more support to siblings with a history of abuse than to siblings without such problems. Conflicts were also more likely to occur. No difference was found for contact frequency, support received, relationship quality or perceived balance. Lack of significant results may have to do with the small group size; this type of problem was uncommon in our dataset. Providing more support, together with more conflicts, gives a picture of ambivalence in relationships with siblings who have experienced abuse.

Respondents received less support from and had more conflicts with siblings who had had problems with the law. Relationship quality was poorer. In the other domains, no differences were found compared to siblings who had not had problems with the law, for instance in support given. These relationships can therefore be characterized as mostly negative. The same can be said about relationships with siblings who have addiction problems. Increased conflict went together with lower contact frequency, less support received and lower relationship quality, making them mostly negative.

Table 4.3

Results for the regression of dimensions of solidarity and conflict on the existence of problems in the life of a sibling

	Contact (OLS)		Support given ^a (OLS)		Support received ^a (OLS)		Relationship quality (ordinal)		Balance ^b (logistic)		Conflict ^c (logistic)	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Illness	.37*	.16	.70***	.12	.01	.11	.34*	.14	-.25	.16	.03	.26
Mental illness	-.11	.14	.21	.11	-.25*	.10	-.54***	.13	-.64***	.14	.75***	.19
Abused	.01	.24	.48**	.19	.03	.17	-.20	.21	-.39	.24	.77**	.33
Problems with the law	-.35	.19	-.20	.14	-.31*	.13	-.75***	.16	-.36	.19	.81***	.22
Addiction	-.59*	.25	-.16	.19	-.41*	.18	-.66**	.22	-.33	.25	.81**	.30
Divorce	-.21*	.10	.06	.08	.04	.07	-.17*	.09	-.21*	.10	.36*	.15
Financial problems	.18	.20	-.10	.15	-.30*	.14	-.35*	.17	-.83***	.19	1.16***	.24
Multiple problems	-.19	.21	.02	.16	.05	.15	.11	.18	.10	.21	-.58*	.28
Personal problems	-.32***	.05	-.13**	.04	-.10**	.04	-.42***	.05	-.26***	.06	.35***	.09
Female	.50***	.05	.36***	.04	.36***	.04	.24***	.04	.03	.06	.29**	.09
Education	.06***	.01	.08***	.01	.07***	.01	.03**	.01	.04**	.01	.03	.02
Age	-.02***	.00	-.02***	.00	-.02***	.00	-.01*	.00	.00	.00	-.03***	.01
Married	.01	.06	-.06	.05	-.20***	.04	-.02	.05	.01	.07	-.03	.10
Children present ^d	-.32***	.07	-.28***	.05	-.28***	.05	-.27***	.06	-.03	.08	-.31**	.11
Number of siblings	-.12***	.01	-.06***	.01	-.06***	.01	-.03**	.01	.02	.01	-.11***	.02
Parent alive ^e	-.01	.07	-.14*	.06	-.13*	.05	-.10	.07	.25**	.08	-.31*	.14
Distance (km)	-.01***	.00	-.00***	.00	-.00***	.00	-.00***	.00	.00	.00	-.00	.00
Sibling living abroad	-1.68***	.09	-.34***	.07	-.40***	.07	.06	.08	-.37***	.10	-.45*	.18
Sister	.55***	.05	.37***	.04	.36***	.04	.31***	.04	.13*	.06	.33***	.09
Sibling partnered	-.21***	.06	-.38***	.05	.00	.05	.09	.06	.49***	.07	-.47***	.10
Sibling has children	-.11	.07	-.13**	.05	-.09	.05	-.08	.06	.16*	.07	-.15	.10
Constant	8.60***	.18	6.78***	.14	6.42***	.13	f		.40*	.20	-.48	.30
R ²	.19		.14		.12		.06 ^g		.05 ^g		.12 ^g	
N	7,407		7,407		7,407		7,407		7,407		7,407	

^aSupport: with housework, odd jobs, advice and showing interest. ^bBalance: 0 = *relationship is perceived as unbalanced*, 1 = *relationship is perceived as balanced*. ^cConflict: 0 = *no conflict occurred in the last three months*, 1 = *at least one conflict occurred in the last three months*. ^dChildren present: respondent has children. ^eParent alive: at least one parent is alive. ^fIntercepts vary for different response categories. All three intercepts are significant at $p < .000$. ^gNagelkerke R^2

* $p < .05$ ** $p < .01$ *** $p < .001$

Respondents spoke less often to siblings who experienced divorce; relationship quality was poorer, the relationship was more likely to be seen as unbalanced and conflicts were more likely to occur. Divorce of the sibling was not related to support given and received, and had a negative impact on the sibling relationship.

Respondents received less support from siblings who had experienced financial difficulties. Conflict was more likely to occur, balance was less likely and quality of the relationship was lower. Contact frequency and support given did not differ from siblings without these problems. These relationships were mostly negative too.

Overall, the distinction between problems that can be seen as bad luck and problems that can be considered as a consequence of one's own choices was found in the data to a limited extent. More support was given to siblings with a serious illness than to those without one, and even though the amount of support received did not differ significantly from the physically healthy siblings, the relationship was equally balanced and quality was even higher, as was contact frequency. There were not significantly more conflicts compared to siblings without problems either. Overall, the relationship with ill siblings even seemed more positive than the one with healthy siblings. It appears that the balance indeed had shifted, where increased support provision did not lead to an unbalanced relationship with increased conflict.

For the other two problems that were characterized as a matter of bad luck, ambivalence and negative ties were found. When siblings had experienced mental illness, relationships were more likely to be perceived as unbalanced, relationship quality was lower, less support was received and the likelihood of conflict was higher, resulting in ties that can be characterized as negative. Being physically or sexually abused promoted ambivalence in the relationship; more support was given and a higher likelihood of conflict was experienced.

With regard to problems that are more likely a matter of poor judgment, we found support for our hypothesis; the relationship with siblings who had had problems with the law was not very good: it was of poorer quality, less support was received, and there was an increased likelihood of conflict. Contact frequency and balance were close to significantly negative, with $p = .056$ for contact frequency and $p = .055$ for balance. Apparently, it is difficult to deal with siblings who experienced problems with the law, which makes these ties more likely to be negative.

What can be said about the other problems? Siblings who experienced divorce differed in a negative way. Addiction to alcohol or drugs, which in psychopathology is considered a mental illness (Bijl & Ravelli, 2000), yielded results comparable to those found for mental illness. These relationships were also more likely to be solely negative, as were relationships with siblings who had financial difficulties.

Our second hypothesis states that a sibling with multiple problems constitutes an extra burden, resulting in less solidarity and more conflict. This was not supported by the data. For the solidarity dimensions, the effects for the separate problems add up. For the occurrence of conflicts, having more than one problem had a negative effect: many problems were associated

with a higher likelihood of conflict, but a second or third problem on top of that did not add to this likelihood as much as the first problem did.

Our last hypothesis states that having personal problems is related to lower levels of solidarity and conflict; it indeed leads to less contact, lower relationship quality, and less support given and received. The idea was that both siblings having problems would make it possible for the relationship to be still perceived as balanced, leading to less conflict. Results however indicate that this affected the balance in the relationship negatively and was associated with a higher likelihood of conflicts.²

Ambivalence in relationships was actually best illustrated by the results for the control variables. For gender, age, having children, number of siblings, having at least one living parent, and the other sibling being female, we found a positive effect for contact frequency, support given, support received and relationship balance, together with an increase in conflict and vice versa. This indicates that those characteristics of the individuals involved, of the relationship and of the family that were related to solidarity, were linked to conflict as well in the same direction. Exceptions were educational level, being married and whether the sibling had children. Whereas educational level influenced sibling solidarity positively in all dimensions, the other variables diminished the amount of solidarity in one or several dimensions. Conflict was not related to these variables.

4.6 Conclusion

In this paper we studied the occurrence of a wide variety of problems in relation to solidarity and conflict in the adult sibling relationship. We expected that the type of problem, the number of problems and the existence of problems in the lives of both siblings would be related to different dimensions of solidarity and to conflict.

How supportive siblings act in times of need is related to the nature of the problem. Limited support is found for the expected distinction between problems that are a matter of bad luck, such as illness, and problems that can be seen as a result of poor judgment, such as encounters with the law. When it is nobody's fault, siblings will be there for each other, even though in some instances it may be accompanied by increased conflict. This is especially apparent when it comes to physical illness, and less so for abuse.

We did not find support for ambivalence toward siblings with a mental illness, but found a negative relationship. For physical illness it could be easier to find a satisfying form of exchange, whereas this may be more difficult when the health problem is not physical but mental. Reciprocity is important in sibling relationships (Horwitz, 1994), and is probably less easily accomplished when a sibling is less able to function socially, which is often the case with mental problems (Bijl & Ravelli, 2000).

When people have themselves to blame for the situation, not much is to be expected from siblings. Some problems, such as illness, may activate the sibling relationship, but other

problems will deteriorate it. This shows that solidarity among kin is not unconditional, and that in the face of certain kinds of adversity even the family may be reluctant to help out.

Another interesting finding from this study is that in the case of physical illness or disability of a sibling the effect on solidarity is entirely positive. Even though experiencing serious health problems is stressful and is accompanied by an increased need for support, siblings appear to be able to let it influence their relationship in a positive way, without disturbing the balance. It seems that something is given in return for increased support to siblings, other than the instrumental and emotional support as measured here.

In times of need, family is often there to comfort and provide support, but this comes at a cost. The occurrence of problems puts pressure on the sibling relationship. Balance in a sibling relationship is not necessarily gone when problems arise — in many cases people seem to be able to cope with changes as a result of these problems, such as an increased need for support. However, with the exception of physical illness and abuse, all problems are associated with a diminished quality of the relationship, and with the exception of physical illness, with an increased occurrence of conflict.

With regard to fairness, we conclude that accountability for the problem does make a difference, even though other mechanisms are at work too. This is in line with work on accountability (Folger & Cropanzano, 2001; Mikula, 2003): more support is provided when the problem is not the result of discretionary actions (such as physical illness or abuse) than when it is (for instance in the case of problems with the law). Provision of support is not only governed by the need for help or the norm of reciprocity: whether or not someone is entitled to help has an effect as well.

This study shows that the presence of problems and the kind of problem that is experienced are related to the occurrence of positive, negative and ambivalent sibling relationships. Even though all relationships may be ambivalent to a certain extent (as is suggested for all intergenerational relationships, see Luescher & Pillemer, 1998), some sibling relationships are more positive or more negative, which is in line with the distinction between close, problematic and ambivalent ties made by Fingerman et al. (2004). Health problems invoke exclusively positive responses from siblings. Abuse is associated with ambivalent relationships, where support exchange is higher, but conflict is also more likely to occur. Problems with the law, divorce, mental health problems, addictions and financial difficulties are related to negative sibling relationships. Whereas previous research has established certain factors to promote ambivalence, such as failing to reach normative adult status and financial independence in mother-adult child relationships (Pillemer & Sutor, 2002), and daughters providing assistance to parents (Willson et al., 2003), the present study indicates that it is not only these factors by themselves that matter — the moral context of the related problem is important too.

4.7 Discussion

Several limitations of this study need to be mentioned. First, the results can only be seen as tentative, given that the hypotheses could not be tested very rigorously. For example, no direct test of the difference between illness and problems with the law was performed. Nevertheless, the results give a valuable indication that is generally in line with our expectations. Second, the data were limited in several ways. They did not allow us to clearly isolate the effect of the occurrence of problems on the sibling relationship, because of the lack of information on personality traits of the siblings. Nevertheless, if certain personality traits are responsible for the occurrence of problems, one might expect that having multiple problems would signal more serious personality disorders, posing an additional strain on relationships. Such an effect was not found. Also, the problems differ from each other in more ways than just with regard to whether they are the result of bad luck or poor judgment. Because this study compared various problems, not much attention could be paid to their specific nature and other possible dimensions. We did not have detailed information on the timing of the events either, apart from the knowledge that the majority of the events happened more than a year ago, therefore we could not look at problems occurring simultaneously, which might lead to disengagement and dealing with one's own problems, or whether the timing of events would allow for the exchange of help. There is also great variation within problems we had no information about. All problems vary in terms of seriousness, duration and need for support. Despite this variety, there were clear distinctions between problems with regard to their effect on the dependent variables, suggesting that there is enough similarity within these problems when it comes to solidarity and conflict in the sibling relationship.

The approach of studying multiple problems simultaneously in relation to family solidarity is new and has proven to be fruitful. Solidarity and conflict differ between the various kinds of problems, suggesting that it is not the mere presence of a problem which influences family relationships, and that they can be affected positively, negatively or both ways.

Directions for future research include further exploration and a more direct test of the relation between justice, accountability, and solidarity and conflict in family relationships, which implies the inclusion of personality traits. This would provide valuable information on how the family functions and how resilient it is. The present research focused on a single family relationship. Including other family members, as well as the problems they encounter, would make it possible to gain more insight into the limits of family solidarity in the larger family.

Notes

¹ To qualify divorce as problematic is debatable, since it can be a solution rather than a problem. Nevertheless, we decided to include it in this study. Couples do not get married with the intention to divorce in mind. In that sense, divorce is a negative outcome. Thus, even though we include it as a problem, it should be noted that it is not always necessarily a negative event.

² Because sharing the same experience may enhance solidarity, additional models were estimated in which the respondent and the sibling both experienced a problem. A distinction was made between siblings having a similar problem as the respondents or a different problem. Results did not differ between these two groups. A distinction was also made between both sibling and respondent having a problem and only one of them having a problem. This did not yield other results either.

Chapter
**Family solidarity and support
between adult siblings**

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Family solidarity and support between adult siblings¹

*Help your brother's boat across,
and your own will reach the shore.
~Hindu Proverb*

Abstract

Using a subset of a Dutch national sample containing 1,259 triads of siblings and parents, we examined whether instrumental and emotional support between siblings are enhanced by solidarity in the family in general. Results indicate that in addition to characteristics of the sibling dyad, the relationship with the parent is important for sibling support. Having a poor relationship and low contact frequency with the parent enhances sibling support (for emotional support only), suggesting a compensating mechanism. Sibling support is also positively related to parental support, which suggests a reinforcing mechanism. Including the relationship with a parent increases understanding of the complex ways in which the family context influences support in the adult sibling relationship.

Keywords: adult siblings, social support, family relations, multilevel models

¹ This chapter is co-authored by Rosemary Blieszner

5.1 Introduction

Recently, research attention to the sibling relationship in adulthood has been growing as more scholars acknowledge that siblings are important sources of love, support, and companionship throughout adulthood (Cicirelli, 1995; Eriksen & Gerstel, 2002; Walker, Allen, & Connidis, 2005). Still, compared to the literature on intergenerational and romantic partner relationships, the body of research on adult sibling bonds is relatively small. Yet, if only parent-child and spousal relationships are studied, those who never married, are widowed or divorced, or childless are excluded from the analysis. Examining adult sibling relationships contributes to a more comprehensive understanding of contemporary family life.

So far, a lot of research on the sibling relationship has concentrated on just the dyad, giving insufficient attention to its embeddedness in the family (Walker et al., 2005). Examples of this are numerous; see Bedford (1998) on the relation between well-being and sibling relationship troubles; Lee, Mancini, and Maxwell (1990) on contact between siblings; and White and Riedmann (1992a) on contact and support between siblings. But not all research on siblings ignores the larger family context. The effects of family structure on sibling ties have been studied because differences in family size and composition are likely to affect sibling interactions. For example, the importance of the presence of a partner and a parent for actual and perceived support and contact frequency in the sibling relationship was examined by White and Riedmann (1992a), and the relevance of having both children and siblings was examined by Cicirelli (1989) and Connidis (1989).

Families differ not only in structure but also in content of the relationships within them. Some families spend more time together, rely more on each other, and influence each other more than others. Families are not equally close nor equally supportive (Pyke & Bengtson, 1996); some families share more than others. This implies that when studying a specific family relationship, such as the sibling relationship, it is important not only to acknowledge individual and dyadic characteristics, but to include the content of other family relationships as well, in order to assess these between-family differences.

Most research on sibling relationships does not incorporate these dimensions of family interaction, although there are some exceptions. For example, the importance of a network perspective on the family was shown by a study on intergenerational ties that looked at exchanges of parents with all their children instead of only one parent-child dyad (Agree, Biddlecom, Valente, & Chang, 2001). Another example comes from Floyd and Morr (2003) who investigated affectionate communication and its influence on relationship quality in sibling-spouse-sibling-in-law triads, showing that these relationships are mutually influential.

In order to build knowledge about adult sibling ties and family dynamics, we expand upon previous research in two ways. First, we include the family context by probing the importance of the content of intergenerational relationships for support among siblings. Besides examining data from the siblings themselves, we move this line of research to the family level by also including parental data. Second, we analyze bidirectional support exchanges from the

vantage point of multiple siblings. Whereas previous studies on support in family relationships investigated giving or receiving support in separate analyses (Hogan, Eggebeen, & Clogg, 1993; Parrott & Bengtson, 1999), we examine exchanges directly, by investigating giving and receiving simultaneously. The central research question asks how dimensions of family solidarity affect supportive behavior within sibling dyads. Because we assume that the costs of exchange are lower in close families, the general hypothesis is that in families characterized by high closeness and solidarity, more support will be exchanged between siblings.

We focus on support because it reflects actual behavior instead of feelings, thereby making the content and benefits of a sibling relationship tangible. Furthermore, investigating support is theoretically interesting, because it is related to outcomes that reflect well-being, such as physical and mental health (House, Umberson, & Landis, 1988).

5.2 Theory and hypotheses

The family can be seen as a special kind of social group, which makes it potentially more influential than other social groups. Families last longer than most other social groups. Also, families have intergenerational relationships, giving them a structure that is different than most other groups. Finally, families contain affinal and consanguineal relationships, whereas most social groups consist of only affinal relationships (White, 2005). The longer duration, the intergenerational relationships, and the presence of blood ties make the family a social group with constancy and intimacy. The family, like other social groups, requires contributions from its members (Hechter, 1987). Family members are expected to comply with family norms (Rossi & Rossi, 1990) and to contribute to the common good of the family. In other words, family members are expected to behave towards one another in ways that express solidarity (Komter & Vollebergh, 2002).

Studying solidarity in the context of the family is important for several reasons. First, even when studying specific family relationships, it is important to incorporate the family as a group and to address the ways this group is held together, because the family's dynamics represent more than the sum of the characteristics of its individual members (Fararo & Doreian, 1998; Furstenberg, 2005). Second, studying family solidarity is important because solidarity makes it possible to generate and mobilize social capital, which ultimately affects the success of its members in society (Furstenberg, 2005). Third, having family relationships that are characterized as close and supportive enhances well-being (Bedford, 1998; Cicirelli, 1989; Dykstra, 1990), so understanding family solidarity contributes theoretically to knowledge about influences on physical and mental health.

Family solidarity is a multidimensional construct. To capture its meaning, researchers must incorporate multiple aspects of this phenomenon. Specifically, solidarity reflects the intersection between context and content. It has to do with the composition of the group, in this case the family, and what they do and feel for each other. Support between siblings is influenced

by what structure the family has, what norms the family embraces, and what interactions take place among the members. This study investigates the extent to which these dimensions of solidarity are indeed relevant for supportive behavior between siblings.

Which dimensions of family solidarity need to be incorporated? Following social psychological and sociological theory, Nye and Rushing (1969) distinguished six dimensions of solidarity, or, as they called it, family integration: normative integration, mutual affection, consensus on values, interaction, functional interdependence, and goal orientation. This classification follows the theoretical work of sociologists such as Durkheim and Tönnies by incorporating normatively prescribed obligations towards the group, functional interdependencies, and consensus over the rules of reciprocity. It also corresponds to the work of social psychologists such as Homans (1992 [1951]) and Heider (1958) by including interconnectedness between actions of different group members, the joint activities of group members, mutual affection, and norms. These dimensions were later modified by Bengtson and colleagues who focused on intergenerational family relationships (Bengtson & Roberts, 1991; Bengtson & Schrader, 1982). Where Nye and Rushing (1969) included goal integration, referring to shared goals in the family, Roberts, Richards, and Bengtson (1991) replaced this dimension with structural solidarity, which refers to the number, type, and geographic proximity of family members (see also, Bengtson & Roberts, 1991). Further, their model reflects the interdependence among these dimensions (Bengtson & Roberts, 1991; Roberts et al., 1991).

We focus on the five dimensions that these scholars agreed upon: normative integration, affection, consensus on values, interaction, and functional interdependency. We do not consider the interdependency among these different dimensions as did Bengtson and colleagues (1991) and Rossi and Rossi (1990), but study their separate influences on functional solidarity in the sibling relationship, looking at all dimensions simultaneously. We expand on previous work by including solidarity in the parent-adult child relationship along with solidarity in the sibling relationship as influencing support between siblings.

Because we have triadic data that include the perception of one parent and two siblings, structural solidarity is partly given. To achieve a more inclusive measurement of structural solidarity, we take other structural characteristics of the family into account, such as the presence of a partner and offspring. Our hypotheses, however, are formulated for the key solidarity dimensions of normative integration, affection, consensus, contact, and functional interdependence.

5.2.1 *Normative integration*

Normative integration refers to customary commitments towards the family (Homans, 1992 [1951]), the feeling of both having kin ties and wanting to be there for one's family in times of need. The family is not only a set of interrelated individuals, but constitutes a social entity in which family members share a collective identity (Kiecolt & LoMascolo, 2003). Siblings that want

to participate actively in the family are likely to follow family norms and contribute to the common good of the family. Many people feel this sense of obligation toward their family, with support attitudes being strongest among closest relatives and less strong across decreasing levels of relatedness (Rossi & Rossi, 1990).

Besides individual differences in sense of obligation and varying attitudes toward particular relatives, families differ in how strongly they expect adherence to their norms. For instance, some families are more individualistic whereas others are more collectivistic (Pyke & Bengtson, 1996). Siblings coming from a family that adheres strongly to the norm of helping kin are more likely to support their siblings than those coming from a family where this norm is less salient. This implies that not only may feelings of obligation of the siblings themselves be important for provision of social support, but also those of other family members, such as the parent. Strong normative obligations of the parent are expected to make it more difficult for siblings to refrain from helping each other.

In conclusion, when members feel a sense of belonging to the family and believe they can rely on each other in times of need, they are likely to feel that they must support one another as much as possible. This leads to the first hypothesis:

H1: The stronger the feelings of obligation toward the family held by both siblings and the parent, the more likely it is that siblings will support each other.

5.2.2 *Affection in the family*

Affection between family members is central for family cohesion. Affection includes several aspects, such as emotional closeness, liking, or getting along, and is a key indicator of relationship quality. When family members are close, interdependence is high and the actions of one have consequences for others' outcomes (Kelley, 1979; Kelley et al., 1983). In general, people who like each other are more willing to help each other (Wellman & Wortley, 1990), so more shared affection is expected to yield greater family solidarity.

When relationships within a family are perceived as more positive overall, we expect that support between siblings will be facilitated. In their qualitative study on sibling relationships, Ross and Milgram (1982) found that, indeed, emotional closeness is often described as a family characteristic rather than a sibling characteristic. Therefore, besides the quality of the sibling relationship being important for sibling support, we expect that a positive relationship with a parent is important as well, because the parent-child relationship is often the most important family relationship in Western societies (Rossi & Rossi, 1990).

Although a negative relationship with a parent might lead to a more negative relationship with a sibling, a problematic relationship with a parent can also be compensated by sustaining a positive relationship with a sibling. This mechanism of compensating one family relationship with another has been suggested by some scholars (Cederblad, Dahlin, Hagnell, & Hansson, 1994; Tucker, Barber, & Eccles, 2001), although empirical evidence is limited. We expect that the

quality of the relationship with parents is important for promoting sibling support, following the general idea that group cohesion facilitates support (Uehara, 1990). From this, we formulated the following hypothesis:

H2: The more positive the relationships between siblings and between siblings and their parent, the more likely it is that siblings will support each other.

5.2.3 Consensus on values

Values are transmitted from one generation to the next and one of the most influential agents in this process is the family (Maccoby, 1992, and see the classics, Cooley, 1922; Mead, 1934). A person is exposed to the influence of parents, siblings, and other relatives from a very early age (Cavalli-Sforza, 1993). Family members who share the same values have greater solidarity because sharing the same values makes it easier to understand one another and to anticipate the other's needs. In contrast, large differences in values or norms between family members can be stressful.

The importance of group consensus on values for group solidarity has often been suggested (Homans, 1974), but actual research in families has so far concentrated mainly on dyads (see for example, Bedford, 1998, where value consensus was used as part of a solidarity measure). We take the next step and look at consensus in family triads, by including one parent as a third family member. We hypothesize that sharing similar values with a parent, as well as with a sibling is important for support between siblings.

All kinds of values are likely to be influential, but values concerning marriage and gender roles can be expected to be especially relevant for family life. Disagreement within a family on topics that are directly related to family interactions are more difficult to ignore as they are part of how people experience their family life. Therefore, value differences on these topics can be expected to be more stressful than disagreement on less salient topics, which can be avoided more easily. Consensus on these norms will be considered, again between siblings and a parent.

H3: The higher the consensus on values concerning marriage and gender roles between siblings, and between siblings and their parent, the more likely it is that siblings will support each other.

5.2.4 Interaction in the family

Contact among group members reflects a form of solidarity. Having more contact makes it more likely that family members are informed about each other's lives. In a highly interactive family, one member can provide information on several others, enhancing cohesion and adding to the feeling of belonging to this group.

Because contact is a prerequisite for support exchange, it is not surprising that contact frequency between siblings is positively related to sibling support (Goetting, 1986; White & Riedmann, 1992a). We argue that not only is contact frequency between siblings important, but that in families where all members have more frequent contact with each other, there is a stronger feeling of connectedness. This implies that contact with other family members, such as a

parent, is important for the exchange of support between siblings, leading to the following hypothesis:

H4: The higher the frequency of contact between siblings and between siblings and their parent, the more likely it is that siblings will support each other.

5.2.5 Functional interdependency

Functional interdependency refers to the exchange of support between family members. In general, families are significant sources of support for their members (Höllinger & Haller, 1990; McGlone, Park, & Roberts, 1999), but there is a large amount of variation in functional interdependency across families.

Parental support to children might serve as a good example for the children to support each other. When parents are highly supportive, their children might be more inclined to support the family, including each other. For this reason the support provided by a parent is taken as an indicator of family support. We expect that highly supportive parents positively affect support between siblings. This might seem counterintuitive, because highly supportive parents might diminish the need for support from siblings. But it can be argued that having supportive parents reflects a strong orientation towards family, making it more likely that a family member would go to another family member such as a sibling for support instead of to a nonfamily member such as a friend.

H5: The more support a parent gives to his or her children, the more likely it is that these children will support each other.

Besides assessing the importance of different dimensions of solidarity, other known influences on sibling support will be included as well. Because we look at giving as well as receiving support simultaneously, it is important to distinguish between receiving and providing support in order to control for the general tendency of people to overestimate their own contribution (Furnham & Dowsett, 1993). Furthermore, because women have a special role in the family as the kinkeepers who sustain family contacts and interactions (Liebler & Sandefur, 2002; Rosenthal, 1985), gender of the provider and receiver of support as well as gender of the parent need to be included. Indeed, research continuously shows that women provide more emotional and specific kinds of instrumental support than men, to friends as well as family (see for instance, Gold, 1989; Wellman & Wortley, 1990). Because proximity facilitates support, especially instrumental support (e.g., Eriksen & Gerstel, 2002; White & Riedmann, 1992a), geographical distance to the sibling and to the parent has to be taken into account as well. Research has shown that support tends to become less frequent with increasing age and is more frequent among better educated persons (Felling, Fiselier, & Van der Poel, 1991; White & Riedmann, 1992a). Also, in sibling research, ordinal position is relevant (Newman, 1991; White & Riedmann, 1992a). Living with a partner and the presence of children can restrict giving support to a sibling. Much support flows from parents to children (Komter & Vollebergh, 2002) and

between partners (Dykstra, 1990) but the total amount of support that can be provided is limited because of time constraints. This can be expected for the partner status of the parent as well. The same argument can be made for the number of siblings. As the number of siblings increases, less time, energy, and money may be available for any given one (Dykstra & Knipscheer, 1995).

5.3 Method

5.3.1 Data: the Netherlands Kinship Panel Study

Data from the Netherlands Kinship Panel Study (Dykstra et al., 2005) are used for the analyses. The Netherlands Kinship Panel Study is a large scale data collection among a representative sample of the Dutch population on the subject of family solidarity. The data were gathered in 2002-2004, when 8,161 individuals between 18 and 80 years old were interviewed face-to-face in their homes using a structured questionnaire. After the interview, all respondents were asked to fill out a supplementary self-completion questionnaire; 92% of them returned it.

In this original dataset, compared to the Dutch population, women are overrepresented, especially women in the age group of 35 to 54 years old. Young men (aged 18 to 30 years) were somewhat underrepresented. Considering household status, there is an overrepresentation of people with children at home in the dataset and an underrepresentation of children still living with their parents.

Respondents, from here on called *anchors*, reported in the face-to-face interview on several family ties, among which were the relationships with their siblings and their parents. Data were collected on gender, age, contact frequency, and place of residence for all of the anchor's siblings and both parents. Next, a random selection of a maximum of two of the anchor's siblings was made for gathering additional information on supportive behavior, family activities, and the quality of the relationship between the anchor and these two siblings. This information was obtained on the relationship with the anchor's parents as well. Finally, one of these two siblings and one of the parents were randomly selected to approach directly with a written questionnaire. When the anchor gave permission to contact them, a questionnaire was sent to them or left for them at the anchor's residence. In all, 2,731 sibling questionnaires were received, which was 60% of all sibling questionnaires that were mailed or left at anchors' homes. This constitutes a response rate of 36% of all eligible siblings, including those who were selected but for whom the anchor did not grant contact permission. Likewise, a total of 2,108 parent questionnaires were received, which is a return rate of 67% and a response rate of 39% of all eligible parents. There were 1,259 complete triads, meaning that for 1,259 anchors, the self-completion questionnaires of the anchor, the randomly selected sibling, and the randomly selected parent were available. The data of these triads were used for the present analyses.

Response by siblings and parents was selective. First, coresident siblings and parents were more likely to return questionnaires than noncoresident relatives (64% versus 37% for siblings and 63% versus 40% for parents). Second, the response rate was selective with respect to the

perceived quality of the relationship as reported by the anchor; the better the relationship, the higher the response rate. The differences were especially marked at the lower end of the quality range. Note, however, that few relationships qualified as poor: 12.0% of the sibling relationships and 6.3% of the parent relationships were rated by the anchor as not great.

5.3.2 Measures

Instrumental and emotional support between siblings

The flow of instrumental and emotional support was measured both ways: providing as well as receiving. Additionally, the perspectives of both siblings were included by asking anchor what was given to the sibling and asking the sibling what was received from anchor, and vice versa. This means that in every sibling dyad for every kind of support, there are four responses, giving as well as receiving according to anchor as well as sibling. Questions about instrumental support were only asked when the anchor did not live in the same household as the sibling in question. In 81 cases (6.4%), the siblings shared a household. These sibling dyads were automatically omitted from the analysis. In total, 4,692 responses on instrumental support between siblings remained. The questions about emotional support exchanges were asked of all anchors and their siblings (1,259 dyads), leading to a total N of 5,023 responses for emotional support between siblings, with 13 responses missing.

The formulation of questions about instrumental and emotional support in the face-to-face interview with the anchor was as follows. Instrumental support was measured with the following two questions: (a) *In the last three months, did you receive help from [name of sibling] with housework, such as preparing meals, cleaning, fetching groceries, doing the laundry?* and (b) *In the last three months, did you receive help from [name of sibling] with practical matters, such as chores in and around the house, lending things, transportation, moving things?* The same questions were asked about the provision of this kind of help to that specific sibling. Response categories were 0 = *not at all*, 1 = *once or twice*, and 2 = *several times*. Answers on both questions were summed, creating a variable with values ranging from 0 to 4. Because a large number of anchors had not provided help, the scores were not normally distributed. Therefore, the variable was dichotomized so that 1 indicates that support was provided and 0 means no support was provided.

Emotional support was also tapped with two questions: (a) *Has [name of sibling] shown an interest in your personal life in the last three months?* and (b) *Did you get counsel or advice from [name of sibling] in the last three months?* Again, the same questions were asked about the provision of this kind of support to the sibling. The response categories were the same as for instrumental support, resulting in a variable for emotional support with a range of 0 to 4. This variable was dichotomized as well by assigning the value 1 when emotional support was provided and 0 when this was not the case. The siblings answered the same questions in their written questionnaire, so they too reported on providing as well as receiving instrumental and emotional support to and from the anchor.

Family solidarity variables

Feelings of obligation towards the family. Norms of obligation were measured in the written questionnaires of the anchor, the sibling, and the parent with four items: *One should always be able to count on family; Family members should be ready to support each other, even if they do not like each other; If one is troubled, family should be there to provide support; and Family members should help each other, in good times and bad.* Answers were given on a five-point scale, varying from 1 = *strongly disagree* to 5 = *strongly agree*. The four items were combined in one scale by taking the mean value ($\alpha = .85$ for the anchors, $\alpha = .84$ for the siblings, and $\alpha = .87$ for the parents) and higher scores reflected stronger feelings of obligation. See Verweij (2002) for a validation of the scale. When more than two of the four items were missing, the scale score was set to missing.

Relationship quality. The quality of the relationship was measured by asking the anchor *Taking everything together, how would you describe your relationship with [sibling/parent]?* Answering possibilities were 1 = *not great*, 2 = *reasonable*, 3 = *good*, and 4 = *very good*. The phrasing of the question was adopted from the National Survey of Families and Households (NSFH) (Sweet & Bumpass, 2002), with the difference that response categories in the NSFH were on a ten-point scale. The same question was included in the sibling's written questionnaire, along with a parallel item on the quality of the relationship with the parent. The perspective of the parents was not used here, only the perceptions of the anchors and the siblings.

Marriage and gender role values. Values on marriage and gender roles were measured in the written questionnaires of the anchor, the sibling, and the parent with 11 items, of which the first seven were developed for the Netherlands Kinship Panel Study (see Verweij, 2002, for a validation), and the last four were adopted from the Panel Study of Social Integration in the Netherlands 1987-1995 (see De Jong & Liefbroer, 1998, for a validation): (a) *Men and women are allowed to live together outside of marriage;* (b) *Children are allowed to choose their own marriage partner;* (c) *Two men or two women are allowed to live together;* (d) *A woman must quit her job when she becomes a mother;* (e) *The parents' opinion must play an important role in the choice of a partner for their child;* (f) *Married couples with young children are not allowed to divorce;* (g) *Single mothers are very capable of raising their children;* (h) *It is unnatural for men to be supervised or managed by women at work;* (i) *It is more important for boys than for girls to be able to earn a living later in life;* (j) *Working mothers put themselves first rather than their families;* and (k) *It is best to divide tasks and responsibilities in a relationship according to the customs, tradition, and rules that have always been force.* The answers were recorded on a five-point scale, ranging from 1 = *strongly agree* to 5 = *strongly disagree*. Items were recoded so that higher scores represented more modern values. The items were combined into a scale by taking the mean; $\alpha = .83$ for the anchors and $\alpha = .84$ for both the siblings and the parents. When more than five items were missing, no scale score was calculated. Consensus on values concerning marriage and gender roles was determined by computing the differences between the mean scores of both siblings, the anchor and the parent, and the sibling and the parent. Higher difference scores imply less consensus on these crucial family-related values.

Contact frequency. Frequency of contact was measured by asking how often actual face-to-face contact took place as well as contact by phone, letter, or e-mail in the past 12 months with both the anchor and the sibling. Response categories ranged from 1 = *never* to 7 = *daily*. The scores on face-to-face contact and on contact by phone, letter, or e-mail were summed to obtain one contact variable with a range of 2 to 14. No questions concerning the frequency of contact were asked of siblings sharing a household. Contact frequency with the parent was obtained from the anchors and the siblings who did not live with the parent in the triad.

Parental support. Because parents only reported on support given to the anchor and not to their other children, support received from the parent as reported by the anchor and by the sibling were the indicators of parental support. Measuring parental support as perceived by the children better reflects the influence of the family on the sibling relationship than obtaining parental reports of support given would. What matters is how much support the siblings perceive they get, rather than what the parents believe they give, because the same act of support may be perceived very differently by its provider and its receiver (Pierce, Sarason, Sarason, Joseph, & Henderson, 1996). Instrumental and emotional support received from parents were measured in the same way as for the dependent variables, support giving and receiving in the sibling relationship. The items were combined in the same way, such that scales of 0 to 4 were constructed for instrumental and emotional support. Anchors and siblings living with the parent did not answer questions on instrumental support.

Control variables

Three kinds of control variables were entered in the model. The first set contained dummy variables related to giving versus receiving support by the anchor versus the sibling, the second set indexed the anchor's and sibling's demographic characteristics, and the third group was the parent's demographic variables.

With regard to giving versus receiving support, we control for two conditions in the data. First, a dummy variable was constructed to distinguish between whether the response referred to giving or to receiving support. Second, even though the siblings were chosen randomly, there might be a difference in whether the information comes from the anchor or from the sibling. This can be a selection effect, because the sibling can only be selected after the anchor agreed to participate and agreed to approach the sibling. Moreover, there may be method differences deriving from the anchor being interviewed face-to-face and the sibling completing a written questionnaire. For these reasons, another dummy variable was included, indicating whether the response came from the anchor or from the sibling.

At the level of the anchor and the sibling, we controlled for gender as well as gender composition of the dyad, by including a dummy for gender, and an interaction with gender of the sibling. Residential proximity was controlled for by calculating how far the siblings lived apart. The geographical distance between coresidential siblings was set to 0, and the distance to a sibling

living abroad was set to the maximum, 250 kilometers. Age and educational level of the siblings were included in the model. Age was measured in years and educational level on a 10 point scale, varying from 1 (*not completed primary school*) to 10 (*completed post-graduate education*). A dummy where 1 indicates being the older one in the sibling dyad was also included. The presence of a partner and of children were controlled for in the model, by including two dummy variables: one for presence or absence of a partner, and one for presence or absence of at least one child. The number of siblings was included as a continuous variable.

Distance to the parent was measured in kilometers and included in the model as a continuous variable. When a household was shared with the triad parent, the distance was set to 0 kilometers, and when the parent or the sibling lived abroad, the maximum value was assigned, in this case 275 kilometers. Given the centrality of women in family life, we controlled for whether answers came from a mother or a father (1 = *mother*, 0 = *father*). Further, the parent's age in years and educational level as described previously were included. Finally, the parent's partner status was included as a dummy variable, with 0 = *no partner*, and 1 = *the parent has a partner*. In the majority of the cases this partner was the other parent, but repartnered parents were also included in this category.

Descriptive statistics on the control variables are presented in Table 5.1. The sample was dominated by women: 62% of the anchors were female, 58% of the siblings were sisters (data not displayed), and 64% of the parents were mothers. Sister-sister dyads were most common (23%) and brother-brother dyads least represented (7%) (data not displayed). The average age of the anchors as well as the siblings was 36 years, whereas the parents averaged 66 years old. Typically, parents had completed less education than their children. The majority of participants had a partner (68% of anchors and siblings and 71% of parents) as well as children (55% of anchors and siblings). The average distance between siblings is 44 kilometers, which is farther away than the average distance to the parent of 36 kilometers. The siblings come from families with an average of 2.42 children.

Given that triads were analyzed, data could be missing from the anchor, the sibling, or the parent. For the dependent and independent variables concerning perceptions of support exchange and solidarity in different domains, missing values are not imputed, and the missing values are automatically ignored in the analyses. For the control variables, missing values were minimized as follows. In principle, data are gathered from the person they pertain to. For the sibling dyads, the control variables include demographic characteristics of both the anchors and the siblings. Age, gender, educational level, and the presence of a partner and of children for the anchors and the siblings were taken from reports by the anchors and the siblings respectively. But when information from the sibling was missing, responses provided by the anchor about the sibling were used. Geographical distances between anchor, sibling, and parent were calculated using information obtained from the anchor, as was the number of siblings. Parent's gender,

educational level, and partner status came from the parent questionnaires, but when this information was missing, data provided by the anchor about the parent were used.

Table 5.1

Descriptive statistics for control variables

	<i>M</i>	<i>SD</i>	Range	<i>n</i>
Family variables (Level 2)				
Distance to sibling (km)	43.97	57.71	0 – 250	1,259
ln(Distance to sibling)	1.57	4.73	-13.82 – 5.52	1,259
Distance to parent (km)	36.39	58.92	0 – 275	2,518
ln(Distance to parent)	.50	5.52	-13.82 – 5.62	2,518
Number of siblings	2.42	1.81	1 – 17	1,259
Parent Variables				
Parent ^a	.64	.48	0 – 1	1,259
Parent's age (years)	65.53	10.84	38 – 94	1,259
Parent's education ^b	4.76	2.70	1 – 11	1,258
Parent's partner status ^c	.71	.45	0 – 1	1,259
Individual variables (Level 2)				
Age	36.03	10.06	15 – 70	2,518
Older ^d	.49	.50	0 – 1	2,518
Gender ^e	.60	.49	0 – 1	2,518
Education ^b	6.93	2.23	1 – 11	2,518
Partner status ^c	.68	.47	0 – 1	2,518
Parental status ^f	.55	.50	0 – 1	2,518

^aParent: 0 = *father*, 1 = *mother* ^bEducation: 1 = *incomplete primary school*, 10 = *post-graduate education* ^cPartner status: 0 = *no partner*, 1 = *presence of partner* ^dOlder: 0 = *younger than other sibling in dyad*, 1 = *older than other sibling in dyad* ^eGender: 0 = *male*, 1 = *female* ^fParental status: 0 = *no children*, 1 = *children*.

Missing Data

5.3.3 Analysis: multilevel analysis of dyads in families

Because we are using data from multiple family members to study dyadic behavior in the context of the family, we have *nonindependent* data (Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). The nested structure of the data, in which relationships are nested within dyads which are nested in families, causes the observations within the sibling dyads to be more similar than those between the dyads. Multilevel analysis is a useful tool for such nested data, because it takes the nonindependent nature of the data into account (Sayer & Klute, 2005). Using standard statistical approaches such as fixed effects models for nonindependent data violates the assumption of independence of the observations. When this assumption is violated, estimates of the standard errors will be too small, resulting in many spuriously significant effects (Hox, 2002).

We use directed relational data, where two siblings report on their own behavior and that of the other towards each other, so we can distinguish between sending and receiving roles in the exchange of support, where the one who reports is the sender and the one reported upon is the

receiver (Gerlsma, Snijders, Van Duijn & Emmelkamp, 1997). In this case, the siblings gave information on whether they provided support to each other, and whether they received support from each other. This complex data structure was modeled in the following way. Conceptually, three hierarchical levels can be distinguished: the directed relation, the individual, and the family. But, given that there is only one sibling dyad per family, the individuals are not considered as a separate level and only two levels need to be defined. The higher level is the family (and the dyad, given that there is only one dyad per family). Every level 2 unit contains four level 1 units, representing the sending and the receiving roles of both anchors and siblings: (Y1) support provided to the sibling, reported by the anchor, (Y2) support received from the sibling, reported by the anchor (Y3) support provided to the anchor, reported by the sibling (Y4) support received from the anchor, reported by the sibling.

Models were estimated for emotional support and instrumental support separately using MLwiN 1.1 software (Rasbash et al., 2000). It is important to note that in MLwiN, missing data are automatically ignored in calculations, so no whole records are lost. To test the hypotheses regarding the effect of the different dimensions of family solidarity on sibling support, two nested models were estimated for both dependent variables. The first model tests the independent effects of the solidarity dimensions in the sibling relationship and in the parent-child relationship on sibling support, by including main effects only. This tests the relative influence of the dimensions of solidarity on sibling support. Second, interactions were calculated between the sibling scores and the parent-child scores on all solidarity dimensions except parental support (i.e., family obligation, relationship quality, value difference, contact frequency). This tests whether the effect of the siblings' perceptions of solidarity on their supportive behavior depends on solidarity in the same dimension in the relationship with the parent. For instance, for family obligations, the first model tests whether feelings of obligation towards the family of both the anchor and the sibling matter for sibling support and whether feelings of obligation of the parent are important as well. The second model tests whether the feelings of obligation that the parent has affect how strongly feelings of obligation of the anchor and the sibling affect supportive behavior. A significant negative interaction effect between feelings of obligation of the siblings and the parent would indicate that if the parent has strong feelings of obligation it matters less whether siblings have strong feelings of obligation for how likely they are to support each other.

The dependent variables, instrumental support and emotional support, were dichotomized, making logistic multilevel analysis appropriate. Coefficients can be interpreted by taking the antilog (e^{β}) to determine how strongly the odds of support are increased or decreased when the independent variable increases by 1. For interpretation purposes the solidarity variables were all centered around the mean. Coefficients can be interpreted in relation to the average score on that variable. Explained variance was calculated using an extension of the McKelvey and Zavoina measure (Snijders & Bosker, 1999).

5.4 Results

Table 5.2 shows the percentages of respondents who provided different kinds of support at least once during a period of three months. The table shows that giving or receiving advice is more common than giving or receiving more instrumental types of support. Interest in the other's personal life is exchanged in the majority of all sibling dyads. Least common is help with housework. The table further shows that the anchors report receiving less support than the siblings report they gave. This conforms with the idea that people overestimate their own contribution (Furnham & Dowsett, 1993).

Table 5.2

Percentage of anchors^a who reported receiving and siblings^b who reported providing specific kinds of instrumental and emotional support at least once during the last three months

	Receiving (Anchor)		Providing (Sibling)	
	%	<i>n</i>	%	<i>n</i>
Instrumental support				
Housework	9.9	1,174	11.8	1,148
Odd jobs	21.6	1,174	39.3	1,169
Emotional support				
Advice	47.2	1,259	69.5	1,233
Interest	91.3	1,259	95.5	1,252

^aAnchors are the primary respondents which were approached first. ^bSiblings were approached only if the anchor gave permission

Table 5.3 displays the correlations of support provided and received with the solidarity variables. These correlations are on the level of the individual, so in total they are based 2,518 persons (1,259 anchors and 1,259 siblings). The support variables show a strong relationship with each other and with the quality of the sibling relationship and the frequency of contact between siblings. Furthermore, there is a clear relationship between sibling support and both support received from parents and the amount of contact with parents. More parental support and contact are related to a higher amount of sibling support. This indicates that next to influences from the siblings themselves, parent characteristics are associated with the help that is exchanged between siblings.

Table 5.3Correlations between dependent variables and measures of solidarity on the individual level ($n = 2,518$: 1,259 Anchors and 1,259 Siblings)

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Instrumental support received	-													
2. Instrumental support provided	.56	-												
3. Emotional support received	.38	.35	-											
4. Emotional support provided	.34	.39	.70	-										
5. Family obligations siblings ^a	.09	.09	.09	.09	-									
6. Family obligations parent ^a	ns	ns	-.05~	-.08	.08	-								
7. Relationship quality siblings ^b	.28	.24	.51	.42	.12	ns	-							
8. Relationship quality parent ^b	.08	.08	.18	.16	.15	ns	.38	-						
9. Value difference siblings ^c	ns	ns	.05~	.07	-.05~	ns	ns	ns	-					
10. Value difference parent-child ^c	ns	ns	.10	.09	Ns	-.06	ns	.05~	.71	-				
11. Contact frequency siblings ^d	.48	.49	.50	.48	.16	ns	.47	.18	ns	ns	-			
12. Contact frequency parent ^d	.22	.20	.20	.18	.14	ns	.18	.36	-.06	ns	.43	-		
13. Instrumental support parent	.29	.22	.23	.21	.06	-.07	.14	.26	ns	ns	.29	.42	-	
14. Emotional support parent	.18	.18	.42	.37	.19	-.08	.21	.48	ns	.05~	.22	.37	.34	-
<i>M</i>	.33	.35	.94	.93	3.69	4.00	3.16	3.33	.48	.64	7.96	9.37	1.55	2.40
<i>SD</i>	.47	.48	.24	.25	.71	.70	.74	.72	.37	.49	1.79	1.94	.58	.53
Range	0 – 1	0 – 1	0 – 1	0 – 1	1 – 5	1 – 5	1 – 4	1 – 4	0 – 2.09	0 – 3.82	3 – 14	2 – 18	1 – 3	1 – 3
<i>a</i>					.85	.87								

^aMeasured using four items referring to feelings of obligation towards the family in general. ^bMeasured with one item. ^cValue differences with regard to marriage and gender roles, measured by difference score on an 11-item scale. ^dIncludes face-to-face contact and other forms of contact (phone, e-mail, letter).

$p < .01$ for all correlations, except ~ $p < .05$ and ns = not significant ($p > .05$)

The results of the logistic multilevel analysis are presented in Table 5.4. Model 1 shows the results for instrumental support and Model 2 for emotional support. Models 1A and 2A provide the main effects for the sibling and the parent variables. Models 1B and 2B show the additional effects of the interactions of the sibling and parent variables. The different dimensions of solidarity are included in the models simultaneously to examine the results for each dimension while controlling for the others. Because the level 1 variance is a constant for binomial distributed variables, this figure is omitted from Table 5.4 (Snijders & Bosker, 1999). Overall, the results for instrumental and emotional support are very similar.

The first hypothesis stated that feelings of obligation towards family members held by both siblings and parents would increase the likelihood of support exchange between siblings. No support for this hypothesis was found, regardless of whether the feelings of obligation came from the siblings or the parent. Because there was a significant effect when the other dimensions of solidarity were omitted from the model (data not displayed in the table), the influence of family obligation norms is apparently explained by the positive association between feelings of obligation and other variables in the model, such as the quality of the relationship with sibling and parent, contact frequency with both sibling and parent, and emotional support from a parent. Table 5.3 shows that siblings who felt strongly obligated to the family had a more positive relationship with one another and had more contact. Therefore, taking account of relationship quality and contact frequency eliminates the effect of feelings of obligation. The first hypothesis was not supported by the data in the multivariate model.

Second, we hypothesized that a positive relationship between siblings and between the siblings and a parent would have a positive effect on the exchange of support between siblings. As expected, a more positive relationship with a sibling increased the likelihood of sibling support exchange, but the expected positive effect of relationship quality with the parent was not found. Instead, an opposite outcome occurred: when the relationship with a parent was poorer, more support was exchanged between siblings. Contradicting the hypothesized idea that solidarity in different family relationships reinforces provision of support across relationships, this result points in the direction of compensation. It seems that siblings compensate for a poor relationship with a parent by turning to each other.

The third hypothesis was that value differences on gender roles and marriage between siblings and between siblings and their parents would negatively affect support exchange in the sibling dyad. Results indicated that consensus on values with parents was not important for sibling support and consensus in the sibling dyad only affected instrumental support in the expected direction, but not emotional support. Thus, emotional support is exchanged regardless of value differences and Hypothesis 3 was only partially supported by these data.

Table 5.4Results of multilevel logistic regression analysis of instrumental support (Models 1, $n = 4,692$) and emotional support (Models 2, $n = 5,023$)

	Model 1A			Model 1B			Model 2A			Model 2B		
	Instrumental Support Siblings + Parent			Instrumental Support Siblings + Parent + Interaction Sibling With Parent			Emotional Support Siblings + Parent			Emotional Support Siblings + Parent + Interaction Sibling With Parent		
	<i>B</i>	<i>SE</i>	<i>exp B</i>	<i>B</i>	<i>SE</i>	<i>exp B</i>	<i>B</i>	<i>SE</i>	<i>exp B</i>	<i>B</i>	<i>SE</i>	<i>exp B</i>
Fixed effects												
Intercept	-.23	.23		-.16	.23		5.07 ***	.52		5.48 ***	.55	
Family obligations siblings ^a	-.01	.07	.99	-.00	.07	1.00	.19	.14	1.20	.21	.14	1.24
Family obligations parent ^a	.11	.08	1.12	.11	.08	1.12	.25	.16	1.29	.17	.17	1.18
Family obligations siblings x Family obligations parent				-.06	.01	.94				-.35	.19	.70
Relationship quality sibling ^b	.35 ***	.08	1.42	.36 ***	.09	1.43	1.46 ***	.16	4.32	1.47 ***	.16	4.34
Relationship quality parent ^b	-.38 ***	.09	.69	-.39 ***	.09	.68	-.37 *	.15	.69	-.62 **	.20	.54
Relationship quality sibling x Relationship quality parent				-.25 *	.10	.78				-.27	.16	.76
Value difference siblings ^c	-.35 *	.16	.70	-.35 *	.16	.71	-.46	.29	.63	-.24	.30	.79
Value difference parent-child ^c	-.20	.11	.82	-.23 *	.12	.80	-.33	.20	.72	-.25	.22	.78
Value difference siblings x Value difference parent-child				.35	.26	1.41				-.62	.45	.54
Contact frequency siblings ^d	.49 ***	.04	1.64	.51 ***	.05	1.67	.54 ***	.09	1.72	.58 ***	.09	1.79
Contact frequency parent ^d	-.07	.04	.94	-.06	.04	.95	-.13	.07	.88	-.25 **	.07	.78
Contact frequency siblings x Contact frequency parent				-.03	.02	.97				-.11 ***	.03	.89
Instrumental support from parent	.69 ***	.10	2.00	.71 ***	.10	2.03	.14	.23	1.15	.17	.23	1.18
Emotional support from parent	.52 ***	.12	1.69	.50 ***	.12	1.65	1.80 ***	.22	6.02	1.81 ***	.23	6.10
Age	-.01	.01	.99	-.01	.01	.99	-.00	.02	1.00	-.00	.02	1.00
Older ^e	.12	.09	1.13	.11	.09	1.11	.24	.18	1.27	.20	.19	1.23
Female ^f	-.36 **	.12	.67	-.40 **	.12	.67	.15	.23	1.16	.08	.23	1.08
Female x sibling female	.12	.14	1.13	.14	.14	1.16	.79 **	.30	2.20	.81 **	.37	2.25
Education ^g	-.01	.03	.99	-.01	.03	.99	.16 **	.05	1.17	.16 **	.05	1.17
Partner ^h	-.25 *	.12	.78	-.24	.12	.79	-.25	.28	.78	-.36	.29	.70
Children ⁱ	-.70 ***	.13	.50	-.69 ***	.13	.50	-.02	.26	.98	-.01	.26	.99

Table 5.4 continued

Geographical distance to sibling	-14 ***	.03	.87	-14 ***	.03	.87	.12 *	.05	1.13	.12 *	.05	1.12
Geographical distance to parent	-0.00	.02	.10	.00	.02	1.00	.03	.03	1.03	.03	.03	1.03
Number of siblings	-.09 *	.04	.91	-.09 *	.04	.91	.01	.06	1.01	.02	.06	1.02
Mother ⁱ	.01	.13	1.01	.01	.13	1.01	-.22	.26	.80	-.22	.27	.80
Parent's education ^g	-.01	.02	.10	-.01	.02	.99	.07	.05	1.07	.06	.05	1.06
Parent's partner status ^h	-.15	.14	.86	-.14	.14	.87	-.03	.25	.97	-.06	.25	.94
Receiving ^k	-.13	.09	.88	-.13	.09	.88	-.08	.16	.93	-.08	.17	.92
Sibling ^l	.15	.09	1.16	.15	.09	1.16	-.23	.16	.79	-.24	.17	.79
Random effects												
Random intercept variance	1.11	.09		1.09	.09		2.13	.18		2.14	.17	
<i>df</i>	25			29			25			29		
Pseudo-R ²	.36			.37			.48			.49		

^aMeasured using four items referring to feelings of obligation towards the family in general. ^bMeasured with one item. ^cValue differences with regard to marriage and gender roles, measured by difference score on an 11-item scale. ^dContact frequency includes face-to-face contact and other forms of contact (phone, e-mail, letter). ^e0 = younger than other sibling in dyad, 1 = older than other sibling in dyad. ^f0 = male, 1 = female. ^g1 = incomplete primary school, 10 = post-graduate education. ^h0 = no partner, 1 = presence of partner. ⁱ0 = no children, 1 = children. ^j0 = father, 1 = mother. ^k0 = providing, 1 = receiving. ^l0 = response from anchor (primary respondent), 1 = response from sibling.

* $p < .05$. ** $p < .01$. *** $p < .00$

Fourth, contact frequency between siblings and with a parent was expected to be positively related to the exchange of emotional and instrumental support. Siblings who interacted more frequently also exchanged more support, emotional as well as instrumental. Contact with the parent had no additional effect on instrumental or emotional support between siblings. The fourth hypothesis was confirmed only for sibling dyads but not for triads that include a parent.

The last dimension of solidarity addressed supportive interactions among family members. We hypothesized that when more instrumental and emotional support is received from the parent, more support is exchanged between siblings. This hypothesis was partly confirmed by the data, depending on the kind of support being considered. Receiving instrumental and emotional support from a parent increased the likelihood of giving and receiving instrumental support between siblings, but only receipt of emotional support from a parent influenced the likelihood of exchanging emotional support in the sibling dyad.

The effects of the control variables for the siblings were different for instrumental and emotional support. No significant effect of age or being the older sibling was found. Women were less likely to exchange instrumental support. They were also more likely to exchange emotional support, but only with sisters, as is shown by the significant interaction effect. More education increased the likelihood of exchanging emotional support. Presence of a partner and of children decreased the likelihood of exchanging instrumental support, but not emotional support. Geographical distance decreased the likelihood of exchanging instrumental support and increased the likelihood of exchanging emotional support. Those who have more siblings were less likely to exchange instrumental but not emotional support with a random sibling.

None of the individual characteristics of the parents affected support between siblings. Geographical distance, whether a mother or a father reported, and the parent's educational level and partner status are all unrelated to sibling support exchanges.

Even though people are likely to report that they give more than they receive (Furnham & Dowsett, 1993), this result did not appear in our analysis. The dummy variable used to control for the direction of exchange, giving versus receiving, was not significant. Likewise, there was no difference in support according to whether the information came from the anchor, who was interviewed face-to-face, or from the sibling, who completed a written questionnaire after the anchor consented.

Models 1B and 2B incorporated interaction terms to assess the joint effects of solidarity dimensions as reported by siblings and parents. These interactions had different effects on instrumental (1B) and emotional (2B) support exchanges. The interaction term for feelings of family obligation had no impact on either instrumental or emotional support exchanges, but interaction effects involving relationship quality, family value differences and contact frequency had significant effects on either instrumental support or emotional support.

After including the relationship quality interaction term, the main effects of relationship quality with the sibling and with the parent remained constant for both instrumental and

emotional support, but a negative interaction effect occurred for instrumental support. This indicated that the effect of sibling relationship quality on sibling support is weaker for those who have a more positive relationship with the parent, illustrating the role of compensation in family interactions. Conversely, when the parental relationship quality was poor, having a positive relationship with the sibling strongly influenced support exchange. Therefore, a positive relationship with the parent can compensate for a less positive relationship with a sibling, leading to similar amounts of instrumental support. This interaction effect was not found for emotional support.

Addition of the family value differences interaction term resulted in a significant main effect of parent-child value difference, indicating that, after controlling for some (although statistically insignificant) interaction between family value differences in relation to the parent and to the sibling, value differences with the parent interfered with siblings' instrumental support exchange in the expected direction.

Inclusion of the contact frequency interaction term had a significant effect on emotional support. More contact with the sibling and less contact with the parent increased the likelihood of emotional support exchange with the sibling. The positive effect of contact frequency with the sibling was especially strong for those who have little contact with their parents. Parental contact can compensate for amount of sibling contact: less contact between siblings was necessary for a comparable likelihood of support when the parent was contacted more frequently.

5.5 Conclusion and discussion

The general idea behind this study was to examine whether in families characterized as closer and higher on solidarity, more support would be exchanged between siblings. To test this expectation, different dimensions of solidarity were distinguished and variables concerning the relationship with a parent were added to measures of the sibling relationship. Not all solidarity dimensions were equally important for support between siblings, nor were they important in the same way, illustrating the complexity of family relationships. The extent to which support between adult siblings is influenced by family characteristics and interactions depends on what aspect of the family is investigated. The quality of relationships, frequency of contact, and supportive behavior of the parents were found to be most important.

Previous research has shown that a more positive relationship between siblings is associated with support exchange (e.g., Eriksen & Gerstel, 2002; White & Riedmann, 1992a). Following the general idea that cohesion in groups facilitates support (Uehara, 1990), we took the research a step further and examined the effect of the quality of the parent-child relationship on sibling support, expecting that a positive parental relationship enhances support exchange between siblings. Instead, we found a much more complex pattern of effects. Although the parental bond can be negatively related to sibling support, it is also possible that a positive relationship with a parent or a sibling can compensate for deficits in the other bond. That is, if

the relationship with a sibling is less positive, the relationship with a parent becomes more important in a positive way. Whereas Ross and Milgram (1982) found that closeness was perceived as an attribute of the family as well as of the sibling relationship, our study provides further insight into the effect of the broader family context on the sibling relationship.

More in specific, we demonstrated that sibling support depends on more than the quality of the sibling relationship. One other important condition is contact frequency. In order to provide support, contact is necessary, so contact frequency represents accessibility (Goetting, 1986) and is positively related to support exchange in sibling relationships (White & Riedmann, 1992a). Our study shows that for emotional support between siblings, lower accessibility of a parent in conjunction with higher accessibility of a sibling is influential. This indicates that siblings and parents can compensate for each other in the sense that even if one relationship within the family is less accessible, a more accessible one might foster emotional support.

The hypothesis that solidarity in families as a whole is important for support between siblings was confirmed for the dimension of functional solidarity. Parents who support their children more seem to create a family atmosphere in which helping each other is important, given that siblings help each other more when they receive more support from their parents. Note, however, that support from the parent seems to operate in a more complex fashion than would be predicted by exchange theory. Social exchange theory posits that people interact with each other in order to satisfy their needs and maximize their rewards. According to this perspective, support from one person makes support from someone else superfluous. Our study found that parental support is a reinforcing mechanism in the siblings' relationship, sustaining our idea that parental support functions as an example for the siblings and reflects a general orientation toward family interaction.

Thus, supportive interactions between siblings are to a certain extent related to the larger family context. The influence of the parent is not limited to childhood, but endures into adulthood. Our results show that the effect of the relationship with parents is additional to several, though not all, characteristics of the siblings and their relationship. They further reveal that the parental relationship interacts with the sibling relationship in specific solidarity domains, like contact frequency and relationship quality. Hence we conclude that when research is limited to only the siblings themselves, a relevant part of the explanation of sibling support is omitted. The sibling relationship does not stand on its own, but is influenced by the relationship with the parents, as is suggested by systems theory. Whereas systems theory states generally that family members influence one another without identifying how they do so (Dilworth-Anderson, Burton, & Klein, 2005; Minuchin, 1974), we provide specific evidence of family-level influence on sibling support: contact frequency and relationship quality illustrate mechanisms of compensation and parental support demonstrates reinforcement.

Not in all dimensions of solidarity the relationship to the parent was found influential for support among siblings. Behavior of siblings is partly independent of the relationship with the

parent. For instance, seeing a sibling regularly is very important for instrumental support exchange, whereas contact with a parent is not. Also, certain individual characteristics of the siblings are important, whereas none of the parental characteristics we examined are relevant for sibling support. Furthermore, some dimensions of solidarity were found not important at all; no effect was found for feelings of obligation towards the family as a whole. When controlling for the other solidarity dimensions, believing that family members should support each other does not contribute to actual support exchanges between siblings.

Several limitations of this study need to be mentioned. First, the data contained mostly positive relationships, because respondents are more likely to give permission to approach family members with whom they have positive ties. Therefore, we cannot draw conclusions about sibling interactions in very problematic family relationships from this research. Second, the data are cross-sectional. The use of longitudinal data would help to capture the waxing and waning of compensation and reinforcement dynamics over the course of adulthood. Third, the data permitted examination of only the influence of parents on the sibling relationship. We recognize that all family members influence each other and our unidirectional focus oversimplifies the multifaceted reality of family life. Furthermore, the available data could not capture other kinds of complexities that might be revealed by giving attention to specific family circumstances and the more psychological aspects of family interaction. It would be useful to include more information on family members' personality characteristics and life events such as a recent death or personal problems of a family member. Finally, the data did not allow for a detailed measurement of relationship quality. In our study it was measured with only one item that reflects general relationship quality but does not provide detail about different aspects of relationship quality, such as closeness, companionship, and affection.

Nevertheless, our results point in interesting directions for future research. The coexistence of reinforcement and compensation in sibling relationships invites further investigation. Are these mechanisms of family influence universal across relationship types? How do they come into existence and do they endure throughout adulthood? Do they break down under conditions of extreme stress or strife? In addition, further investigation of the different solidarity dimensions would be theoretically interesting. Under what family circumstances might one or another form of solidarity be especially salient? Do aspects of solidarity change over the course of individual lives and family trajectories? To what extent do solidarity dimensions reported by children affect the quality of parental relationships with their spouses or partners? How can the solidarity dimensions be extended beyond the study of dyads to examination of interaction patterns within whole families? Are there differences in the importance of these solidarity dimensions between men and women, referring to fathers and mothers as well as brothers and sisters?

This study has demonstrated the importance of including the family context in research on specific family relationships. When research isolates individuals or dyads from the family

group, important family-level processes can be missed. By including a third family tie in the analysis, we were able to study the sibling relationship within the family group and uncover some key nuances related to family influences on adult sibling support.

Chapter
Conclusions and discussion

VI

Conclusions and discussion

6.1 Introduction

This study considered exchange of support among adult siblings. Relationships with siblings are potentially the longest-lasting ties people have, while at the same time in adulthood siblings usually do not play a major role in each other's day-to-day life. We aimed at explaining sibling support by finding out under which conditions siblings provide higher levels of support.

We approached support in the sibling relationship by applying an exchange framework, assuming that sibling relationships have an element of personal selection and choice besides being influenced by other relationships in the kin network and kinship obligations (Allan, 1977). If people manage their sibling relationships as they do other personal relationships, differences in support among siblings will be the result of different opportunities and restrictions. We applied this exchange perspective in several ways; not only were we interested in assessing the opportunities and restrictions that facilitate or inhibit sibling support, we also compared it to exchange in friendships and looked at specific circumstances under which support may or may not be exchanged — for example, in cases where requests for help might be considered unwarranted. The importance of being part of the same family was analyzed, not only by comparing exchange among siblings with exchange among friends, but also by studying sibling support under different relationships with their parents.

Analyses were done using data from the Netherlands Kinship Panel Study (Dykstra et al., 2005), a large-scale dataset containing information on solidarity in family relationships, including sibling relationships. This information was provided by 8,161 individuals, a random sample of the Dutch population. This large-scale dataset made it possible to analyze the sibling relationship as such, to compare it to friends, to assess the influence of specific circumstances, such as the occurrence of problems, and to consider the family context.

In this chapter a summary is given of the major findings of the four studies reported in this thesis. Answers are formulated to the research questions presented in the introduction (6.2). The contribution of this thesis to research on sibling relationships is assessed (6.3), and limitations of our work and directions for future research are presented (6.4).

6.2. Answers to the research questions

Four research questions were formulated in the Introduction (Chapter 1), corresponding to the four empirical studies in this book (Chapters 2-5).

Research question 1:

Do similarities or do differences between siblings influence support provision?

Following social exchange theory, in Chapter 2 two contradicting expectations were formulated on support in the sibling relationship. First, following literature on homophily (Lazarsfeld & Merton, 1954; McPherson, Smith-Lovin & Cook, 2001) it was expected that similarity in certain social characteristics would enhance support among siblings, because similarity is thought to promote attraction and liking. Second, given that exchange between people involves exchange of resources, having different resources was expected to lead to more possibilities for exchange (Becker, 1976, 1991).

The two predictions derived from exchange theory were related to the functional specificity model. This model, developed to explain social support among different kin relationships, proceeds from the idea that family ties are not predetermined but are developed over time. Some siblings may develop more supportive relationships than others. By focusing on similarities and differences among siblings we aimed to further develop the functional specificity model and gain insight into which subgroups of siblings are most supportive.

In Chapter 2 four support tasks were analyzed separately: help with housework, help with odd jobs, giving advice and showing interest in a sibling's personal life. Supportiveness of siblings varied for the different tasks. Results showed that help with housework was the least common (10% of the siblings provided this kind of support over a period of three months), followed by odd jobs (17%), advice (41%) and interest (75%).

Similarities and differences in gender, age, education, partner status and parental status were considered, and results showed that in sibling relationships similarity was not very important for the provision of support. This is in line with previous research on sibling relationships, which also found only limited evidence in favor of a homophily perspective (Eriksen & Gerstel, 2002; Hoyt & Babchuk, 1983; Verbakel & De Graaf, 2004). An exception to this was found for parental status among young adults aged under 36. In this age group childless dyads were found to be more supportive with odd jobs, and young parenting siblings provided advice to each other.

Other findings indicating that similarity was important did not seem to suggest that this was because it breeds attraction and liking. For instance, sisters were found to be more supportive with many tasks, but not brothers (see also Wellman & Wortley, 1990). Rather than being similar, it appears that it was being female that mattered. This special bond between sisters was found less prominently among people in middle and late adulthood (ages 36-55, and 55 and older). Apparently, later in life gender plays a less central role in terms of helping behavior among siblings.

Most support was found for the influence of differences between siblings. Differences were thought to be related to different resources, thereby promoting exchange. These differences in resources between siblings appeared to be associated with a different role in the family. For instance, older siblings were more likely to help out younger siblings with odd jobs and give them advice; this is in line with other work on the ordinal position of children, showing that older siblings are likely to take on caring responsibilities for their younger siblings (Johnson, 1982). An educational difference made the lower educated sibling show more interest in the more highly educated sibling. Interestingly, the more highly educated siblings demonstrated less interest in their lower educated siblings. We might conclude that for the lower educated siblings it is more beneficial to associate with a higher educated sibling than the other way around. One would expect that having a partner makes support from siblings less needed. This is backed by the finding that partnered siblings were least involved with each other. Furthermore, unpartnered siblings received more support in several domains, by both partnered and unpartnered siblings. These results were most consistent with the notion that different resources foster exchange rather than with exchange being most beneficial with similar others. Finally, a different parental status was found to be positively related to support in young adulthood. Among young adults, much support with odd jobs is given by a childless sibling to a parenting sibling, and among the oldest age group childless siblings give much advice to their siblings with children. This suggests that childless people seem to have a different family trajectory, with greater involvement with their siblings, and goes against the notion of childless people being “deprived” of something. Rather, the findings suggest they have more opportunities to help out their family.

In sum, siblings support each other when they have the opportunities and the resources to do so, and not so much because similarities between them foster support. Possibly the idea that similarity breeds attraction is less relevant for ascribed relationships such as that between siblings than for achieved relationships like friendships.

Research question 2:

Do opportunities and restrictions contribute differently to support exchange between siblings and friends?

The answer to research question 1 suggests that opportunities and restrictions govern support in the sibling relationship, but to what extent is this comparable to the influence of opportunities and restrictions in other close relationships? In Chapter 3 we compared the effect of several restrictions and opportunities on support exchange with friends and with siblings. The comparison to friends is based upon the notion that siblings and friends have many things in common (Connidis, 2001; Walker, Allen & Connidis, 2005), except that the sibling relationship is embedded in the family. Family relationships are characterized by normative expectations more strongly than friendships and less strongly by reciprocity (Allan, 1989). The stronger normative obligations and the embeddedness in the family leads us to expect that for siblings there is less

choice in whether or not to help than for friends. Hence we expected restrictions and resources in terms of providing support to matter less for siblings than for friends.

For both instrumental and emotional support, friends provided and received more than siblings, but for instrumental support the differences were small. Chapter 3 shows that 18% received instrumental support from a sibling and about 24% from a friend. For providing support the percentages were 21% and 27% respectively for siblings and friends. Controlled for other influences, such as the fact that siblings generally live further apart than friends, instrumental support exchange was higher in sibling relationships than in friendships. With regard to the influences on support, instrumental support exchange in the sibling relationship and in friendship were comparable. Emotional support was more common among friends than among siblings. Ninety-two percent received this kind of support from friends, compared to 76% from siblings; 90% provided emotional support to friends, 78% to siblings.

The exchange of help with housework or odd jobs in the sibling relationship and in friendship was equally governed by the gender composition of the dyad, geographic distance and relationship quality; men were more likely to provide help with these tasks, especially to women. Distance inhibited support, while relationship quality facilitated it. Contact frequency was also positively related to support in friendships and sibling relationships, but was more important for siblings than for friends. It is therefore not the case that the sibling relationship, being a family affiliation, is less subject to opportunities and restrictions for instrumental support.

For emotional support, such as giving advice or showing interest, several opportunities and restrictions mattered even more for siblings than for friends, such as having a positive relationship and seeing each other frequently. This suggests that siblings have to make a greater effort to have an emotionally supportive relationship, contrary to our expectations. Being family is not enough to create conditions under which emotional support is provided — for this an active and close relationship is important. One exception is that geographical distance was less restrictive for emotional support among siblings than it was for friends. Siblings on average live further apart than friends and appear to have found ways to be emotionally supportive over larger distances.

Emotional support requires intimacy, which is more commonly found among friends (Blieszner & Adams, 1992; Oliner, 1998). For siblings to be more emotionally supportive they have to be like friends, being emotionally close and in frequent contact with each other. The sibling relationship thus needs active input, just like friendship, and is governed by opportunities and restrictions for exchange rather than being supportive in itself, because it is part of the family.

Research question 3:

Do the occurrence and nature of problems influence sibling solidarity and conflict?

That support between siblings can be understood in terms of exchange does not mean that moral considerations do not matter. Being able to provide support does not automatically mean that support will actually be provided. There must also be a willingness to help out, which is expected to vary according to entitlement to support (Chapter 4). From other research we know that exchange is not always equal, implying that one person may benefit more than the other (Väänänen, Buunk, Kivimäki, Pentti & Vahtera, 2005), and this can be perceived as just (Bylsma, Major & Cozzarelli, 1995; Major, 1994) or can lead to experiences of unfairness. This is expected to be relevant for siblings as well. We expected siblings not to provide unconditional support, but for it to be related to the circumstances, or history of circumstances, of both siblings.

Whether a sibling was experiencing or had experienced a problem was expected to lead to increased support provision to this sibling, but also to an increase in conflicts. Following research on justice and accountability (Folger & Cropanzano, 2001; Mikula, 2003), the nature of the problem was expected to matter: a problem resulting from reprehensible behavior may be related to a less supportive and more conflicting relationship with a sibling than a problem that is no one's fault. Other behavioral and attitudinal aspects of the relationship were included such as support received, contact frequency, relationship quality, balance and conflict, because we expected these to also be related to the kind of problem a sibling encountered.

In general, findings showed that the occurrence of problems in the lives of siblings made people provide more support to them and receive less in return. This came at a certain cost, as seen from increased conflict in these relationships. In addition, contact frequency and perceived relationship quality was lower and the relationship was less likely perceived as balanced.

We found support for the idea that how supportive siblings are is related to the nature of the problem in the sibling's life. One was more likely to help out a sibling who experienced illness than a sibling who had been in trouble with the law. Almost all problems were associated with increased conflict (for instance, 25% of people with a sibling who had problems with the law had conflicts, compared to 8% of people with siblings without problems), with the exception of physical illness. Also, when both siblings in the dyad had experienced a problem, they had less frequent contact, were less supportive and had more conflicts. Clearly there are limits to sibling solidarity.

In conclusion, siblings who experience problems receive more support, but this happens at the cost of a more strained and less active relationship. Different problems have a different impact on sibling relationships. Problems that are due to bad luck, such as illness, seem to activate the relationship, while problems such as encounters with the law, which could have been avoided had the sibling made different choices, deteriorate it. This shows that there are ethical principles underlying family solidarity. If problems occur that can be perceived as being self-

inflicted even the family is reluctant to help out, regardless of whether they have the resources to do so.

Research question 4:

Does solidarity in the relationship with parents influence support exchange among siblings?

The answers to the first three research questions shed light on support exchange in the sibling relationship as an independent bond. It shows that a supportive relationship among siblings has to be developed and is not a given. Yet, we argue that it is important to go beyond the sibling dyad and include the family context. Support among siblings should be considered as a family process. To investigate the sibling relationship as a family relationship, in Chapter 5 we examined the interrelatedness of solidarity in the parent-adult child relationship and the sibling relationship. We followed the theoretical argument that group cohesion facilitates support, because in close groups the costs of providing support are lower as a result of enhanced communication and flow of goods (Uehara, 1990). Furthermore, the normative obligation towards family members increases the costs of refraining from helping a sibling.

We formulated the expectation that high levels of solidarity within the parent-child relationship would be positively related to sibling support as high solidarity in parent-child relationships points at more cohesion within the family. The expectation was that this would not only be a direct effect, but that the relationship with the parent would influence how strongly other expressions of solidarity in the sibling relationship would affect sibling support as well. Solidarity in both the sibling relationship and the parent-child relationship was incorporated as stronger feelings of obligation toward the family, higher relationship quality, smaller differences in values and a higher frequency of contact. Support that siblings received from their parents was also included.

Results showed that the relationship with the parent was related to sibling support exchange in a more complex way than was hypothesized. Where we expected that higher levels of solidarity in the relationship with parents would reinforce the sibling relationship by making siblings more supportive toward each other, we found effects that seemed contradictory. Siblings were reinforced by as well as substituted for the relationship with the parent, depending on what aspect of the parent-child relationship was considered. Support received from a parent reinforced sibling support; the more support siblings received from their parents, the more they exchanged with each other. Compensating mechanisms were found when relationship quality and contact frequency were considered. Having a less positive relationship with a parent made sibling support more likely, and made the quality of the sibling relationship more important for instrumental support. Further, we found that a higher contact frequency with the parent made contact frequency with siblings less important for emotional support exchange. These two contradicting mechanisms were found to be working at the same time, but for different solidarity measures.

From this we can conclude that siblings may choose the content of their relationship only to a certain extent, as it is influenced by the family as well and in different ways. Even when siblings have less contact, they will still be more supportive if the relationship with the parent is very active. Also, parents function as an example, creating a more supportive family context, associated with more mutual support among siblings.

6.3 Contributions to sibling research

Our study has advanced sibling research in several ways. This section addresses the ways in which this research has contributed to knowledge about the sibling relationship and its place in the family, as well as the merits that follow from our theoretical as well as methodological approach.

First, this study sustains previous findings that siblings play an active, though not very prominent, part in each other's lives (Hoyt & Babchuk, 1983; McGlone, Park & Roberts, 1999; Wellman & Wortley, 1989). Even though siblings have a long shared history, and have a relationship that is difficult to end because of the blood tie and the embeddedness in the family network, they are not major support providers to each other. While siblings start out in the "inner ring" of most central relationships of people's networks, after leaving the parental home they gradually move to the "outer ring", where they play a smaller part in each other's lives than parents, children and partners (Rossi & Rossi, 1990; White & Riedmann, 1992a). Nevertheless, even though for most people siblings do not provide the most supportive ties, the amount of support they exchange is by no means dismissible.

Applying an exchange framework to the sibling relationship has demonstrated that support in this relationship is governed by principles similar to those of other close relationships, such as resources and restrictions. People may be willing to help out a sibling, but if this is difficult as a result of something like geographical distance, they are less likely to do so. In this sense, siblings are comparable to friends. Apparently, being related is not enough; it is what people do with their siblings that counts.

Advancement is made by further developing the functional specificity model of social support. According to this model, specific tasks are not reserved for specific relationships, but the unique nature of a relationship influences support provision. Sibling relationships are negotiated differently by different groups of persons, for instance when it comes to gender, partner status or parental status (Campbell, Connidis & Davies, 1999). This leads to siblings performing different functions, depending on the characteristics of the individuals involved. Approaching social support in this manner emphasizes choice among specific ties and the development of supportive relationships over time, rather than viewing it as predetermined by the given structure of the network. Our focus on the importance of similarities and differences between siblings is an elaboration of the functional specificity model. We have identified conditions under which siblings are more supportive.

Another contribution to sibling research is that ethical considerations regarding helping a sibling in trouble were included. Assuming that supportive behavior among siblings is a form of exchange where individuals make rational cost-benefit calculations does not mean that norms do not matter at all here. Moral considerations related to who is entitled to support are important. The general pattern is that people give relatively much support to and receive relatively little support from siblings who experienced problems. But the type of problem is important as well for what is regarded as fair exchange: one is more likely to help out when siblings are confronted with problems that are not their own fault. Our findings indicate predominantly positive interactions with siblings who have experienced illness and negative ones with siblings who have been in trouble with the law.

The ethical considerations related to sibling support give insight into the family as a source of social capital. Since the sibling tie is likely to be the only family relationship that is present throughout almost the entire life course, it is important to realize that siblings are not unconditionally supportive. From our study of problems and sibling support we conclude that the family in many cases will be there in times of need, but there are moral limits, depending on why help is needed. The family is a major source of social capital (Edwards, 2004; Furstenberg, 2005) and siblings represent part of it. Yet, our study suggests that not everyone has equal access to it; there appear to be moral rules as to who is entitled to support.

Contrary to previous research, which has tended to examine sibling relationships in relative isolation, we explicitly acknowledged that siblings are part of a larger family. This focus has led to new insights. Sibling support is not only influenced by the siblings themselves, but is related to other family relationships. Family relationships intertwine in complex ways, which is nicely shown by investigating the sibling bond in relation to the bond with a parent. Families are not just the sum of different family relationships; these relationships reinforce each other and substitute for each other. On the one hand, siblings support each other when parents are less available in terms of contact and when the parental relationship is less good. On the other hand, more support is exchanged among siblings when more support is received by the parents.

How the sibling relationship is connected to the relationship with a parent provides insight into how the family functions. Previous research has reported on the relative importance of different family ties for support (Felling, Fiselier & Van der Poel, 1991; McGlone et al., 1999) and intimacy (Hoyt & Babchuk, 1983), but how family relationships are connected is less extensively explored. Some evidence suggests the importance of what happens in other relationships for specific family ties; a study by Agree, Biddlecom, Valente and Chang (2001) on support exchange between parents and all their children shows that exchange not only takes place in dyads but that resources may be received from one child and given to another, suggesting redistributive transfer patterns in families. Our study adds to this by showing that support among siblings too is influenced by the relationship with the parent.

The way in which we examined sibling support has proven to be useful. Firstly, we investigated solidarity among siblings by examining actual behavior. To study the actual behavior of siblings instead of attitudes sheds light on what it actually means in terms of costs and benefits to have a sibling. People in general report that they are likely to turn to a sibling in times of need and that they are also willing to help them out (White & Riedmann, 1992a). Admittedly, suggesting that people who have siblings have a source of emergency support is an interesting finding; it becomes especially informative to find out when this willingness to help is actually put into action — after all, this is when sibling solidarity really matters.

Secondly, we looked at giving as well as receiving support, from the perspective of one person in the dyad as well as from both. This gives a broader perspective on support than solely focusing on either giving or receiving according to one person. Overall, siblings tend to report that they provide more support to each other than they receive. This is in line with research demonstrating that people generally overestimate their own contribution (Furnham & Dowsett, 1993). This was not only found when only one person in the dyad was included: when a comparison was made between what people report receiving from their siblings and what these siblings report they gave, the finding is sustained. This difference disappears nonetheless in multivariate analyses. The investigation of giving and receiving simultaneously showed that whether a sibling reported on giving or on receiving support did not differ significantly when controlled for other features, such as demographic characteristics and solidary behavior and attitudes. Further, examining giving and receiving support separately has demonstrated that, with a few exceptions, both were found to be influenced by the same factors — that what enhances giving also enhances receiving.

Finally, new ways of analyzing the sibling relationship made it possible to address new questions. By applying multilevel methods we were able to address questions that cannot be answered adequately with more “traditional” methods of analysis (Kenny, Mannetti, Pierro, Livi & Kashy, 2002; Snijders & Bosker, 1999). Multilevel models are suitable for analyzing relationships nested in individuals (Van Duijn, Van Busschbach & Snijders, 1999). This made it possible to compare friendships and sibling relationships of individuals directly in one model without having to estimate separate models for siblings and friends, while dealing with the nonindependence of the relationships within individuals. In addition, multilevel analysis is suitable for analyzing relational data, where the dependent variable is an attribute of the dyadic relation (Snijders, 1994). This made it possible to look directly at exchange of support (i.e. giving and receiving support according to both members of the dyad) within the dyad without estimating separate models for giving and receiving support. It also allowed inclusion of both members of the dyad simultaneously as well as their relationship with a parent and the family the siblings are part of, which is not possible with more traditional methods of analysis such as linear regression.

6.4 Limitations and directions for future research

A first limitation to our research is that we proceeded from the assumption that similar, equivalent exchanges are made. For example, it is not unlikely that instrumental assistance is exchanged for emotional aid. By treating emotional and instrumental support as two distinct categories, we have not given much attention to their influence on each other.

A second limitation is the lack of attention for the history of the sibling relationship. The relationship siblings have in the present is of course largely the result of how their relationship evolved in the past (Ross & Milgram, 1982). Sibling characteristics that facilitate the development of a close bond during childhood were included, such as gender similarity and closeness in age (Ross & Milgram, 1982), but more insight into how the history of the sibling relationship influences its present content would be useful.

Third, cross-sectional data were used to gain insight into sibling support. Caution is needed when drawing conclusions on causal relations based on data at only one point in time. Theoretical considerations led us to assume causal relations, such as relationship quality leading to more support exchange. To test this, longitudinal data would of course be necessary. After all, a highly supportive relationship will probably be evaluated as positive, reversing the causal order. The second wave of the NKPS data collection is scheduled to be completed in 2007. In the near future, longitudinal analyses can be performed to test the causal relations more directly.

Another limitation is that we focused on social determinants of sibling support, whereas the influence of biological factors cannot be excluded. There has been no explicit attention for the biological aspect of sibling support. No conclusions can be drawn on the extent to which sibling support is the result of genetic relatedness. This study did not allow us to distinguish between genetic inheritance and shared environment, as is done in behavioral genetic models (Freese, Li & Wade, 2003; Nielsen, 2006). The inclusion of half siblings, step siblings and adopted siblings is a possibility for distinguishing between genetic relatedness and shared environment of siblings, but this would require more information on the history of the sibling relationship, since such siblings not only differ from full biological siblings genetically, they are also less likely to have the same shared environment (Jankowiak & Diderich, 2000).

Future research should move beyond the sibling dyad and focus more on how the sibling relationship is related to family cohesion. Knowledge on the sibling relationship will become more valuable to the field of family research in general by placing the sibling relationship in the context of the family. This can be attained in several ways — one is by investigating sibling groups rather than single sibling dyads. Most research on sibling relationships includes only one dyad (Bush & Ehrenberg, 2003; Lee, Mancini & Maxwell, 1990) or generalizes over all available siblings, generating one averaged measure for all siblings (Connidis, 1989; Weaver, Coleman & Ganong, 2003). Including only one dyad per family does not do justice to the dynamics of sibling groups. The analysis of sibling groups will shed light into the interrelatedness of siblings and their parents and into family dynamics in general. For instance, processes of reinforcement and compensation that were found for the siblings in relation to a parent may be present among the

siblings too. A strong connection with one sibling may facilitate support to others one is less close to, or more support from one sibling may enhance support among other siblings.

Another way to take a broader perspective other than only the sibling dyad is to include the relationship with siblings-in-law. Previous studies show that getting along with a sibling-in-law is important for a positive sibling relationship (Floyd & Morr, 2003; Rosenberg & Anspach, 1973). Given that the tie to one's partner is central in people's lives, it should be included when studying the sibling relationship. In our study the presence of a partner was included, but because there was no information available on the sibling-in-law relationship, this could not be done in a more elaborate way. Future research should address this relationship in more detail.

Advancement can also be made by investigating the importance of the sibling relationship for the quality of ties with extended family members, such as those between aunts, uncles, nephews, nieces and cousins. It is plausible that these more distant family ties are active mainly by virtue of active sibling relationships. Therefore, the quality of the sibling relationship is likely to influence the extent to which one can count on and feel close to more distant relatives. Some evidence on uncles and nephews supports this view (Milardo, 2005), and further investigation on this subject is needed.

Contemporary family life is becoming increasingly complex. Progress can be made by addressing this complexity, by paying attention to step siblings and half siblings. As a result of growing divorce and remarriage rates such siblings are becoming more common, and knowledge on these relationships is limited (White & Riedmann, 1992b). Notwithstanding these developments, at present the number of step- and half-family members in the lives of the Dutch is modest, as a result of the relatively low divorce rates in the Netherlands compared to other countries (Dykstra & Komter, forthcoming). The number of step siblings and half siblings in the NKPS was thus low, therefore our research dealt with full biological siblings only.

Because support exchange among siblings can be expected to vary among ethnic minorities and the native Dutch, future research should also address cultural differences. Certain ethnic minorities differ in familism values and kinship organization, which leads to other positions of siblings in the family and is often related to more obligatory relationships (Arnett, 1995; Johnson, 1982; McHale, Updegraff, Shanahan, Crouter & Killoren, 2005). Differences in intergenerational solidarity among migrant groups have been studied (Lee & Aytac, 1998; Schans & Komter, 2006), but much less is known on intragenerational solidarity in different ethnic groups.

Solidarity entails more than the support tasks analyzed in this study.¹ Other behavior reflects solidarity as well. For instance, the dataset did not contain information on discussing personal problems or personal care. A valuable addition would be to study how siblings spend time together, or what joint activities they engage in. This would provide much information on the content of their relationship, and would more strongly reflect the element of choice and the extent to which they have a "friend-like" relationship. Siblings may not be major support

providers, but may turn to each other for companionship more often than to other family relationships (Connidis & Davies, 1990). In addition, solidarity is also reflected by the joint contribution to the common good, such as coordinating care for aging parents or forgiveness situations.

Finally, the main starting point of our research was that support is in essence a good thing. Having people in one's social network to help you out with all kinds of tasks can be considered a resource. But there is another side to support: it may seem beneficial to receive it, but receiving too much support is related to feelings of loss of autonomy and less positive mood (Silverstein, Chen & Heller, 1996). Hence receiving a lot of support also produces an obligation to reciprocate (Coleman, 1990). In addition, although relatives may be willing to provide support this may be accompanied by negative feelings (Connidis & McMullin, 2002). More attention is needed for this other side of solidarity. We addressed the issue by looking at conflicts in sibling relationships. Results suggest that solidarity coexists with conflict, and that there are limits to sibling solidarity. What is especially striking is the finding that several factors which positively influence support, contact and relationship quality are also positively related to conflict (e.g. being female and younger). This suggests that ambivalence is a facet of sibling relationships, just as is suggested for all family relationships (Connidis & McMullin, 2002). Future research should address ambivalence in the sibling relationship and the conditions under which siblings turn away from the family. This study has made a first attempt in that direction.

Notes

¹ The dataset also contained information on financial assistance and childcare. Financial assistance was very uncommon among siblings (about 1.7% had provided financial assistance to a sibling, mostly longer than three months ago and generally concerning payments of under 500 euros). Questions on childcare only pertained to receiving childcare and not providing it to a sibling, and were therefore not included.

Samenvatting (summary in Dutch)

Van alle persoonlijke relaties is die met een broer of zus potentieel het langstdurend. De meerderheid van de Nederlandse bevolking kent de relatie met een broer of zus uit eigen ervaring, en het overgrote deel heeft een positieve band met hen. In dit boek staat solidariteit tussen broers en zussen centraal. Solidariteit in andere familierelaties, met name in de ouder-kind relatie is uitgebreid onderwerp van studie geweest, maar veel minder is bekend over solidariteit tussen broers en zussen. Toch zijn er een aantal redenen waarom het juist interessant is om solidariteit tussen broers en zussen te onderzoeken. Dit is ten eerste interessant, omdat solidariteit in deze relatie niet evident is. Naast dat ze deel uitmaken van dezelfde familie, en daardoor een lange gedeelde geschiedenis en toekomst hebben, kennen broers en zussen weinig onderlinge afhankelijkheden. Doorgaans verlaten ze het ouderlijk huis voor opleiding en werk en stichten ze hun eigen gezin, waarin ze volledig onafhankelijk zijn van hun broers en zussen. Het bestuderen van solidariteit tussen broers en zussen geeft inzicht in waarom mensen zich solidair gedragen, zelfs bij afwezigheid van afhankelijkheden. Ten tweede leert het bestuderen van de broer/zus relatie ons meer over continuïteit in de familie. Met het groeiend aantal echtscheidingen en door hertrouw is de familieconstellatie steeds complexer geworden. Broers en zussen bieden continuïteit in deze onzekere en veranderende familieomstandigheden. Ten derde geeft de studie van solidariteit tussen broers en zussen inzicht in bredere familiebanden. Nadat broers en zussen het ouderlijk huis hebben verlaten en een eigen gezin krijgen maken ze niet langer deel uit van hetzelfde kerngezin, maar spelen nog wel een rol in elkaars leven. De studie van solidariteit tussen broers en zussen in de volwassenheid geeft inzicht in solidariteit in familierelaties buiten het huishouden.

In onderhavig onderzoek is solidariteit onderzocht door naar steunverlening te kijken. Het bestuderen van solidariteit door te kijken naar gedrag geeft inzicht in wat het daadwerkelijk oplevert om een broer of een zus te hebben. Wij gaan uit van de assumptie dat individuen rationele actoren zijn die de mogelijkheid bezitten om te kiezen tussen alternatieven. Dit betekent dat wij veronderstellen dat mensen ook hun relaties kiezen. Een broer of zus mag een gegeven relatie zijn, er is keuze in het vormgeven van de inhoud van de relatie. De centrale vraag is:

Onder welke condities steunen broers en zussen elkaar?

Er wordt onderscheid gemaakt tussen emotionele en instrumentele steun. Emotionele steun heeft betrekking op het geven van steun die erop is gericht dat een persoon zich geborgen en geliefd voelt. Onder instrumentele steun wordt die steun verstaan die gegeven wordt om de ander te helpen bij het vervullen van praktische taken. Emotionele steun is onderzocht door te kijken naar het geven van advies en het tonen van interesse in het persoonlijke leven van de ander.

Instrumentele steun is gemeten door te kijken naar hulp met het huishouden en hulp met andere praktische zaken (zoals het lenen van spullen, klusjes in huis en dergelijke).

Steunverlening tussen broers en zussen is benaderd vanuit het ruilperspectief. Dit perspectief gaat ervan uit dat sociaal gedrag kan worden gezien als een vorm van ruil. Mensen ruilen met elkaar omdat dit wat oplevert, in de vorm van materiele opbrengsten zoals geld, of immateriële opbrengsten zoals een gunst of waardering. Het idee van ruil is in lijn met de rationele keuzetheorie, in de zin dat in een wereld van schaarste mensen een keuze moeten maken tussen verschillende alternatieven en zij altijd datgene kiezen waarvan de kosten het laagst zijn en de opbrengsten het hoogst.

Om opbrengsten te maximaliseren is samenwerking met anderen noodzakelijk. Iets ontvangen van een ander levert direct iets op, maar gaat gepaard met de verplichting om iets terug te doen. Mensen ontwikkelen dus duurzame relaties met elkaar door wederzijds in elkaar te investeren. Sommige relaties leveren meer op dan andere. Naarmate de kosten hoger zijn is het minder winstgevend om een dergelijke relatie aan te houden. Echter, een tijdelijk verlies is acceptabel in het geval van een langdurige over het geheel genomen winstgevende relatie.

Er kan onderscheid worden gemaakt tussen economische en sociale ruil. Economische ruil richt zich vooral op de uitkomsten van de ruil. Sociale ruil daarentegen houdt zich ook bezig met de sociale regels die aan de ruil ten grondslag liggen en de complexe sociale situatie waarin de ruil plaatsvindt. Zowel sociale als economische ruil komen aan bod in dit onderzoek. Net als andere relaties kunnen ook familierelaties worden beschouwd als ruilrelaties. Ook broers en zussen worden verondersteld in hun relatie kosten-baten afwegingen te maken. Met een dergelijke benadering wordt de broer/zus relatie onderzocht als een relatie waarin betrokkenen actief keuzes maken in plaats van een relatie die door de structuur van de familie of bestaande normen al vast zou liggen.

In vier empirische hoofdstukken wordt getracht een antwoord te vinden op de centrale vraag met behulp van data afkomstig van de Netherlands Kinship Panel Study (NKPS). De NKPS is een grootschalig onderzoek naar solidariteit in familierelaties waarbij 8,161 Nederlanders zijn geïnterviewd. Hiernaast heeft een deel van de familieleden van deze respondenten vragenlijsten ingevuld, waaronder 2,731 broers en zussen en 2,108 ouders. Gegevens afkomstig van de respondenten, de broers en zussen en de ouders zijn gebruikt in dit boek.

In hoofdstuk 2 worden twee algemene verwachtingen over steun tussen broers en zussen afgeleid uit het ruilperspectief. De eerste verwachting is afkomstig uit de sociale psychologie en stelt dat ruil bevredigender is, en daardoor meer oplevert, tussen mensen die op elkaar lijken. Ruilen met mensen die verschillen brengt hogere kosten met zich mee omdat men elkaar minder goed begrijpt of zich minder kan inleven in de andere persoon. De tweede verwachting komt voort uit

de economie, en is gebaseerd op de uitkomsten van de ruil en niet zozeer het ruilproces op zich. Hier wordt verwacht dat de hoogste opbrengsten behaald kunnen worden uit ruil tussen mensen die juist van elkaar verschillen, omdat er dan verschillende zaken tegen elkaar geruild kunnen worden.

Overeenkomsten en verschillen in geslacht, leeftijd, opleiding, partner status en de aan- of afwezigheid van kinderen is onderzocht onder 7,126 personen en hun (willekeurig gekozen) broer of zus. Het geven van hulp bij verschillende taken is onderzocht: hulp bij huishoudelijk werk, hulp bij andere praktische zaken, het geven van advies en het tonen van interesse. Bovendien is er onderscheid gemaakt in drie verschillende leeftijdsgroepen om het belang van overeenkomsten en verschillen in verschillende fases van de levensloop te bekijken.

Uit de resultaten blijkt dat over het geheel genomen overeenkomsten tussen broers en zussen weinig samenhang vertonen met de hoeveelheid steun die wordt verleend. Een uitzondering hierop vormt de bevinding dat jongvolwassen broers en zussen (onder de 36 jaar) die beiden kinderen hebben elkaar meer advies geven dan broers en zussen waarvan slechts één van beide kinderen heeft. Kinderloze broers en zussen in deze leeftijdsgroep bleken elkaar meer te helpen met praktische zaken. De meeste ondersteuning is gevonden voor het belang van verschillen in broer/zus relaties. Verschillen in leeftijd of in de aanwezigheid van kinderen bijvoorbeeld lijken samen te hangen met een andere rol in de familie, waarbij oudere broers of zussen hun jongere broers en zussen meer advies geven en helpen met praktische zaken. Kinderloze mensen zijn meer betrokken bij hun broers en zussen dan mensen met kinderen, onafhankelijk van het feit of deze broers en zussen ook kinderloos zijn of niet. Alleenstaande mensen ontvangen meer steun van zowel alleenstaande broers en zussen als van getrouwde of samenwonende broers en zussen. Hoger opgeleide mensen lijken zich echter af te keren van hun lager opgeleide broers en zussen.

Uit deze studie blijkt dat broers en zussen elkaar vooral steunen als ze de mogelijkheden ervoor hebben, bijvoorbeeld wanneer ze kinderloos zijn, en wanneer er hulpbronnen aanwezig zijn, zoals bijvoorbeeld een partner terwijl de broer of zus partnerloos is. Afwezigheid van een partner of van kinderen zorgt daarentegen voor een andere rol in de familie, waarbij er meer ruimte is voor de relatie met broers en zussen.

Een andere wijze van het benaderen van sociale steun tussen broers en zussen vanuit de sociale ruiltheorie is gekozen in hoofdstuk 3. In dit hoofdstuk is een vergelijking gemaakt tussen steunuitwisseling onder broers en zussen en steunuitwisseling onder vrienden. Wanneer steunverlening tussen broers en zussen wordt opgevat als een vorm van ruil tussen partners, dan kan worden verwacht dat steunverlening in de broer/zus relatie vergelijkbaar is met steunverlening in andere relaties. De keuze voor een vergelijking met vrienden komt voort uit de overeenkomsten die deze relatie vertoont met de broer/zus relatie: beide relaties zijn horizontaal van aard, met een nadruk op kameraadschap en een aspect van vrije keuze.

Belangrijke kenmerken die van invloed zijn op steunuitwisseling zijn de sexe-samenstelling van de relatie, geografische nabijheid, kwaliteit van de relatie en contactfrequentie. Wanneer de broer/zus relatie vergelijkbaar is met andere persoonlijke relaties kan worden verwacht dat de invloed van deze factoren in beide relaties even sterk zal zijn. Echter, de verwachting bij deze studie was dat de invloed van deze kenmerken minder sterk zou zijn bij broers en zussen dan bij vrienden om een tweetal redenen. Ten eerste maakt de relatie met een broer of zus deel uit van de familie, doorgaans een hecht netwerk en daardoor een context waarin gevoelens van verplichting sterker zullen zijn. Bovendien zijn er maatschappelijke normen om familie bij te staan. Het niet helpen van een broer of zus gaat daardoor gepaard met meer kosten dan het niet helpen van een vriend of vriendin. Vergeleken met vrienden is er simpelweg minder keuzevrijheid in het al dan niet helpen van familie, waardoor de invloed van andere factoren kleiner wordt. Ten tweede zijn familierelaties gegeven relaties van lange duur en hebben daardoor een grotere waarschijnlijkheid dat ze problemen of conflicten overleven, terwijl vrienden een meer onafhankelijke relatie hebben die sterker is gebaseerd op reciprociteit. Hierdoor kan worden verwacht dat beperkingen sterker van invloed zijn op steunverlening bij vrienden, omdat ze sterker gebaseerd zijn op een directe kosten-baten afweging om de reciprociteit te behouden.

De invloed van de sexe-samenstelling van de relatie, geografische nabijheid, kwaliteit van de relatie en contactfrequentie op het geven en ontvangen van instrumentele steun (hulp bij huishoudelijk werk en andere praktische zaken) en emotionele steun (geven van advies en het tonen van interesse) is onderzocht bij broers en zussen en bij vrienden. Informatie is gebruikt van 6,289 individuen over hun relatie met een vriend en met een broer of zus. In de analyse is getest of de genoemde kenmerken even sterk van invloed zijn op steun aan en van broers en zussen als aan en van vrienden.

We vinden weinig ondersteuning voor onze verwachtingen bij de analyse. Instrumentele steun tussen broers en zussen is alleen sterker gerelateerd aan contact frequentie dan vrienden, meer contact leidt bij broers en zussen tot een grotere toename in instrumentele hulp dan bij vrienden. De overige factoren verschilden niet in hun invloed op instrumentele steun aan broers en zussen en aan vrienden. Bij emotionele steun blijken er meer verschillen te bestaan, echter niet altijd in de voorspelde richting. Zoals verwacht is afstand minder beperkend voor broers en zussen dan voor vrienden. De kwaliteit van de relatie is echter belangrijker voor broers en zussen dan voor vrienden, als ook de frequentie van contact.

Deze bevindingen suggereren dat het niet zo is dat broers en zussen elkaar met name steunen omdat ze familie zijn, maar dat er aan een relatie waarin veel steun wordt uitgewisseld gewerkt moet worden. Een uitzondering hierop is de bevinding dat geografische afstand minder belemmerend is voor emotionele steun tussen broers en zussen dan tussen vrienden. Broers en zussen kunnen deze taken blijkbaar makkelijker vervullen over grotere afstanden.

Over het geheel genomen kan worden geconcludeerd dat instrumentele steun even sterk gerelateerd is aan sexe-samenstelling, afstand en relatiekwaliteit in broer/zus relaties en in

vriendschappen. Voor emotionele steun is een zekere intimiteit nodig die gemiddeld genomen sterker aanwezig is onder vrienden dan onder broers en zussen. Broers en zussen die meer op vrienden lijken in de zin van een kwalitatief betere relatie en regelmatig contact steunen elkaar meer op emotioneel gebied.

Bij de benadering van het uitwisselen van steun als een ruilrelatie is het van belang om niet alleen oog te hebben voor beperkingen en hulpbronnen die het geven van hulp beïnvloeden, maar ook voor de perceptie van eerlijkheid van de ruil. De uitkomst van ruil hoeft niet gelijk te zijn voor beide partijen om een eerlijke ruil te zijn; mensen kunnen een scheve verdeling als rechtvaardig beoordelen en meer geven dan ontvangen, bijvoorbeeld doordat de ander in nood verkeert. In hoofdstuk 4 wordt gekeken naar hulp aan broers en zussen in relatie tot problemen waar ze mee te maken hebben, of mee te maken hebben gehad. Wordt een broer of zus altijd geholpen onafhankelijk van de situatie waarin hij of zij zich bevindt? De algemene verwachting is dat mensen meer hulp bieden aan broers en zussen die problemen hebben of hebben gehad, dan aan broers en zussen zonder problemen, omdat in het eerste geval meer hulp nodig zal zijn. Wel zullen er ook meer conflicten zijn met broers en zussen die problemen hebben, zo is de verwachting, omdat de scheve verdeling van geven en nemen met spanningen gepaard zal gaan. Ook de aard van het probleem wordt verwacht van invloed te zijn. Minder steun zal worden gegeven aan broers en zussen met problemen waar ze zelf schuldig aan kunnen worden bevonden (bijvoorbeeld problemen met de wet) dan aan broers en zussen die problemen ervaren hebben waarop ze geen invloed hebben (bijvoorbeeld ziekte). Ook wordt verwacht dat verantwoordelijkheid van de broer of zus voor zijn of haar probleem gepaard gaat met meer conflicten.

De analyse maakt gebruik van gegevens van 8,161 individuen en hun rapportage over de relatie met een willekeurige broer of zus en eventuele problemen waar deze broer of zus mee te maken heeft gehad. Ook is er gekeken naar de relatie tussen problemen en contactfrequentie, relatiekwaliteit en de perceptie van balans in de relatie.

Resultaten laten zien dat mensen inderdaad meer steun geven aan broers en zussen met problemen en minder steun terugkrijgen. Ook hebben mensen meer conflicten met deze broers en zussen dan met broers en zussen die geen problemen ervaren hebben. Bovendien werd de relatie als minder positief ervaren, was er minder contact met deze broer of zus en werd de relatie vaker als uit balans ervaren. Het verwachte onderscheid tussen problemen waarvoor een broer of zus zelf verantwoordelijk was en problemen waar geen invloed op kan worden uitgeoefend is tot op zekere hoogte bevestigd door de data. Met name een lichamelijke ziekte van een broer of zus heeft een positief effect op de relatie: men geeft meer, maar vindt de relatie niet uit balans en is er zelfs positiever over. Ook is er geen associatie met de mate van conflict. Dit geldt echter niet voor psychische ziekten, waar het beeld negatiever is, met meer conflicten en een lager gewaardeerde relatie die sterker uit balans is. Waarschijnlijk is het lastiger om een evenwicht te

vinden in de relatie omdat psychische klachten vaak gepaard gaan met minder sterk ontwikkelde sociale vaardigheden. Voor problemen met de wet zijn de uitkomsten ook conform de verwachting: relaties worden meer gekenmerkt door conflicten, de kwaliteit en contactfrequentie is lager en men ervaart de relatie vaker als uit balans. Overige problemen die zijn betrokken in deze studie (misbruik, verslaving, echtscheiding en financiële problemen) gingen met name gepaard met negatieve broer/zus relaties met een slechtere relatiekwaliteit en meer conflicten.

Over het algemeen is men wel bereid meer hulp te bieden aan een broer of zus in moeilijkheden, maar dit gaat doorgaans gepaard met een minder positief gewaardeerde relatie met meer conflicten. De resultaten wijzen erop dat er een moreel aspect meespeelt bij het al dan niet helpen van een broer of zus met problemen. Verantwoordelijkheid voor problemen zorgt ervoor dat iemand niet zomaar hulp hoeft te verwachten van een broer of zus.

In hoofdstuk 5 wordt steun in de broer/zus relatie in de context van de familie geplaatst. Bij de kosten-baten afweging in de broer/zus relatie zullen mensen de familiecontext meenemen. Een hechte familie maakt het verlenen van steun tussen de verschillende leden makkelijker, omdat in een hechte familie er veel onderling contact en uitwisseling is. Verder bestaan er normatieve verwachtingen dat alle familieleden bijdragen aan het collectief 'de familie' en deze verwachtingen zijn moeilijker te negeren bij hechtere families. Derhalve verwachten wij dat wanneer andere familierelaties gekenmerkt worden door meer solidariteit er ook meer steun zal worden uitgewisseld tussen broers en zussen.

In deze studie is het belang van de relatie met de ouders voor steunuitwisseling tussen broers en zussen onderzocht. De algemene verwachting is dat er meer steun wordt uitgewisseld met een broer of zus wanneer de ouders (1) sterkere gevoelens van verplichting hebben ten opzichte van familie, (2) men een positievere relatie heeft met ouders, (3) er een sterkere consensus met de ouders bestaat over normen ten aanzien van gender verhoudingen en het huwelijk, (4) er meer contact is met de ouders en (5) meer steun van hen wordt ontvangen. Ook gevoelens van verplichting ten opzichte van de familie van de broers en zussen zelf worden geacht van invloed te zijn, net als een positievere relatie met de broer of zus, een sterkere mate van consensus en meer contact.

Door het analyseren van triades van een broer/zus relatie en de relatie met een vader of moeder is geprobeerd inzicht te krijgen in de interactie tussen de beide relaties en de effecten van de ouder/kind relatie op steunverlening tussen broers en zussen. 1,259 triades zijn in de analyse betrokken, waarbij informatie afkomstig van alle drie de individuen in de triade is gebruikt.

Resultaten laten zien dat de relatie met de ouders op een complexere wijze gerelateerd is aan steunverlening tussen broers en zussen dan was verwacht. In overeenstemming met de verwachting vinden we inderdaad dat broers en zussen die meer steun ontvangen van hun ouders ook onderling meer steun uitwisselen. Maar de relatie met de ouder blijkt niet alleen een versterkend effect te hebben; ook een mechanisme van compensatie kwam uit de analyse naar

voren. Een slechtere relatie en minder contact met de ouders hangt positief samen met steunverlening tussen broers en zussen, wat erop duidt dat broers en zussen kunnen compenseren voor een minder 'aanwezige' ouder. Bovendien zijn er interacties gevonden: het positieve effect van contact met de broer of zus in kwestie is minder belangrijk voor emotionele steunuitwisseling, wanneer er meer contact met de ouders is. Hetzelfde effect is gevonden voor contactfrequentie en instrumentele steun; wanneer er veel contact is met de ouders, is contact met broers en zussen minder belangrijk voor steunuitwisseling.

De algemene conclusie die uit deze studie kan worden getrokken is dat de vrije keuze die broers en zussen hebben in het vormgeven van hun relatie niet onbeperkt is; ook de ouders zijn hierop van invloed. Deze invloed werkt bovendien op verschillende manieren, zowel versterkend als compenserend, en zowel direct als in interactie met kenmerken van de broer/zus relatie.

Deze studie heeft op verschillende manieren bijgedragen aan onderzoek op het terrein van broer/zus relaties en familierelaties in het algemeen. Ten eerste bevestigt deze studie het beeld dat broers en zussen een belangrijke rol spelen in elkaars leven, hoewel ze doorgaans niet prominent aanwezig zijn in het netwerk. Broers en zussen zijn over het algemeen niet de grootste steunverleners, maar de steun die tussen broers en zussen wordt uitgewisseld is zeker niet verwaarloosbaar. Bovendien spelen ze een rol gedurende de gehele levensloop, wat hun bijdrage des te belangrijker maakt.

Ten tweede is de benadering vanuit het ruilperspectief zinvol gebleken. Steunverlening tussen broers en zussen blijkt door dezelfde principes te worden beïnvloed als steunverlening in andere persoonlijke relaties. Het bestaan van familiebanden is niet genoeg om steun te garanderen, hulpbronnen en beperkingen zijn ook van belang.

Ten derde is inzicht verkregen in morele overwegingen in relatie tot steun tussen broers en zussen. Dat de relatie tussen broers en zussen kan worden gekarakteriseerd als een ruilrelatie tussen rationeel handelende individuen wil niet zeggen dat normatieve overwegingen in het geheel geen rol spelen. Morele overwegingen met betrekking tot wie er recht heeft op hulp en wie niet blijken van belang te zijn. Als er problemen zijn kunnen mensen niet zonder meer van hun broers en zussen op aan, het is van belang welk probleem er speelt. De familie kan dus een grote bron van steun zijn, maar er zijn morele voorwaarden voor toegang tot deze steun.

Ten vierde heeft het plaatsen van de broer/zus relatie in de context van de familie nieuwe inzichten opgeleverd. Naast dat broers en zussen zelf hun relatie vormgeven spelen ook ouders een belangrijke rol. Uit de studie naar het belang van de ouders voor steunverlening tussen broers en zussen blijkt dat families niet slechts de som zijn van hun leden, maar dat ze op complexe wijze elkaar versterken of elkaar compenseren. Aan de ene kant helpen broers en zussen elkaar meer als ouders minder beschikbaar zijn, aan de andere kant helpen ze elkaar meer wanneer ze ook meer hulp van hun ouders ontvangen. Dit geeft inzicht in de wijze waarop familierelaties zich tot elkaar verhouden.

Naar aanleiding van deze studie kan een aantal aanbevelingen voor toekomstig onderzoek worden geformuleerd. Allereerst zou er meer aandacht besteed moeten worden aan de geschiedenis van de relatie. Niet alleen de situatie in het heden bepaalt steunverlening tussen broers en zussen, maar ook hoe de relatie zich over de loop van de tijd ontwikkeld heeft. In het verlengde hiervan ligt de aanbeveling tot het onderzoeken van de broer/zus relatie over de tijd, in plaats van op een moment in de tijd zoals in dit onderzoek is gedaan. Dit zou het mogelijk maken om hardere uitspraken te doen over causaliteit dan met cross-sectionele data mogelijk is. Verder zou het plaatsen van de broer/zus relatie in de familiecontext verder moeten worden uitgewerkt. Te denken valt hierbij aan het bestuderen van alle broers en zussen in een familie en niet alleen een enkele relatie, het betrekken van schoonfamilie bij het onderzoek, het belang van de relatie tussen broers en zussen voor cohesie binnen de grotere familie, zoals contacten tussen neven, nichten, ooms en tantes. Ook zou het interessant zijn om meer inzicht te krijgen in de inhoud van broers en zussen door na te gaan in hoeverre en op welke wijze ze samen tijd doorbrengen. Ten slotte zou er meer aandacht moeten zijn voor ambivalentie in broer/zus relaties, door te kijken naar het bestaan van positieve zowel als negatieve gevoelens in hulprelaties tussen broers en zussen.

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Curriculum Vitae

Marieke Voorpostel was born in Ootmarsum, the Netherlands on July 25, 1975. She studied Sociology at Utrecht University of which she obtained her Master's degree in 2000. From 2000 to 2002 she worked at Regioplan, a research company in Amsterdam. In September 2002 she became a Ph.D. student at the Interuniversity Center for Social Science Theory and Methodology (ICS) at the Department of Sociology of Utrecht University, on a research resulting in this book. A research traineeship of two months was carried out at the Center for Gerontology of Virginia Polytechnic Institute and State University in Blacksburg, Virginia, early 2005. She is currently carrying out post-doctoral research at Nuffield College and the Department of Sociology of Oxford University, UK.

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