

There is more to receiving than needing: theoretical arguments and empirical explorations of crowding in and crowding out

HARALD KÜNEMUND* and MARTIN REIN**

ABSTRACT

Recent literature on intergenerational relations – although giving different explanations – suggests that the giving of money and services to children reinforces the receiving of money and services by elderly people. To explore the flow of support between the generations we present evidence about the type and intensity of the help that elderly people receive from their adult children and their families. By comparing five developed countries we examine whether the amount of family help transferred to older people is shaped by a ‘crowding out’ process, in which more generous welfare systems displace family solidarity. Taking co-residence into account the international comparison does not support the crowding out hypothesis. We then show that the giving of services by older people to their adult children increases the probability that they receive help from them. This indirectly supports the reverse hypothesis, namely that the relationship between the state and the family may be described as a process of ‘crowding in’: generous welfare systems which give resources to elderly people help to increase rather than undermine family solidarity.

KEY WORDS – intergenerational relations, welfare systems, family solidarity, exchange theory, intimacy, reciprocity.

Introduction

This paper develops an approach to the question of what impact the development of a mature welfare state has on family solidarity and on the level and pattern of giving and receiving transfers and services between aged parents and their adult children. Most of the literature suggests that this relationship is negative. One of the oldest theories in

* Institute of Sociology, Free University of Berlin.

** Department of Urban Studies and Planning, Massachusetts Institute of Technology, Boston.

the field of ageing is that modernisation is accompanied by a loss of social and economic functions of older people (Burgess 1960) and a shift in responsibility from the family to a public solidarity system. It is assumed that a strong welfare state reduces the willingness of families to provide financial support and services to their aged parents (see, for example, Kreps 1977). In this view the development of a mature welfare state which provides older people with an adequate income to live on their own may result in less family solidarity, because it substitutes public resources for those previously provided by the family. This relationship has been called the ‘crowding out’ hypothesis – the state crowds out family obligations thus eroding intergenerational solidarity (Janowitz 1976; Berger and Neuhaus 1977; Glazer 1988).

The dynamics of how an expanding state sector reshapes intergenerational relations continues to be one of the most normatively charged issues in current public policy debates. Proponents of reducing the size of the welfare state make extensive use of these arguments. In opposition to this interpretation we propose the idea of ‘crowding in’: this positively links the growth of the level of welfare society spending with the level of giving and receiving between generations. If the fact of receiving help is affected by exchange expectations and reciprocity, then it follows that the more elderly people have to give the more they can receive. What they have to give depends largely on the resources made available to them by the welfare system. The more resources they have beyond their minimum necessities for economic survival, the more scope they have for participating in reciprocal giving and receiving. If this inference is correct then we would expect to find a crowding in effect instead of a crowding out effect when comparing the pattern of giving and receiving across more and less generous welfare systems.

First we elaborate the crowding out and crowding in hypotheses by briefly reviewing the sociological literature on obligations, norms and reciprocity, and the economic literature on the motivations underlying giving and receiving between adult children and their parents. We discuss the possible impact that a change in welfare society spending might have on each of these mechanisms. We argue that both bodies of literature reinforce each other and strengthen the plausibility of the crowding in hypothesis. Next, to explore the crowding out and crowding in hypotheses, we compare the level of help given to elderly people in five countries that represent different levels of welfare spending. Since our crowding in hypothesis is built mainly on the concepts of reciprocity and exchange, we will also explore whether giving affects receiving, while controlling for the needs and resources of the recipients. Strong effects of reciprocity on the receiving of help in

each country would strengthen the plausibility of our hypothesis. Finally, we summarise our findings and draw conclusions for further research.

The crowding out hypothesis

The crowding out interpretation is applied in many different settings and is believed to provide a general description of the interaction of the state and civil society. For example, Roberts (1984) offers evidence that the public transfer system crowded out the private provision of material relief to the poor. In this case, collective altruistic behaviour declines as the state increasingly cares for the poor.¹ With respect to exchanges between generations, the crowding out hypothesis assumes that a more generous welfare system weakens family solidarity: the supply of public pensions and services for elderly people would crowd out family solidarity, because children do not need to help their parents when the state provides adequate income and services.

Empirically such effects of public on private provisions of goods and services have been studied especially with respect to the giving of help to sick, frail or disabled elderly people. An extensive literature review by Weissert *et al.* (1988) leads to the conclusion that 'informal support tended to decline with home and community care' (1988: 356). Hanley *et al.* (1991), however, draw the opposite conclusion from the same literature: that the effects of professional care on familial support for older people were more positive than negative. Many studies seem to show that formal care services supplement rather than substitute informal care (see, for example, Daatland 1990; Edelman and Hughes 1990; Chappell and Blandford 1991).

Although the argument is often found in the literature that generous welfare state spending causes a decline in family solidarity in general, empirical tests of this broader version of the crowding out hypothesis are seldom documented, since the conceptual and measurement tasks are extremely difficult. But even from a theoretical perspective the assumption is by no means self-evident.

Evidence in the sociological literature

The sociological literature on the relationship between adult children and their elderly parents mainly identifies three motives of giving: reciprocity, intimacy and norms of responsibility (Doty 1986). The *norm of reciprocity* has especially been the subject of numerous studies on

the specific exchange relationships of elderly people (for overviews, see Antonucci 1990; Antonucci and Jackson 1990; Hollstein and Bria 1996). In general, it is assumed that giving creates an obligation to reciprocate, and that the values exchanged should be broadly equivalent. The recipient may avoid this obligation either by refusing the gift or by repaying it immediately. Gouldner (1960: 178) assumes, that 'the norm of reciprocity cannot apply with full force in relations with children, old people, or those who are mentally or physically handicapped', because they are less able to reciprocate. As a result, fewer individuals will establish relations with elderly people. From this argument we may conclude that capability combined with resources enables older people to stay involved in reciprocal giving and receiving.

However, a major difference in the mechanism of reciprocity emerges when account is taken of the type of relationship between the giver and the receiver. If the relationship is more intimate and stable, as between parents and their adult children, the rules of exchange allow for reciprocity to take place over a long period of time, not as a spot transaction. The implicit rules also allow for an asymmetry between what is initially received and what is later given, and the exchange involves different types of transfers and support. Antonucci and Jackson (1990: 178ff) use the image of 'deposits' placed in a 'support bank' that can be drawn on in future times of need. In contrast to the argument of Gouldner (1960), current resources, in this view, seem to be less important in parent-child relationships. However, the actual resources available enable the parents not only to stay involved in reciprocal giving and receiving but also place them in a position to initiate an exchange. In the case of childless persons or when the children are out of reach, the exchange may take place with other relatives or on the market. Therefore, we still expect to find that resources being available to elderly people will have a positive effect on the level of giving and receiving.

On the other hand, there is no reason to assume that a generous social security system will, in general, crowd out reciprocity-oriented behaviour. Instead, the state provision of an adequate income for elderly people may result in shifts to other forms of private support (Kohli 1993; Hollstein and Bria 1996). For example, when they have enough financial resources, there is less need to provide them with private financial transfers. Therefore, with a growing level of pensions, the private transfers from the adult children would be expected to decline, while at the same time we would expect the level of private services to increase. When it is the level of concrete public services that increases, then we might expect that the family might provide more of

other forms of support. But the general outcome of this process of substitution is not necessarily less family solidarity. Furthermore, as Townsend has argued, rising standards of care provided by the public sector may result in a growing demand for help from families: ‘... the general volume of assistance may increase in both family and public sectors’ (1968: 117).

Perhaps the opposite is more nearly the case. Welfare state spending does not offset obligations that are grounded in reciprocity, but it does reduce the ‘burden’ of family relationships.² When elderly people have sufficient resources of their own, they are not forced by necessity to rely on their families. Therefore interactions focused on intimacy and closeness have the potential to develop. This effect has been recognised in the literature on co-residence and ‘intimacy at a distance’ (Rosenmayr and Köckeis 1961). At a societal level, the debate on intergenerational equity reveals a negative relationship between the level of welfare spending for ‘the elderly’ and solidarity between generations (see, for example, Preston 1984). In contrast, within the family, we assume a positive effect on intimacy and affection in intergenerational relationships. As far as *affection for the individual* explains why elderly people receive help from their adult children (Doty 1986), we do not find an argument that supports the crowding out hypothesis. If the motivation to help parents is love, why should a growing level of welfare state spending crowd out family solidarity?

At the same time, resources reinforce autonomy and self respect by placing older people in a position where they can maintain their social status by being able to give something to their children. For example, Robert Weiss argues (personal correspondence) that continued parental giving is evidence of the importance for parents that they should retain their position in the family. The proverb, ‘When the father gives to the son, God smiles, when the son gives to the father, God weeps’ captures the social significance of asymmetrical giving. These arguments lead us to expect a positive relationship between resources available to elderly people and the level of intimacy between them and their adult children. Crowding in is more plausible than crowding out.

Norms about who is responsible for providing care may also shape the transactions between generations. According to Qureshi (1990), a Western pattern takes the following form: first partners, then daughters, daughters-in-law, then sons, sons-in-law, other relatives and, at the end of this hierarchy, non-relatives. Although such a pattern may be the result of ordinary behaviour motivated for example by reciprocity, it may also be due to the power of cultural norms of

responsibility to motivate people to help their parents. This argument is also used in the more general ‘hierarchical-compensatory model’ of informal support (Cantor 1979). Such norms and patterns differ across countries. For example, the traditional living arrangement of Japanese elderly people is to live with the eldest son (Koyano 1995: 51), but co-residence in Japan has sharply declined from 87 per cent in 1960 to 61 per cent in 1990, a 10 percent decline in each decade. This change in turn affects the pattern of giving and receiving between generations (Koyano *et al.* 1994). Norms of who is responsible for taking care of elderly people may change over a longer period of time. For example, the level of resources available to elderly people may lead to a change in the overall pattern of co-residence (Lye 1996). By contrast, the general norm of reciprocity is found in primitive societies, as well as in modern economies including Japan (Akiyama *et al.* 1990). We conclude that norms of responsibility are less stable than the norms of reciprocity. It is plausible to assume that if the state widely assumes the responsibility for care over a long period of time, then the norms of family responsibility may change slowly. In this view a growing level of welfare state spending may cause a weakening of family solidarity. However, crowding out will only occur to the extent that compliance with these norms is the only motivation for supporting older people. When either reciprocity or affection for the individual are the main driving factors, crowding out will not take place.

These three factors – intimacy, cultural norms of responsibility, and reciprocity – can be conceptually separated, but in practice they operate together in shaping the individual decision to give help. Finch and Mason (1993) present one of the most interesting analyses of obligations based on studies of the relationship between adult children and aged parents. They argue that ‘norms about family obligations do get taken into account’ (1993: 28) and that the principle of reciprocity is accepted, but the outcome is indeterminate. The obligation to give help is conceptualised as a result of a ‘...process of negotiation, in which people are giving and receiving, balancing out one kind of assistance against another, maintaining an appropriate independence from each other as well as mutual interdependence’ (Finch and Mason 1993: 167). Therefore, obligations to help parents do not exist as an abstract principle of firmly established norms, but are created concretely through interaction over time. This implies that cultural norms of responsibility are less important in the individual decision process. On balance, from the sociological literature on the giving and receiving between adult children and their parents, we conclude that crowding out is less likely to occur compared with crowding in.

Evidence in the economic literature

In the economic literature, where both the processes of crowding out as well as intergenerational transactions receive a considerable amount of attention, there are two main theories of the motives of giving: altruism and exchange (Cox 1987). The altruist theory assumes a moral duty, or obligation, to provide help in situations of need. Altruism requires no further instrumental explanation. The exchange theory posits that one gives to others because one expects them to give in return. Kotlikoff and Morris (1989) offer a provocative extension of the logic of exchange theory. They propose that transfers from parents to their adult children are not a debt or an obligation, but simply a bribe. They interpret the finding that parents give money to their adult children and grandchildren as an active inducement to get their children to provide them with services. They assume that the parents would like more contact with their children than they are prepared to offer. The anticipation of a monetary gift in the form of an inter-vivo transfer is thus a crude bribe designed to get the children to respond by offering services as a direct repayment for the actual or potential monetary gift. Consistent with the logic of the strategic bequest motive (Bernheim *et al.* 1985), we might also simply assume that when the level of surplus is substantial, the children extend help in the expectation of acquiring some portion of these surplus resources. However, where such exchange expectations are in effect, it follows that the more resources that elderly people have, the more they can receive in turn.

By positing an indirect exchange motive Cox and Stark (1994) provide something of a bridge between the economic literature on altruism and exchange and the more sociological literature on norms and obligations. The basic idea behind the ‘demonstration effect’ is to identify a mechanism by which children are socialised into accepting a general normative pattern of obligation to help the elderly. Based on an American study of 3,000 persons in a national sample of families and households, Cox and Stark find that adult children who have young children are likely to visit or call their parents ten more times a year than adult children who are childless. The interpretation is that the middle generation treats their parents how they would like to be treated when they are aged. Cox and Stark assume stronger demonstration effects from visits, telephone calls and the provision of everyday services than from the giving of money, because the children can see and understand what is happening. In sum, the demonstration theory proposes another exchange effect; namely, that you do not give to the person from whom you expect the benefit. This theory focuses on

the future exchange effect of children, by inculcating in their children the norm about how elderly people should be treated so that the children will give to them when they are grown up.

From an economic perspective, the distinction of altruism and exchange is extremely important in the discussion of crowding out. In the case of purely altruistic motives, the public transfer can crowd out the private transfer, since it does not make any difference who provides the service, only that it is available. By contrast, if giving is motivated by exchange, crowding out may occur in some situations, but it would not become a general phenomena (World Bank Policy Research Report 1994: 66). The economic literature on private intergenerational transfers mainly confirms the position that pure altruism is not the dominant motive (Bernheim *et al.* 1985; Cox 1987; Cox and Rank 1992; Cox and Jakubson 1995; Schoeni 1997). Most of these authors find evidence for exchange effects and conclude that public transfers do not crowd out private transfers.³ In addition, Lampman and Smeeding (1983) showed that inter-family transfers diminished only slightly between 1935 and 1970 despite a dramatic growth of public transfer programmes during that period. But even a decrease in private financial transfers from adult children to their parents in response to growing public transfers, may be accompanied by an increase in instrumental and emotional support. Different types of help received by elderly people have to be taken into account when interpreting the relationships of public transfers and family solidarity.

Other authors find less empirical support for exchange motives. For example, Altonji *et al.* (1996) and Börsch-Supan *et al.* (1990) find only weak evidence that money transfers from elderly people to their children are an implicit payment for services that these children give to their parents. On the other hand, Altonji *et al.* (1996: 28) also find that there is a strong positive association between giving and receiving of services between parents and their adult children. This finding supports the exchange interpretation. But since these authors use cross-sectional data, the exchange that occurs over time cannot be observed.⁴ The *Asset and Health Dynamics study* demonstrates the importance of earlier transfers. Here McGarry and Schoeni ‘do not find evidence that parents provide financial assistance to their children in exchange for caregiving’ (1997: 82). In contrast, Henretta *et al.*, using the same data, find ‘substantial evidence that earlier parent-to-child financial gifts play a role in determining which child in the family will provide assistance’ (1997: 110). However, even stronger evidence for altruism would not rule out evolving commitment, obligation, and reciprocity as a result of giving. In other words, by extending the economic

question of the motivation for giving to incorporate the sociological perspectives, we can see that mutual exchange within the family occurs for many different reasons.

The crowding in hypothesis

If these inferences from theory are correct, then we would expect that family solidarity should not decline in response to a growing welfare state. We may find shifts between different types of help, but this could hardly be identified as a process of crowding out of family solidarity in general. Instead we propose a crowding in effect, namely that family solidarity increases rather than declines in response to welfare expansion. This relationship may be nonlinear. For example, in less developed welfare systems the help given to elderly people may be mainly motivated by the need of the recipient, so that an expansion of the welfare system may cause crowding out to some degree. In well-developed welfare systems, on the other hand, the help given to elderly people may be more often stimulated by intimacy, exchange expectations, and reciprocity, which will cause the reverse pattern of crowding in to appear.⁵ Even within the advanced welfare states, both processes probably occur at the same time when the wealthier receive services because they have something to return while poorer people receive transfers and services simply because they are in need. Therefore, both crowding in and crowding out may occur at the same time, depending on the biography which describes the intimacy and reciprocity of the parent-child relationship, the resources available, and the amount of services and transfers provided by the public redistribution system.

Evidence that crowding in is a conceptually important mechanism that can be analysed by comparing modern societies is provided in an empirical analysis of the saving behaviour of older people in Germany. In this context, Börsch-Supan (1992) proposes a theory of consumption constraint or consumption exhaustion of the aged parents. Analysing German data on income and consumption (*‘Einkommens- und Verbrauchsstichprobe’*), he observes, that, immediately after retiring, elderly persons increase consumption by actively engaging in hobbies, travel, and general consumption. This requires that they draw on their current income and possibly decrease their savings pool. A decrease in saving occurs for about five years, then saving remains stable, but thereafter there is clear evidence that savings increase. The results are robust since these observations were also found in other waves of this

study (Börsch-Supan and Stahl 1991; Börsch-Supan 1995). Since similar analyses in other countries like USA and Japan do not show this pattern, Börsch-Supan argues that elderly people in Germany have as much or even more money than their adult children because the German pension system is over-annuitised. The result is more income than spending. In his view the outcome of this process is an inefficient system. Adult children transfer their present earnings to elderly people in the form of a public pension, and elderly people give back their savings as a monetary gift or a bequest to their children. This anomaly arises because consumption declines with age, income from a public pension is high and protected against inflation, and savings increase. In this situation elderly people are then left with few options. What else can they do with the increased savings other than offer them to strangers or as a current gift or a reluctant bequest to their children and grandchildren?

While the increase in savings might explain why parents give money, it does not provide an adequate framework for understanding why their adult children provide services for their parents. Here, the sociological and economic arguments we reviewed help to complete the picture. Extending the Börsch-Supan argument to include our focus on the role of exchange, reciprocity and intimacy, we should expect a stronger pattern of giving and receiving in countries that have generous welfare states, where the per capita income is relatively high and older people have more resources to give than are available in less generous welfare states.

Data and methods

To explore the relationship between different levels of welfare spending and the level of support for elderly people, comparisons over a long time period using cross-sectional data are not sufficient. Apparent changes in the level of family solidarity may be caused by changes in the demography, or be due to different methodologies. Probably the best way to study crowding out and crowding in effects would be to analyse longitudinal data that also show evidence of a significant change in the welfare system between two waves of observation. To our knowledge, such data do not exist. In this article, we therefore compare countries that represent different levels of welfare spending.

The empirical basis of our study is a survey conducted for the Commonwealth Fund in the spring of 1991. To our knowledge, this is the only recent international comparative dataset with a substantial

number of cases of older persons, that includes questions on the exchange between parents and adult children. A cross-section of 4,628 people aged 65 and older was interviewed in the United States (n = 910), Canada (n = 930), the United Kingdom (n = 940), West Germany (n = 948), and Japan (n = 900). A household member aged 65 or older was asked to respond to questions about his or her life and living arrangements, daily activities, social and family contacts, work, life satisfaction, family and informal support, access to and use of health care services, and attitudes toward health services and the health system in their country.⁶ The dataset poses most of the common problems and limitations associated with secondary data analysis. We shall address these limitations throughout the discussion. But the unique advantage of this cross-national study is that it permits us to compare countries with different levels of welfare spending with respect to the extent of giving and receiving and, further, to see if there is evidence of a reciprocity effect in each country.

We first present data about the type, the level and the intensity of help given by adult children in the five countries. The survey includes questions on four types of help with the following wording:

Do your children and their families help when you are ill or when your wife/husband is ill; take care of your house; help you out with money; drive you places, such as the doctor, shopping or church often, occasionally or never?

Here we would expect to find substantial differences between the five countries: if the crowding out argument is correct, then we would expect to find that the most generous systems show the least family help. If we do not find support for the crowding out hypothesis, this theory of the interplay between the family and the state needs to be modified. Our discussion of the conditions under which crowding out is likely to occur point to another direction: growing levels of welfare state spending might weaken the norms of responsibility as well as help given to the parents motivated by altruism, but at the same time it might strengthen intimacy and reciprocity-oriented behaviour, as well as giving in expectation of exchange within the families. This would result in a crowding in effect.

If reciprocity is in effect, elderly people are not merely passive recipients of help, they actively contribute resources to their adult children. According to the logic of the exchange theories and the reciprocity argument, this giving of help should increase in turn the probability that they receive help. Strong effects of mutual exchange in each country, controlling for need and family resources, would add plausibility to the crowding in hypothesis, although this is not a strong

test of the hypothesis. We use regressions on the receiving of help in all five countries, controlling for demographic variables, the need of the recipient, and family resources. The dependent variable, receiving help, is based on the four measures of support: help around the house; help with transportation; help with money; and help when sick. The three categories defining the dependent variable are: no help received at all; at least one of the four types of help received occasionally; and at least one type of help received often. Since we do not know whether these categories are clearly ordinal, we used multinomial logistic regression.⁷

What elderly people receive

Table 1 describes what the respondents with living children received from their adult children and their families. Those with living children account for about 87 per cent of all persons aged 65 or more in these countries (between five per cent in Japan and 16 per cent in Canada have no living child). The table is based on the respondents' perception of the help they received from their children and their families. Information on four kinds of help and their intensity are provided. Three-quarters or more report that they receive some help from their children and their families in every country. This means that up to 26 per cent (in the USA) do not receive any help when they are sick, with the care of their home, with transportation and with money. From Table 1 we see that Japan is the country where most of the parents report receiving any kind of help from their children and their families (91 per cent), closely followed by Germany (90 per cent). If we rule out help with money, in both of these countries, 90 per cent report receiving help with services. In the UK and Canada, these percentages are about 10 per cent lower. In the USA, only 74 per cent report receiving any help, and 72 per cent report receiving any service. The difference between any help and any service is small in each of these five countries, and this makes clear that help with money is nearly always accompanied by help with services: in no country do we find a larger group that receives help only with money.

When looking at the different types of help received, we see that there is a striking difference between Japan and the other countries: in Japan, 53 per cent receive help with money and 73 per cent receive help with taking care of the house. Furthermore, both these types of help were reported to be received more often than in any other country. Minor differences in this direction can be found in the other two types

TABLE 1. *What elderly people with living children receive from their children and their families*

	Canada	Japan	UK	FRG	USA
			%		
1. Help when ill					
Often	41.1	61.9	53.1	51.4	39.6
Occasionally	31.9	28.1	25.0	35.8	28.9
Never	27.0	10.0	21.9	12.8	31.4
2. Take care of house					
Often	20.4	47.2	35.6	22.5	12.7
Occasionally	27.5	27.1	23.9	37.1	23.3
Never	52.1	26.8	40.5	40.4	64.0
3. Help with transport					
Often	25.8	39.9	35.9	35.4	12.5
Occasionally	22.1	33.2	20.5	37.0	26.7
Never	52.2	26.9	43.6	27.6	60.9
4. Help out with money					
Often	7.5	25.8	15.7	9.0	5.0
Occasionally	10.3	27.1	14.1	14.8	15.0
Never	80.5	47.1	70.2	76.2	80.1
Any service (1-3 of above)	77.2	89.7	81.1	89.7	72.2
Any help (1-4 of above)	77.8	90.9	81.6	89.9	73.7
n(= 100%)	799	852	761	827	782

of help as well. However, Table 1 is misleading because it does not take into account co-residence. The question wording permits the respondent to mention help given by children living in the same household. Therefore, the results shown include cases where children residing in the same household take care of the house. Differences in the pattern of receiving help between the countries reflect different patterns of living arrangements. Table 2 therefore presents the same data as Table 1, but excludes respondents currently living with at least one of their children. The differences between Table 1 and Table 2 in the percentages receiving help are dramatic only for Japan, a country where 61 per cent co-reside, as compared with the other countries, where between eight per cent (USA) and 14 per cent (Canada) live with at least one of their children. The difference between Japan and the other countries virtually disappears once we take co-residence into account. Japan appears as an outlier, because so many elderly people live with their children.

Table 2 shows that Germany is the country where the receipt of help from children outside the household is strongest: 89 per cent report that they receive at least one of these four types of help from their children and their families. With respect to receiving services, the percentage in

TABLE 2. *What elderly people with living children and no child in their households receive from their children and their families*

	Canada	Japan	UK	FRG	USA
			%		
1. Help when ill					
Often	38.2	48.5	50.9	47.2	36.9
Occasionally	32.8	31.9	25.2	38.6	29.8
Never	29.1	19.6	24.0	14.2	33.3
2. Take care of house					
Often	16.8	25.6	32.0	18.8	10.2
Occasionally	27.6	26.3	24.7	36.6	23.2
Never	55.6	48.1	43.2	44.6	66.6
3. Help with transport					
Often	21.2	26.3	33.0	31.1	10.1
Occasionally	22.9	30.9	21.1	39.6	26.4
Never	55.9	42.8	45.9	29.3	63.6
4. Help out with money					
Often	5.9	13.2	13.7	7.9	3.9
Occasionally	8.9	24.2	13.7	15.1	13.9
Never	85.2	62.6	72.6	77.1	82.2
Any service (1–3 of above)	75.3	79.2	79.0	88.5	70.7
Any help (1–4 of above)	75.9	82.0	79.5	88.7	72.0
n(= 100%)	652	301	668	692	711

Germany reporting that they do not receive help with transportation or help when ill is remarkably lower than in the other countries. In addition, except for a minor difference in the UK, a lower percentage report not receiving help with care of the house in Germany compared with the other countries. The only striking exception to this pattern is the receiving of help with money which is reported more frequently in Japan and the UK. In addition, when comparing the categories of receiving help often or occasionally, the results show that a higher percentage receive help often with money and with care of the house in the UK and Japan.

In summary what we see is that Germany is the country where elderly people are most likely to receive help from children outside the household. By contrast, the UK is the country where help, when it is given, is given most often. The USA is the country where help is received the least often and it is also the country with the highest percentage of elderly people who do not receive any help at all from their children. Canada and Japan fall in between these extremes, except for money transfers in Japan, where nearly 40 per cent receive help with money from their children.

What do these patterns suggest with respect to the argument that a

generous welfare state crowds out the giving of family help? Given the crowding out thesis, we should see clear differences, since the welfare systems are far from identical. The USA and UK have lower replacement ratios for social security and old age pension as compared with Germany. As Casmir (1989) has shown, the net replacement ratio for an average production worker (according to the OECD) with 40 years of services is 53 per cent in the USA, 57 per cent in UK and 71 per cent in Germany. Germany, then, seems to have the most generous system. Another way of comparing countries for their welfare systems is to look at poverty rates or income distributions. Smeeding *et al.* (1988) have shown with data from the *Luxembourg Income Study* that poverty rates among elderly people, (using 50 per cent of the median adjusted national income) were much higher in the USA and UK than in Germany: 29 per cent for the UK, 24 per cent for the USA, 17 per cent for Canada and 11 per cent for Germany. Furthermore, Germany is the country with the highest welfare state spending for old age, survivors and disability transfers: in 1993 the level of spending was six per cent of GDP in Japan and Canada, seven per cent in the USA, and nine per cent in UK, as compared to 12 per cent in Germany (excluding the former GDR, otherwise 13 per cent; OECD 1996: 22ff). Note that these differences in welfare state spending in relation to GDP are also influenced by the demography in these countries.

Financial help should therefore be more common in Japan, UK, USA and Canada than in Germany. Only in Japan and the UK do we find that help with money is given more frequently than in the other countries. Of course, where there is a more generous pension system, older people do not need to receive as much help with money from their children. But, as we have argued earlier, less need for help with money might result in a crowding in of services. Here the German case is the clearest example of a more generous social security system that has not had the effect of crowding out family solidarity in general: elderly people in Germany do not even receive much less help with money, as the crowding out thesis would suggest. And those who receive help with money in fact receive it more often (eight per cent) as compared with the USA (four per cent) and Canada (six per cent). Furthermore, looking at the other types of help, Germany has the lowest percentage who do not receive any help. In sum, these findings do not support the crowding out thesis that would predict lower family support in Germany than for example in the USA. On the other hand, there seems to be some evidence for the hypothesis of a nonlinear relationship between the state and the family: The receiving of help is reported most frequently in both the most and the least developed welfare systems.

Although these findings are broadly consistent with other recent international comparative studies (for example Hogan and Spencer 1993; Walker 1993), some limitations of the study affect comparability. From the *Five Nation Survey* we are not able to distinguish whether the help came from sons or daughters or both, or from their wives, husbands or children – and to whom in the household this help was given. And we do not have information on the welfare position of the adult children and their families, which influences their respective resources available to give help. Finally, the answering categories and question wordings, especially ‘help out with money’, are very broad. This category may include a combination of loans as well as occasional gifts, which we cannot distinguish. The ambiguity of the questions asked in the survey might explain why the receiving of help with money seems more widespread than other studies suggest (Attias-Donfut 1995; Bengtson and Harootyan 1994; Motel and Spieß 1995). In general, the specific question wording is of great importance for the results: MacGarry and Schoeni (1995), for example, find differences in the results of the *Panel Study of Income Dynamics* and the *Health and Retirement Survey*, where giving time to elderly parents varies between 25 per cent and 33 per cent depending on the wording of the questions. Furthermore, some studies include all respondents in calculations rather than restricting the sample to those with living children. Possibly for this reason, the *Eurobarometer* reports less than 25 per cent of older people receiving regular help with personal care or household tasks in West Germany and the UK (Walker 1993: 27). Finally, some caution is needed in comparing the results across countries, because of differences in the relevance of specific types of help, and difficulties in interpreting the cultural meaning of the terms ‘occasionally’ and ‘often’. However, the strength of this dataset is the use of identical question wording within the same sampling frame.

While the data presented in Table 2 provide evidence that contradicts the crowding out hypothesis, the question of mutual exchange between generations within family can be answered in more detail. Does giving by elderly people reinforce what they get from their children after taking need and other factors into account?

The impact of giving on receiving

The data we present in this section are based on the intuitive premise that there is more to receiving than needing. The act of giving by parents stimulates the readiness of their children to offer a service in

return. The act of receiving a service in turn releases the impulse to give. There is no easy way to identify which action initiates the giving and receiving process. Therefore the search for causality is misleading. Our thesis is that reciprocal relations reinforce each other and help to explain the pattern of what parents receive from their adult children.

The aim of our regression models is not to explain in detail who receives help, but to test whether the giving of services by elderly parents contributes to the explanation of their receiving help, while controlling for other variables. We first briefly comment on each of the variables used in the regressions. Because of space limitations we do not report frequencies for all countries. These are completely reported in Louis Harris Inc. (1991).

A first set of variables takes into account the need to get help. The most readily available index of need is health status. The survey included five different health related measures: a subjective health scale; the frequency of severe pain; the number of contacts with a doctor within the last six months; the number of days spent in a hospital; and a 10-item activities of daily living instrument (ADL/IADL). These health measures are related in different ways to the receiving of help across countries. For example, in the USA the question of subjective health is often answered more positively, whereas in Germany nearly no one rates his/her health to be 'excellent'. This is obviously not because of poorer health but reflects cultural differences. The more 'objective' health measure of the number of contacts made with a doctor also reveals differences. For example, in Japan, elderly people seem to have contact with a doctor more often – which again does not imply worse health. Even within a country, one seldom knows the true reason why a patient contacts a doctor. People might visit a doctor simply because they feel lonely or because they need a regular prescription. Finally, the ADL/IADL measure allows only for variation within the group of those who are frail, sick or disabled; most other cases will have a value of zero.

To create a variable which takes into account both the subjective and the objective health situation and which minimises the effects of cultural differences, we use factor scores based on non-linear principal component analyses on the following variables: subjective health; the frequency of severe pain; the number of contacts with a doctor or days spent in a hospital; and the ADL/IADL measure.⁸

Health, however, is not the only indicator of need. People who live alone might be more in need of certain services than those who live with others. And people who have difficulties in meeting their regular expenses also have needs which are not measured by health.

TABLE 3. *Multinomial logistic regressions on the receiving of help (only people with living children; exponents of coefficients except for constant)*

	Canada				Japan				UK			
	Step 1		Step.2		Step.1		Step.2		Step.1		Step.2	
	Occ.	Often	Occ.	Often	Occ.	Often	Occ.	Often	Occ.	Often	Occ.	Often
Age	1.07*	1.10*	1.08*	1.10*	1.03	1.06*	1.04*	1.07*	1.05*	1.08*	1.06*	1.10*
Sex: Female	1.76*	2.01*	1.66*	1.96*	0.87	0.88	0.86	0.86	1.38	1.68*	1.34	1.61*
Health	1.28	1.52*	1.29	1.53*	1.25	1.27	1.28	1.31	0.99	1.16	1.00	1.21
Meeting basic regular expenses:												
Somewhat difficult	2.52*	1.17	2.61*	1.18	0.94	0.79	0.92	0.78	1.38	1.34	1.30	1.25
Very difficult	2.90*	1.68	2.96*	1.65	1.26	0.58	1.28	0.60	1.31	1.61	1.27	1.65
Extremely difficult	7.28	4.45	6.55	4.00	2.10	0.35	2.19	0.37	1.30	1.83	1.45	2.17
Living arrangement:												
Alone	0.83	0.97	0.88	1.01	1.60	0.81	1.58	0.80*	0.54*	0.83	0.55*	0.87
With child/children	2.30	4.94*	2.37*	4.99*	2.73*	5.28*	2.57*	4.90*	4.12*	8.17*	3.95*	8.27*
Number of children	1.27*	1.36*	1.25*	1.35*	1.82*	1.84*	1.83*	1.85*	1.29*	1.49*	1.28*	1.44*
Giving help to children	–	–	2.22*	1.84*	–	–	6.42*	7.82*	–	–	2.15*	4.54*
Constant (B)	–6.30*	–7.43*	–6.85*	–7.89*	–2.97	–4.46*	–3.50*	–5.10*	–3.96*	–5.67*	–4.89*	–7.39*
Number of cases	737		735		734		732		742		732	
Pseudo r-square	0.19		0.20		0.19		0.21		0.13		0.16	

	FRG				USA			
	Step.1		Step.2		Step.1		Step.2	
	Occ.	Often	Occ.	Often	Occ.	Often	Occ.	Often
Age	1.02	1.04*	1.03	1.06*	0.99	1.00	1.00	1.01
Sex: Female	0.99	1.36	0.94	1.26	2.11*	2.39*	2.09*	2.29*
Health	0.83	1.05	0.82	1.05	1.15	1.52*	1.15	1.55*
Meeting basic regular expenses:								
Somewhat difficult	1.60	1.24	1.54	1.22	1.29	1.27	1.30	1.31
Very difficult	2.07	1.13	1.98	1.10	2.17*	1.97*	2.19*	2.04*
Extremely difficult	0.98	1.01	1.04	1.10	2.27*	1.39	2.30*	1.46
Living arrangement:								
Alone	0.98	1.25	1.03	1.33	1.79*	2.10*	1.80*	2.13*
With child/children	2.24	6.85*	2.22	6.74*	2.99*	7.53*	3.01*	7.61*
Number of children	1.21	1.32*	1.13	1.23	1.24*	1.27*	1.22*	1.24*
Giving help to children	–	–	6.34*	7.36*	–	–	1.25	1.98*
Constant (B)	–0.95	–2.61	–2.06	–3.87*	–0.74	–0.57	–0.11	–0.76
Number of cases	765		757		738		737	
Pseudo r-square	0.10		0.13		0.17		0.19	

* = $p < 0.5$. Reference categories: Receiving help = never; sex = male; expenses = no difficulties; living arrangement = living with others; giving help to children = no.

Unfortunately, we could not include income into the model, because of the frequency of missing values (41 per cent across all countries; up to 52 per cent in the UK). For these reasons, our model includes not only the health dimension, with sex and age as controls, but variables for the living arrangements (a dummy variable coded one for people living alone), and a variable measuring the difficulties in meeting basic regular expenses.

Of course, need itself is only one side of the coin. A second set of variables takes into account the fact that some elderly people might have greater access to help when in need. Access increases when there is more than one child. Similar widening of access to help applies when the children live closer to or with their parents. For these reasons our model includes the number of children, and a second dummy variable on the living arrangements coded 1 for those who live with at least one of their children. For each country, the first column in Table 3 shows the effects of these variables on the receiving of help. In general, most of the coefficients point in the expected directions although there are variations in the level and significance across countries. For example, the probability of receiving help tends to increase with age in all countries except the USA. In Canada and the USA those with a worse health situation are more likely to receive help, whereas in Japan, UK and Germany the receiving of help is less strongly associated with the health of the respondent. However, these variables serve as controls, and since health and age are correlated, the coefficients should be interpreted with caution. The subjective financial situation shows an even more varied pattern. In general, the higher the difficulties in meeting basic regular expenses, the more likely will the elderly person receive occasional help. Only in the UK are those in financial need more likely to receive help often. However, most of these coefficients are not significant. The probability of receiving help tends to increase significantly in all countries both with the number of children and co-residence.

The main purposes of our analysis was to determine whether giving makes an independent contribution to the probability of receiving help, once we control for need and access. From the *Five Nation Survey* we know in some detail what elderly people receive from their children and their families, but the study failed to ask in detail what they give to their family members – with one exception. There is one useable question: about the giving of baby-sitting help. This variable clearly does not cover the whole range of support parents might give to their adult children. Furthermore, we do not know whether there are grandchildren and whether their grandchildren are within an age range that

makes baby-sitting necessary. For example, the children of very old people might be aged 40 to 60, their grandchildren 20 to 40. Aside from great grandchildren, there might be less need for very old people to provide baby-sitting help. However, we can use this variable as a proxy for family solidarity. The *Five Nation Survey* allows us to test whether this giving of services helps to explain variations in what elderly people in all five countries receive.

When entering into the regression our measure of what respondents give to their children, none of the other coefficients change dramatically. In all countries the giving of services leads to a better prediction of whether the parents get help. For example, in Canada and in USA respondents who give baby-sitting help are twice as likely to receive help often, compared with those who are not engaged in baby-sitting. In Japan, UK and Germany, the effects seem to be even stronger. This means, holding need and access constant, those who give have higher probabilities of receiving. Although the cross-sectional data do not permit us to identify the direction of causality, and although we cannot identify the motives underlying this exchange, evidence for the effect of reciprocity is demonstrated. These findings support the various reciprocity and exchange theories reviewed earlier, and provide further evidence that crowding out is less likely to occur.

Of course, our model still has shortcomings. One problem is that we do not know precisely who the receiver of help is. The questionnaire only asks whether their own children or their families help the respondent or spouse. Individual characteristics of health for example might not be the control variable of interest. This might account for the relatively low explanatory power of our models. Furthermore, our data do not permit us to explore dimensions of emotional support, intimacy and affection.

In addition, the survey failed to ask questions about proximity. That adult children provide services to their parents and that they in turn provide regular baby-sitting depends on the physical proximity of parents and children to each other. But a variety of current empirical studies show that, despite the expectation of high geographic mobility, children do tend to live reasonably close. A recent German study for example reports that 80 per cent of people aged 70 to 85 have at least one child living within two hours reach (Kohli *et al.* 1997). Similar results are reported for other countries: for the USA cf. Hoyert (1991), for Japan Morioka (1996: 275), and for Canada Rosenthal (1987: 317). Better data on proximity would be useful, particularly if they are supplemented by information on travel time.

Another problem is that we do not know in detail what parents give to their adult children. Since baby-sitting is only one specific type of

help, we do not know how many help their children, for example, in household tasks. Furthermore, there are some studies that show that elderly people provide their adult children with income and that the value of these financial contributions can be quite substantial (Rosenzweig and Wolpin 1993; Bengtson and Harootyan 1994; Gale and Scholz 1994; Attias-Donfut 1995; Motel and Speiß 1995). Parents can also provide their children with other forms of help, such as co-residence or loans. Many studies seem to point in a direction which suggests that, although on average elderly people tend to have less money than their adult children, they are nevertheless more likely to give than to receive money. On the other hand, their children are less likely to have time, but they seem to offer more time-related services to their parents even though the latter have more time. In this context, the measure of what elderly people give clearly needs further differentiation.

Finally, there are at least four possible ways that a need can be met. First, need can be met through the market; individuals with sufficient resources can purchase what they need in the market. No useable information on income is available from this survey. The subjective assessment of one's financial situation only makes a small contribution to the model. This may be the case because of the effects of exchange expectations and reciprocity: some people might get help just because they have given before, not because they are in strong need. And others might get help just because they potentially have something to give. Second, relatives other than children and their families could be available to provide some help. Again, the survey covers no information on these relatives and their help. However, the literature shows that children and their families are the main resources of help for older people aside from their spouses (Cantor 1979; Walker 1993), and so the lack of information on help received from other relatives is not important. Third, some needs can be met through the services of friends and neighbours. The survey asked for informal help only when problems in meeting the activities of daily living were mentioned and when the respondent received assistance in these activities. The small number of such cases made the variable unusable. Fourth, and possibly most obvious, the state provides for the needs of elderly people through the well-developed system of transfers and service available in the welfare state. Children, then, do not need to care for their parents, since the state covers most services. While more detailed data would be necessary to clarify the first three points, we have presented some evidence from an international comparison that shows that there is no support for this fourth hypothesis, taking different types of help into account.

Conclusion

The main argument and conclusions are now summarised and the policy implications considered. We interpret our data on the type and levels of help received by elderly people from their adult children in five different countries as evidence to show the limits of the crowding out hypothesis. What emerges from our study is the striking position of Germany, a country with a strong welfare state and yet with the highest rate of elderly people receiving some form of help from their children. By contrast, the data for the United States, with a relatively weak welfare state, show a surprisingly weak pattern of family solidarity. Admittedly, the United States has a strong commitment to associational democracy as measured by volunteering and help from friends and neighbours. Whether this form of social capital can offset the weak state and family ties remains an open question. The United Kingdom also has a weak welfare state, but a relatively strong level of family commitment, especially when measured in terms of financial help; 28 per cent of aged parents receive help with money from children outside the household and 14 per cent receive it often. This is the second strongest level of financial support among our five countries. At the same time the United Kingdom poverty level is also the most severe. Clearly the overall pattern is quite varied. It seems that the German data show a pattern where the state and family are complementary, the United States suggests a pattern of double retreat by the family and the state, and the UK some offsetting where a weak public pension system is supplemented by family help in response to economic need. Overall, however, these findings do not support the argument that a generous public transfer and health care system would undermine family solidarity in general.

Other studies have argued that there has been no decline in family help, even when viewed over a long period of time (Finch 1989). Earlier studies using international comparative data showed a comparably high level of family support for older people (for example, Shanas *et al.* 1968). These findings support an argument against the crowding out hypothesis, although they are not tests of the hypothesis. Our study, based on an empirical comparison of five countries, adds further support against a global crowding out hypothesis.

But our study tries to make a stronger argument, namely that the generosity of the state has reinforced family solidarity by promoting a pattern of crowding in. We have explored this hypothesis indirectly by showing that, after need and resources are taken into account, the giving of services by elderly people contributes additionally to the

explanation of what they receive from their children. To take account of need, we made use of measures of health, age, living arrangements, and economic situation. For the concept of family resources we used the number of living children and co-residence. What the regressions show is a significant contribution of giving on the receiving of help: there is more to receiving than needing in all five countries.⁹

Our interpretation draws on a theoretical and logical connection between reciprocity at the individual level and welfare spending at the macro level: the more resources that older people have, the more they are able to give resources to their children and grandchildren. This in turn reinforces the pattern of giving and receiving. This reading of the data is consistent with the work of Börsch-Supan. He demonstrates that in the case of Germany, a generous welfare system leaves older people with more resources than they need. This may account for both why elderly people give resources to their children and why the parents in Germany still receive various types of help more often than in the other countries.

We were not able to analyse the connection between changing resource levels and reciprocity directly. For example it seems possible that both crowding in and crowding out may occur in different situations. If this is true, all we can say is that the effects of crowding in seem to be stronger overall than those of crowding out. Here, qualitative studies may help to identify the specific situations where these effects takes place. Clearly, further research using longitudinal data is needed; at best with more detailed information on proximity, intimacy, the motivations of giving, information on the resources of the givers and receivers, and – most obvious – a clear definition of who receives what kind of help within a given time frame as well as over the whole lifecourse.

Although we have to admit that further research is needed to explain the relationship of welfare state spending and family solidarity in more detail, we like to draw some tentative implications for social policy. Our data suggest that the crowding out hypothesis must be rejected. Rather, we find some indirect evidence to support the crowding in hypothesis. Increasing levels of welfare society spending for older people do what was originally intended: it provides more welfare for elderly people. This in turn strengthens family solidarity. The German formal support system appears to reinforce the informal system of children providing services for their parents. From the economic perspective, this seems like an odd way to do business: taxing the current generation for the social transfers that older people receive and then having them repay it indirectly in the form of transfers, services,

and bequests. However inefficient such a complex indirect strategy might appear to the economist, from a sociological perspective it is eminently sensible. On the basis of our analysis we conclude that a reduction in welfare spending may create less family solidarity, the reverse of what supporters of a smaller welfare state would predict.

Acknowledgement

The authors thank Claudine Attias-Donfut, Axel Börsch-Supan, Donald Cox, Betina Hollstein, Martin Kohli, Kai Konrad, Chris Phillipson, and the anonymous reviewers for their comments on earlier versions of this article.

NOTES

- 1 To give another example: A recent study of the impact of the expansion of Medicaid on the reduction of employer-based health insurance in the private sector reports a 20 per cent crowding out effect (Cutler and Gruber 1996).
- 2 The legislative intention to implement state services for elderly people might have been simply to free the family from the burden of caring for their parents, for example enabling women to further participate in the labour force. To describe such an intended and successful attempt to reduce family burden as crowding out would be misleading, since every welfare improvement might be labelled that way. From our point of view, the concept of crowding out applies only to an unintended by-product of some other development (for example when a rising level of pensions crowds out family solidarity in general, not simply private financial transfers to pensioners).
- 3 The concept of pure altruism might have little empirical evidence anyway. For example, when altruism is associated with a 'joy of giving' or a 'warm glow' then the behaviour might persist even when the need is met, or giving takes place even if there is no need at all. This has been labelled 'impure altruism' (Andreoni 1989). The same applies when the donor expects to get valued approval from the act of giving or from signaling income (Glazer and Konrad 1996). And the donor might continue to give even when the need is met because he feels that the level of public provision remains inadequate and his contribution acts as a supplement. When the level of public provision is regarded as being adequate he might withdraw his donation from that specific activity and donate to other programmes or people (Schiff 1985). In all these examples it follows that crowding out will not occur completely.
- 4 Of course, the puzzle is even more complex, because economists tend to interpret the giving to people in need (or at least to people in a worse economic position compared to the donor) as being altruistically motivated. But on the individual level exchange expectations are not ruled out where giving is based on the need of the recipient. This inconsistency is possible because motives are imputed rather than observed. Furthermore, in economic terms reciprocity may be the outcome of two-way altruism, where each recipient of transfers and services reciprocates to the other with an altruistic rather than exchange motive (Cox and Rank 1992). From a sociological point of view such mutual exchange is unaffected by reciprocity.

- 5 We are grateful to Donald Cox for calling our attention to this possible nonlinearity of the relationship between the level of welfare spending and the crowding in and crowding out phenomena.
- 6 Telephone interviews were used in the United States and Canada, and in-person interviews in the United Kingdom, West Germany, and Japan. Survey results are weighted to provide estimates that are representative of the full 65+ population in each country (Louis Harris Inc. 1991). Previous publications using this dataset mainly focused on health (Rowland 1992) and participation (Rein and Salzman 1995; Kohli and Künemund 1997).
- 7 For example, four types of help received occasionally might together be weighted more or less than one type of help often. For the same reason it is not appropriate to construct an additive index. For details on logistic regression see for example Hosmer and Lemeshow (1989) or DeMaris (1992). We used P22 of the ALMO-package for the regressions (Holm 1994).
- 8 The nonlinear principal component analysis were performed by the PRINCALS procedure of the SPSS package (for details on this procedure see Gifi 1990), all variables were treated as ordinal:

	Canada	Japan	UK	FRG	USA
Component loadings					
Health	.83	.89	.85	.86	.81
Pain	.71	.83	.77	.80	.70
Doctor	.52	.53	.52	.66	.57
ADL/IADL	.64	.45	.66	.65	.72
Eigenvalues	.47	.49	.51	.56	.50

- 9 Horwitz *et al.* (1996), in a study of families with mentally ill members, also found a significant effect of giving on receiving. They used a comparable model but fewer variables and cases.

References

- Aliyama, H., Antonucci, T. C. and Campbell, R. 1990. Exchange and reciprocity among two generations of Japanese and American woman. In Sokolowsky, J. (ed), *The Cultural Context of Aging. Worldwide Perspectives*. Bergin and Garvey: New York. 127–38.
- Altonji, J. G., Hayashi, F. and Kotlikoff, L. J. 1996. *The Effects of Income and Wealth on Time and Money Transfers between Parents and Children*. National Bureau of Economic Research: Cambridge, MA (NBER working paper NO. 5522).
- Andreoni, J. 1989. Giving with impure altruism: applications to charity and ricardian equivalence. *Journal of Public Economics*, **97**, 1447–58.
- Antonucci, T. C. 1990. Social support and social relationships. In Binstock, R. H. and George, L. K. (eds), *Handbook of Aging and the Social Sciences* (3rd edition). Academic Press: San Diego, 205–26.
- Antonucci, T. C. and Jackson, J. S. 1990. The role of reciprocity in social support. In Sarasin, B. R. and Pierce, G. P. (eds), *Social Support: an Interactional View*. Wiley: New York. 173–98.
- Attias-Donfut, C. 1995. Le double circuit des transmissions. In Attias-Donfut, C. (ed), *Les Solidarités Entre Générations. Vieillesse, Familles, État*. Nathan: Paris, 41–81.
- Bengtson, V. L. and Harootyan, R. A. 1994. *Intergenerational Linkages. Hidden Connection in American Society*. Springer: New York.

- Berger, P. and Neuhaus, R. 1977. *To Empower People: the Role of Mediating Structures in Public Policy*. American Enterprise Institute for Public Policy Research: Washington.
- Bernheim, B. D., Shleifer, A. and Summers, L. H. 1985. The strategic bequest motive. *Journal of Political Economy*, **93**, 1045–76.
- Börsch-Supan, A. 1992. Saving and consumption patterns of the elderly: the German case. *Journal of Population Economics*, **5**, 289–303.
- Börsch-Supan, A. 1995. *Age and Cohort Effects in Saving and the German Retirement System*. Venice (Paper presented at the conference on “Saving and Retirement”, January 1995).
- Börsch-Supan, A. and Stahl, K. 1991. Life cycle savings and consumption constraints. Theory, empirical evidence, and fiscal implications. *Journal of Population Economics*, **4**, 233–55.
- Börsch-Supan, A., Ghokale, J., Kotlikoff, L. J. and Morris, J. 1990. *The Provision of Time to the Elderly by their Children*. National Bureau of Economic Research: Cambridge, MA (NBER working paper No. 3363).
- Burgess, E. W. 1960. Aging in western culture. In Burgess, E. W. (ed), *Aging in Western Societies*. Chicago: Chicago University Press, 3–28.
- Cantor, M. H. 1979. Neighbors and friends: an overlooked resource in the informal support system. *Research on Aging*, **1**, 434–63.
- Casimir, B. 1989. *Staatliche Rentenversicherungssysteme im internationalen Vergleich*. Lang: Frankfurt.
- Chappell, N. and Blandford, A. 1991. Informal and formal care: exploring the complementarity. *Ageing and Society*, **11**, 299–317.
- Cox, D. 1987. Motives for private income transfers. *Journal of Political Economy*, **95**, 508–56.
- Cox, D. and Rank, M. R. 1992. Inter-vivos transfers and intergenerational exchange. *The Review of Economics and Statistics*, **74**, 305–14.
- Cox, D. and Jakubson, G. 1995. The connection between public transfers and private interfamily transfers. *Journal of Public Economics*, **57**, 129–67.
- Cox, D. and Stark, O. 1994. *Intergenerational Transfers and the Demonstration Effect*. mimeo: Boston.
- Cutler, D. M. and Gruber, J. 1996. Does public insurance crowd out private insurance? *Quarterly Journal of Economics*, **111**, 391–426.
- Daatland, S. O. 1990. What are families for? On family solidarity and preference for help. *Ageing and Society*, **10**, 1–15.
- DeMaris, A. 1992. *Logit Modelling*. Sage, Newbury Park.
- Doty, P. 1986. Family care of the elderly: the pole of public policy. *Milbank Quarterly*, **64**, 35–75.
- Edelman, P. and Hughes, S. 1990. The impact of community care on provision of informal care to homebound elderly persons. *Journal of Gerontology*, **45**, S74–S84.
- Finch, J. 1989. *Family Obligations and Social Change*. Polity Press: Oxford.
- Finch, J. and Mason, J. 1993. *Negotiating Family Responsibilities*. Routledge: London.
- Gale, W. C. and Scholz, J. K. 1994. Intergenerational transfers and the accumulation of wealth. *Journal of Economic Perspectives*, **8**, 145–60.
- Gifi, A. 1990. *Nonlinear Multivariate Analysis*. Wiley: Chichester.
- Glazer, N. 1988. *The Limits of Social Policy*. Harvard University Press: Cambridge.
- Glazer, A. and Konrad, K. 1996. A signaling explanation for charity. *American Economic Review*, **86**, 1019–28.
- Gouldner, A. W. 1960. The norm of reciprocity: a preliminary statement. *American Sociological Review*, **25**, 161–78.
- Hanley, R. J., Wiener, J. M. and Harris, K. 1991. Will paid home care erode informal support? *Journal of Health Politics, Policy and Law*, **16**, 507–21.

- Harris, Louis Inc. 1991. *The Elderly in Five Nations: United States, Canada, United Kingdom, West Germany, and Japan*. Louis Harris Inc.: New York (Study No. 902032).
- Henretta, J. C., Hill, M. S., Li, W., Soldo, B. J. and Wolf, D. A. 1997. Selection of children to provide care: the effect of earlier parental transfers. *The Journals of Gerontology*, **52B** (special issue), 110–19.
- Hogan, D. P. and Spencer, L. J. 1993. Kin structure and assistance in aging societies. *Annual Review of Gerontology and Geriatrics*, **13**, 169–86.
- Holm, K. 1994. *ALMO-Statistik-System, Version 4*. Universität Linz: Linz.
- Hollstein, B. and Bria, G. 1996. *Reciprocity in Parent-Child Relationships*. New York (paper presented at the 91st annual meeting of the American Sociological Association, August 16–20).
- Horwitz, A. V., Reinhard, S. C. and Howell-White, S. 1996. Caregiving as reciprocal exchange in families with seriously mentally ill members. *Journal of Health and Social Behaviour*, **37**, 149–62.
- Hosmer, D. and Lemeshow, S. 1989. *Applied Logistic Regression*. Wiley: New York.
- Hoyert, D. L. 1991. Financial and household exchanges between generations. *Research on Aging*, **13**, 205–25.
- Janowitz, M. 1976. *The Social Control of the Welfare State*. Elsevier: New York.
- Kohli, M. 1993. *Public Solidarity between Generations: Historical and Comparative Elements*. Free University of Berlin: Berlin (Research Group on Ageing and the Life Course, Research Report 39).
- Kohli, M. and Künemund, H. 1997. *Nachberufliche Tätigkeitsfelder. Konzepte, Forschungslage, Empirie*. Kohlhammer: Stuttgart.
- Kohli, M., Künemund, H., Motel, A. and Szydlik, M. 1997. Generationenkonstellationen, Haushaltsstrukturen und Wohnentfernungen in der zweiten Lebenshälfte. Erste Befunde des Alters-Survey. In Becker, R. (ed): *Generationen und sozialer Wandel. Generationendynamik, Generationenbeziehungen und Differenzierung von Generationen*. Leske und Budrich: Opladen, 157–75.
- Kotlikoff, L. J. and Morris, J. N. 1989. How much care do the aged receive from their children? A bimodal picture of contact and assistance. In Wise, D. A. (ed), *The Economics of Ageing*. University of Chicago Press: Chicago, 149–72.
- Koyano, W. 1995. Transition into old age. *Forum Demographie und Politik*, **8**, 41–58.
- Koyano, W., Hashimoto, M., Fukawa, T., Shibata, H. and Gunji, A. 1994. The social support system of the Japanese elderly. *Journal of Cross-Cultural Gerontology*, **9**, 323–33.
- Kreps, J. M. 1977. Intergeneration transfers and the bureaucracy. In Shanas, E. and Sussman, M. (eds), *Family, Bureaucracy and the Elderly*. Duke University Press: Durham, 21–34.
- Lampman, R. J. and Smeeding, T. M. 1983. Interfamily transfers as alternatives to government transfers to persons. *The Review of Income and Wealth*, **29**, 45–66.
- Lye, D. N. 1996. Adult child-parent relationships. *Annual Review of Sociology*, **22**, 79–102.
- McGarry, K. and Schoenie, R. F. 1995. Transfer behaviour in the Health and Retirement Study. Measurement and the redistribution of resources within the family. *Journal of Human Resources*, **30**, supplemental issue, 184–226.
- McGarry, K. and Schoenie, R. F. 1997. Transfer behavior within family: results from the Asset and Health Dynamics Study. *The Journals of Gerontology*, **52B** (special issue), 82–92.
- Morioka, K. 1996. Generational relations and their changes as they affect the status of older people in Japan. In Hareven, T. K. (ed), *Aging and Generational Relations. Life-course and Cross-cultural Perspectives*. Aldine De Gruyter: New York, 263–80.
- Motel, A. and Spieß, K. 1995. Finanzielle Unterstützungsleistungen alter Menschen an ihre Kinder. Ergebnisse der Berliner Altersstudie (BASE). *Forum Demographie und Politik*, **7**, 133–154.

- OECD 1996. *Social Expenditure Statistics of OECD Member Countries*. OECD: Paris, (Labour market and social policy occasional papers No. 17).
- Preston, S. H. 1984. Children and the elderly: divergent paths for American's dependents. *Demography*, **21**, 435–57.
- Qureshi, H. 1990. A research note on the hierarchy of obligations among informal carers – a response to Finch and Mason. *Ageing and Society*, **10**, 455–8.
- Rein, M. and Salzman, H. 1995. Social integration, participation and exchange in five industrial countries. In Bass, Scott A. (ed), *Aging and Active. How Americans over 55 are Contributing to Society*. Yale University Press: New Haven.
- Roberts, R. D. 1984. A positive model of private charity and public transfers. *Journal of Political Economy*, **92**, 136–48.
- Rosenmayer, L. and Köckeis, E. 1961. Sozialbeziehungen im höheren Lebensalter. *Soziale Welt*, **12**, 214–29.
- Rosenthal, C. J. 1987. Aging and intergenerational relations in Canada. In Marshall, V. W. (ed), *Aging in Canada: Social Perspectives*. Fitzhenry and Whiteside: Markham, 311–42.
- Rosenzweig, M. R. and Wolpin, K. I. 1993. Intergenerational support and the life-cycle incomes of young men and their parents: human capital investments, co-residence and intergenerational financial transfer. *Journal of Labor Economics*, **11**, 84–112.
- Rowland, D. 1992. A five nation perspective on the elderly. *Health Affairs*, **11**, 205–15.
- Schiff, J. 1985. Does government spending crowd out charitable contributions? *National Tax Journal*, **38**, 535–46.
- Schoeni, R. F. 1997. Private interhousehold transfers of money and time: new empirical evidence. *Review of Income and Wealth*, **43**, 423–48.
- Shanas, E., Townsend, P., Wedderburn, D., Friis, H., Miohøj, P. and Stehouwer, J. 1968. *Old People in Three Industrial Societies*. Atherton Press: New York.
- Smeeding, T. M., Torrey, B. B. and Rein, M. 1988. Patterns of income and poverty: the economic status of children and the elderly in eight countries. In Palmer, J. L., Smeeding, T. M. and Torrey, B. B. (eds), *The Vulnerable*. Urban Institute Press: Washington, 89–119.
- Townsend, P. 1968. Welfare services and the family. In Shanas, E., Townsend, P., Wedderburn, D., Friis, H., Milhøj, P. and Stehouwer, J. 1968. *Old People in Three Industrial Societies*. Atherton Press: New York, 102–31.
- Walker, A. 1993. *Age and Attitudes: Main Results from a Eurobarometer Survey*. Commission of the European Communities: Brussels.
- Weissert, W. G., Cready, C. M. and Pawelak, J. E. 1988. The past and the future of home- and community-based long-term care. *Millbank Quarterly*, **66**, 309–88.
- World Bank Policy Research Report, 1994. *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth* Oxford University Press: London.

Accepted 13 May 1998

Address for correspondence:

Harald Künemund, Freie Universität Berlin, Institut für Soziologie,
Babelsberger Str. 14–16, D-10715 Berlin.