Intergenerational Exchange of Instrumental Support: Dynamic Evidence from the British Household Panel Survey*

Tak Wing Chan
Department of Sociology
University of Oxford

John Ermisch
Department of Sociology
University of Oxford

June 16, 2012

Abstract

We use data from the British Household Panel Survey to explore the pattern and dynamics of the exchange of instrumental support between adult children and their non-coresident parents. Viewed in the cross-section, the level of actual instances of intergenerational exchange in contemporary Britain is rather low. Viewed longitudinally, we report an asymmetric pattern in the ebb and flow of exchange, with stopping probabilities being multiples higher than starting probabilities. When the finance or health of adult children worsens, parental help is often not forthcoming, but when their finance and health improves, parental help is likely to be scaled back. Nonetheless, there is evidence that parents and adult children are supportive of each other at critical moments of life transitions, such as divorce, the birth of a child, or widowhood. Together, these results paint a nuanced picture of the significance of the extended family in contemporary Britain, and give qualified support to the latent kin matrix hypothesis.

*Early versions of this paper were presented at the 2011 BHPS conference, the 2011 conference of the British Society for Population Studies, the 2011 conference of the British Sociological Association, the European Population Conference 2012, and in seminars in Academia Sinica, Bocconi University, Juan March Institute, University of Essex, University of Manchester and University of Oxford. We thank David Firth, John Goldthorpe, Avner Offer and the audiences of various seminars for helpful comments.

1 The master narrative and its critics

How much intergenerational exchange is there in advanced industrial societies? Do adult children and their parents regularly call upon each other for material and practical support? Or do they rely on the state, the market, or other individuals in their social networks (e.g. friends or neighbours) to meet their needs?

The extent and significance of intergenerational exchange goes to the heart of what Tadmor (2010, pp. 16–18) calls the 'master narrative' on the long run trend of kinship and family. As Tadmor points out, nineteenth century sociologists described the social change that they sought to understand in very different terms. But whether they characterised it as a transition from *Gemeinschaft* to *Gesellschaft* (Tönnies), a change from status to contract (Maine), or a shift from feudalism to capitalism (Marx and Engels), they all agreed on the long term rise of the conjugal family and a concomitant decline in the role and significance of wider kinship ties. This master narrative culminated in Parsons' view that the structurally isolated nuclear family is, functionally speaking, most suited to industrial societies.

The master narrative has been criticised extensively. Many scholars argue that the extended family, in a modified form, has remained vibrant, and that there is extensive and reciporal exchange of support between adult children and their parents. For example, Mancini and Blieszner (1989, p. 279) note that '[s]tudies of exchange, assistance, and support over the past 25 years showed a large amount of intergenerational involvement, both instrumental and affection. Not only are parents and their children in frequent contact, but also the practical things they do for each other are considerable'.

The critics of the master narrative have, in turn, been challenged by more recent findings from the National Survey of Families and Households (NSFH). Applying latent class analysis to data collected in wave 1 (1987–88) of the NSFH, Hogan *et al.* (1993, p. 1428) show that 'one-half of Americans do not routinely engage in giving or receiving relationships with their parents and only about one in 10 are engaged in extensive exchange relationships'. This and other NSFH-based papers (e.g. Eggebeen, 1992; Hogan and Eggebeen, 1995) led Lye (1996, p. 84) to conclude that 'earlier studies may have overstated the extent and frequency of exchange between adult children and parents'.

Responding to Hogan *et al.* (1993), Silverstein *et al.* (1997) point out that to assess the strength of the extended family, we need to consider not just *actual instances* of intergenerational exchange, but also its *latent potential*. If individuals are not engaged in intergenerational exchange at a particular time point, it might simply be the case that they have no need to call upon

anyone for support at that time. The key question is whether individuals are embedded in a 'latent kin matrix' (Riley, 1983), in which 'family members may remain dormant for long periods of time and only emerge as a resource when the need arises' (Silverstein *et al.*, 1997, p. 431).

Empirically, Silverstein *et al.* (1997) also apply latent class models to survey data. But to capture the *latent potential* of intergenerational exchange, they use indicators which measure not just actual exchange, but also frequency of contact, emotional closeness, similarity of opinions and geographical proximity. As one might expect, with different indicators, Silverstein *et al.* (1997) obtain quite a different picture. Under their preferred latent class model, about one third of the child–mother ties and over one fifth of the child–father ties are considered 'tight-knit', and only 7% of the child–mother ties and a quarter of the child–father ties are 'detached'.

Whilst the latent kin matrix hypothesis is quite plausible, a full and direct test of this hypothesis would require panel data. That is, we need to check if the ebb and flow of intergenerational exchange really corresponds to the changing needs and circumstances of parents and children over the life course. Because Silverstein *et al.* (1997) and Hogan *et al.* (1993) both use cross-sectional data in their analysis, the debate on the extent and significance of intergenerational exchange in America has not been resolved satisfactorily.

To be fair, there are a few papers which adopt a life course perspective and examine intergenerational exchange with panel data. For example, Silverstein *et al.* (2006) analyse data from the Longitudinal Study of Generations, and show that children provided more support to parents in 2000 if the latter's health deteriorated between 1997 and 2000. Similarly, Eggebeen and Davey (1998), using data from the first two waves of NSFH, show that parents received more help from children in 1992 if they had experienced one or more life transitions between 1988 and 1992. These studies are very informative. But they have not exploited the panel nature of their data fully. Instead, parents' life experiences or health conditions are included as predictors in a (generalised) linear model, and statistical significance of the relevant parameters are taken as evidence of children's responsiveness to parent's needs. Although this is a plausible interpretation, because the data is in effect analysed in a cross-sectional manner, the relevant parameters might be biased due to omitted variables.[1] To reduce such bias, we will use fixed effects models in our analysis. Also, as we will demonstrate below, by paying close attention to the turnover of intergenerational exchange, there are

[1]Silverstein *et al.* (2002) use a multilevel model (more specifically, a growth curve model) in their analysis. But this analytical approach is still vulnerable to omitted variable bias. Eggebeen and Davey (1998) use the so-called lagged dependent variable method which leads to biased parameter estimates (see Johnson, 2005).

intriguing and significant patterns to be discovered.

In this paper, we test the latent kin matrix hypothesis with recent British panel data. We find evidence in support of it. There are strong responses from both parents and children to needs arising from important life transitions, such as widowhood or divorce. Other responses to needs are asymmetric; e.g. responses to deterioration in health or financial circumstances are weak, while any support being given is withdrawn when these circumstances improve. To clarify the British context, we review British research on family and kinship in the next two subsections.

1.1 The British context

There is an important tradition of British community studies in the 1950s and the 1960s (e.g. Firth, 1956; Dennis *et al.*, 1956; Mogey, 1956; Young and Willmott, 1957; Kerr, 1958; Willmott and Young, 1960; Stacey, 1960; Rosser and Harris, 1965; Bell, 1968). Based on ethnographic as well as survey data, these studies provide a vivid account of the close family ties that existed in those communities at that time. The closeness of extended family ties was partly a necessity, but it was also a matter of choice. Thus, for example, because of the post-war housing shortage, many young couples had no choice but to stay with one set of parents (usually the bride's) for a period of time (Young and Willmott, 1957, ch. 2). But when they managed to set up their own household, many would prefer to live near their parents (see also Mogey, 1956, pp. 54–55; Rosser and Harris, 1965, pp. 214–215). Young and Willmott (1957) reported that more than two thirds of their respondents in Bethnal Green lived within two or three miles of their parents. In this working class neighbourhood in East London, the mother–daughter bond was especially strong, with over half of the married women reported seeing their mother the day before the interview, and 80% within a week. Young and Willmott (1957, p. 61) claimed that '[after marriage] the daughter continues to live near her mother. She is a member of her extended family. She receives advice and support from her in the great personal crises and on the small domestic occasions'. Very similar results were reported in a Swansea-based study by Rosser and Harris (1965, pp. 218–219).

But it would seem that social change was already afoot. Young and Willmott (1957, ch. 9) argued that suburbanisation was weakening the extended family. In a companion study, they reported that extended family ties were weaker among the middle class (Willmott and Young, 1960).[2] In

[2]To be more precise, the thesis that Willmott and Young (1960, p. 78) advanced is at once stronger and more specific. They argued that social mobility 'creates a barrier inside

light of the trends of 'counterurbanisation' (Champion, 1989, pp. 87–90) and of the growth of middle class occupations (Goldthorpe and Mills, 2004, pp. 195–197), we might expect intergenerational links to have weakened.

Indeed, other social changes also bear on the issue. For example, young adults from divorced families often feel less close to, and have less contact with, their father (Cooney, 1994; Booth and Amato, 1994; Furstenberg Jr. *et al.*, 1995; Grundy, 2005; De Graaf and Fokkema, 2007). Thus, the sharp increase in the divorce rate in Britain since the late 1960s might weaken intergenerational ties.

Also relevant is the growing affluence of British society and the development of the welfare state. Affluence affects personal relationships in subtle and intriguing ways (Offer, 2006). But, at the minimum, affluent societies offer market alternatives to the services and support provided by extended family members, e.g. paid nannies and crèches might stand-in for grandparents in childcare. Similarly, the welfare state is an important source of instrumental support for many individuals (Blome *et al.*, 2009). As British society became more affluent, and as the welfare state developed over the postwar period, we would expect individuals to become less dependent on the extended family.

However, despite these social trends, recent sociological studies often conclude that the extended family has remained strong in Britain. For example, McGlone *et al.* (1999) compare data from the British Social Attitudes Surveys of 1986 and 1995, and report a general decline in the frequency of contact with kin and best friend. This decline is 'particularly true of contact with parents and children' (McGlone *et al.*, 1999, p. 146). Nevertheless, they also claim that 'the family remains an important source of help, especially for young families' (McGlone *et al.*, 1999, p. 154). Similarly, Grundy (2005, p. 233) analyses data from a retirement survey conducted in 1994 and reports that 'between two thirds and three quarters of parents were involved in some sort of exchange relationship with at least one of their children'. She also maintains that this exchange relationship is strongly reciprocal, and that children are responsive to parent's needs. Finally, in a study that is designed to replicate the Swansea study of Rosser and Harris (1965), Charles *et al.* (2008, p. 120) note that '[Rosser and Harris] found . . . that support was widely exchanged [within the extended family], and our findings, more than 40 years later, paint a very similar picture'. More generally, they conclude that 'the character of family life and of the relationships formed by those

the family only for men, not for women'. Subsequent research in the US had found little evidence supporting the thesis that occupational mobility weakens the extended family (see e.g. Litwak, 1960).

who do "do" family in Swansea in 2002 is remarkably similar to that reported by Rosser and Harris for Swansea in 1960 and by Young and Wilmott for Bethnal Green in 1957' (Charles *et al.*, 2008, p. xii).

1.2 A longer historical view

In short, most British sociologists, echoing Mancini and Blieszner (1989), accept that instrumental support is regularly exchanged between parents and adult children in contemporary Britain. As noted above, this view can be understood as a critique of the master narrative on the long term trend of kinship and family. But it is not the only critique. Coming from quite a different angle, social historians and historical demographers have converged to a 'revisionist' view which holds that 'the nuclear family was in fact typical of English society from at least the Middle Ages' and that 'for most English people below the aristocracy in the sixteenth, seventeenth and early eighteenth centuries, kinship ties beyond the nuclear family were of limited significance' (Tadmor, 2010, pp. 18–19).[3]

Similarly, Thomson (1984) argues that it was not common in nineteenth century England for adult children to provide material support to their parents. He acknowledges that the Poor Law statute of 1601 (and its 1834 amendment) required individuals to support relations in need. But the legal and social reality was quite different from the letter of the law. First, in the 1840s, about half of all men and women in their sixties were in fact regularly maintained by the Poor Law at the expense of the local community. For those in their seventies, the proportion was even higher. Further, the Poor Law pensions were much more generous than that of the post-1945 British welfare state (Thomson, 1984, pp. 267–268).

Secondly, the legal obligations of individuals to support their elders were limited in many ways. For example, in-laws incurred no obligation: 'a woman's obligation toward her parents ceased upon marriage, and her husband did not assume it for her ... the obligation to help support the aged did not extend to grandchildren' (Thomson, 1984, pp. 268–269). Individuals' obligations were further circumscribed by the way in which the Poor Law was interpreted and implemented. 'The petitioner for assistance had ... to prove actual destitution before the magistrates. Being poor in relation to a child's immense wealth was insufficient ... A person who was even partially self-supporting in old age could not be judged as destitute and impotent, and no

[3]The 'revisionist view' is based on a wide range of authoritative work in history and historical demography, most prominent of which is the work of Peter Laslett, Alan MacFarlane, Tony Wrigley and others associated with the Cambridge Group for the History of Population and Social Structure.

liable relative could be compelled to contribute towards the maintenance of the elder' (Thomson, 1984, pp. 269–270).

Finally, having reviewed court records of Poor Law authorities, Thomson (1984, p. 273) notes that 'nineteenth-century men who fathered bastard children, who deserted their wives or families, or who had lunatic relatives being maintained at public expense in asylums were prosecuted, fined and imprisoned with regularity and in considerable numbers ... But there were no prosecutions for failure to maintain parents'. In the seventeenth to eighteenth centuries it was not uncommon for elderly parents to be receiving Poor Law support while their children lived in the same parish (Smith, 1996). Summarising the evidence, Thomson (1991, p. 199) concludes that 'quite simply, it was "unenglish" behaviour to expect children to support parents', and that 'making children support parents was alien and offensive to English society' (Thomson, 1991, p. 200).

More generally, in a paper on how individuals in hardship, especially the young and the old, could look to their kin for support, Laslett (1988, p. 164) maintained that '[in] the late eighteenth and early nineteenth centuries ... transfers to the poor through the collectivity were much more important than resources reaching them from kin outside their own families'. By 'the collectivity', Laslett (1988, p. 154) meant 'friends and neighbours, along with the church and charitable institutions, as well as the village, town or state', i.e. non-kin. Indeed, echoing Thomson, Laslett (1988, p. 166) argued that 'effective kin relations in England did not usually go beyond a person's immediate family. The potential value of the wider kin network as an insurance against misfortune ... seems to have been of little or no significance'.

If the extended family was *not* an important source of instrumental support in early modern England, then it would be difficult to speak of any subsequent decline.[4] In other words, for England at least, the master narrative might be flawed not so much because it wrongly asserts a downward trend, but because it erroneously assumes a high starting point. And if we were to take the findings of *both* historical demography *and* contemporary sociological research at face value, then we would arrive at the rather improbable conclusion that in England extended family ties have actually strengthened with industrialisation. In any case, the results of our empirical analysis should be interpreted against this historical background.

[4]See also Hareven (1994, pp. 441–442) who cautions against myths about the golden past of the extended family in America as well as in Europe.

2 Data and analytical strategy

We use data collected in the British Household Panel Survey (BHPS) to explore the pattern and dynamics of intergenerational exchange in contemporary Britain.[5] In 2001 and 2006 BHPS respondents were asked whether they have relatives of several kinds who were *not* living with them. Those with a non-coresident mother and/or a non-coresident father were then asked about their parents' age, whether their parents live together, how far away their parents live, and how often they keep in touch by visits, telephone or email. A similar set of questions were asked of those who have a non-coresident adult child.[6] Crucially, respondents were also asked 'Nowadays, do you regularly or frequently *do* any of the things listed on this card for your parents (child)? ... And do you regularly or frequently *receive* any of the things listed on this card from your parents (child)?' The eight types of assistance listed on the showcard are as follows:

a. Giving them (you) lifts in your (their) car.

b. Shopping for them (you).

c. Providing or cooking meals.

d. Helping with basic personal needs like dressing, eating or bathing (Looking after your children).

e. Washing, ironing or cleaning.

f. Dealing with personal affairs, e.g. paying bills, writing letters.

g. Decorating, gardening or house repairs.

h. Financial.

It is a major advantage of the BHPS that it allows us to examine intergenerational exchange from both the child's and the parent's viewpoints.[7]

[5]The BHPS began in 1991 by interviewing all members of about 5,500 households, and it has followed these people and their children (when they reach the age of 16) in annual interviews in the subsequent years. More information about the BHPS is available from `http://www.iser.essex.ac.uk/bhps`.

[6]For respondents with multiple non-coresident children, the questions are about the child with whom parents had the most contact.

[7]Data that would support such analysis is rare. For example, the Survey of Health, Ageing and Retirement in Europe (SHARE) only collects information from the parent population.

Our 'children sample' consists of those respondents aged 25 to 54 who have at least one non-coresident parent, and our 'parents sample' are those aged 55 or over who have at least one non-coresident child. But note that the two sub-samples are *not* matched to each other. Indeed, the parent of some members of our children sample were younger than 55, and the child of some members of our parents sample might be older than 54.[8] In what follows, we carry out parallel analyses on the two sub-samples. We first report some cross-sectional results on the actual instances of intergenerational exchange. Then we explore the latent potential for intergenerational exchange with panel data, using fixed effects models.

3 Results

3.1 Cross-sectional analysis

Table 1 shows the frequency of intergenerational exchange in 2001 and 2006. Four points are notable here. First, there is considerable variation by type in the frequency of giving and receiving. For example, over a quarter of the children regularly give their parents lifts in a car. But no more than 2% help their parents with 'basic personal needs like dressing, eating or bathing', which suggests that most parents are in good health. It is also notable that about one third of the parents regularly help their children with childcare, but only 5% deal with their children's personal affairs (see bottom left panel). Secondly, the responses are, broadly speaking, stable over time. Thirdly, although the children sample and the parents sample are not matched onto each other, the overall picture of help given by children is comparable to that of help received by parents, and vice versa. (Compare the top left panel with the bottom right panel, and the top right panel with the bottom left panel.) Fourthly, about four in ten children regularly give at least one kind of help to parents, or receive at least one kind of help. Conversely, a small majority of adult children are not engaged in intergenerational exchange at all in a given year. Intergenerational exchange is slightly more common from the parents' standpoint, with just over half of the parents giving at least one kind of help, and just under half receiving at least one kind of help. For both children and parents, the mean number of help items given or received is about one.

The data of Table 1 can be analysed with latent class models, much in the same way as Hogan *et al.* (1993) or Silverstein *et al.* (1997). But it turns out that a simple dichotomy contrasting giving (or receiving) 0 to 1 item against 2 to 8 items captures the best fitting latent class solution very

[8]There is no information on the age of non-coresident children in the BHPS.

Table 1: Percentage of children and parents regularly giving or receiving help in 2001 and 2006

child	giving		receiving	
	2001	2006	2001	2006
a. lift in car	26.7	28.7	12.4	13.9
b. shopping	17.8	17.7	9.1	9.5
c. cooking	8.8	8.8	13.4	14.7
d. personal needs/childcare	2.0	1.6	21.6	24.2
e. washing, ironing	5.3	4.8	6.6	7.1
f. personal affairs	11.9	10.8	3.3	2.6
g. decorating	18.8	18.3	9.4	11.1
h. financial	5.3	4.4	12.6	13.4
any	43.4	44.1	42.4	46.2
mean (number of items)	0.97	0.95	0.88	0.96
s.d. (number of items)	1.44	1.41	1.37	1.38
N	3839	3499	3839	3499
parent	giving		receiving	
	2001	2006	2001	2006
a. lift in car	13.3	15.4	33.0	32.4
b. shopping	11.3	12.4	23.0	21.8
c. cooking	15.9	18.4	14.7	16.1
d. childcare/personal needs	32.5	34.1	1.5	1.2
e. washing, ironing	8.7	9.0	5.8	4.3
f. personal affairs	5.4	5.4	9.1	7.9
g. decorating	12.5	12.1	17.5	15.4
h. financial	19.7	23.8	2.9	2.7
any	53.9	58.4	48.5	46.5
mean (number of items)	1.19	1.31	1.07	1.02
s.d. (number of items)	1.50	1.57	1.47	1.40
N	2099	2150	2099	2150

Table 2: Distribution of children and parents by number of items given and received in 2001 and 2006 (cell %)

child	2001			2006			
	receiving				receiving		
giving	0–1	2–8		giving	0–1	2–8	
0–1 item	61.4	12.9	74.3	0–1 item	60.1	15.0	75.1
2–8 items	15.9	9.8	25.7	2–8 items	14.8	10.2	24.9
	77.3	22.7			74.8	25.2	
parent	2001			2006			
	receiving				receiving		
giving	0–1	2–8		giving	0–1	2–8	
0–1 item	50.3	17.3	67.7	0–1 item	50.7	15.6	66.3
2–8 items	20.3	12.1	32.4	2–8 items	21.0	12.7	33.7
	70.6	29.4			71.7	28.3	

well.[9] Using this cut-off, Table 2 shows that in both 2001 and 2006 about 60% of the children and one-half of the parents are engaged in very little intergenerational exchange, and only about one-tenth of the children (and one-eighth of the parents) routinely give help to *and* receive help from their parents (children). This cross-sectional view suggests that the overall level of intergenerational exchange in contemporary Britain is comparable to that of the US as reported by Hogan *et al.* (1993).

To explore the covariates of intergenerational exchange, we report in Table 4 two sets of OLS regressions in which the number of help items given or received are the dependent variables. These regressions are run on pooled 2001 and 2006 data, with robust standard errors to adjust for repeated observations.[10] Descriptive statistics of the covariates of these cross-sectional regressions are provided in Table 3, which should be mostly self-explanatory. But we note that the distance dummies are respondents' assessment of travelling time to their parent or child, and social class is coded according to the Goldthorpe class schema.[11]

Starting with the children (left panel of Table 4), it can be seen that older respondents, those with siblings, and men are less involved in intergenerational exchange. Giving and receiving also decline monotonically and quite

[9]The results of our latent class analysis are available from the authors on request.

[10]The results of separate 2001 and 2006 regressions are in most cases very similar to those reported here, and are available from the authors on request.

[11]Where respondents were not employed at the time of interview, we refer to their last reported occupational class.

Table 3: Descriptive statistics of pooled cross-sectional data: % or mean (s.d. in brackets)

	child	parent
year (2001)	54.0	49.5
female	55.1	56.3
couple*	83.5	70.7
never married	7.6	
div/sep/wid	9.0	29.3
no child*	45.5	
youngest child aged 0–4	22.9	
youngest child aged 5–15	31.6	
grandchildren		80.8
good health*	76.6	59.9
fair health	16.8	27.2
poor health	6.6	12.9
siblings	89.0	
London*	7.3	7.3
Rest of England	78.4	79.2
Wales	5.5	5.5
Scotland	8.8	8.0
distance (<30min)*	62.8	65.9
distance (30–60min)	11.1	9.8
distance (60–120min)	10.0	8.8
distance (>120min)	16.1	15.5
class I+II*	44.8	28.9
class III	21.4	23.8
class IV	8.0	9.4
class V	6.3	8.1
class VI+VII	19.5	29.8
parent–class I+II*	33.8	
parent–class III	20.5	
parent–class IV	10.9	
parent–class V	8.6	
parent–class VI+VII	26.3	
parent together*	56.4	
parent separated	14.8	
only mother	18.7	
only father	10.1	
age	39.6 (7.3)	67.8 (9.3)
parent's age	68.3 (8.9)	
log household income	10.3 (0.9)	9.8 (0.9)
number of children		2.3 (1.2)

Note: * reference category for categorical variables with 3 or more levels.

sharply with travelling distance to parents. Controlling for distance, Scots give and receive more help than Londoners.

Table 4 also suggests that children and parents are responsive to each other's needs. Thus, respondents who are not in a partnership, those with children of their own, those in poor health, and those with lower household income receive more help from parents. At the same time, children give more if their parents are older, or in routine white collar or working class occupations (classes III, V, VI or VII). Finally, compared to those with two surviving parents who live together, those with separated parents, or those with only one parent receive less help, and children with a widowed mother give more.

Turning to the right panel of Table 4, there is again evidence that both parents and children are responsive to each other's needs. Thus, older parents, parents who are divorced, separated or widowed, and those in poorer health give less help but receive more help. Also, parents give more help to children if there are grandchildren. Furthermore, mothers receive more help, and geographical proximity is again the strongest predictor for intergenerational exchange. Controlling for distance, parents in all regions receive more help than Londoners. Finally, parents in classes III, V, VI and VII give less help to children when compared to the reference category of salariat parents.

How strong are these associations in substantive terms? Consider a forty year old woman who lives in London with a child under 4; she comes from a working class background (i.e. parents in class VI+VII) and has siblings; she works as a secretary (class III), earning the sample mean income; her parents live together, the older of whom is 70 year old, and they live under 30 minutes away. Under our model for child respondents, if this hypothetical woman is married and in good health, then she would receive 1.39 items of help from her parents. But if she is divorced and in poor health, then she would receive 2.16 items of parental help. The difference of .77 item, which is about half a standard deviation of the dependent variable, is not trivial. Indeed, it is enough to move our hypothetical respondent across the '0–1 v 2–8' threshold.

As regards parents, consider a hypothetical woman who is 70 years old; she lives in London, and has two children and some grandchildren who live under 30 minutes away; she used to work in a working class occupation, and now her income amounts to about 70% of the sample mean income. If she is healthy and has a partner, she would receive .85 item of help from her children. But if she is widowed and in poor health, then she would receive 2.02 items of help, which is just over the threshold.

Note that in both hypothetical cases geographical proximity is a key parameter. Had the child (parent) lived more than 30 minutes away from her

Table 4: Cross-sectional OLS regression using pooled data, number of help items given or received as dependent variables.

	child				parent			
	giving		receiving		giving		receiving	
	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*
age	−.016**	.005	−.028**	.004	−.044**	.002	.028**	.002
female	.242**	.046	.276**	.040	.089	.057	.308**	.047
never married	.170	.090	.506**	.087				
div/sep/wid	.030	.082	.562**	.094	−.171**	.054	.536**	.055
youngest child 0–4	−.116*	.048	.507**	.055				
youngest child 5–15	−.039	.049	.399**	.042				
number of children					−.001	.021	.071**	.019
having grandchildren					.532**	.061	.047	.051
fair health	.089	.057	.092	.053	−.164**	.052	.245**	.047
poor health	.023	.088	.203*	.086	−.290**	.067	.638**	.079
siblings	−.241**	.075	−.252**	.065				
Rest of England	.029	.081	.093	.063	−.003	.091	.224**	.067
Wales	.179	.134	.160	.108	.048	.132	.397**	.123
Scotland	.218*	.105	.356**	.093	−.026	.114	.381**	.104
distance (30–60min)	−.543**	.065	−.449**	.059	−.530**	.075	−.397**	.066
distance (60–120min)	−.654**	.062	−.689**	.054	−.684**	.078	−.664**	.060
distance (>120min)	−.823**	.054	−.782**	.048	−.990**	.057	−1.012**	.047
class III	−.014	.059	.082	.057	−.195**	.074	−.051	.060
class IV	.158	.097	−.090	.073	−.157	.100	−.043	.071
class V	.030	.084	−.071	.085	−.239*	.101	.125	.089
class VI+VII	.016	.063	−.031	.055	−.309**	.066	.093	.060
log household income	−.038	.029	−.082**	.029	.052	.029	.017	.025
parent–class III	.128*	.061	−.012	.059				
parent–class IV	.091	.075	.030	.078				
parent–class V	.187*	.080	−.115	.072				
parent–class VI+VII	.266**	.061	−.147**	.056				
parent's age	.038**	.004	−.000	.003				
parent separated	.097	.059	−.330**	.062				
only mother	.584**	.066	−.244**	.048				
only father	.073	.081	−.387**	.059				
constant	−.586	.393	2.969**	.364	3.857**	.396	−1.759**	.363
R^2	.156		.213		.174		.252	
N	4703		4703		4053		4053	

Robust *s.e.* adjusted for clustering, * $p < .05$, ** $p < .01$

Table 5: Probability of child respondents giving or receiving 'lift in car' in 2006 by their response in 2001 (row %)

	give 2006			receive 2006	
2001	no	yes	2001	no	yes
no	0.83	0.17	no	0.94	0.06
yes	0.34	0.66	yes	0.59	0.41

parent (child), then the instrumental support received would still be under the threshold. And, of course, within constraints, people might choose where they live partly according to family consideration.

To sum up, the results of our cross-sectional analysis are quite mixed. On the one hand, the level of actual instances of intergenerational exchange in Britain is rather low, and at a level that is comparable to the US (Hogan *et al.*, 1993). This is contrary to the accepted views of most British sociologists. On the other hand, the results of our cross-sectional regression are broadly in line with those reported in previous studies, and there is abundant evidence to suggest that parents and children are sensitive to each other's needs. However, as noted above, to assess the significance of the extended family as a source of instrumental support, we need to consider not only *actual instances* of intergenerational exchange, but also its *latent potential*. With this in mind, we now turn to panel data analysis.

3.2 Panel data analysis

Panel data allows us to study behavioural change of individuals over time. Here our first notable finding is an asymmetric pattern in the ebb and flow of intergenerational exchange. Consider, for example, children giving and receiving lifts in a car. The left panel of Table 5 shows that of those children who did not give their parents lifts in 2001, 17% did so in 2006; and for those who gave lifts in 2001, 34% had stopped by 2006. That is, the stopping probability is twice the starting probability. The right panel of Table 5 shows that the disparity is even larger for receiving lifts, where the stopping probability (.59) is almost ten times that of the starting probability (.06).

Indeed, Figure 1 shows that this pattern holds true for all eight help items, for both giving and receiving, and for children as well as for parents. Averaging across the eight help items within each panel, the mean starting probabilities are no higher than .1, while the mean stopping probabilities are at least .5 (see the bottom row of the four panels). Low starting probabilities

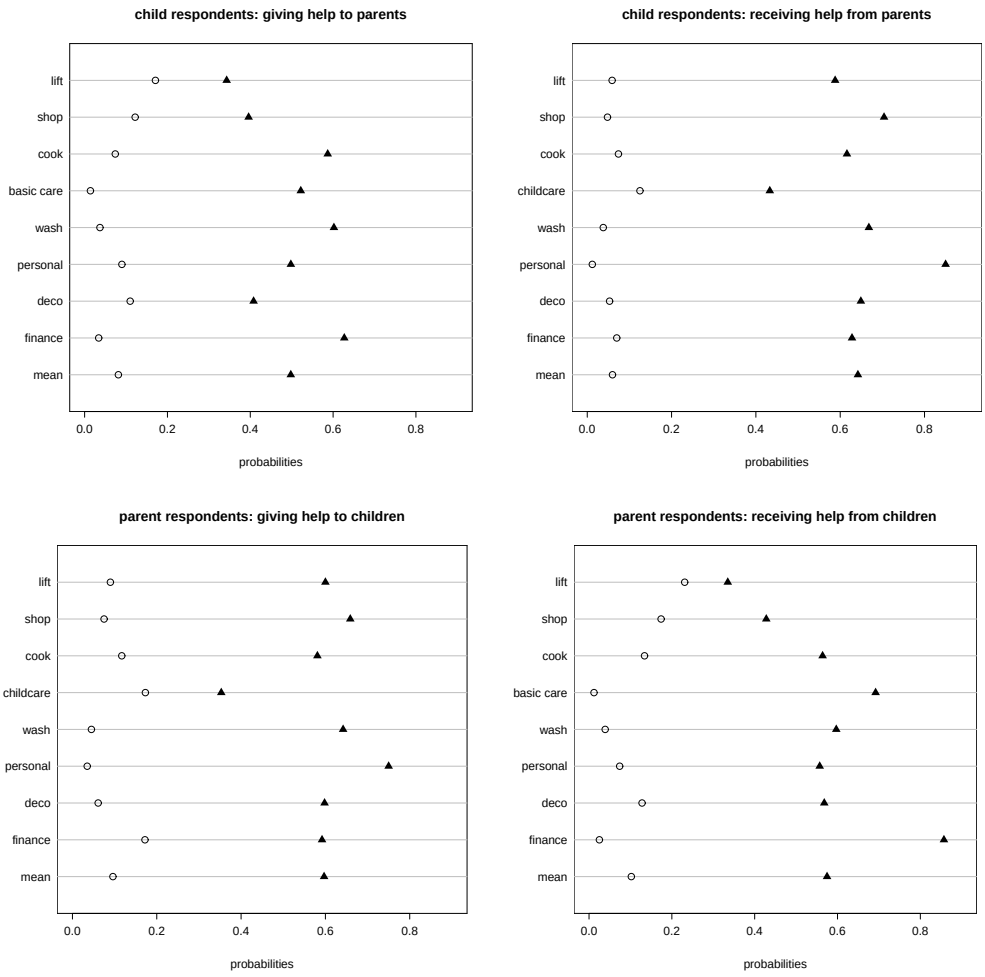

Figure 1: Starting (○) and stopping (▲) probabilities of intergenerational exchange

mean that intergenerational exchange is rare, while high stopping probabilities mean that any help rendered does not last very long. Together, they imply low equilibrium levels of intergenerational exchange, which is consistent with the results of our cross-sectional analyses.[12]

[12]It can be shown that, under conventional Markov assumptions, $\pi = p/(p+q)$, where π is the equilibrium level of intergenerational exchange; p and q are the relevant starting and stopping probabilities respectively.

3.2.1 Fixed effects OLS regressions for volume of exchange

Next, we examine the determinants of the turnover of exchange behaviour with fixed effects (within-person) regressions. This has an important advantage over cross-sectional analyses because in cross-sectional regressions persistent but unobserved influences on a person's behaviour, reflecting for example preferences or inclinations, may be correlated with observed factors such as health or financial situation. If this is the case, the parameter estimate of the latter would be biased. Allowing for such persistent unobserved influences with panel data provides a clearer picture of the true impacts of circumstances. Consider also the lack of information in the BHPS (and in other data sets) of the wider social networks in which the parent–child dyad is embedded. As other kins and friends might serve as alternative sources of instrumental support, their omission from the cross-sectional analysis might lead to biased estimates. However, if the wider social networks of individuals are broadly stable over five years, then their omission is less problematic in a fixed-effects regression framework.

In our fixed effects regression, we allow for the possibility of asymmetric responses to improvement and deterioration in circumstances. To do so, we derive from the BHPS several sets of covariates which measure opposite life experiences between 2001 and 2006 (as against the reference category of no change). To give an example, Table 6 shows that 90% of the children are in the same marital status in both years, 5% have experienced partnership breakup, and roughly the same number have got married or formed a cohabiting union. The rest of Table 6 should be fairly self-explanatory. But we note that the 'change in health' covariates are based on a comparison of response to the following BHPS question in 2001 and 2006: 'Please think back over the last 12 months about how your health has been. Compared to people of your own age, would you say that your health has on the whole been (1) excellent, (2) good, (3) fair, (4) poor, (5) very poor?' As regards 'change in finance', we compare the response to the following question in 2001 and 2006: 'How well would you say you yourself are managing financially these days? Would you say you are (1) living comfortably, (2) doing alright, (3) just about getting by, (4) finding it quite difficult, (5) finding it very difficult'.

In Table 7 we report the results of fixed effects regression models as applied to our panel data. The dependent variables are the number of help items given or received by children (left panel) or by parents (right panel).[13]

[13]The bottom line of Table 7 shows that the Hausman test favours the fixed effects model over the corresponding random effects model. The same is true of the models reported in Table 8.

Table 6: Descriptive statistics for panel data analysis (%)

	child	parent
marital status—no change	89.7	91.9
couple[a] to single	5.4	7.4
single to couple	5.0	0.8
children under 4—no change	73.8	
more children under 4	10.2	
fewer children under 4	16.0	
grandchildren—no change		57.1
more grandchildren		29.0
fewer grandchildren		13.9
financial situation—no change	49.0	54.2
finance got worse	25.4	23.1
finance got better	25.7	22.7
health—no change	53.7	50.8
health got worse	22.5	28.6
health got better	23.8	20.6
distance—no change	72.2	60.8
move closer	12.6	18.5
move further away	15.1	20.8
lost one parent	11.8	

Note: [a] married or cohabiting.

Starting with the children, it can be seen that moving further away from parents is associated with less intergenerational exchange, while moving closer to parents has the opposite association.[14] Those who have lost a parent between 2001 and 2006 give more help but receive less help. Partnership breakup and gaining young children are associated with receiving more help. These findings again suggest that children and parents are responsive to each other's needs. Also, respondents who have fewer young children in 2006 give more help to parents, perhaps because they have more time.

But it is interesting to note that while the parameters for worsening finance or health are *not* statistically significant, children receive significantly less help if their finance or health improves between 2001 and 2006. In this sense, parents' response to the changing circumstances of children is asymmetric. Finally, the positive estimate for the parameter of 'finance got worse' in the column of 'child giving help' is puzzling. But it might be interpreted as follows: giving help to parents is often financially taxing for adult children, either because it involves direct monetary transfer, or a reduction of children's work hours. In other words, we may be observing causation from helping parents to worsening finance.

Broadly speaking, the various parameters in the left panel of Table 7 are of comparable magnitude. For example, other things being equal, children who had experienced partnership breakup would receive more parental help: an increase of .42 item (about one third of a standard deviation of the dependent variable), while children with improving financial situation would receive less parental help by .30 item (about a quarter of the standard deviation).

Turning to the parents (right panel of Table 7), it can be seen that moving closer to children is associated with more intergenerational exchange. But the parameters for moving further away are not statistically significant. Parents with worsening health give less help but receive more help from children. Becoming a widow or widower is also associated with receiving more help.[15] In substantive term, the estimate for widowhood (.87 item) is quite substantial. This again suggests that children are responsive to their parents' needs in a critical life transition.

3.2.2 Fixed effects logistic regressions for specific kinds of support

The findings of Table 7 are informative, but those fixed effects OLS regressions treat all help items as equivalent. Since the dynamics driving the

[14]The parameter for 'moving closer to parents' in the column of 'child giving help' is marginally insignificant ($p = .07$).

[15]Strictly speaking, the parameter refers to becoming widowed, separated or divorced. But widowhood accounts for over 90% of these changes.

Table 7: Fixed effects regression models: number of items of help given or received by child and parent as dependent variables

	child ($N = 2768$)				parent ($N = 1547$)			
	giving		receiving		giving		receiving	
	$\hat{\beta}$	$s.e.$	$\hat{\beta}$	$s.e.$	$\hat{\beta}$	$s.e.$	$\hat{\beta}$	$s.e.$
couple to single	−.014	.114	.424**	.109	.091	.153	.872**	.132
single to couple	−.167	.118	−.040	.112	.476	.456	−.281	.395
more kid under 4	−.105	.084	.266**	.080				
fewer kid under 4	.151*	.069	.035	.066				
more grandchildren					−.109	.084	−.083	.072
fewer grandchildren					.279*	.115	−.013	.099
finance got worse	.127*	.057	.000	.055	−.157	.093	.073	.080
finance got better	.063	.057	−.297**	.054	.022	.095	.117	.082
health got worse	.052	.060	.013	.057	−.411**	.087	.210**	.075
health got better	.040	.058	−.191**	.056	−.017	.096	−.036	.083
lost one parent	.313**	.078	−.384**	.075				
move closer	.140	.076	.293**	.073	.473**	.102	.266**	.088
move further away	−.381**	.071	−.220**	.067	−.045	.097	.000	.083
constant	.972**	.016	.919**	.016	1.312**	.026	.953**	.022
σ_u	1.282		1.157		1.345		1.196	
σ_ϵ	.955		.911		1.111		.960	
ρ	.643		.617		.595		.608	
Hausman test χ^2	59.63**		127.34**		85.46**		25.93**	

* $p < .05$, ** $p < .01$

various kinds of intergenerational exchange might be different, the results of Table 7 might mask interesting variations. In particular, childcare and 'basic personal care' (item d of Table 1) are more personal, and there is less scope for substitutes: e.g. grandparents want to take care of one particular child, namely their grandchild, not any child. Also, financial support (item h) is distinctive in that it is less constrained by geographical distance. For these reasons, we treat items d and h separately, and combine the rest as a single item.

In Table 8 we report the results of fixed effects (conditional) logistic regression models in which the dependent variables are these binary outcomes. The fixed effect allows each person to have their own (unobserved) baseline from which changes in the explanatory variables are measured. The coefficients in these regressions measure the impact of changing circumstances on the log odds of receiving (giving) help.[16] Note that we do not report the results for the following four regressions because of small Ns: child giving personal care to parent ($N = 63$), child giving financial help to parent ($N = 173$), parent receiving personal care from child ($N = 28$) and parent receiving financial help from child ($N = 67$).[17]

Starting with the children, in line with expectation, there are interpretable differences across the columns of the top panel of Table 8. For example, the parameters for geographical proximity are marginally insignificant in the column for receiving financial help, but they are mostly significant, and in the expected directions, in the other columns. There are sensible commonalities too, e.g. those who have lost a parent are less likely to receive help of all kinds, and are more likely to give 'other' help to the surviving parent.

Looking at individual help items, we see that respondents who have gained young children are more likely to receive parental help with childcare. The magnitude of this parameter is very large: compared with the reference category, those gaining young children see their odds of receiving childcare help increases almost tenfold ($e^{2.284}$). The parameter for 'fewer children under 4' is also positive and significant, though the magnitude of this parameter is much lower at .440. The reason for the positive estimate

[16]The estimates from these regressions are based on the information of those respondents whose exchange behaviour has changed between the two years (analogous to the two off-diagonal cells in Table 5). Also, these models impose a symmetry in the sense that the starting and the stopping of receiving (giving) help are governed by the same parameter.

[17]The small Ns in these four cases are, in turn, due to two things. First, most child respondents did not give personal care or financial help to their parent in 2001. Correspondingly, most parents did not receive personal care or financial help from child in 2001. Secondly, the starting probabilities of these two kinds of help are very low (see the relevant row of Table 1 and Figure 1). Details are available from the authors on request.

Table 8: Fixed effects logistic regression models

child	receiving						giving	
	childcare		finance		other		other	
	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*
couple to single	.597	.470	1.108**	.407	1.012*	.413	.333	.353
single to couple	.240	.452	−.229	.426	.192	.301	−.171	.352
more kid under 4	2.284**	.305	−.584	.357	.177	.245	−.035	.232
fewer kid under 4	.440*	.216	.146	.275	.268	.207	.447*	.211
finance got worse	−.067	.207	.485*	.228	−.087	.182	.191	.167
finance got better	−.605**	.225	−.980**	.250	−.515**	.182	.031	.179
health got worse	.107	.219	−.031	.278	−.007	.194	.108	.190
health got better	−.438*	.215	−.172	.238	−.442*	.183	.080	.172
lost one parent	−1.309**	.324	−.772*	.391	−.679**	.242	.457*	.221
move closer	.409	.295	.648	.333	.470*	.239	.548*	.223
move further away	−.645*	.276	−.594	.319	−.580*	.226	−.850**	.209
N	550		391		648		728	
Hausman test χ^2	403.45**		51.19**		34.54**		57.00**	
parent	giving						receiving	
	childcare		finance		other		other	
	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*	$\hat{\beta}$	*s.e.*
couple to single	−1.127*	.511	1.164*	.470	.397	.382	1.235**	.415
single to couple	14.826	929.083	.683	.914	−.153	.922	.895	1.197
more grandchildren	.378	.230	−.256	.220	−.306	.208	−.079	.202
fewer grandchildren	1.378**	.305	.027	.290	−.126	.294	.298	.297
finance got worse	−.210	.266	−.029	.260	−.523*	.230	.503*	.242
finance got better	−.476	.265	.855**	.262	−.504*	.243	.304	.228
health got worse	−.735**	.241	−.762**	.230	−.601**	.223	−.037	.221
health got better	−.375	.286	−.007	.260	−.019	.248	.126	.245
move closer	1.158**	.305	.782**	.273	1.039**	.261	.317	.248
move further away	−.155	.299	.100	.243	−.081	.222	−.330	.234
N	369		404		446		432	
Hausman test χ^2	71.43**		31.87**		32.86**		96.37**	

* $p < .05$, ** $p < .01$

of this parameter is that the great majority (92%) of those in the reference category have no child under 4 in both years, and so both 'young children parameters' also indicate the presence of children.

Evidently, grandparenting is the kind of intergenerational support that parents are most keen to provide. However, consistent with what we have seen before, children with improving finance or health also receive less help with childcare. Thus, if the financial situation of child respondents has improved at the same time as they gain young children of their own, the odds of receiving childcare help will increase by a still substantial but more modest factor of 5 ($e^{2.284-.605}$).

From the second column of the top panel, it can be seen that children who have become single and those with worsening finance are more likely to receive financial support. But those with improving finance are likely to see financial help withdrawn, and the absolute magnitude of this parameter is much larger than that for worsening finance (-.980 as compared to .485). So the asymmetrical pattern that we saw in Table 7 and in other columns of Table 8 remains, albeit with some qualifications.

Turning to the third column, partnership breakup is very strongly associated with receiving 'other help'. But improving finance or health is again associated with withdrawal of parental help. The fourth column of the top panel of Table 8 shows that children with fewer young children are more likely to offer 'other help' to parents.

As regards parents (bottom panel of Table 8), we see that those with worsening health are less likely to give help of all kinds. And those who live closer to children are more likely to give help to children, including financial support. The parameters for moving further away are, however, not statistically significant.

Parents who became a widow or widower are less likely to offer childcare support, but they are more likely to give financial help. They are also likely to receive 'other' help. Finally, those with worsening finance are less likely to give, but are more likely to receive 'other' help. And those with improving finance are likely to give financial support but not 'other' help.

4 Summary and discussion

In this paper, we use data from the British Household Panel Survey to test the latent kin matrix hypothesis. We exploit the panel data more fully than previous research to examine the latent potential as well as actual instances of intergenerational exchange. The BHPS data also have the advantage of having information from both sides of the exchange, parents and adult chil-

dren, although the parents sample and the children sample are not matched to each other.

Viewed in the cross-section, exchange of material and practical support between parents and adult children is relatively rare. In both 2001 and 2006, only one in ten children and one in eight parents were regularly giving *and* receiving more than one item of help; and some 60% of the children and half of the parents were involved in very little intergenerational exchange. This pattern is consistent with the result reported for the US by Hogan *et al.* (1993).

Viewed longitudinally, the starting probabilities of intergenerational exchange are generally quite low, while the stopping probabilities are often multiples higher. Low starting probabilities mean that intergenerational exchange is rare, and high stopping probabilities mean that any help rendered is temporary in nature. Together, they imply low equilibrium levels of exchange. There is a further asymmetry in that parental help is often not forthcoming when children's health or finance is worsening, and help is often scaled back when children's health or finance improves. Having said that, children and parents are responsive to each other's needs at critical moments of life transition, such as partnership breakup, widowhood, and childbirth.

Together, these results paint a rather nuanced picture. Intergenerational exchange in contemporary Britain is not extensive or continuous. Instead, it is episodic, conditional and often temporary. In this sense, our results are more consistent with those of the historical demography research than with the community studies reviewed above. Having said that, parents and adult children do rally behind each other at critical life transitions. The significance of having intergenerational support at such moments should not be underestimated. Bearing in mind that most people do go through at least some critical life transitions at some point of their lifecourse, the extended family remains important, at least episodically. Put differently, while intergenerational exchange is the exception rather than the rule in the cross-section, from a life course perspective, it is the other way round. In this sense, our results support the latent kin matrix hypothesis.

Finally, why do our results diverge from those of the community studies? One possible reason is that, as we have seen, geographcial proximity is very strongly associated with the intergenerational exchange. As the samples for the community studies are often drawn from localities where adult children and their parents lived in close proximity, they would be biased towards finding strong intergenerational ties.

References

Bell, C. (1968). *Middle Class Families: Social and Geographical Mobility*. Routledge & Kegan Paul, London.

Blome, A., Keck, W., and Alber, J. (2009). *Family and the Welfare State in Europe: Intergenerational Relations in Ageing Societies*. Edward Elgar, Cheltenham.

Booth, A. and Amato, P. R. (1994). Parental marital quality, parental divorce, and relations with parents. *Journal of Marriage and the Family*, **56**, 21–34.

Champion, A. G. (1989). United Kingdom: population deconcentration as a cyclic phenomenon. In A. G. Champion, editor, *Counterurbanization: The Changing Pace and Nature of Population Deconcentration*, chapter 5, pages 83–102. Edward Arnold, London.

Charles, N., Davies, C. A., and Harris, C. (2008). *Families in Transition: Social Change, Family Formation and Kin Relationship*. Polity Press, Bristol.

Cooney, T. M. (1994). Young adults' relation with parents: the influence of recent parental divorce. *Journal of Marriage and the Family*, **56**, 45–56.

De Graaf, P. M. and Fokkema, T. (2007). Contacts between divorced and non-divorced parents and their adult children in the Netherlands: an investment perspective. *European Sociological Review*, **23**(2), 263–277.

Dennis, N., Henriques, F., and Slaughter, C. (1956). *Coal Is Our Life: An Analysis of a Yorkshire Mining Community*. Eyre and Spottiswoode, London.

Eggebeen, D. J. (1992). Family structure and intergenerational exchanges. *Research on Aging*, **14**(4), 427–447.

Eggebeen, D. J. and Davey, A. (1998). Do safety nets work? the role of anticipated help in times of need. *Journal of Marriage and the Family*, **60**, 939–950.

Firth, R. (1956). *Two Studies of Kinship in London*. Athlone Press, London.

Furstenberg Jr., F. F., Hoffman, S. D., and Shrestha, L. (1995). The effect of divorce on intergenerational transfers: new evidence. *Demography*, **32**(3), 319–333.

Goldthorpe, J. H. and Mills, C. (2004). Trends in intergenerational class mobility in Britain in the late twentieth century. In R. Breen, editor, *Social Mobility in Europe*, chapter 8, pages 195–224. Oxford University Press, Oxford.

Grundy, E. (2005). Reciprocity in relationships: socio-economic and health influences on intergenerational exchanges between third age parents and their adult children in Great Britain. *British Journal of Sociology*, **56**(2), 233–255.

Hareven, T. K. (1994). Aging and generational relations: a historical and life course perspective. *Annual Review of Sociology*, **20**, 437–461.

Hogan, D. P. and Eggebeen, D. J. (1995). Sources of emergency help and routine assistance. *Social Forces*, **73**(3), 917–936.

Hogan, D. P., Eggebeen, D. J., and Clogg, C. C. (1993). The structure of intergenerational exchanges in American families. *American Journal of Sociology*, **98**(6), 1428–1458.

Johnson, D. (2005). Two-wave panel analysis: comparing statistical methods for studying the effects of transitions. *Journal of Marriage and Family*, **67**, 1061–1075.

Kerr, M. (1958). *The People of Ship Street*. Routledge & Kegan Paul, London.

Laslett, P. (1988). Family, kinship and collectivity as systems of support in pre-industrial Europe: a consideration of the 'nuclear-hardship' hypothesis. *Continuity and Change*, **3**(2), 153–175.

Litwak, E. (1960). Occupational mobility and extended family cohesion. *American Sociological Review*, **25**, 9–21.

Lye, D. N. (1996). Adult child–parent relationships. *Annual Review of Sociology*, **22**, 79–102.

Mancini, J. A. and Blieszner, R. (1989). Aging parents and adult children: research themes in intergenerational relations. *Journal of Marriage and the Family*, **51**, 275–290.

McGlone, F., Park, A., and Roberts, C. (1999). Kinship and friendship: attitudes and behaviour in Britain, 1986–1995. In S. McRae, editor, *Changing Britain: Families and Households in the 1990s*, chapter 5, pages 141–155. Oxford University Press, Oxford.

Mogey, J. (1956). *Family and Neighbourhood: Two Studies in Oxford*. Oxford University Press, London.

Offer, A. (2006). *The Challenge of Affluence: Self-Control and Well-Being in the United States and Britain since 1950*. Oxford University Press, Oxford.

Riley, M. W. (1983). The family in an aging society: a matrix of latent relationship. *Journal of Family Issues*, **4**(3), 439–454.

Rosser, C. and Harris, C. (1965). *The Family and Social Change: A Study of Family and Kinship in a South Wales Town*. Routledge & Kegan Paul, London.

Silverstein, M., Bengtson, V. L., and Lawton, L. (1997). Intergenerational solidarity and the structure of adult child–parent relationships in American families. *American Journal of Sociology*, **103**(2), 429–460.

Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., and Bengtson, V. L. (2002). Reciprocity in parent–child relations over the adult life course. *Journal of Gerontology: Social Sciences*, **57B**(1), S3–S13.

Silverstein, M., Gans, D., and Yang, F. M. (2006). Intergenerational support to aging parents: the role of norms and needs. *Journal of Family Issues*, **27**(8), 1068–1084.

Smith, R. (1996). Charity, self-interest and welfare: reflections from demographic and family history. In M. J. Daunton, editor, *Charity, Self-Interest and Welfare in English Past*, pages 23–50. UCL Press, London.

Stacey, M. (1960). *Tradition and Change: A Study of Banbury*. Oxford University Press, Oxford.

Tadmor, N. (2010). Early modern English kinship in the long run: reflections on continuity and change. *Continuity and Change*, **25**(1), 15–48.

Thomson, D. (1984). 'I am not my father's keeper': families and the elderly in nineteenth century England. *Law and History Review*, **2**(2), 265–286.

Thomson, D. (1991). The welfare of the elderly in the past: a family or community responsibility? In M. Pelling and R. M. Smith, editors, *Life, Death, and the Elderly: Historical Perspectives*, chapter 7, pages 194–221. Routledge, London.

Willmott, P. and Young, M. (1960). *Family and Class in a London Suburb*. Mentor, London.

Young, M. and Willmott, P. (1957). *Family and Kinship in East London.* Penguin, Harmondsworth.