

Age-based self-interest, intergenerational solidarity and the welfare state: A comparative analysis of older people's attitudes towards public childcare in 12 OECD countries

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Abstract. When faced with the necessity of reforming welfare states in ageing societies, politicians tend to demand more solidarity between generations because they assume that reforms require sacrifices from older people. Political economy models, however, do not investigate such a mechanism of intergenerational solidarity, suggesting that only age-based self-interest motivates welfare preferences. Against this backdrop, this article asks: Does the experience of intergenerational solidarity within the family matter for older people's attitudes towards public childcare – a policy area of no personal interest to them? The statistical analysis of a sample with individuals aged 55+ from twelve OECD countries indicates that: intergenerational solidarity matters; its effect on policy preferences is context-dependent; and influential contexts must – according to the evidence from twelve countries – be sought in all societal spheres, including the political (family spending by the state), the economic (female labour market integration) and the cultural (public opinion towards working mothers). Overall, the findings imply that policy makers need to deal with a far more complex picture of preference formation toward the welfare state than popular stereotypes of 'greedy geezers' suggest.

In ageing industrial democracies, concerns about the fiscal sustainability of the welfare state are at the top of the political agenda. In a context of growing fiscal austerity and demographic ageing, politicians of all stripes tend to demand more solidarity between generations because reforms of the welfare state seem to require sacrifices from all generations – especially older people. Following these debates, one might question whether 'intergenerational solidarity' really simply represents a catchphrase that enjoys growing popularity or whether it is a relevant social mechanism that is capable of shaping the political feasibility of welfare state reforms in ageing democracies.

Standard political economy models neglect the possibility of solidarity across generations (Persson & Tabellini 2000: 124). With the assumption that individuals behave as self-interested utility maximisers, preferences toward

any welfare programme that redistributes across generations are derived from age-based material self-interest. With the onset of accelerated demographic ageing, this view predicts the elderly will use their political clout to exploit younger generations in the form of more generous pro-elderly welfare programmes. More recently, however, age-based preference formation has been criticised on theoretical and empirical grounds for providing an invalid over-simplification (Busemeyer et al. 2009; Street & Cossman 2006; Tepe & Vanhuysse 2009).

Against this backdrop, we explore the micro-foundation of welfare preferences, arguing that, depending on the societal context, age-based self-interest is restricted and complemented by intergenerational solidarity. The experience of other generations in the family serves as a transmission belt that enables older individuals to integrate the well-being of other generations into their own utility function. It is in families where interactions with members of other generations, which can simply be defined as age groups, are most regular and most intense. Thus, reforms involving intergenerational redistribution at the expense of a certain age cohort should become more feasible if generations feel solidarity towards each other. If intergenerational solidarity exists, it should matter for all kinds of public programmes that involve some degree of intergenerational redistribution such as public healthcare, education, childcare or issues of public debt redemption. In considering motives of intergenerational solidarity, we deviate from the narrow world of single-minded 'greedy geezers' (Street & Cossman 2006) and suggest that policy makers need to deal with a much more complex picture of older people's preference formation toward the welfare state.

To test these ideas, we ask: Does the experience of intergenerational solidarity within the family matter for older people's attitudes towards public childcare? Public childcare tends to benefit parents or soon-to-be parents of small children. As older people are very unlikely to have small children or to have them in the future, they should have no material self-interest in this policy area. Descriptive evidence from our sample of twelve countries (International Social Survey Programme Social Networks II), however, shows that many older people do support the government's role in providing public childcare. Some 72 per cent of people aged 55 and older are in favour of public involvement, and the level of support varies widely across countries – from 41 per cent in liberal welfare states (Australia, Canada, United States) to 96 per cent in South European countries (Italy, Spain). In disentangling this research puzzle, we apply binary logistic regressions to test whether the experience of intergenerational solidarity in the family has an impact on older people's welfare preferences and explore the extent to which these relationships depend on societal contexts.

Our findings can be condensed into three statements. First, intergenerational solidarity matters for older people's attitudes towards public childcare provisions. The motivation of exchange within the family, or altruism rather than pure self-interest, appears to be important for this policy attitude. Second, even though a welfare state regime typology can only partially help us to understand differences between countries, we find that the relationship between intergenerational solidarity depends on societal context. Whereas, generally speaking, more solidarity leads to higher support, there are some contexts in which this effect shrinks to nil. Third, according to the exploratory analysis of twelve countries, influential contexts are characterised by various dynamics: political (the general level of family spending by the state), economic (the extent to which women are integrated into the labour market) and cultural (the public opinion towards working mothers). Overall, the findings suggest that the demand for welfare state policies by older people can *also* be influenced by their own family involvement and is not only subject to egocentric considerations. Policy makers wishing to gain electoral support for welfare reform in ageing democracies must take this more complex picture of preference formation into consideration.

The remainder of the article proceeds as follows. The next section reviews the relevant literature and derives an enriched model of older people's preference formation incorporating intergenerational solidarity and societal context. We then describe the data, methods and variables. The fourth section presents bivariate associations and multiple binary logistic regressions. The final section summarises and concludes the article.

Theoretical framework

In order to understand the attitudes of older people, we need to review existing evidence on individual-level behaviour and attitudes towards welfare state policies. First, we consider theories about individual self-interest and the state, with a special emphasis on age-related self-interest. Second, we integrate the family as a source of intergenerational ties into our theoretical model. Finally, we contextualise intergenerational solidarity by taking welfare regime differences into account.

Age-based self-interest and the welfare state

Political-economic models aiming to explain the size of public programmes start from the assumption that voters solely care about their own economic well-being, with no altruism in their political motivation (Persson & Tabellini

2000: 10). In this framework, attitudes towards the welfare state are interpreted as a derivative of either one's current material situation or of the anticipated risks that one may encounter over the life course, such as labour market risks (Cusack et al. 2006; Iversen & Soskice 2001; Kitschelt & Rehm 2006; Rehm 2009).¹ For this reason, individuals demand re-distributive policies to an extent and quality that supports their own personal situation.

Age-based self-interest implies that the elderly are only willing to support policies that increase their own economic well-being, such as more generously subsidised public pensions, and policies that minimise their tax burden, such as cuts in public education and childcare spending. Given the onset of accelerated population ageing in advanced industrial democracies, advocates of age-based preference formation warn that the elderly will use their growing electoral clout to outweigh the fiscal preferences of younger age cohorts. Voting models in the tradition of Browning (1975) tend to present a gloomy picture of the redistributive consequences of demographic change as the elderly are predicted to increase the generosity of public pensions at the expense of younger generations (IMF 2004; see also Lynch & Myrskylä 2009; Mulligan & Sala-i-Martin 1999, 2003; Persson & Tabellini 2000; Sinn & Uebelmesser 2002).

Empirical evidence on the validity of age-based preference formation, however, yields rather mixed and inconclusive results. On the aggregate level, Strömberg's (2006) examination of Swedish municipalities supports the prediction that the composition of social spending is systematically related to the age of the median voter. Similar findings are reported for Florida in particular, and American school districts overall (Button 1992; Harris et al. 2001). In contrast, exploring macro-spending data across OECD countries, Tepe and Vanhuysse (2009) suggest that ageing democracies are not dominated by a distributive politics of elderly power. The most fine-grained evidence about spending and elderly population is suggested by Berkman and Plutzer (2004) who find that larger groups of recently migrated older people (who are unlikely to have local intergenerational ties) decreases education spending whereas larger groups of long-resident elderly increases education spending (for an overview, see Poterba 1998).

Individual-level survey research that compares older and younger people's preferences towards welfare state policies in general, and towards age-relevant policies in particular, also brings to light ambiguous findings. Street & Cossman (2006) find no support for age-based preferences when comparing the social spending preferences of elderly and younger Americans, whereas Cattaneo & Wolter (2009) show significant differences with regard to education that follow the logic of age-based self-interest with Swiss data. Referenda-based studies of the United States and Switzerland also show voting patterns consistent with

age-based self-interest (Bonoli & Häusermann 2009; Button 1992). However, electoral studies looking at parliamentary voting (Goerres 2007, 2009) suggest that elderly voters record comparatively high voting turnout levels, but do not vote as a homogenous constituency focused on the increasing value of, for example, their pensions. A comparative survey study shows that the elderly tend to be less supportive of more spending on education than younger people, but also that this difference is widely context-dependent and can be close to nil (Busemeyer et al. 2009).²

We think that the ambiguous evidence on the question of whether and when there is age-based self-interest among older people in politics stems from omitted variable bias. Older people are not isolated individuals, but are more or less involved with individuals of other ages. Bringing this dynamic, which we call ‘intergenerational solidarity’, to the forefront should help to make sense of the growing empirical inconsistencies in the dominant age-based explanation mechanism.

Family solidarity and intergenerational ties

As political scientists, we tend not usually to think much about seemingly ‘un-political’ spheres like the family. Exceptions can only be found in political behaviour research, for example, concerning the influence of the family on voting behaviour (Zuckerman et al. 2007). In sociology, solidarity in the family was already observed by Émile Durkheim (1893: I:27), who described the family as a compact form of society impacting on our religious, political and other behaviours.³ According to him, migration to the cities increased the number of people of middle age who were no longer in contact with the older generation living in the countryside and were therefore not subject to the moderating effects of older people and thus did not feel the necessity for solidarity (Durkheim 1893: II&III: 58–63). Even earlier, Adam Smith noticed that the motivations for individual behaviour in the family appeared to follow a different logic – altruism – rather than the motivations in the market – selfishness (quoted in Becker 1981: 1).

For the purpose of explaining the formation of welfare preferences, we suppose that family involvement might affect how individuals consider the interest and needs of other generations. The family can be important for welfare state preferences in two regards. First, it can influence the demands on welfare programmes; both the family and the welfare state can be viewed as provision systems to which individuals turn in times of need. This leads to the question of whether these systems are complementary – that is, whether expanding state activity enhances family provisions (e.g., in the area of social care), or competing, so that increasing state activity crowds out provisions in

the family (Daatland 2001; Kohli & Künemund 2003; Künemund & Rein 1999). Second, family involvement can influence the ability to anticipate the needs of other generations and the willingness to support them. Family involvement could make the elderly generation care about the well-being of the younger generation and therefore provide a complementary motivation to age-based self-interest. In this respect, we consider the family as the most likely transmission belt to create intergenerational ties.

Today, the term ‘solidarity’ is used in various ways in everyday language and in social science. We shall be concerned with intergenerational solidarity within the family meaning the feeling of belonging together with other generations in the family and actions of exchange with members of other generations (see Szydlik 2000: 37). The theoretical concept of ‘intergenerational family’ can be disentangled into several dimensions. In the key article from family sociology, Bengtson and Roberts (1991) suggest six dimensions of family solidarity⁴ in a model that has since been extensively tested and revised, mostly with the outcome of a reduced number of dimensions (Daatland & Lowenstein 2005; Szydlik 2000). Of these, three are of importance special to this article: *associational solidarity* (the frequency and pattern of interaction in various types of activities in which family members engage), *functional solidarity* (the degree of helping and exchange of resources) and *normative solidarity* (the strength of commitment to performing familial roles and meeting familial obligations).

The literature on family solidarity reminds us that interactions with other generations are a multidimensional phenomenon. Individuals vary in the quality and the degree to which they are involved. If intergenerational entanglement in the family matters to individual attitudes towards public childcare, it should explain differences between older individuals, at least to some degree, and should prove that the expectation for policies among older voters is not only influenced by material self-interest, but also either by a form of wider self-interest or by altruism.

The contextualisation of intergenerational family solidarity

Family solidarity and age-based self-interest are considered two rival mechanisms in the process of preference formation concerning welfare state policies. The degree, however, to which motives of family solidarity limit or outweigh age-based self-interest is likely to be dependent on societal context. Among the various contexts that can be considered to affect the intensity and quality of family involvement, the welfare regime approach gained particular attention. Since Esping-Andersen (1990), a dominant paradigm in comparative welfare state research emphasises that nations differ in

their historical trajectories of the welfare state. Varying historical developments enshrine early institutional differences as to the importance of the market and the state in providing welfare. Differences are enhanced through the logic of institutional path dependency and the socialisation of new citizens into basic beliefs towards this system. The socialisation idea is very much reflected in the discussions of welfare state regimes and their influence on preferences of individuals (Andreß & Heien 2001; Arts & Gelissen 2001; Bean & Papadakis 1998; Blekesaune & Quadagno 2003; Esping-Andersen 1990; Jaeger 2006, 2009; Linos & West 2003; Papadakis & Bean 1993; Svallfors 1997, 2003). The basic notion is that institutions create certain socialisation contexts and norms, which then influence the preferences of individuals. In this context, material self-interest is not negated, but moral norms and preferences for social justice are considered to be more important (Gelissen 2000; Mau 2004). Attitudes toward social groups that do not include oneself may partially be guided by the perceived level of deservingness – for example, towards the poor (Will 1993) – which is again contingent on the welfare regime type.⁵

In his later work, Esping-Andersen (1999) acknowledged that a comparative analysis should also look at the logic of families. He suggested that welfare states not only differ in their degree of de-commodification (a key concept in his earlier work), but also in their degree of de-familialisation. In contrast to his earlier work, he not only defined liberal, social-democratic and continental regimes, but separated Southern Europe as another regime type with regard to the degree of de-familialisation. Such international differences in family regimes were corroborated with later work looking at exchanges with the families, highlighting a distinct north–south gradient across Europe with southern countries, for example, showing a higher level of co-residence and inner-family care-giving (Attias-Donfut et al. 2005; Kohli & Künemund 2003).

Even though there are some discussions about the membership of each regime (Rhodes 1996), the general classification of welfare systems into regimes provides a useful heuristic (Powell & Barrientos 2004). The welfare state regime literature teaches us that differences between individuals may not only be due to the individual, but also to the societal level. The influence of the societal level may be manifested in two ways. On the one hand, societal features could influence the mean levels of support for childcare among countries. On the other, societal characteristics may also influence the strength of the relationship between individual-level characteristics and support for social policies. If intergenerational solidarity has an impact on older people's attitudes towards public childcare, this relationship may vary across contexts such as welfare state regimes.

An enriched model of older people's preference formation for childcare policy

The three bodies of knowledge can be synthesised into a testable framework of attitudes towards welfare state policies that can be applied to older people and their preferences for public childcare. Whereas the model implies clear expectations about individual-level relationships between family solidarity and attitudes, we approach the contextual relationships in a more exploratory manner given the low number of countries for which we have suitable data.

Childcare for young children is a policy area that is only of direct material self-interest for those who have small children themselves and for those who expect to have small children in the future, with salience increasing the sooner an individual expects to have children. Older people are unlikely to have direct material self-interest in public childcare; most of them do not have small children anymore and are unlikely to expect some in the future. However, many older people are involved in intergenerational networks in the family. Many have adult children of their own or adult 'social children' (such as nephews and nieces) who may already have small children or expect to have children.

In their relationship with other generations within the family, older people may be motivated by other things than short-term material self-interest to support public childcare provisions. There may be the motivation of exchange – that is, older people are willing to pay for younger children through taxes, which benefits their own adult children, because older people trust that they will receive help and support from their adult children in return. This would still be self-interest, but embedded in a high level of trust in the lasting functioning of the intergenerational exchange. Another source of motivation may be altruism: older people support younger generations because they genuinely care about their well-being without expecting a pay-off for themselves. In sum, this means that if we find an impact of intergenerational relationships on older people's attitudes towards public childcare, it lends support to the notion that either exchange (which is a sort of self-interest with a long-term horizon), or altruism, or a mixture of both motivates their support rather than short-term material self-interest.

The connection between older people and individuals in their family who may have a direct interest in public childcare consists of several aspects that may make older people supportive of childcare provisions by the state. Our model of intergenerational solidarity and welfare state preferences takes three dimensions into account (see Szydlik 2000).⁶ First, there is associational solidarity that captures the frequency of meetings and contacts between members of different generations (see Figure 1). The more older people see and talk to members of their family who have children or are likely to have some, the

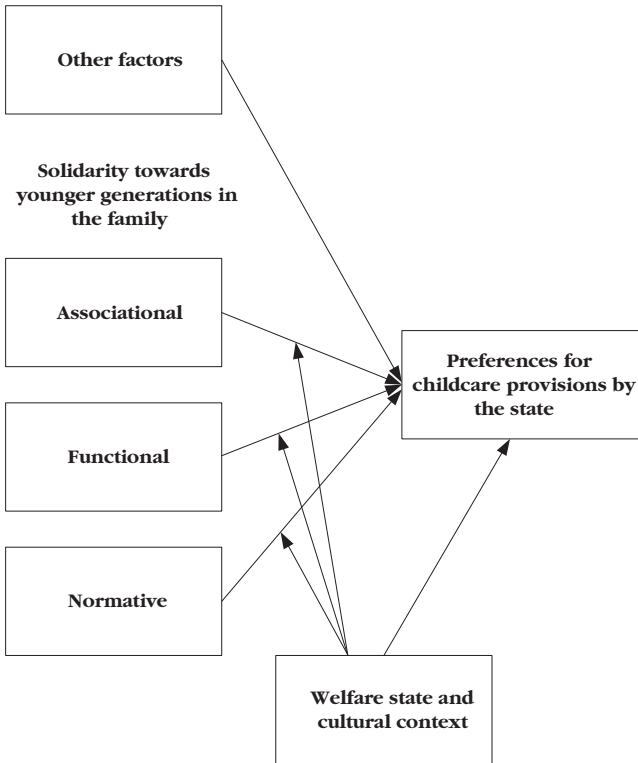


Figure 1. Model of older people’s preferences towards childcare policies.

more they are informed about everyday life in general and its exigencies in particular. Older people with intensive contact with family members of another generation are likely to notice whether their family members need public childcare provision. Older people with intense contacts may develop a stronger preference for public childcare provision because they either feel obliged towards their own family members (altruism) or because of a motif of exchange: they support the interests of the middle generation knowing that when the state supports that generation, that generation can support older people more and the middle generation will reciprocate with support for older people’s public interest. The more older people have contact with the middle generation, the more they are likely to develop these kind of motivations.

Second, functional solidarity circumscribes the degree to which help flows between generations in the family. If older people receive a lot of help (not only contact) from a younger generation whose members have a direct interest in childcare, older people may develop a stronger preference for public

childcare out of a sense of mutual obligation or in order to ease the burden on the middle generation that they are receiving help from themselves. Third, normative solidarity refers to support for the normative ideas that support ought to flow between generations in the family. Here, we could imagine a positive impact on preferences for public childcare because older people feel they need to support the younger generation because they genuinely believe that exchanges between generations in the family are desirable.

Data, methods and variables

We test our theoretical model with international survey data from 2001 for twelve countries (International Social Survey Programme Social Networks II), using binary multiple regressions with standard errors clustered by country. All of these countries are advanced industrial democracies with extensive welfare states. The twelve countries are grouped into five welfare regimes in order to shed light on the regime thesis with the assumption that each country is representative of that regime: a liberal regime, consisting of Canada, Australia and the United States; a conservative regime consisting of West Germany⁷ and Austria; a social-democratic regime including Denmark and Finland; a South European regime with Italy and Spain; and finally an East European regime that includes Hungary, Poland and the Czech Republic.

Our dependent variable captures an attitude towards state activities regarding a particular age cohort. The item reads as follows: *'On the whole, do you think it should or should not be the government's responsibility to (. . .) Provide childcare for everyone who wants it?'* Answer categories are: 'definitely should be', 'probably should be', 'probably should not be' and 'definitely should not be'. In the empirical analysis, we collapse the first two and the last two categories of the four-category scale. The sample has been restricted to people of the age of 55 or older. We used 55 as the cut-off point because the likelihood of having small children at that stage in the life cycle is very low.⁸ This item is an imperfect indicator of what we want to measure because respondents are not asked how much they would be willing to pay in taxes or by not using already existing services themselves. However, even with this item that is relatively 'easy' to answer, there are large minorities or majorities of older people saying 'no', which is a finding that needs explanation.

We measure solidarity on three dimensions (eight variables in total): associational solidarity (the frequency of visits to adult children), functional solidarity (whether someone would turn to their children first when in need of money) and normative solidarity (the degree to which someone agrees with the statement that children should look after their parents).

Age-based self-interest, which may still be left in the restricted sample, is captured by the age of the respondent in years. Furthermore, the statistical model includes various control variables: whether someone has a minor child him/herself, subjective social class, a left–right scale to measure political ideology, gender, religiosity and education. These are standard predictors in the individual-level analysis of welfare state attitudes. It is interesting to note that the solidarity indicators are almost completely uncorrelated with them, meaning that the dynamics in the family cross-cut the ordinary individual-level dynamics normally put forward to explain welfare state attitudes, which means that by including them in future models, researchers are likely to genuinely improve their models.

In order to obtain informative and easy interpretable coefficients, the continuous independent variables have been z-transformed for the whole adult population to have means of 0 and standard deviations of 1.⁹ This allows us to compare the relative effect size of determinants and evaluate their marginal effect on odds.¹⁰

Empirical analysis

Descriptive results

Table 1 shows the distribution of the three main independent variables measuring solidarity in the family and their bivariate associations with the dependent variable, which is a dichotomy differentiating between being in favour or not in favour of the state providing public childcare. The table shows the evidence for the 55+ population. In general, older people have a slightly lower agreement level (72 per cent) than younger people (78 per cent). This high, albeit slightly lower, level is already remarkable given that older people are unlikely to benefit from public childcare provisions in a direct way because they are likely to be childless or have children who no longer need childcare themselves.

The bivariate associations (Cramer's V) between the dependent and the independent variables are all statistically significant. For frequency of visits to adult children, which measures associational solidarity, the relationship is 0.10. Among those older people who see their adult children at least once a week, 76 per cent are in favour of public childcare provisions. Among those with no children or who see their children less than once a week, the agreement levels are 69 and 65 per cent, respectively. Here, we could suspect that higher frequencies of visit mean a higher level of day-to-day involvement in the lives of a younger generation and therefore a higher awareness of the needs of the

Table 1. Provide childcare and three main independent variables (cross-tabulation), 55+ population

Theoretical concept	Variable	Agreement level: Percentage who indicated that the state should provide public childcare			Cramer's V
		No child	Less than once a year/at least once a moth	At least once a week/child lives in same household	
Associational solidarity	Frequency of visits to adult children	69	65	76	0.10
Functional solidarity	Help in times of monetary need (primary preference)	Outside of the family	Inside the family, but not children	Children	
Normative solidarity	Adult children should take care of their old parents	72	68	79	0.08
		Disagree (strongly)	Neither agree/nor disagree	Agree (strongly)	
		64	63	84	0.23

Source: ISSP (2001).

parents (or potential parents) of small children. This higher awareness thus tends to lead to higher support for a policy helping parents.

For the variable that measures to whom people turn first when in need of money in order to capture functional solidarity, the relationship with the attitude towards public childcare is 0.08. Some 79 per cent of older people who would turn to their adult children when in need of money support public childcare provisions, compared with 72 per cent of those who would turn to sources outside of the family and 68 per cent who would turn to someone in the family other than their children. Here, the statement of turning towards children when in need suggests a potential channel of help between the older and the younger generation. According to the logic of exchange, older people who would turn to their adult children when in material need are also more likely to reciprocate. Such older people feel the need to support those whom they help themselves and whom they are helped by with higher support for public childcare provisions.

For the variable measuring family values – namely the extent to which someone agrees that adult children should take care of their old parents, in order to grasp normative solidarity – we see the strongest relationship, with V equal to 0.23. Among those who strongly agree with the statement, 84 per cent also agree with public childcare provision. Among those who strongly disagree or take a neutral stance, only 63 and 64 per cent, respectively, are in favour of public childcare. For this relationship, we could hypothesise that stronger support for these intergenerational family values stands for higher awareness of the potential concerns of other generations, which then leads to support for public childcare provision.

Overall, the bivariate patterns suggest a complementary relationship between intergenerational involvement in the family and attitudes towards public childcare for older people. Seniors who have higher levels of associational solidarity (seeing their children more often), of functional solidarity (turning to children rather than to someone else) and of normative solidarity (supporting intergenerational transfers as a value) also tend to show higher levels of support for public childcare provision. However, these are only bivariate relationships measured across all countries. In order to test the relevance of intergenerational solidarity against age-based self-interest and to understand the contextual dynamics, we now turn to multivariate analyses.

Multivariate analysis

Table 2 shows six regressions. Model 1 contains a group of control variables that are the usual suspects for explaining welfare state support and the three nominal variables (visit to children, help and family values). The coefficients of

Table 2. Determinants of preferences for governmental child care provision by regimes: Government should provide childcare (1 = yes, 0 = no)

	Model 1 Pooled	Model 2 Liberal	Model 3 Conservative	Model 4 Socialist	Model 5 South	Model 6 East
Control variables						
Education	-0.41** (0.2)	-0.21 (0.2)	0.068 (0.07)	0.056 (0.05)	0.0037 (0.2)	-0.19*** (0.06)
Female	0.17** (0.07)	-0.058 (0.1)	0.36** (0.2)	0.071*** (0.008)	0.31* (0.2)	-0.04 (0.1)
Social class	-0.058 (0.1)	0.11*** (0.03)	-0.32 (0.3)	-0.063 (0.1)	-0.084*** (0.004)	-0.32*** (0.1)
Religiosity	-0.027 (0.10)	-0.085 (0.1)	-0.18 (0.2)	-0.17 (0.2)	0.41* (0.2)	0.19** (0.08)
Political ideology	-0.29*** (0.07)	-0.52*** (0.02)	-0.096 (0.2)	-0.33* (0.2)	-0.41*** (0.1)	-0.20** (0.08)
Age	-0.16 (0.1)	-0.16 (0.2)	-0.087 (0.08)	-0.28** (0.1)	0.36** (0.2)	0.15 (0.3)
Parent of minor child/ren	0.47** (0.2)	0.28*** (0.10)	0.02 (0.04)	0.13 (0.1)	0.65 (1.5)	1.10*** (0.3)
Associational solidarity (baseline: no adult children)						
Visits to children (medium)	0.076 (0.1)	0.042 (0.07)	0.63*** (0.09)	0.074 (0.5)	0.34 (0.8)	-0.061 (0.2)
Visits to children (high)	0.38*** (0.1)	0.12 (0.1)	0.63*** (0.2)	0.5 (0.3)	0.88 (0.7)	0.16 (0.2)
Functional solidarity (baseline: ask someone outside of the family for money)						
Ask adult children	0.08 (0.10)	-0.18 (0.2)	-0.40*** (0.06)	-0.17 (0.4)	-1.06* (0.5)	0.11 (0.1)
Ask within family, but not children	-0.21** (0.10)	-0.026 (0.1)	0.05 (0.2)	-0.088*** (0.03)	0.085 (0.4)	-0.36** (0.2)
Normative solidarity (children's duty to look after old parents)	0.36*** (0.09)	0.033 (0.04)	0.26*** (0.04)	0.12 (0.1)	0.54 (0.4)	0.24 (0.2)
Constant	0.85*** (0.3)	-0.26 (0.5)	0.89 (0.6)	1.11*** (0.4)	1.95*** (0.3)	1.53*** (0.4)
Number of observations	4,060	1,033	653	469	652	1,253
Adjusted McFadden R ²	0.082	0.026	0.002	-0.006	-0.022	0.033
AIC	4343	1324	717	533	212	830
Percentage correctly classified	72.8	62.2	74.3	72.7	95.7	88.8

Notes: * Significant at the 0.10 level. ** Significant at the 0.05 level. *** Significant at the 0.01 level. Standard errors clustered by country. Coefficients are comparable in magnitude. An increase of one unit means an increase by one standard deviation from the mean for continuous variables and the change from minimum to maximum for categorical variables.
Source: ISSP (2001).

all variables can be compared as to magnitude. For continuous variables like education, they indicate the effect of an increase of one standard deviation. For dichotomous variables, like visit children, they capture the change when the variables are changed from 0 to 1. The strongest impact comes from being the parent of a minor child (factor $e^{0.47} = 1.60$ on the odds), followed by education (factor $e^{0.41} = 1.51$). Of the controls, political ideology also has a sizeable effect; the odds of someone who is one standard deviation above the mean (thus ideologically more to the right) are only $e^{-0.29} = 0.74$ times the odds of someone who is at the mean.

Several coefficients of solidarity have strong impacts. Having a high frequency of visits with children has a strong effect (factor $e^{0.38} = 1.46$ on the odds) relative to not having any adult children at all. Not fully in line with our expectations, older people who ask for money inside of the family but not from their children, rather than from their children or from someone outside of the family have a lower likelihood of supporting public childcare provisions (factor $e^{-0.21} = 0.81$ on the odds). Those who have a stronger sense of family values (by one standard deviation) also show higher support for childcare provisions (factor $e^{0.36} = 1.43$ on the odds). Age has a negative effect on support for public childcare in model 1; however, the estimation coefficient does not reach conventional levels of statistical significance. This is not astonishing because the sample is already restricted to those aged 55 and older. In other words, the dynamics in the multivariate analysis show the same picture that we have seen in the bivariate one: older people with higher levels of intergenerational solidarity in the family (associational, functional and normative) show higher levels of support for public childcare.

At first sight, we could thus say that the relationship between solidarity in the family and attitudes towards a policy that directly benefits only younger people with small children mostly works in a complementary way (apart from the help variable). However, our model suggests that the interrelationship between market, family and state works differently depending on the regime type. Models 2 to 6 therefore show estimations for each regime type.¹¹ The dynamics now reveal varying and sometimes confusing patterns with low values for the goodness-of-fit measures.¹² For liberal welfare states, none of the solidarity dimensions makes a difference for the support for public childcare. This could be expected as individuals in liberal regimes, such as the United States, are likely to look for welfare services in the market (be it legally or illegally) and not from the state. In conservative welfare states, all three dimensions matter to explain variation in support. Yet in contrast to the global model, the help variable shows a different pattern, with older people who turn towards their children when in need of money having a lower level of support for public childcare provision. For social-democratic and East European coun-

tries, there is, again, very little systematic impact on any solidarity dimension. Only asking for money within the family rather than from one's children or from someone outside of the family lowers the likelihood of support. Finally, the South European regimes have very few systematic patterns, with only turning towards adult children when in need of help lowering the support relative to those turning to someone outside of the family.

In sum, the welfare regime differences are multiple and cannot be easily explained. It seems to be the case that people in liberal welfare states do not make the cognitive connection between the state and childcare (with low overall support for childcare throughout) and rather look for services in the market; therefore, it does not matter how people are involved with other generations in the family for their attitudes towards public childcare provisions. In social-democratic and East European countries, it could be that many people support public childcare provisions anyway (for historical reasons), meaning that individual experience with intergenerational solidarity may not matter. Also, conservative welfare states are thought to be very familial, which leads to the prediction that intergenerational involvement in the family should matter for what people request from the state. However, this does not explain why the South European type does not show any systematic impact patterns.

Analysis of contextual variables

One explanation for the lack of consistent findings could be that the variance of macro-level factors that are of influence within regime types is very large; thus, the differentiation into five ideal-type regimes may cover up these differences. In order to uncover such differences and their impacts, we employ more sensitive macro-variables from the political, economic and cultural spheres of society. Table 3 summarises our three context measures. Some of them have already been used to describe varying roles of the family across regimes (Esping-Andersen 1999: Chapter 4). First, spending on families as a percentage of GDP per capita (from 0.8 per cent in the USA to 3.9 per cent in Denmark, with a mean of 2.3 per cent): this political variable approximates the intensity of state activity in favour of families.¹³ Second, the level of female labour market participation (from 46.3 per cent in Italy to 75.4 per cent in Denmark, with a mean of 62.7 per cent): this economic variable measures the degree to which the economy has already been modernised and families have adapted to the needs of securing two incomes.¹⁴ According to Bonoli (2007), this indicator captures the emergence of new social risks. Although female labour force participation as such is not a social risk, the reconciliation of work and childbearing certainly is. The final macro-context variable measures the general 'culture' of raising children as to whether the state or parents (and here

Table 3. Macro-determinants and individual preferences for governmental child care provision

Country	Government should provide childcare (percentage of 55+ population who agree)	Family spending (percentage of GDP)	Female labour force participation rate (as percentage of all working-age women)	Children suffer if mothers work (percentage who agree)
<i>Liberal</i>				
Australia	38	2.9	65.4	–
Canada	58	1.1	70.5	47
United States	26	0.8	70.4	49
<i>Conservative</i>				
Germany-West	87	2.0	63.6	34
Austria	66	3.0	61.7	74
<i>Social-democratic</i>				
Denmark	70	3.9	75.4	82
Finland	80	3.0	71.9	59
<i>South European</i>				
Italy	94	1.1	46.3	19
Spain	97	0.9	52.3	62
<i>East European</i>				
Hungary	92	3.3	52.6	37
Czech Republic	77	2.0	63.6	53
Poland	88	1.5	59.0	23
Mean	72	2.3	62.6	50
Correlation with childcare support	–	0.02	–0.62	–0.32

Sources: ISSP, OECD Social Expenditure Database, OECD Labour Force Statistics, World Values Survey.

primarily mothers) should be involved. This is captured through a public opinion measure from the World Values Survey,¹⁵ showing the percentage of people who think that pre-school children suffer if their mothers work. For the over-55s in our subsample, it ranges from 19 per cent in the Czech Republic to 82 per cent in Denmark, with a mean of 50 per cent. This variable measures the cultural aspects of raising children with regard to state-family responsibilities.

We are going to test the influence of the macro-level variables on the individual level in general (the direct effect on y ; for a similar strategy, see Jaeger 2006, 2009) and their impacts on the effect size of other independent variables (macro-micro interactions). Although the direct impact of these macro variables is not our primary interest here – that instead lies in their meaning for the relationship between attitude and intergenerational solidarity – we can inspect some bivariate correlations (see Table 3). The first variable – family spending – has no relationship to the aggregate level of support for public childcare among older people in a country ($r = 0.02$). This means that the average level of support is not influenced by the general intensity of state activity in favour of families. The second variable – female labour force participation – has a negative relationship to general support among older people ($r = -0.62$).¹⁶ This is an interesting pattern as it means that the more women are integrated into the labour market, the lower the general approval of public childcare provisions by the state among older people. On the one hand, we could expect that older individuals in countries where many women work see a high necessity for the state to take a role in providing public childcare in order to allow mothers to work and potentially to free themselves from childcare responsibilities. On the other hand, a high level of female labour market participation hints at existing provisions, either by the market or by the state, in a particular country. The more provisions there already are, the lower the salience felt by older people for the state to become involved. So, for instance, both Italy and Spain have low levels of female labour force participation as well as low levels of childcare provisions (Neyer 2003), but show strong levels of childcare support among older people (and among individuals of all ages). Seeing the moderately strong relationship between female labour force participation and childcare support, we can assume that the path of salience may be stronger than the economic argument. The public opinion measure, finally, has a plausible negative correlation with childcare support, meaning that the more people believe that pre-school children suffer if their mothers work, the fewer older people support the provision of childcare by the state.

The following estimates are exploratory since we have a maximum of twelve macro-level observations per variable with only twelve countries.¹⁷ For all macro variables, we see in Table 3 that there is considerable variance within regime type, meaning that if we find an effect of this variable it could explain

why separating the sample into welfare regimes did not make much sense. For example, for family spending, there is a huge gap in the liberal regime between Canada and the United States with 1.10 and 0.80, respectively, and Australia with 2.90. Thus, in terms of these variables, the differences within these regime types are larger than the differences between regimes.

Figure 2 shows the interactions between the three solidarity variables and family spending.¹⁸ Each partial graph has the standardised values of the macro variable on the horizontal axis and the predicted probability of being in favour of public childcare provisions for one particular value of a solidarity value on the vertical axis. It is interesting to note that the inclusion of the macro-level variables and their interactions increases the fit of our models. Model 1 (see Table 2) only had an Adjusted McFadden R^2 of 8.2 per cent. The R^2 s for family spending reach 8.4 to 8.5 per cent; those for female labour force participation, 14.2 to 15.3 per cent; and those for public opinion, 8.4 per cent to 8.9 per cent (see Appendix Table 2). Knowing more about individual contexts greatly increases our understanding of the individual-level variation.

First of all, for family spending, we notice that the slopes differ across each graph in every row. That means that the impact of family spending has a varying effect depending on which value an individual has on the respective solidarity dimension. Among those who do not have an adult child, increasing family spending leads to a slightly lower level of support for public childcare. Those who have medium or high levels of visits to adult children show increasing support for childcare provisions by the state. With respect to the help variable, we see only a moderate pattern – namely that increasing family spending has a positive effect among those who turn to someone outside of the family and almost no effect among those who turn to their children or someone else inside the family. Regarding the normative family value variable, we recognise that for those who hold intergenerational values in the family not very highly, increasing family spending leads to stronger support for public childcare provision. With mean and highest levels of support for intergenerational family values, the slope becomes essentially flat, leaving those in the highest category with a general high level of support for childcare provisions by the state.

Figure 3 shows interactions between the level of female labour force participation and the three solidarity variables. The general negative relationship between female labour market integration and older people's support that we have seen in the bivariate analysis still holds in this multivariate analysis. Among the three rows, we notice the clearest pattern for normative solidarity. With increasing female labour market participation, there is a strong decrease in support among those who have mean or high levels of support for intergenerational family values. Among those who have a low level of normative

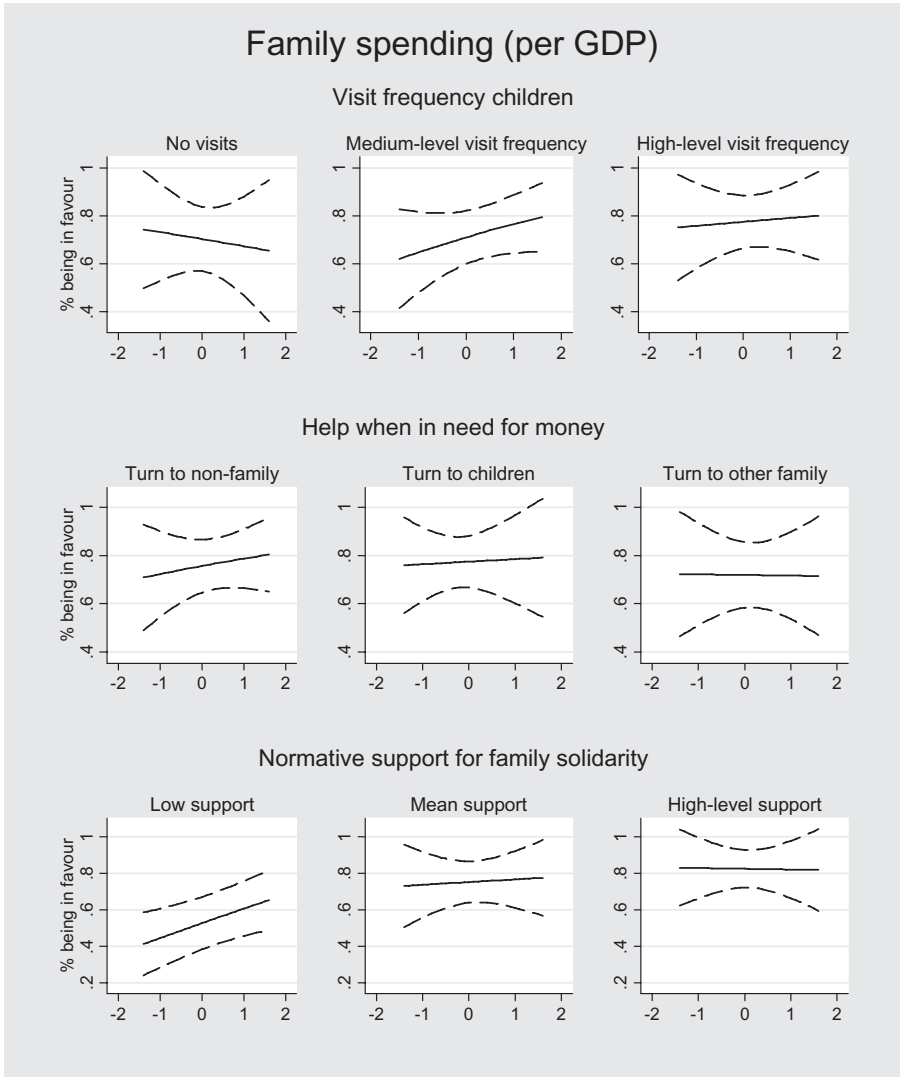


Figure 2. Conditional effect of family spending and solidarity dimensions on the predicted probability to favour public childcare provision. Broken lines represent the 95 per cent confidence interval.

solidarity, this cultural context does not matter. For the associational dimension, there is almost no difference across the three sub-groups. For the help variable, there is a perceptibly stronger drop among those who turn to their children when in need in those contexts in which many women work relative to other contexts – that is, the more a society is characterised by working

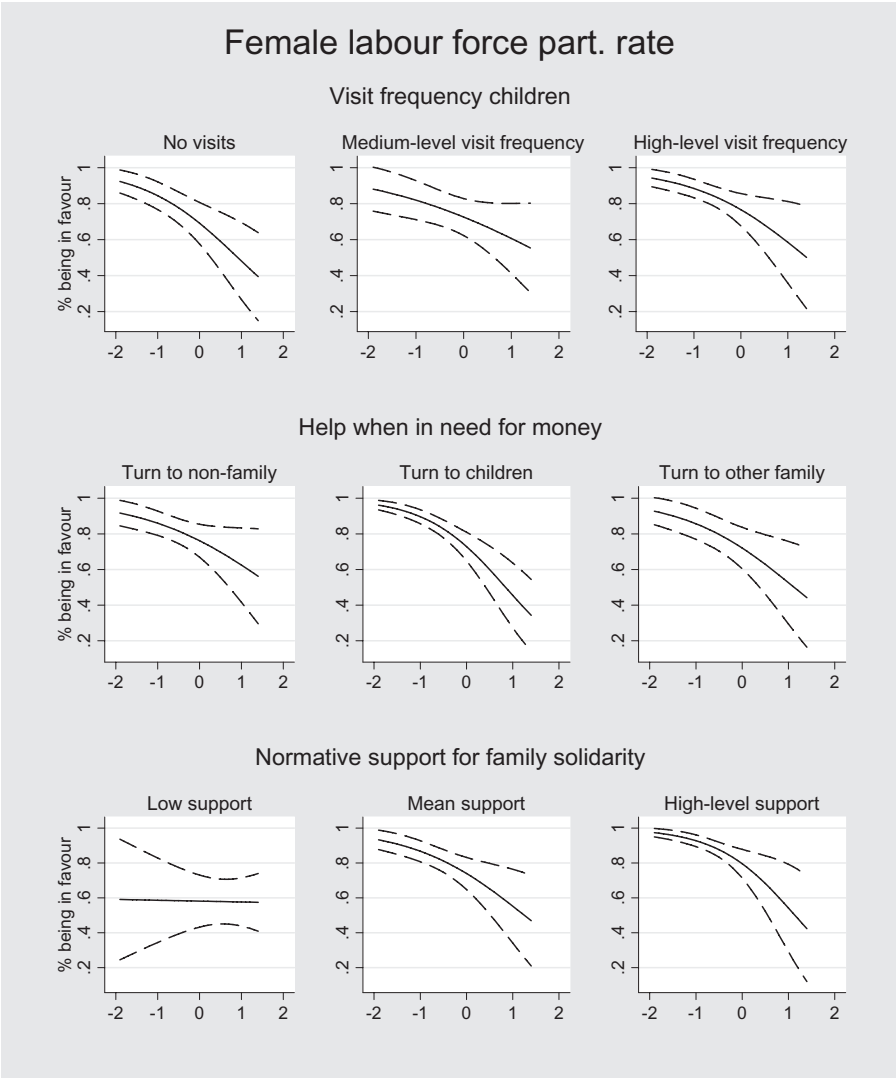


Figure 3. Conditional effect of the female labour force participation rate and solidarity dimensions on the predicted probability to favour public childcare provision. Broken lines represent the 95 per cent confidence interval.

women, the less older people support public childcare provisions if they experience functional solidarity from their children.

Figure 4 shows the interactions between the public opinion measure and the three dimensions of intergenerational solidarity. Again, for the visit variable, the pattern is only modestly strong. The slope is somewhat less pronounced the

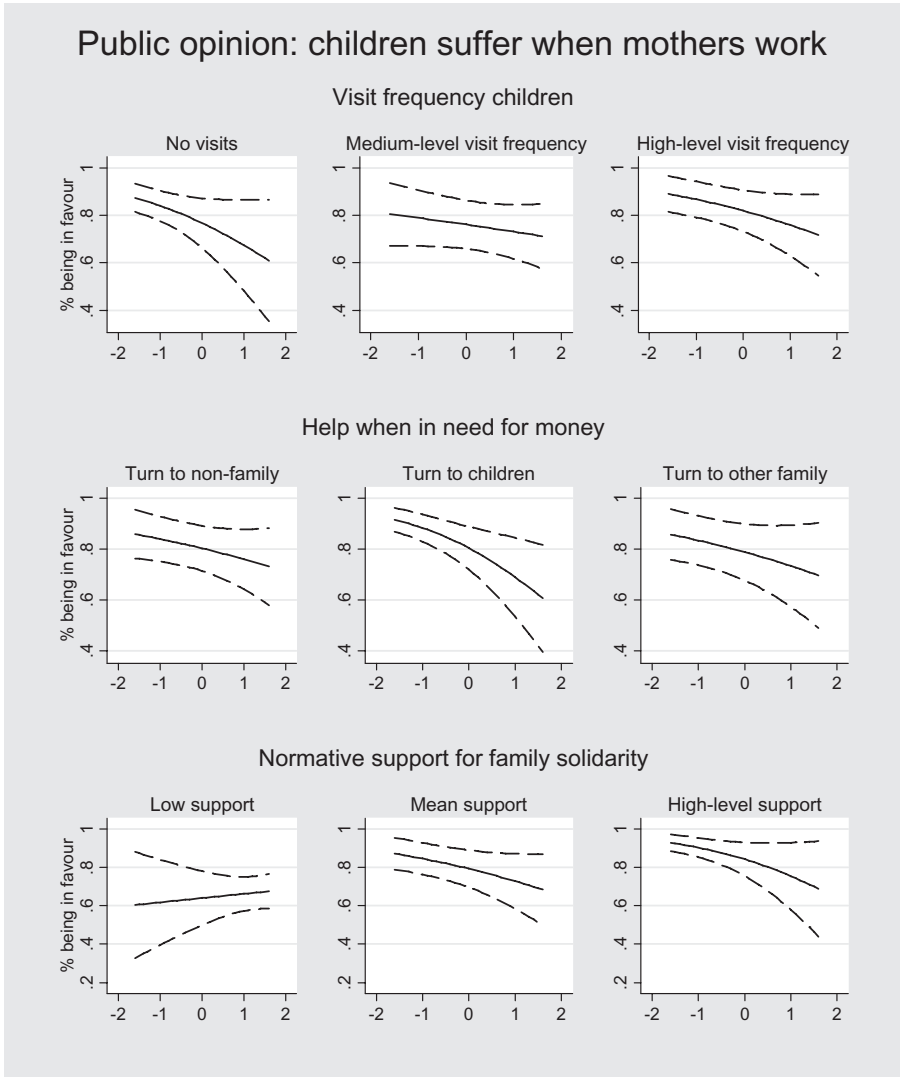


Figure 4. Conditional effect of societal values and solidarity dimensions on the predicted probability to favour public childcare provision. Broken lines represent the 95 per cent confidence interval.

more visits an older person has with his or her adult children. Among those with high associational solidarity, the cultural context matters less. As to the help variable, we see a similar pattern to the one in Figure 3: those who turn to their children when in need are more strongly influenced by the cultural context than those who turn to someone outside of the family or to someone other than their

children in the family. Finally, the normative dimension shows the strongest pattern. Among those with low support for intergenerational family values, the context has a slightly positive impact: those who support family values little are more supportive of public childcare in contexts in which many people think that pre-school children suffer if mothers work. For those with mean or high support for family values, the context has a moderately negative effect with those in more conservative cultures being less likely to support public childcare than those in less conservative contexts.

What does this plethora of evidence tell us? First, it shows once again that intergenerational solidarity in the family matters for attitudes of older people towards public childcare. Second, it highlights the multidimensionality of the relationship with the three dimensions of solidarity having separate impacts. Third, the impact of intergenerational solidarity is context-dependent, but welfare state types may not be the best way to describe these context-dependencies. Rather, the three continuous variables that we explored here seem to explain the differences across nations in a better way than classification into welfare state regimes. Older people who care little about intergenerational values are least susceptible to macro-contexts. Those older people with high levels of associational solidarity deviate towards higher support across all three macro-micro interactions; they are always more supportive than comparable older people with lower levels of visit. That means that those who get to know most from the day-to-day activities of their adult children, who may have children or may be likely to have children someday, are most supportive of public childcare provision no matter the context. Finally, those who experience functional solidarity are very supportive of public childcare if contexts are conservative because very few women work, and if contexts are very progressive when public opinion is very favourable towards working mothers. This finding could hint at two separate causal mechanisms. In the former case, older people could support public childcare because they want the burden of their daughters and daughters-in-law to be eased and possibly to free energies for their own sake. In the latter case, older people support public provisions because of cultural reasons. They believe that the state should provide public childcare because women and men ought to be equal participants in the labour market. Estimates of the relevance of normative solidarity in the liberal and conservative regimes seem to support this conclusion. Thus, in both instances, normative solidarity matters.

Conclusions

This study explored whether the experience of intergenerational solidarity within the family has an impact on older people's attitudes towards public

childcare. Our findings suggest that age-based self-interest cannot be the only motivation for older people's attitudes toward this welfare policy. Estimating the effects of associational, functional and normative family solidarity with younger generations on older people's probability to support public childcare provision, we conclude that intergenerational solidarity matters. The relationship between these three dimensions of solidarity and preferences for public childcare provision is, however, context-dependent. Whereas, generally speaking, more solidarity leads to higher support, there are welfare state contexts in which this effect shrinks to nil. As the welfare state regime typology can only partially help us to understand differences between countries, we disentangled the context conditionality of intergenerational solidarity by making use of macro-micro interactions. We find that influential contexts are characterised by political dynamics (the general level of family spending by the state), economic characteristics (female labour market integration) and cultural traits (public opinion towards working mothers). In general, those older people with higher levels of intergenerational solidarity to younger generations are least susceptible to contextual difference. Nevertheless, since our investigation of contextual factor shaping intergenerational solidarity only draws on twelve OECD countries, there is no doubt that our findings have exploratory character. Further research has to prove the robustness of these findings.

Our findings can be summarised as follows. First, in line with macro-level evidence on population ageing and public spending, the individual-level analysis provides further empirical evidence that pure age-based self-interest is a crude over-simplification of redistributive preference formation in ageing societies. Motivations of exchange (older people are supportive because they expect help in return) and/or pure altruism must be at work as well. Second, our model of intergenerational solidarity and welfare state preferences shows how the experience of intergenerational solidarity within the family is translated into political preferences on government responsibility for welfare provision. In this respect, the three dimensions of solidarity provide a meaningful concept beyond a sociological analysis of the family because they show the importance of the social sphere for expectations towards the state. Third, the welfare state literature suggests that the interrelationship between market, family and state works differently depending on the regime type. Our analysis confirms the context dependency of this relationship; however, the distinction between the ideal-type welfare regimes seems not to capture these differences adequately.

Turning to the political implications of our study, the bottom line is that intergenerational solidarity potentially can provide a fertile ground for welfare state reforms that involve unequal redistribution between generations. Thus, the political feasibility of a reform does not depend exclusively on its

anticipated income effect for different age cohorts, but also on its perceived intergenerational repercussions. Moreover, generational solidarity matters for every public programme that involves some degree of intergenerational redistribution – health, education, public pensions, family policies – but also for issues of public debt. In each policy domain, we would expect that family solidarity complements age-based self-interest. Thus, even if the elderly gain an electoral majority, it is unlikely that they will exclusively vote or lobby for policies that increase their own well-being at the expense of the younger generation.

The empirical analysis is certainly limited by its static perspective. If we assume, however, that the revealed relationship between intergenerational solidarity and welfare state attitudes is stable across time, we can speculate about potential feedback effects between policies (e.g., the size of public childcare programmes) and intergenerational solidarity. Thus, we would expect that fewer resources will be devoted to public childcare provision in a society with less intergenerational solidarity. Sparse public childcare programmes increase the individual opportunity costs of having children, which might subsequently decrease the fertility rate. With a decreasing share of children in the society, however, there is less scope for interaction among generations. The experience of intergenerational contacts is crucial for the development of intergenerational solidarity. As there are fewer intergenerational contacts, there will be less intergenerational solidarity and the feedback process starts again from the beginning. As a consequence, we can ask: If intergenerational solidarity could be triggered exogenously, would we see a positive feedback loop evolving – one in which more intergenerational solidarity increased the size of public childcare programmes? We leave the formalisation and empirical exploration of these considerations to further research.

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3680, International Social Survey Programme 2001, Social Networks II) are publicly available from the Central Archive Cologne. Our Stata command files are available for replication purposes.

Appendix: Age-based self-interest, intergenerational solidarity and the welfare state

Appendix Table 1. Description of variables

Variable	Item
Individual level	
Government should provide childcare	Should the government provide childcare for everyone who wants it?
Education	Highest education level/degree
Female	Female
Social class	Subjective social class
Religiosity	Attendance of religious services
Political ideology	Party affiliation (coded in a left–right scheme)
Age	Age in years
Visits to children	How often do you see your son or daughter?
Ask children for money	Suppose you needed to borrow a large sum of money. Who would you turn to first for help?
Ask for money within family	Suppose you needed to borrow a large sum of money. Who would you turn to first for help?
Duty to look after elderly parents	Adult children have a duty to look after their elderly parents
Parent of minor child/ren	How many children under 18 years of age do you have?
Macro level	
Family expenditure (per GDP)	Total public family expenditure as a share of GDP
Female employment participation rate	Employment rate for women of working age
Children suffer if mothers work	A pre-school child is likely to suffer if his or her mother works

Appendix Table 2. Summary statistics (for 55+ population)

Variable	Number of observations	Mean	Standard deviation	Minimum	Maximum
Government should provide childcare	4,908	0.72	0.45	0.00	1.00
Education	5,241	-0.30	1.02	-2.34	1.55
Female	5,345	0.55	0.50	0.00	1.00
Social class	4,992	-0.04	1.01	-2.07	2.36
Religiosity	5,365	0.18	1.05	-1.37	1.60
Political ideology	5,365	0.05	1.03	-2.11	2.10
Age	5,205	1.09	0.49	0.40	3.05
Visits to children (medium)	5,365	0.20	0.40	0.00	1.00
Visits to children (high)	5,365	0.61	0.49	0.00	1.00
Ask children for money	5,365	0.20	0.40	0.00	1.00
Ask for money within family	5,365	0.24	0.43	0.00	1.00
Duty to look after elderly parents	5,071	-0.08	1.04	-2.52	1.12
Parent of minor child/ren	4,984	0.07	0.26	0.00	1.00

Appendix Table 3. Determinants of preferences for governmental child care provision and macro context

Labels	Family expenditure per GDP			Female labour force participation rate			Child suffers if mother works		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Education	-0.39** (0.2)	-0.40** (0.2)	-0.39** (0.2)	-0.28** (0.1)	-0.28** (0.1)	-0.28** (0.1)	-0.47** (0.2)	-0.47** (0.2)	-0.46** (0.2)
Female	0.16* (0.09)	0.16* (0.09)	0.16* (0.09)	0.17** (0.07)	0.17** (0.07)	0.14** (0.07)	0.093 (0.07)	0.11 (0.07)	0.092 (0.07)
Social class	-0.065 (0.1)	-0.062 (0.1)	-0.063 (0.1)	-0.019 (0.10)	-0.019 (0.1)	-0.0015 (0.10)	-0.031 (0.1)	-0.029 (0.1)	-0.029 (0.1)
Religiosity	-0.0051 (0.07)	-0.0046 (0.07)	-0.0066 (0.07)	-0.061 (0.09)	-0.062 (0.09)	-0.069 (0.09)	-0.091 (0.1)	-0.093 (0.1)	-0.099 (0.1)
Political ideology	-0.31*** (0.07)	-0.31*** (0.07)	-0.31*** (0.07)	-0.29*** (0.07)	-0.28*** (0.07)	-0.28*** (0.07)	-0.19** (0.08)	-0.19** (0.08)	-0.20*** (0.09)
Age	-0.16 (0.1)	-0.16 (0.1)	-0.16 (0.1)	-0.21* (0.1)	-0.20* (0.1)	-0.25** (0.1)	-0.16 (0.2)	-0.16 (0.2)	-0.18 (0.2)
Parent of minor children	0.48** (0.2)	0.47** (0.2)	0.49** (0.2)	0.49*** (0.2)	0.48*** (0.2)	0.45*** (0.1)	0.29** (0.1)	0.29** (0.1)	0.30** (0.1)
Visits to children (medium)	0.032 (0.09)	0.062 (0.2)	0.058 (0.2)	0.17 (0.1)	0.26** (0.1)	0.25* (0.1)	-0.034 (0.2)	0.016 (0.2)	0.022 (0.2)
Visits to children (high)	0.37*** (0.09)	0.38*** (0.1)	0.37*** (0.1)	0.38*** (0.1)	0.36*** (0.1)	0.37*** (0.1)	0.32** (0.1)	0.32** (0.1)	0.32** (0.2)
Ask children for money	0.099 (0.1)	0.1 (0.1)	0.094 (0.1)	-0.17 (0.1)	-0.17 (0.1)	-0.15 (0.1)	-0.0066 (0.10)	0.0061 (0.09)	-0.00009 (0.1)
Ask for money within family	-0.20** (0.1)	-0.19*** (0.07)	-0.21** (0.1)	-0.26*** (0.09)	-0.21** (0.09)	-0.25*** (0.08)	-0.1 (0.1)	-0.091 (0.09)	-0.1 (0.10)
Duty to look after elderly parents	0.38*** (0.09)	0.38*** (0.08)	0.40*** (0.09)	0.18** (0.07)	0.18** (0.07)	0.29*** (0.08)	0.24*** (0.08)	0.24*** (0.08)	0.31*** (0.08)
Family expenditure (per GDP)	-0.14 (0.4)	0.17 (0.3)	0.08 (0.3)						
Female labour force participation rate				-0.88*** (0.3)	-0.65** (0.3)	-0.84*** (0.3)			
Children suffer if mothers work							-0.47** (0.2)	-0.25 (0.2)	-0.36** (0.2)
Visits to children (medium) × Family expenditure	0.43*** (0.2)								
Visits to children (high) × Family expenditure	0.23** (0.09)								
Visits to children (medium) × Female participation				0.34* (0.2)					
Visits to children (high) × Female participation				0.039 (0.1)					
Visits to children (medium) × Mother works							0.31** (0.1)		

Notes

1. Material self-interest also leads to the support of ideologies that include a certain understanding of social rights and hence the demand for welfare state provisions (Hasenfeld & Rafferty 1989; see also Matthews & Erickson 2008).
2. More generally, there is growing evidence from experimental research that outside of a market setting, mechanisms of reciprocity tend to provide a more suitable explanation of human interaction than pure material self-interest (Anderhub et al. 2002; Bowles & Gintis 2000; Fahr & Irlenbusch 2000; Güth et al. 1982).
3. 'La famille est une sorte de société complète dont l'action s'étend aussi bien sur notre activité économique que sur notre activité religieuse, politique, scientifique, etc. Tout ce que nous faisons d'un peu important, même en dehors de la maison, y fait écho et y provoque des réactions appropriées.'
4. Solidarity with other generations can also occur outside of the family, but this is not the main focus of this article. For example, there can be interactions between generations in social settings such as sports clubs. They are likely to generate similar feelings and exchange actions as within the family. However, exchanges between generations generally occur mostly within the family – e.g., help with personal care from outside of the family is practically non-existent in European countries.
5. Embedded in the quest for understanding the differences between welfare state regimes is the question about the proper measurement of welfare state attitudes, particularly about the dimensionality of attitudes (Sabbagh & Vanhuyse 2006).
6. Szydlik actually suggests four dimensions, but we are unable to measure affective solidarity – i.e., the general emotion towards other generations in the family. This could well be a good approximation of how strongly people feel about other generations in the family. Individuals with higher levels of affective solidarity may be more likely to care for these other generations, either because of love or feelings of obligation.
7. We decided to exclude East Germany from the conservative regime sample for consistency reasons as it has been shown that attitudes toward welfare provision are heavily influenced by socialisation under a communist regime (Alesina & Schuendeln 2007) and as most macro-level data are unavailable for East Germany.
8. Using cut-off points at 50 or 60 years of age leads to similar results. Choosing 55 as our primary cut-off-point is also consistent with empirical findings by Billari et al. (2007). Although late fertility has increased in developed countries, fertility above the age of 45 remains a very rare phenomenon. The 45+ fertility rate ranges between 0.5 per cent in the United States, and 0.3 per cent in Denmark and the Netherlands.
9. No information is lost. The original variable is shifted to have a mean of 0 and then stretched or pushed together with regard to its distribution in order to have a standard deviation of 1.
10. Appendix Tables 1 and 2 provide information on the source and coding of variables as well as about their descriptive statistics.
11. In order to save space, we do not show another pooled regression with dummies for welfare regime types. As models 2 to 6 demonstrate, the impact not only of the solidarity, but also that of some of the other variables varies between regimes. The differences between regimes that have a direct, as opposed to an interaction, effect can be deduced from the differing intercepts in models 2 to 6.

12. The samples split by regime type differ, of course, in size, but even for low levels of significance and for very generous interpretations, it is impossible to argue that they show relationships that are different from 0 in the same direction.
13. Alternatively, we used public expenditure on pre-primary education and day care to proxy governmental involvement in family affairs. The correlation between individual support for public childcare provision and pre-primary education and day care expenditure amounts to 0.12. Using this measure instead of family expenditure reveals a pattern similar to that evidenced in Figure 2.
14. Since using more specific measures such as the ratio of women employed having children under the age of 3 or the female employment ratio (ages 25–45) relative to the male employment ratio (ages 25–45) does not alter overall findings, we decided to proceed using the simple absolute female employment ratio that was available for all countries.
15. The item is unavailable for Australia.
16. The same relationship holds for other measures of female employment (see Note 14).
17. Given the low number of countries, we cannot check for the simultaneous impact of all three variables in the interactions. The significance of interaction effects has been checked by using the *inteff* command in Stata that is based on a simulation technique (Norton et al. 2004). We found significant patterns – i.e., the coefficients differed for varying values of the macro variable for almost all interactions. Graphs showing these patterns are available from the authors upon request.
18. Full regression estimates are represented in Appendix Table 3.

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