

# Appendix

“The Political Participation of Older People in Ageing Europe: The Greying of Our Democracies”

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**Part 1: Variable description (also in the book appendix)**

**Variables used in chapters 3,5 and 6**

**Table A.1: Variables derived from the European Social Survey 2002/3**

		Mean	Std. Dev.	Min	Max
<b>Dependent variables</b>					
Collective mode	B20: Coded 1 if respondent indicated having taken part in a lawful public demonstration in the last 12 months.	0.07	0.26	0.00	1.00
Contacting mode	Coded 1 if respondent indicated having contacted a public official or politician in the last 12 months.	0.17	0.37	0.00	1.00
Individual mode	B18, 19, 21, 22: Coded 1 if respondent indicated having signed a petition, worn a badge, bought or boycotted a product for political or ethical reasons in the last 12 months.	0.34	0.47	0.00	1.00
Party membership	B12: Are you a member of any political party? When used as control variable, missing values replaced by mean.	0.06	0.23	0.00	1.00
Single-issue organisation membership	E1-12a: For each of the voluntary organisations I will now mention, please use this card to tell me whether any of these things apply to you now or in the last 12 months, and if so, which. Coded 1 if indicated membership of an organisation for humanitarian aid, human rights, minorities, or immigrants or an organisation for environmental protection, peace or animal rights. When used as control variable, missing values replaced by mean.	0.11	0.31	0.00	1.00
Trade union membership	E1-12a: For each of the voluntary organisations I will now mention, please use this card to tell me whether any of these things apply to you now or in the last 12 months, and if so, which. Coded 1 if indicated membership of trade union. When used as control variable, missing values replaced by mean.	0.23	0.42	0.00	1.00
Voting participation	B13: Some people don't vote nowadays for one reason or another. Did you vote in the last [country] national [this refers to the last election of a country's primary legislative assembly] election in [month/year]?	0.81	0.39	0.00	1.00
<b>Independent variables</b>					
Age dummies	F3: In what year were you born? 2002-answer. 0 = 16/18–29 (baseline), 1 =30–39, 2 = 40–49, ..., 6 = 80+				
Age (centred)		0.65	17.51	–29.00	62.00
Age <sup>2</sup> (centred)		66.84	1771.41	–	9371.00
Duration of residence, logged	E28: How long have you lived in this area? Natural logarithm of original value.	0.00	1.00	–2.85	1.72
Education	F6: What is the highest level of education you have achieved? 0 = not completed primary education, 1 = Primary or first stage of basic education, 2 = Lower secondary or second stage of basic, 3 = Upper secondary, 4 = Post secondary, non-tertiary, 5 = First stage of tertiary, 6 = Second stage of tertiary.	0.02	1.49	–2.88	3.12
Employed	E29: Can I just check? Are you currently: Employed, self-employed, not in paid work, don't know. Coded 1 if employed.	0.45	0.50	0.00	1.00

Experience of democracy before 30	Coded 1 if the respondent experienced liberal democracy before the age of 30.	0.83	0.38	0.00	1.00
External political efficacy (logged)	B5: Do you think that politicians in general care what people like you think? Hardly any politicians care what people like me think, very few care, some care, many care, most politicians care what people like me think, B6: Would you say that politicians are just interested in getting people's votes rather than people's opinions? Nearly all/most politicians are just interested in votes, some politicians are just interested in votes some aren't, most politicians are interested in people's opinions, nearly all politicians are interested in people's opinions. One factor Principal Component Solution: 80% of variance explained. Pairwise deletion of missing data. Missing values replaced by mean. Natural logarithm after minimum was set to 1 for Chapter 3.	0.00	1.44	-1.86	6.33
External political efficacy		0.00	0.23	-0.33	0.67
Female	F2: Coded by interviewer, 0 = male, 1 = female.	0.47	0.50	0.00	1.00
General satisfaction	B29: All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely dissatisfied and 10 means extremely satisfied. B30: On the whole how satisfied are you with the present state of the economy in [country]? Still use this card. Added up the two coded answers.	0.00	0.19	-0.58	0.42
Health	How is your health [physical and mental health] in general? 0 = very bad, 1 = bad, 2 = fair, 3 = good, 4 = very good.	0.00	0.92	-2.80	1.20
		0.00	0.23	-0.70	0.30
Income	F30: If you add up income from all sources, which letter (show card) describes your household's total net income? If you don't know the exact figure, please give an estimate. Use the part of the card that you know best: weekly, monthly or annual income: scale 1-12.	0.00	2.52	-5.01	5.99
		0.00	0.23	-0.46	0.54
Internal political efficacy (logged)	B2: How often does politics seem so complicated that you can't really understand what is going on? Never, seldom, occasionally, regularly, frequently, B3: Do you think that you could take an active role in a group involved with political issues? Definitely not, probably not, not sure either way, probably, definitely, B4: How difficult or easy do you find it to make your mind up about political issues? Very difficult, difficult, neither difficult nor easy, easy, very easy. One factor Principal Component Solution: 57% of variance explained. Pairwise deletion of missing data. Missing values replaced by mean. Natural logarithm of original values with minimum set to 1.	0.00	1.16	-3.53	1.30
Internal political efficacy		0.00	0.22	-0.44	0.56
Left-right self-placement	B28: In politics people sometimes talk of 'left' and 'right' on this scale. Using this card, where would you place yourself, where 0 means the left and 10 means the right.	0.00	0.21	-0.51	0.49
Living with partner	Original variable: partner.	0.64	0.48	0.00	1.00
Number of minor children in household	F3: In what year was she/he born [all current members of household]? Sum of people under the age of 18 living in household.	0.00	1.04	-0.73	9.27
		0.00	0.10	-0.07	0.93
Party identification	B25a: Is there a particular party you feel closer to than any other party?, B25c: How close do you feel to this party? 0 = not closer to any party, 1 = closer to one party, but not close at all, ... 4 = very close.	0.00	1.49	-1.36	2.64

Pension as main source of income	F29: Please consider the income of all household members and any income which may be received by the household as a whole. What is the main source of income in your household? Please use this card. Wages and salaries, income from self-employment or farming, pensions, unemployment/redundancy benefit/any other social benefits or grants, income from investments, savings, insurance or property, income from other sources. Coded 1 if pensions mentioned, 0 otherwise.	0.26	0.44	0.00	1.00
Political information (logged)	A2, A4, A6: And again on an average weekday, how much of your time watching television/listening to the radio/reading is spent watching/listening to/reading the news or programmes about politics and current affairs? Still use this card. 0 = no time at all, 1 = less than ½ hour, 2 = ½ hour to 1 hour, 3 = more than 1 hour, up to 1 ½ hours, 4 = more than 2 hours, 5 = up to 2 ½ hours, 6 = more than 2 ½ hours, up to 3 hours, 7 = more than 3 hours, don't know. Sum of scores, natural logarithm of (original value minus 1).	0.00	0.11	-0.57	0.43
Political interest	B3: How interested would you say you are in politics? Are very interested, quite i., hardly i., not at all i.?	0.00	0.90	-1.43	1.57
		0.00	0.30	-0.47	0.53
Political membership	Coded 1 if respondent indicated membership of trade union or party, missing values replaced by mean.	0.26	0.42	0.00	1.00
Political satisfaction	B31: Now thinking about the [country] government, how satisfied are you with the way it is doing its job? Still use this card. B32: And on the whole, how satisfied are you with the way democracy works in [country]? Still use this card. Added up the two coded answers.	0.00	0.21	-0.50	0.50
Postmaterialism	Male and female respondents received separate self-completion sheets (GS1/GS2): Here we briefly describe some people. Please read each description, tick the box on each line that shows how much each person is or is not like you. E: It is important for her/him to live in safe surroundings. F: He/she likes surprises and is always looking for new things to do. He/she thinks it is important to do lots of different things in life. N: It is important to him/her that the government ensures his/her safety against all threats. He/she wants the state to be strong so it can defend its citizens. S: He/she strongly believes that people should care for nature. Looking after the environment is important to him/her. Very much like me, like me, somewhat like me, a little like me, not like me, not like me at all. If respondents answered E or N (F or S) with not like me or not like me at all, they got a 0, otherwise -1 (+1). Then the scores were added up to span from -2 to + 2. N/A for Hungary or Italy. Missing values replaced by mean.	0.00	0.13	-0.49	0.51
Religiosity	C13: Regardless of whether you belong to a particular religion, how religious would you say you are? Please use this card. 0 = not religious at all, ..., 10 = very religious.	0.00	2.94	-4.99	5.01
		0.00	0.29	-0.50	0.50
Self-employed	E29: Can I just check? Are you currently: Employed, self-employed, not in paid work, don't know. Coded 1 if self-employed.	0.09	0.29	0.00	1.00
Sense of duty to vote	E23: To be a good citizen, how important do you think it is to vote in elections?	0.00	2.56	-7.64	2.36

Social networks (logged)	E1-12b: Do you have personal friends within this organisation? Sports club/club for outdoor activities, an organisation for cultural or hobby activities, a business, professional or farmers' organisation, a consumer or automobile organisation, an organisation for environmental protection, peace or animal rights, a religious or church organisation, an organisation for science, education, or teachers and parents, a social club for the young/the retired/elderly, women or friendly societies, any other voluntary organisation such as the ones I've just mentioned. Each organisation that was not a trade union, humanitarian aid, an organisation for human rights, minorities or immigrants party was counted as 1 and added up. Natural logarithm of (number +1).	0.00	0.56	-0.53	1.87
		0.00	0.23	-0.22	0.78
Town size	F5: Which phrase on this card best describes the area where you live? 1 = a farm or home in the countryside, 2 = a country village, 3 = a town or small village, 4 = the suburbs or outskirts of a big city, 5 = a big city.	0.00	0.30	-0.51	0.49
<b>Macro-level variables not in the text</b>					
Mean level contacting	The mean level of participation in the contacting mode per country	0.00	0.27	-0.47	0.53
Mean level individual	The mean level of participation in the individual mode per country	0.00	0.32	-0.49	0.51
Mean level collective	The mean level of participation in the collective mode per country	0.00	0.27	-0.35	0.65

## Variables used in chapter 4

**Table A.2: Variables from the British Election Studies and the Politbarometer (Chapter 4)**

Variable name	Survey question	Answer categories	Mean	Std. dev.	Min	Max
<i>Politbarometer</i>						
Age (age categories)	Derived from V55 and V56	From 1988 respondents indicated age in 5 year categories	46.08	16.77	17	97
Education	Derived variable from V59 and V60	No school diploma or still at school, 1 at least basic diploma (Hauptschule), at least advanced diploma (Realschule), A levels, university degree	2.63	0.83	1	5
Incumbent	Respondent voted for the party in power		0.47	0.50	0	1
Religiosity (if respondent expressed denominational membership)	How often do you generally go to church?	Never, rarely, once a year, every now and then, almost every Sunday, every Sunday	2.31	1.49	0	5
Sex	Coded by the interviewer	Male, female	1.52	0.50	1	2
Small party vote	Respondent voted for the Greens or another small party (not FDP)		0.11	0.31	0	1
Vote (if respondent expressed intention to vote)	(if there was a national election on Sunday) Which party would you vote for?	SPD, CDU/CSU, FDP, Greens, Other			1	5
Year of birth	Derived from age		1943.81	18.44	1881	1983
<i>British Election Studies</i>						
Age, year of birth	Various formulations, such as Would you say which year you were born in?		47.05	17.61	18	99
Incumbent	Respondent voted for the		0.40	0.49	0	1

Sex	party in power Coded by the interviewer		1.53	0.50	1	2
Small party vote	Respondent voted for the Liberals or a small party		0.19	0.39	0	1
Vote (if respondent voted)	Which party did you vote for? Labour, Conservatives, Liberals/Liberal Other Democrats,				1	4

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## Part 2: External validation of the variable measuring public opinion concerning older people

**Table A.3: External validation exercise – binary logistic regression models of willingness to help older people**

	Dependent variable: personal willingness to help older people							
	Model 1		Model 2		Model 3		Model 4	
	Coef.	p-value	Coef.	p-value	Coef.	p-value	Coef.	p-value
<i>Individual-level variables</i>								
Education	0.013***	0.001	0.019***	0.000	0.017***	0.000	0.021***	0.000
Age	0.015***	0.000	0.014***	0.000	0.015***	0.000	0.015***	0.000
Female	0.213***	0.000	0.222***	0.000	0.214***	0.000	0.223***	0.000
<i>Welfare regime types</i>								
Postcommunist	-0.253***	0.000						
Liberal	-0.188*	0.023						
Conservative	0.00							
Southern European	0.432***	0.000						
Social-democratic	0.595***	0.000						
<i>Economic and demographic variables</i>								
65+ population			0.112***	0.000			0.142***	0.000
Risk of old age poverty			-0.010***	0.002			-0.030***	0.000
Pension contribution rate			0.040***	0.000			0.007	0.171
GDP per capita 1999			0.000***	0.000			0.000***	0.000
<i>Religion macro variables</i>								
Catholics					0.009***	0.000	0.008***	0.000
Protestants					0.009***	0.000	0.007***	0.000
Orthodox					0.009***	0.000	0.011***	0.000
Religious attendance					-0.031***	0.000	-0.008	0.287
Catholics X rel. attend.					0.001***	0.000	0.001***	0.000
Protestants X rel. attend.					0.000	0.348	0.000	0.642
Constant	-0.647***	0.000	-3.531***	0.000	-0.707***	0.000	-3.014***	0.000
Observations	20,402		20,402		20,402		20,402	
McFadden R <sup>2</sup>	0.024		0.023		0.023		0.036	

Note: Robust standard error. Clustered by country.

Source: WVS.

The regressions in table A.3 are to show that the individual responses capturing the individual willingness to help older people is at least to some extent rooted in macro-level features of each society. The dependent variable is coded 1 if respondents answered absolutely yes or yes and 0 if they answered ‘maybe yes, maybe no’, ‘no’ or ‘absolutely no’ to the question: ‘Would you be prepared to actually do something to improve the conditions of elderly people in your country?’

Table A.3 presents four models, the first three of which have an equally good fit. Each model includes gender (women are more likely to say yes), years of fulltime education (positive effect) and age (positive effect) as individual-level control variables. Model 1, the welfare regime model, divides the 16 countries, for which we have data by welfare state regimes. The results suggest the following ordering of welfare

regimes with regard to their increasing effects on individual helpfulness towards older people: post-communist, liberal, conservative, Southern European, and Social-democratic.

Model 2, the demographic and economic model, includes GDP per capita as a measure of economic development; the proportion of people aged 65 in the populace in order to capture the demographic weight of older people; the proportion of people aged 65 at risk of poverty to control for variations on the material situation of older people across Europe; and finally the proportion of gross wage that is paid towards social security contribution for old age, survivor and disability pensions (employee and employer together) in order to capture the nature of the pension finance system. Individuals show – on average – higher levels of helpfulness in societies that are economically more advanced, where there are more older people, where older people are less at risk of being poor and where social security contributions are higher. The positive effect of the pension contribution rate might lie in the presence of the situation of retirement in people's heads. The more they see goes into the pension system, the more they might be aware of the issues of retirement and old age. The positive effect of economic development might be explained with growing status of old age at high stages of socio-economic modernisation. The effects of pensioners' poverty risk suggests that individuals are more likely to be helpful in contexts where the need for help is low due to the good, objective material situation of older people. Thus, the variable 'helpfulness towards older people' is not measuring the echo of a situation where older people are in need of a lot of help. Paradoxically, senior friendliness is higher in countries where there are fewer needy older people.

Model 3, the cultural model, captures religious traditions with four variables: the proportions of self-identified Catholics, Protestants and Orthodox Christians and the proportion of people who meet at church each week. In addition, the model includes the interaction effects between these variables. In general, the higher the proportion of any Christian denomination, the more older people are being valued. Catholic and Protestant denominations, however, have a stronger influence than the presence of Orthodox followers. Interestingly, the direct effect of the proportion of people who weekly meet at church has a negative, direct effect. This could be the hidden effect of economic development that is positively related to helpfulness as model 2 has shown (it loses significance in the next model when economic development is included). The interaction effects show that in societies with higher proportions of Catholics and higher levels of church attendance also have higher levels of helpfulness towards older people.

Whereas the previous three models were similar in their goodness-of-fit, the best fit can be reached with a composite model that incorporates models 2 and 3. Implicitly, this also incorporates the welfare regime model 1, the variables of which can be predicted well by the other variables. In the composite model, the contribution rate and religious attendance (and its interaction with Protestant population) lose significance. Helpfulness towards older people – is a multi-factorial phenomenon. In temporal sequence, there seem to be two stages of causal impact. The historical traditions of religion, which are still reflected in the distribution of religious adherents, play an important role. Countries that are still dominated by higher proportions of Christian populations show a stronger helpfulness towards older people. This effect is even stronger – especially with regard to practising Catholics – if religious practice is linked with these religious traditions. Causally more recent, we can detect the importance of the current economic situation of the society as a whole and of older people in particular to have an influence. Woven into this narrative are the differences between welfare traditions. For example, the presence of Catholic traditions in Conservative welfare states manifests itself in welfare policies being derived from the Catholic teachings of social policy. Also, reformed Protestantism might play a role to explain parts of the welfare state developments.



**Table A.4: Variables in the regression analysis (table A.3)**

World Values Survey (Part 3)	16 countries					
Helpfulness towards older people	0	1	0.61	0.49	1=absolutely yes, yes, 0=maybe yes/maybe no, no, absolutely no, don't know	E165: Would you be prepared to actually do something to improve the conditions of elderly people in your country?
Age at which FT education ended	5	74	18.46	4.99	In years	X023: At what age did you (or will you) complete your full-time education, either at school or at an institution of higher education? Please exclude apprenticeships.
Age	15	98	45.46	17.34		X003: This means you are XX years old.
Gender	1	2	1.54	0.50	1=male, 2=female	X002: Coded by the interviewer
Welfare state regimes					1=conservative, 2=Social-Democratic, 3=liberal, 4=post-communist, 5=Southern European	
Contribution rate towards pensions	16.36	34.75	24.83	5.40	Percentage (insured person and employer)	Contribution rate for social security programme (old age, disability, survivor) (Social Security Association 2002: table 4)
Percentage of older people at risk of poverty in 2000–3	4	30	17.66	7.71	Percentage of 65+ population below poverty line	(European Commission 2006: table 1.1) (below 60% of median income)
Percentage of population 65+ in 1999	12.3	18.2	15.65	1.54		(Council of Europe 2001: T1.6)
GDP per capita	3078	26340	17204.87	8389.88	In US dollars	United Nations Common Database
Percentage of Catholics (centred around zero)	-50.07	43.93	0.00	31.28	Percentage who identified themselves as Roman Catholics, Catholics and Greek Catholics	WVS F025: Do you belong to a religious denomination? Which one?
Percentage of Protestants (centred around zero)	-11.39	72.61	0.00	21.32	Percentage who identified themselves as Protestants or Anglicans	WVS F025: Do you belong to a religious denomination? Which one?
Percentage of Orthodox Christians (centred around zero)	-8.38	14.32	0.00	5.72	Percentage who identified themselves as Orthodox Christians	WVS F025: Do you belong to a religious denomination? Which one?
Percentage of population that meets other people at church, mosque or synagogue every week (centred around zero)	-5.53	87.47	0.00	20.24	Percentage who answered 'weekly'	WVS A060: I'm going to ask how often you do certain things. For each activity, would you say you do them every week or nearly every week; once or twice a month; only a few times a year, or not at all? Spend time with people at your church, mosque or synagogue.
Interaction term Catholics X worship (centred around zero)	-	271.94	553.51	0.00	177.04	
Interaction term Protestants X worship (centred around zero)	-	150.54	109.20	0.00	71.74	

Additional sources:

Council of Europe (2001). *Recent Demographic Developments in Europe*. Strasbourg: Council of Europe.

Social Security Association. (2007). *Social Security Programs Throughout the World: Europe, 2002*  
Available online at: <http://www.ssa.gov/policy>

**Table A.5: Models of voting participation, single countries, 2002, (base for figure 3.6)**

	GB	AT	BE	CH	CZ	DE	DK	ES	FI	FR	GR	HU	IE	IT	LU	NL	NO	PL	PT	SE	SI
Pseudo R <sup>2</sup>	0.266	0.276	0.159	0.303	0.273	0.304	0.280	0.271	0.254	0.268	0.201	0.245	0.258	0.264	0.214	0.235	0.279	0.156	0.278	0.256	0.196
Constant	3.50***	4.24***	2.39***	6.72***	5.02***	5.10***	3.56***	4.62***	3.97***	5.83***	3.10***	4.19***	4.53***	3.79***	3.98***	4.09***	7.38***	4.47***	5.56***	4.26***	3.34***
18–29 Baseline																					
30–39	0.39	0.15	0.88**	0.76**	–0.79*	0.25	0.35	1.19***	0.26	0.08	0.62**	0.54	1.16***	0.05	0.92***	0.84***	0.76**	0.24	0.52*	0	0.4
40–49	0.63**	0.39	0.81**	1.22***	–0.06	0.50*	0.53	1.26***	0.67**	0.39	0.76**	0.65*	1.25***	0.28	1.04***	0.81**	0.63*	0.87***	0.96***	0.11	0.11
50–59	0.65**	0	1.73***	1.26***	–0.63	0.36	1.57**	1.36***	0.60*	0.99**	0.57	0.87**	1.58***	0.97	1.55***	1.04***	1.09***	1.02***	2.08***	0.42	0.83**
60–69	0.86**	0.21	1.80***	1.37***	–1.17**	–0.58	1.80*	1.62***	1.42***	0.47	0.96*	1.22**	2.18***	0.79	1.38***	1.12**	1.18**	1.16***	1.78***	1.03*	0.87*
70–79	0.37	–0.43	1.48**	1.67***	–0.96*	–0.03	1.27	1.87***	1.29**	0.64	0.61	0.82*	1.65***	0.47	1.34**	1.17**	2.07***	1.36***	1.67***	1.17*	1.18**
80+	0.33	–1.32*	1.46*	1.41**	2.09***	–0.5	1.07	0.52	1	–0.5	–0.65	0.37	1.20*	0.07	0.42	1.59***	1.23*	0.85*	2.11**	0.28	2.65*
Education	0.09	0.24**	0.17*	0.06	0.31**	0.49***	0.1	0.06	0.13	0.03	0.09	0.38***	0.29***	0.47**	0.13*	0.23**	0.21**	0.26***	0.24**	0.18**	0.37***
Religiosity	0.05*	0.03	–0.02	0	0.05	–0.01	–0.15**	–0.02	0.01	0.02	0.04	0.01	0.04	0.03	–0.03	–0.09**	0.06	0.02	0.01	0.02	–0.04
Female	–0.18	–0.51**	–0.32	0.05	0	–0.47**	–0.23	0.06	0.01	0.04	0.23	–0.16	–0.07	0.3	–0.1	0.02	0.13	0.26*	0.03	–0.17	–0.11
Political interest	0.27**	0.61***	0.38**	0.67***	0.27*	0.34***	–0.06	0.03	0.16	0.16	0.06	0.26*	0.21*	–0.05	0.01	0.39***	0.24	0.29***	0.31**	0.34**	0.38***
Sense of duty to vote	0.35***	0.23***	0.03	0.32***	0.31***	0.35***	0.43***	0.27***	0.39***	0.43***	0.11***	0.29***	0.26***	0.29***	0.16***	0.33***	0.43***	0.17***	0.26***	0.35***	0.21***
Income	–0.03	0.01	0.01	0.02	0.03	0.11**	0.01	0.08*	0.05	0.02	–0.04	–0.01	–0.04	0.03	0.01	0.04	0.09*	0.01	0.10*	0.05	0.03
Party identification	0.20***	0.26***	0.17*	0.30***	0.36***	0.18**	0.30**	0.45***	0.18**	0.09	0.22***	0.18***	0.07	0.50***	0.05	0.23***	0.06	0.20***	0.42***	0.24***	0.23**
Trade union and party membership	0.27	0.41*	0.47*			0.35	0.21	–0.02	0.23	–0.03	0.32	1.28*	0.49**	–0.21	0.61**	0.2	0.01	0.42	0.46	0.22	0.44*
Duration of residence, logged	0.25***	0.42***	0.11	0.30***	0.37*	0.04	0.03	0.42***	0.13	0.39***	0.72***	0.08	0.42***	0.67***	0.61***	0.28***	0.30***	0.35***	0.33***	0.22*	0.14
External political efficacy, logged	–0.01	0.1	0.17*	0.04	0.08	0.04	0	–0.03	0.02	–0.14*	0.03	0.02	–0.06	0.02	–0.05	0.1	0.17	0.02	0.09	–0.07	0.02
Internal political efficacy, logged	–0.02	0.11	–0.06	0.19*	0.07	0.16	0.18	0.11	–0.01	0.1	0.07	0.09	0.01	–0.07	0.13	0.05	0.24**	0.06	0.03	0.11	0
Pension main source of income	0.16	0.65*	0.22	0.29	0.86**	1.01***	0.28	0.38	–0.57	0.81*	0.19	0.12	0.09	–1.02**	–0.03	–0.01	0.19	–0.15	0.07	–0.36	0.28
Living with partner	0.34*	0.59**	0.83***	0.40*	0.39*	0.31	0.52	0.60**	0.2	0.52**	0.80***	0.54**	0.52**	0.5	0.44*	0.22	0.48**	0.04	0.36*	0.57**	0.51*
Subjective evaluation of health	0	0.15	0.37**	0.13	0.19	0.18*	0.24	0.17	0.07	0.16	0.14	0.2	0.1	0.05	–0.09	0.08	0.1	0.16*	0.22*	0.16	0.02
Friends in non-political networks, logged	0.18	–0.01	0.26			0.29*	0.09	0.18	0.54***	0.70***	0.74*	–0.04	–0.01	0.08	0.33*	0.19	0.35*	0.08	0.09	0.08	0.32
Number of minor children in household	0.02	0.05	0	0.04	0.09	–0.07	0.45*	–0.04	–0.06	0.01	0.12	0.14	0.06	0.26	–0.07	–0.01	0.11	0.11	0.12	–0.08	0.21

Note: \*\*\*, \*\*, \* significant at 0.001, 0.01, 0.05. Source: ESS.

### Part 3: Supplementary models and tests for chapter 3

#### Regression models for interactions between age and macro-level variables

Table A.6: Random intercept binary logistic regression models of voting participation in 21 countries in 2002 (split samples, models 4a and 4b, base for figure 3.7)

	Model 4a		Model 4b	
	Coef.	Std. err.	Coef.	Std. err.
Constant	-2.74***	0.30	-1.65***	0.21
30–39 (baseline 18–29)	-0.15	0.12	0.38***	0.06
40–49	0	0.14	0.75***	0.06
50–59	-0.17	0.15	0.96***	0.07
60–69	-0.49**	0.19	1.03***	0.09
70–79	-0.23	0.24	1.29***	0.12
80+	-0.36	0.34	0.93***	0.16
Education	0.21**	0.07	0.23***	0.03
Age 30–39 X education	-0.12	0.09	-0.14***	0.04
Age 40–49 X education	-0.2	0.10	-0.18***	0.04
Age 50–59 X education	-0.28**	0.10	-0.19***	0.05
Age 60–69 X education	-0.53***	0.11	-0.16**	0.05
Age 70–79 X education	-0.17	0.12	-0.05	0.06
Age 80+ X education	-0.12	0.18	0.18	0.08
Religiosity	0.06***	0.01	0.02**	0.01
Female	-0.02	0.08	-0.07	0.04
Pol. interest	0.32***	0.05	0.34***	0.03
Income	0.06**	0.02	0.03**	0.01
Party ID	0.33***	0.04	0.27***	0.01
Pol. membership	0.01	0.13	0.25***	0.06
Duration of residence (logged)	0.24***	0.04	0.31***	0.02
External pol. efficacy (logged)	0.02	0.03	0.02	0.01
Internal pol. efficacy (logged)	0.10**	0.03	0.06**	0.02
Pension as main source of income	0.19	0.13	0.04	0.07
Living with partner	0.50***	0.09	0.30***	0.04
Health	0.09	0.05	0.17***	0.02
Social networks (logged)	0.24**	0.09	0.33***	0.04
Number of minor children in HH	0.02	0.05	0.03	0.02
$\sigma_u$	0.77		0.74	
Intraclass correlation coefficient	0.15		0.14	
Valid N	3245		29054	
Loglikelihood	-2111		-9925	
AIC	4280		19909	

Note: \*\*\* Significant at 0.001 level, \*\* at 0.01 level; Belgium excluded because of compulsory voting. All variables centred around 0.

Source: ESS.

**Table A.7: Random intercept binary logistic regressions, voting participation, interactions between age and macro-level variables (base for figure 3.8)**

	Model 5		Model 6		Model 7		Model 8	
	Coef.	Std.err.	Coef.	Std.err.	Coef.	Std.err.	Coef.	Std.err.
Age	0.0775***	0.0059	0.0811***	0.0058	0.0813***	0.0059	0.0798***	0.0059
Age <sup>2</sup>	-0.0007***	0.0001	-0.0007***	0.0001	-0.0007***	0.0001	-0.0007***	0.0001
Education	0.0898***	0.0144	0.0811***	0.0144	0.0851***	0.0144	0.0818***	0.0145
Age X education	-0.0006	0.0007	-0.0008	0.0007	-0.0009	0.0007	-0.0014	0.0007
Av. turnout	0.0531***	0.0085	0.0406***	0.0093	0.0563***	0.0078	0.0428***	0.0090
Age X turnout	-0.0005***	0.0001						
Sense of duty to vote	0.3039***	0.0065	0.3036***	0.0065	0.3039***	0.0065	0.3030***	0.0066
Religiosity	0.0157*	0.0065	0.0152*	0.0065	0.0149*	0.0065	0.0132*	0.0066
Female	-0.0255	0.0352	-0.0257	0.0352	-0.0253	0.0352	-0.0335	0.0358
Pol. interest	0.2440***	0.0240	0.2464***	0.0240	0.2468***	0.0240	0.2432***	0.0243
Income	0.0307***	0.0088	0.0336***	0.0088	0.0331***	0.0088	0.0335***	0.0090
Party identification	0.2376***	0.0138	0.2381***	0.0138	0.2380***	0.0138	0.2359***	0.0140
Membership in party/trade union	0.1395*	0.0558	0.1476**	0.0558	0.1468**	0.0558	0.1399*	0.0564
Duration of residence	0.2944***	0.0195	0.2903***	0.0195	0.2922***	0.0195	0.2908***	0.0198
Extern. pol. efficacy (logged)	0.0124	0.0122	0.0148	0.0122	0.0168	0.0122	0.0151	0.0123
Intern. pol. efficacy (logged)	0.0600***	0.0160	0.0595***	0.0160	0.0560***	0.0160	0.0563***	0.0161
Pension main source of income	0.1368*	0.0586	0.1449*	0.0586	0.1436*	0.0586	0.1225*	0.0590
Living with partner	0.2979***	0.0391	0.2921***	0.0390	0.2894***	0.0390	0.2907***	0.0396
Subj. evaluation of health	0.1498***	0.0204	0.1475***	0.0204	0.1431***	0.0205	0.1442***	0.0207
Social networks (logged)	0.2724***	0.0365	0.2734***	0.0365	0.2761***	0.0365	0.2774***	0.0368
Number of minor children	0.0045	0.0193	0.0055	0.0193	0.0073	0.0193	0.0092	0.0196
Dependency ratio			0.0446*	0.0185				
Age X dep. ratio			-0.0005**	0.0002				
Length of democratic epoch					-0.0073*	0.0036		
Age X democratic epoch					0.0001*	0.0000		
Public opinion tow. older people							0.0259*	0.0108
Age X public opinion							-0.0009***	0.0001
Constant	1.7470***	0.1041	1.6180***	0.1069	1.7340***	0.0957	1.7720***	0.0947
Valid N	33713		33713		33713		30211	
$\sigma_u$	0.43		0.38		0.39		0.37	
Intraclass correlation coefficient	0.05		0.04		0.04		0.04	
Loglikelihood	-11756		-11766		-11768		-11427	
AIC	23559		23580		23583		22902	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.

Source: ESS.

### Simulated confidence intervals for models with interactions in chapter 3

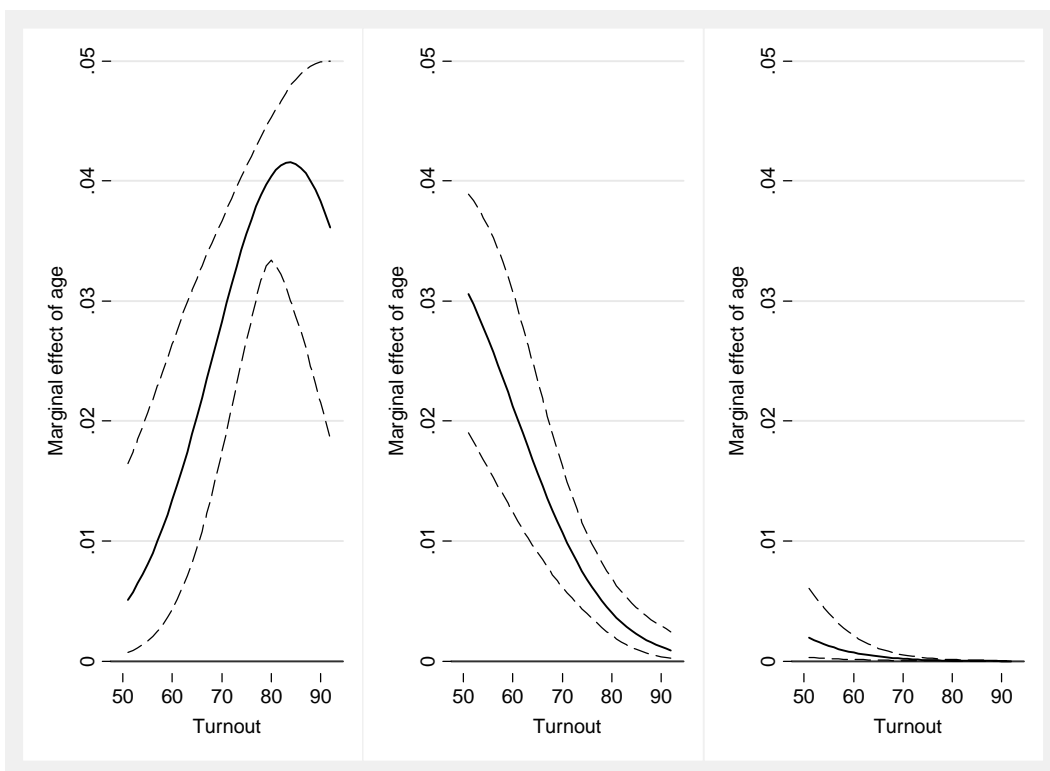
The standard errors commonly computed by standard software do not yield meaningful results for interaction effects, especially not for logit models. Essentially, the standard errors provide information about the insecurity of the estimation only at the point where the other constitutive

elements are zero. Brambor et al. (2006) have suggested a STATA procedure to estimate meaningful marginal effects and their insecurity across the range of the contextual effect.

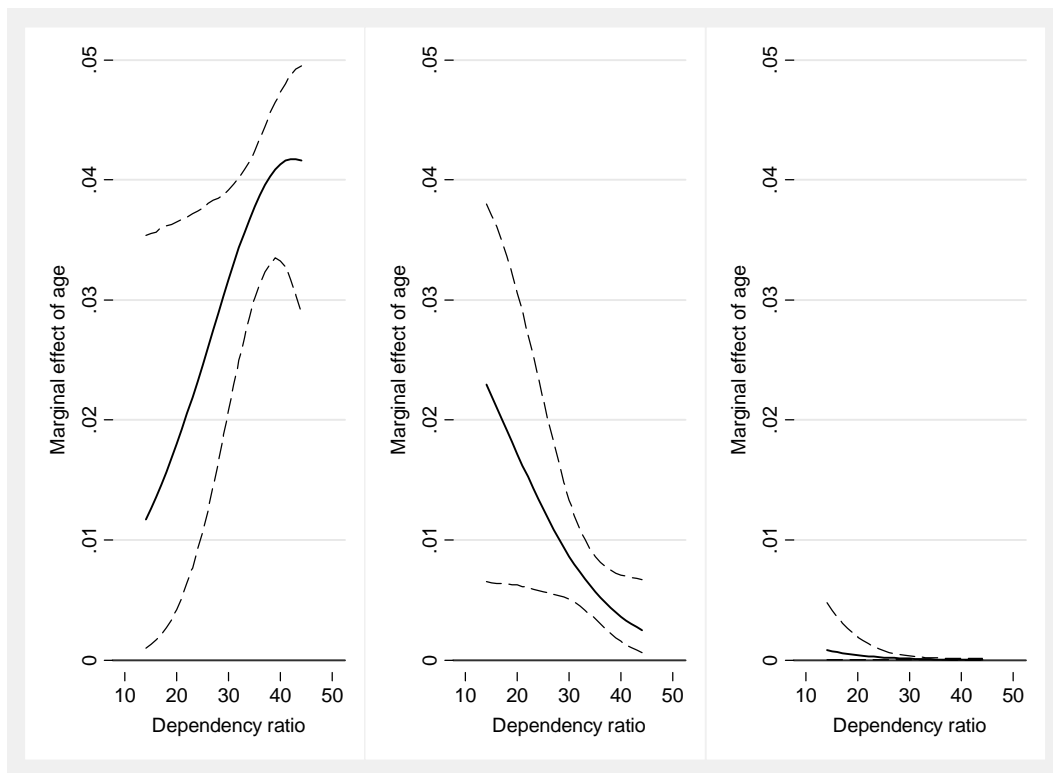
There are three graphs per model: the middle one shows the marginal effect of age across all values of the macro-level variable (in the first instance, turnout) when age is at the mean (that is, 47 years). The left one reports the effects when age is 25 years below the mean (about 22 years of age); the right one the effects when age is 25 years above the mean (that is, about 72 years of age). The confidence interval is for 99%. So, for example, the first graph (left, figure A.1) shows that for young people around the age of 22, age has a positive effect increasing in magnitude as average turnout increases, but declining for a very high level of turnout. The middle one shows that the effect is positive but declining for growing levels of turnout at mean age. The right one says the same for older voters but at much lower levels. In all cases, the marginal effect is statistically significant at the 0.01 level.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14:63-82.

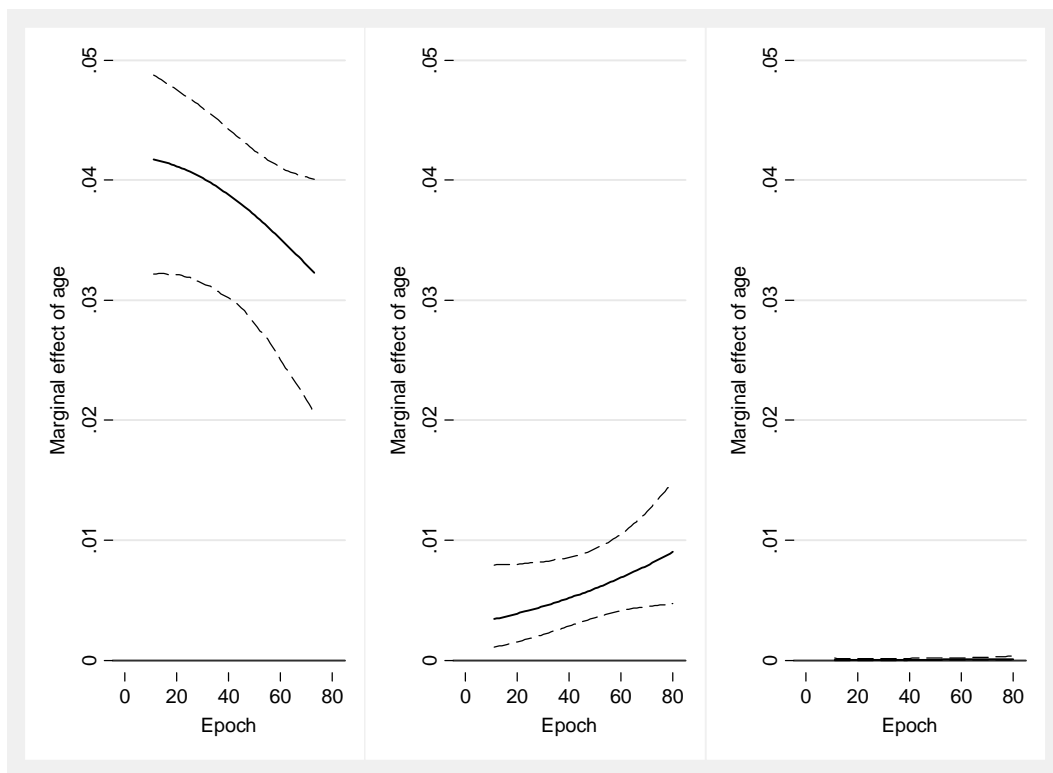
**Figure A.1: Simulated confidence intervals for all values of turnout at three points of age (mean-25, mean, mean+25), model 5**



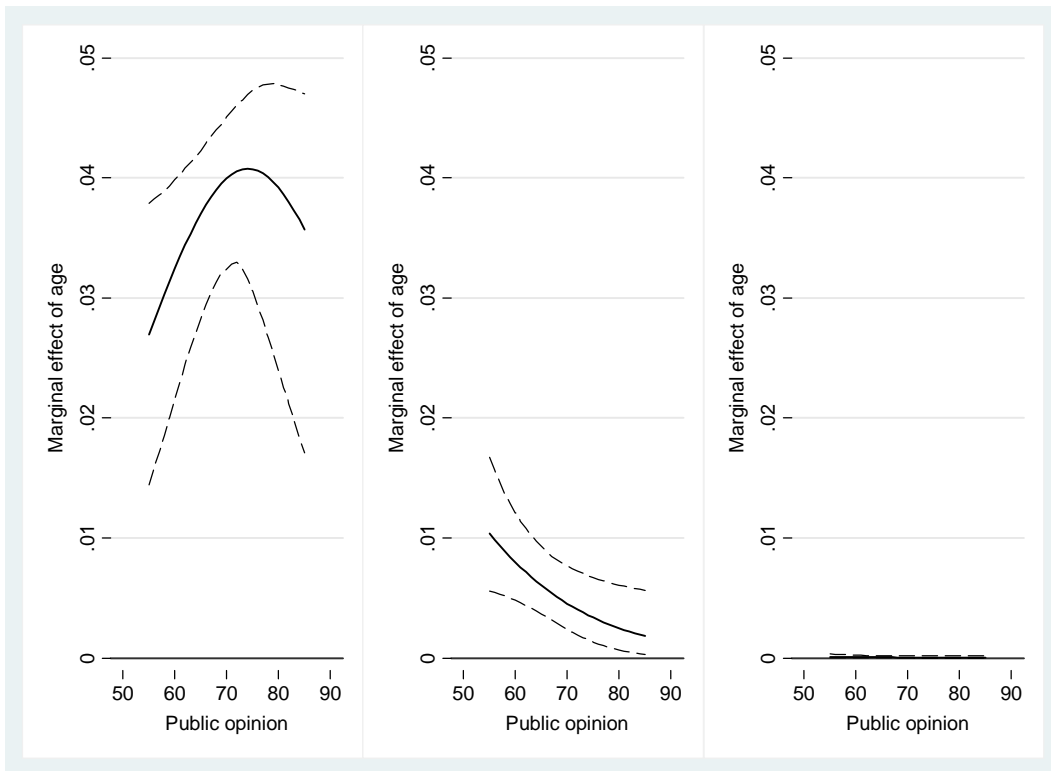
**Figure A.2: Simulated confidence intervals for all values of the dependency ratio at three points of age (mean-25, mean, mean+25), model 6**



**Figure A.3: Simulated confidence intervals for all values of democratic epoch at three points of age (mean-25, mean, mean+25), model 7**



**Figure 4: Simulated confidence intervals for all values of public opinion concerning older people at three points of age (mean-25, mean, mean+25)**



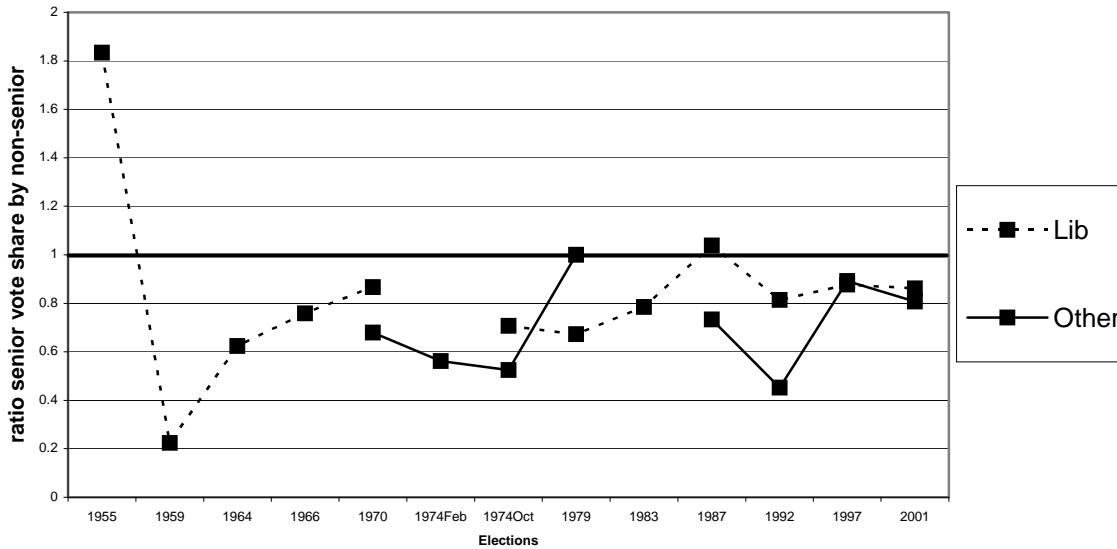


**Part 4: Supplementary graphs, Chapter 4**

Part 4 contains additional graphs that are comparable to the ones presented in chapter 4.

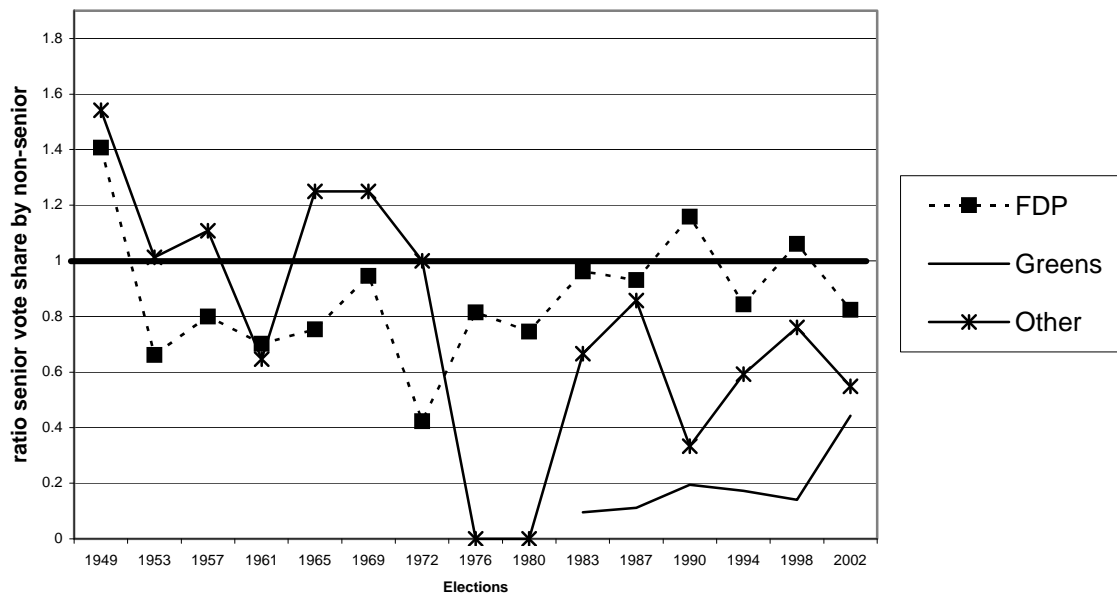
**The popularity of the smaller parties in Britain and West Germany among younger and older voters across time**

**Figure A.5: British party ratios (vote share of voters aged 60 and older by vote share of those younger than 60) – Liberals and other parties, 1955–2001**



Source: British election studies 1964 to 2001 and Gallup polls 1958 and 1960.

**Figure A.6: West German party ratios (vote share of voters aged 60 and older by vote share of those younger than 60) – FDP, Greens and other parties, 1949–2002**



Source: German election studies 1961 to 1998 and Politbarometer 2002.

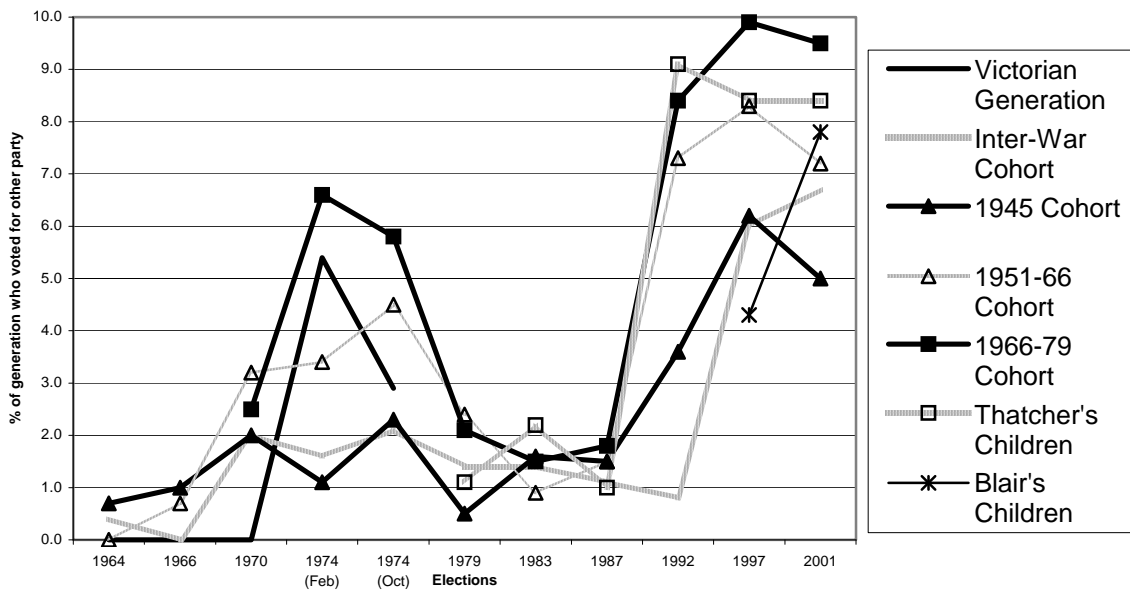
# The popularity of smaller parties in Britain and West Germany among political generations

Figure A.7: Proportion of political generations who voted Liberal in British elections, 1964–2001



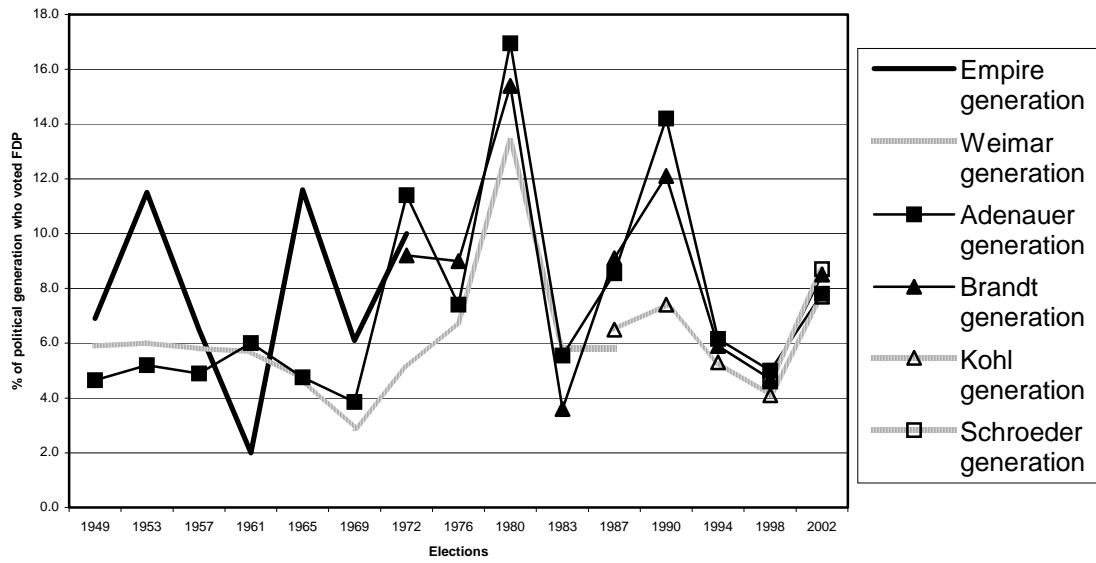
Source: BES 1964 to 2001, data defective for Feb. 1974.

Figure A.8: Proportion of political generations who voted for other parties in British elections, 1964–2001



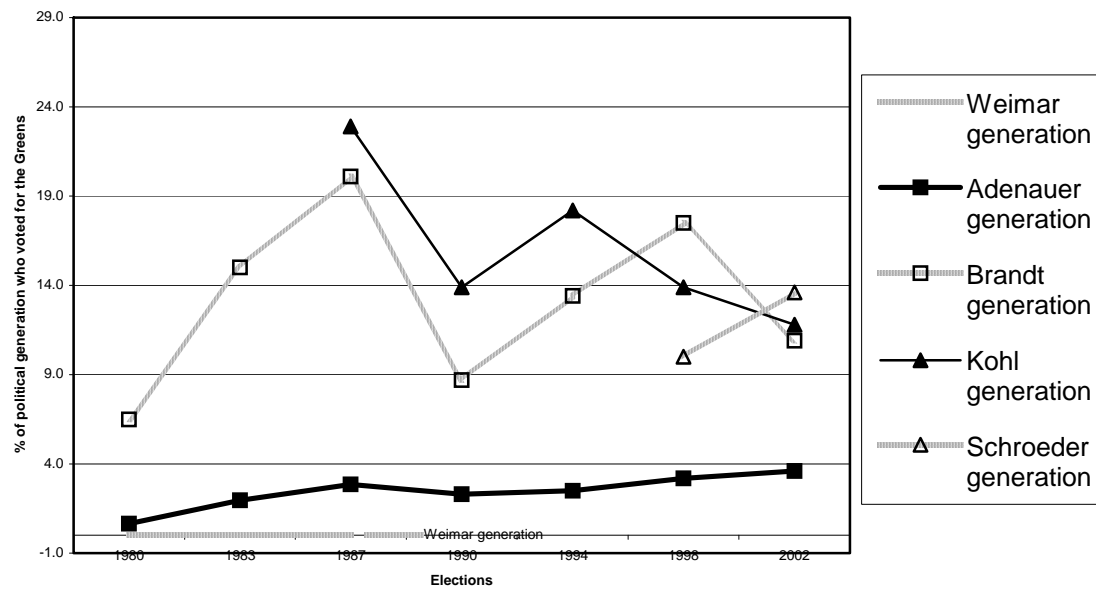
Source: BES 1964 to 2001.

**Figure A.9: Proportion of political generations who voted for the FDP in German elections**



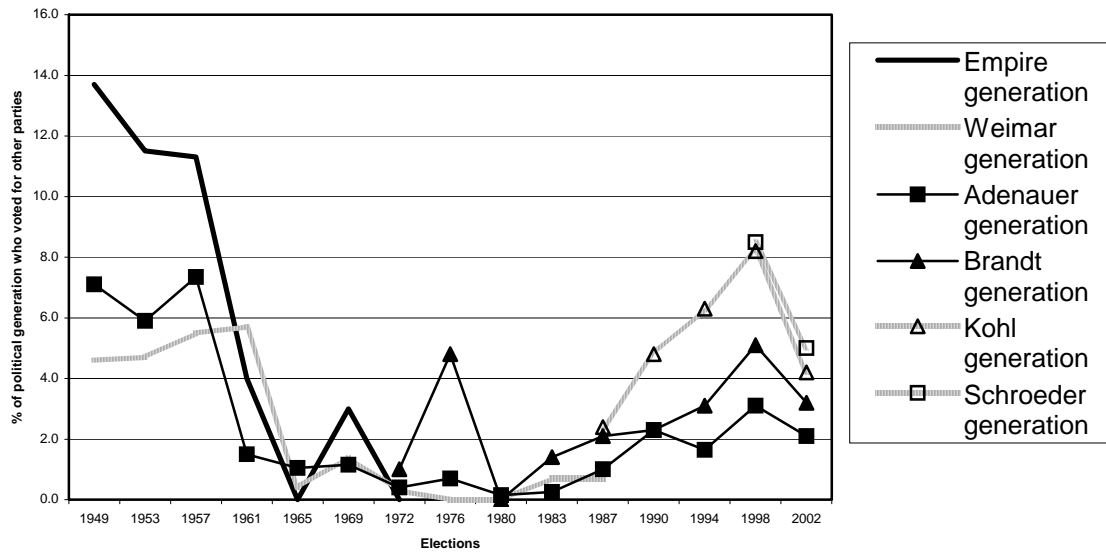
Source: German election studies 1961 to 1998 and Politbarometer 2002.

**Figure A.10: Proportion of political generations who voted for the Greens in German elections**



Source: German election studies 1961 to 1998 and Politbarometer 2002.

**Figure A.11: Proportion of political generations who voted for other parties in German elections, 1949–2002**



Source: German election studies 1961 to 1998 and Politbarometer 2002.

## Part 5: Supplementary models and test, Chapter 5

### Regression models for interactions between age and macro-level variables

Table A.8: Random intercept binary logistic regressions, models of political membership, interactions between age and average popularity of organisation (base for figure 5.1)

	Party Model 4		Trade union Model 5		Single-issue organisations Model 6	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
30-39 (BL: 19-29)	-0.03	0.16	0.52***	0.08	0.32***	0.08
40-49	0.10	0.15	0.67***	0.08	0.45***	0.09
50-59	0.23	0.15	0.85***	0.08	0.39***	0.09
60-69	0.32	0.17	0.82***	0.10	0.12	0.11
70-79	0.54**	0.19	0.36**	0.13	-0.10	0.13
80+	1.13***	0.23	0.18	0.19	-0.08	0.18
Average popularity	1.75**	0.66	2.70***	0.60	1.08**	0.35
30-39 X popularity	-0.56	0.57	0.15	0.27	0.43	0.31
40-49 X popularity	0.16	0.52	-0.32	0.27	0.69*	0.30
50-59 X popularity	0.28	0.52	-0.17	0.28	0.29	0.31
60-69 X popularity	0.21	0.54	-0.17	0.32	0.65	0.34
70-79 X popularity	-0.13	0.60	-0.51	0.42	0.81*	0.40
80+ X popularity	0.34	0.76	-0.12	0.66	1.20*	0.60
Trade union member	0.68***	0.08		0.08	0.35***	0.06
Single-issue org. member	0.29**	0.09	0.37***	0.06		
Party member			0.76***		0.26**	0.09
<i>Cohort effects</i>						
Education	-0.50**	0.15	0.05	0.09	0.74***	0.11
Left-Right	0.05	0.15	-1.11***	0.10	-0.71***	0.11
Town size	-0.46***	0.12	0.04	0.07	0.26**	0.08
Postmaterialism	-0.34	0.26	-0.23	0.15	0.61***	0.17
Religiosity	-0.22	0.12	-0.30***	0.07	0.18*	0.08
<i>Cohort/life-cycle effects</i>						
Political interest	2.25***	0.15	0.13	0.08	0.48***	0.10
Political information	0.73*	0.33	0.17	0.19	0.68**	0.23
Income	-0.23	0.19	0.28*	0.11	0.65***	0.13
Social networks (logged)	1.23***	0.14	0.90***	0.09	3.40***	0.10
Internal political efficacy	2.60***	0.19	0.20	0.11	0.28*	0.13
External political efficacy	1.15***	0.15	0.30**	0.09	0.38***	0.11
Female	0.07	0.07	0.26***	0.04	-0.50***	0.05
<i>Life-cycle effects</i>						
Employed	0.03	0.10	1.46***	0.06	-0.10	0.07
Self-employed	0.37**	0.12	-0.34***	0.10	0.03	0.09
Duration of residence	1.29***	0.20	0.19	0.10	-0.47***	0.12
Living with partner	0.13	0.08	0.13**	0.05	-0.10	0.06
Number of children	-0.03	0.40	-0.48*	0.22	-1.05***	0.28
Health	-0.25	0.16	-0.29**	0.10	-0.23*	0.11
Pension as main source of income	0.27*	0.12	-0.17*	0.08	0.25**	0.09
Constant	-4.23***	0.19	-3.23***	0.16	-2.76***	0.10
$\sigma_u$	0.36		0.45		0.23	
Intra-class correlation coefficient	0.04		0.06		0.02	
Valid N	28196		28196		28196	
Loglikelihood	-3851		-9485		-6995	
AIC	7774		19042		14061	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

**Table A.9: Random intercept binary logistic regressions, models of political membership, interactions between age and the dependency ratio (base for figure 5.1)**

	Party Model 7		Trade union Model 8		Single-issue organisation Model 9	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average popularity	1.78***	0.38	2.63***	0.53	1.85***	0.21
30-39 (BL: 18-29)	0.08	0.18	0.52***	0.08	0.39***	0.09
40-49	0.14	0.17	0.77***	0.08	0.59***	0.10
50-59	0.42*	0.17	0.91***	0.08	0.47***	0.10
60-69	0.49**	0.19	0.86***	0.10	0.24*	0.12
70-79	0.72***	0.21	0.30*	0.14	0.06	0.14
80+	1.21***	0.24	-0.24	0.23	0.13	0.19
Dependency ratio	2.72***	0.72	-0.77	0.66	2.33***	0.45
30-39 X dependency ratio	-0.47	0.81	-0.28	0.42	-0.82	0.50
40-49 X dependency ratio	-0.62	0.76	-0.85*	0.41	-1.78***	0.49
50-59 X dependency ratio	-2.29**	0.77	-0.62	0.42	-0.94	0.51
60-69 X dependency ratio	-1.90*	0.79	-0.52	0.50	-1.32*	0.57
70-79 X dependency ratio	-1.43	0.84	1.43*	0.65	-1.94**	0.70
80+ X dependency ratio	-1.13	1.04	3.90***	1.02	-2.50*	1.07
Trade union member	0.68***	0.08			0.35***	0.06
Single-issue org. member	0.29**	0.09	0.37***	0.06		
Party member			0.74***	0.08	0.26**	0.09
<i>Cohort effects</i>						
Education	-0.52***	0.15	0.06	0.09	0.75***	0.11
Left-Right	0.06	0.15	-1.10***	0.10	-0.70***	0.11
Town size	-0.44***	0.12	0.05	0.07	0.26**	0.08
Postmaterialism	-0.35	0.26	-0.23	0.15	0.61***	0.17
Religiosity	-0.22	0.12	-0.30***	0.07	0.17*	0.08
<i>Cohort/life-cycle effects</i>						
Political interest	2.23***	0.15	0.13	0.08	0.49***	0.10
Political information	0.78*	0.33	0.19	0.19	0.71**	0.23
Income	-0.29	0.19	0.26*	0.11	0.63***	0.13
Social networks (logged)	1.23***	0.14	0.90***	0.09	3.41***	0.10
Internal political efficacy	2.61***	0.19	0.20	0.11	0.28*	0.13
External political efficacy	1.14***	0.15	0.30**	0.09	0.37***	0.11
Female	0.07	0.07	0.26***	0.04	-0.50***	0.05
<i>Life-cycle effects</i>						
Employed	0.05	0.10	1.46***	0.06	-0.09	0.07
Self-employed	0.37**	0.12	-0.34***	0.10	0.02	0.09
Duration of residence	1.24***	0.19	0.18	0.10	-0.48***	0.12
Living with partner	0.14	0.08	0.13**	0.05	-0.09	0.05
Number of children	0.11	0.40	-0.47*	0.22	-1.04***	0.28
Health	-0.25	0.16	-0.28**	0.10	-0.23*	0.11
Pension as main source of income	0.28*	0.12	-0.15	0.08	0.24**	0.09
Constant	-4.55***	0.19	-3.12***	0.17	-2.97***	0.10
$\sigma_u$	0.25		0.42		0.14	
Intra-class correlation coefficient	0.02		0.05		0.01	
Valid N	28196		28196		28196	
Loglikelihood	-3840		-9468		-6983	
AIC	7754		19010		14039	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight. Source: ESS.

**Table A.10: Random intercept binary logistic regressions, models of political membership, interactions between age and democratic epoch (base for figure 5.1)**

	Party Model 10		Trade union Model 11		Single-issue organisation Model 12	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average popularity	1.85**	0.57	2.50***	0.55	1.09**	0.36
30-39 (BL: 18-29)	0.02	0.15	0.57***	0.07	0.31***	0.09
40-49	0.07	0.15	0.78***	0.08	0.44***	0.09
50-59	0.19	0.15	0.93***	0.08	0.38***	0.09
60-69	0.27	0.17	0.91***	0.10	0.08	0.12
70-79	0.52**	0.18	0.52***	0.13	-0.16	0.14
80+	1.00***	0.22	0.34	0.19	-0.28	0.22
Length of democratic epoch	-0.21	0.34	0.81***	0.20	0.47*	0.22
Age 30-39 X epoch	-0.55	0.37	-0.61**	0.19	-0.06	0.23
Age 40-49 X epoch	0.25	0.36	-0.82***	0.19	0.02	0.23
Age 50-59 X epoch	-0.27	0.35	-0.54**	0.20	0.03	0.23
Age 60-69 X epoch	1.10**	0.37	-0.83***	0.22	0.48	0.25
Age 70-79 X epoch	1.25**	0.40	-1.40***	0.27	0.53	0.31
Age 80+ X epoch	1.32*	0.54	-1.23*	0.49	1.30*	0.61
Trade union member	0.71***	0.08			0.37***	0.06
Single-issue org. member	0.28**	0.09	0.37***	0.06		
Party member			0.76***	0.08	0.24**	0.09
<i>Cohort effects</i>						
Education	-0.48**	0.15	0.03	0.09	0.78***	0.11
Left-Right	0.02	0.15	-1.10***	0.10	-0.73***	0.11
Town size	-0.45***	0.12	0.04	0.07	0.26**	0.08
Postmaterialism	-0.34	0.26	-0.23	0.15	0.56***	0.17
Religiosity	-0.23	0.12	-0.31***	0.07	0.12	0.08
<i>Cohort/life-cycle effects</i>						
Political interest	2.25***	0.15	0.12	0.08	0.49***	0.10
Political information	0.75*	0.33	0.18	0.19	0.69**	0.23
Income	-0.17	0.19	0.28*	0.12	0.61***	0.13
Social networks (logged)	1.21***	0.14	0.90***	0.09	3.37***	0.10
Internal political efficacy	2.60***	0.19	0.22	0.11	0.29*	0.13
External political efficacy	1.13***	0.15	0.29**	0.09	0.35**	0.11
Female	0.07	0.07	0.26***	0.04	-0.51***	0.05
<i>Life-cycle effects</i>						
Employed	0.05	0.10	1.46***	0.06	-0.11	0.07
Self-employed	0.37**	0.12	-0.35***	0.10	0.01	0.09
Duration of residence	1.28***	0.20	0.19	0.10	-0.47***	0.12
Living with partner	0.14	0.08	0.12*	0.05	-0.10	0.06
Number of children	-0.01	0.40	-0.48*	0.22	-1.01***	0.28
Health	-0.32*	0.16	-0.27**	0.10	-0.25*	0.11
Pension as main source of income	0.27*	0.12	-0.16	0.08	0.26**	0.09
Constant	-4.24***	0.19	-3.31***	0.16	-2.79***	0.11
$\sigma_u$	0.39		0.44		0.29	
Intra-class correlation coefficient	0.04		0.06		0.03	
Valid N	28196		28196		28196	
Loglikelihood	-3826		-9469		-6983	
AIC	7725		19013		14040	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

**Table A.11: Random intercept binary logistic regressions, models of political membership, interactions between age and public opinion concerning older people (base for figure 5.1)**

	Party Model 13		Trade union Model 14		Single-issue organisation Model 15	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average popularity	1.47**	0.50	2.49***	0.66	1.57***	0.28
30-39 (BL: 19-29)	0.08	0.15	0.53***	0.07	0.31***	0.09
40-49	0.13	0.15	0.70***	0.07	0.42***	0.09
50-59	0.25	0.15	0.85***	0.08	0.38***	0.09
60-69	0.34*	0.17	0.82***	0.10	0.10	0.12
70-79	0.60**	0.19	0.38**	0.13	-0.10	0.14
80+	1.17***	0.22	0.10	0.20	-0.06	0.19
Helpfulness towards older people	1.64***	0.41	-0.06	0.40	0.51	0.26
Age 30-39 X helpfulness	-1.21**	0.44	0.55*	0.22	-0.36	0.27
Age 40-49 X helpfulness	-0.78	0.41	0.14	0.22	-0.60*	0.27
Age 50-59 X helpfulness	-1.42***	0.41	-0.02	0.23	-0.19	0.27
Age 60-69 X helpfulness	-1.28**	0.43	-0.01	0.26	-0.36	0.31
Age 70-79 X helpfulness	-1.43**	0.47	0.12	0.33	-0.09	0.38
Age 80+ X helpfulness	0.22	0.53	1.44**	0.49	-0.30	0.54
Trade union member	0.69***	0.08			0.36***	0.06
Single-issue org. member	0.30**	0.09	0.37***	0.06		
Party member			0.77***	0.08	0.26**	0.09
<i>Cohort effects</i>						
Education	-0.48**	0.16	0.03	0.10	0.75***	0.11
Left-Right	0.09	0.15	-1.11***	0.10	-0.71***	0.11
Town size	-0.41***	0.12	0.04	0.07	0.26**	0.08
Postmaterialism	-0.35	0.26	-0.21	0.15	0.64***	0.17
Religiosity	-0.25*	0.12	-0.31***	0.07	0.18*	0.08
<i>Cohort/life-cycle effects</i>						
Political interest	2.21***	0.16	0.12	0.09	0.49***	0.10
Political information	0.82*	0.34	0.19	0.19	0.69**	0.24
Income	-0.28	0.19	0.27*	0.12	0.67***	0.13
Social networks (logged)	1.24***	0.14	0.90***	0.09	3.43***	0.10
Internal political efficacy	2.58***	0.19	0.22	0.11	0.26	0.14
External political efficacy	1.13***	0.15	0.29**	0.09	0.37***	0.11
Female	0.07	0.07	0.26***	0.04	-0.50***	0.05
<i>Life-cycle effects</i>						
Employed	0.05	0.11	1.46***	0.06	-0.11	0.07
Self-employed	0.39**	0.12	-0.35***	0.10	0.02	0.09
Duration of residence	1.31***	0.20	0.18	0.11	-0.46***	0.12
Living with partner	0.14	0.08	0.13**	0.05	-0.10	0.06
Number of children	0.04	0.41	-0.44	0.22	-1.09***	0.28
Health	-0.23	0.16	-0.30**	0.10	-0.23*	0.11
Pension as main source of income	0.29*	0.12	-0.16	0.08	0.25**	0.09
Constant	-4.34***	0.18	-3.26***	0.17	-2.73***	0.10
$\sigma_u$	0.30		0.46		0.22	
Intra-class correlation coefficient	0.03		0.06		0.01	
Valid N	26281		26281		26281	
Loglikelihood	-3755		-9275		-6839	
AIC	7584		18624		13753	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

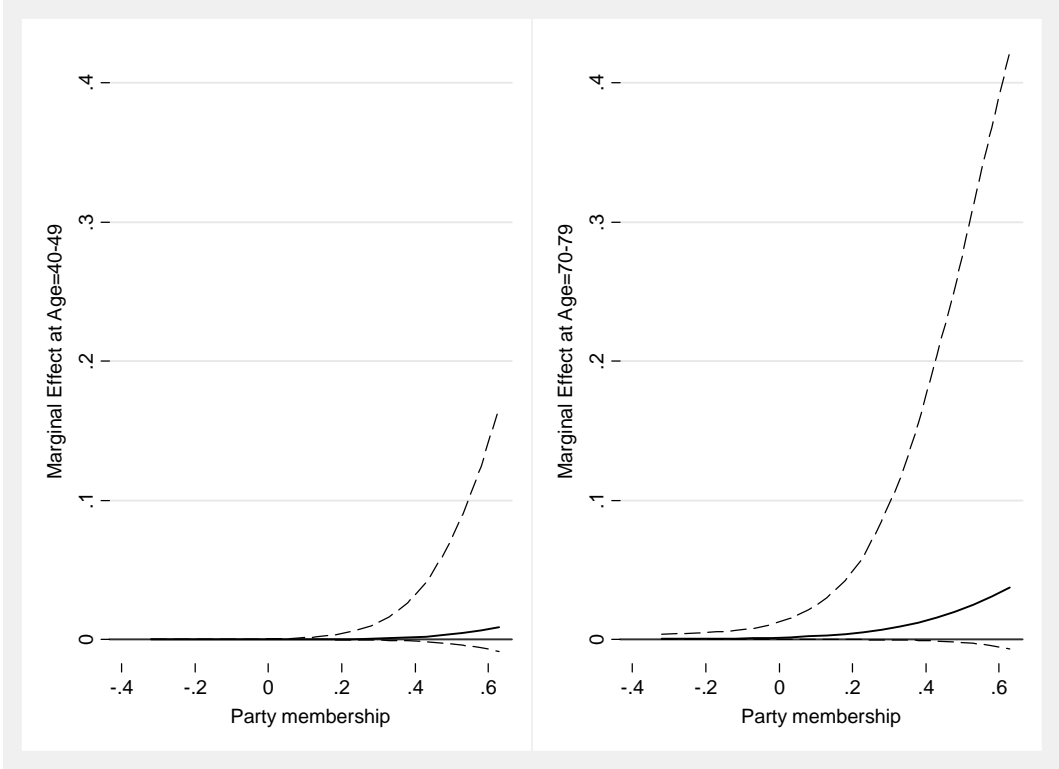


# Simulated confidence intervals for models with interactions in chapter 5

Average popularity of organisation

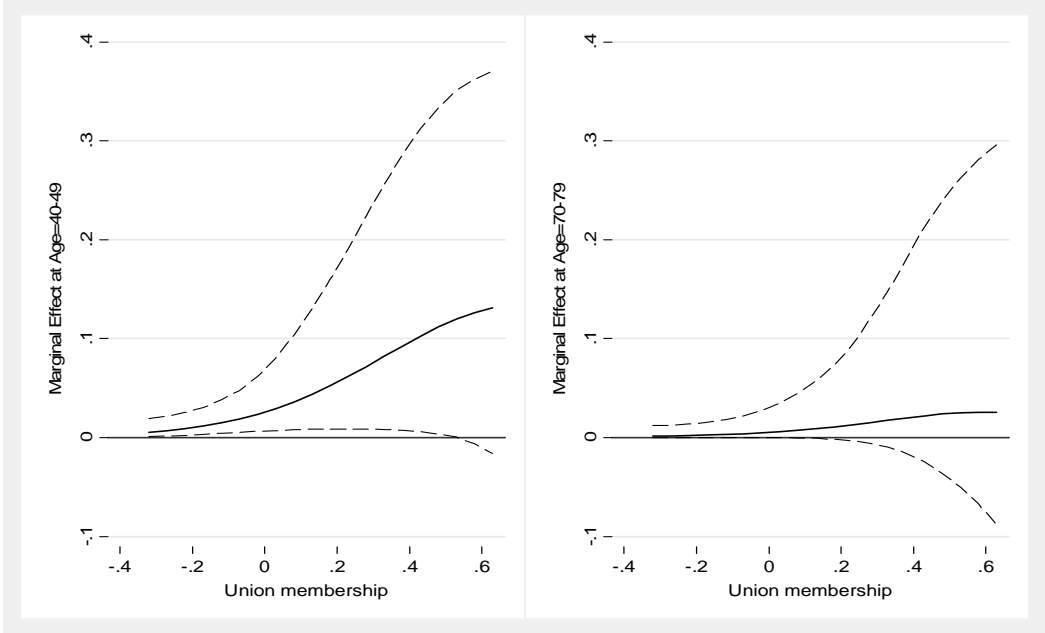
Party membership

Figure A.12: Simulated confidence intervals for all values of average popularity of organisation at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)



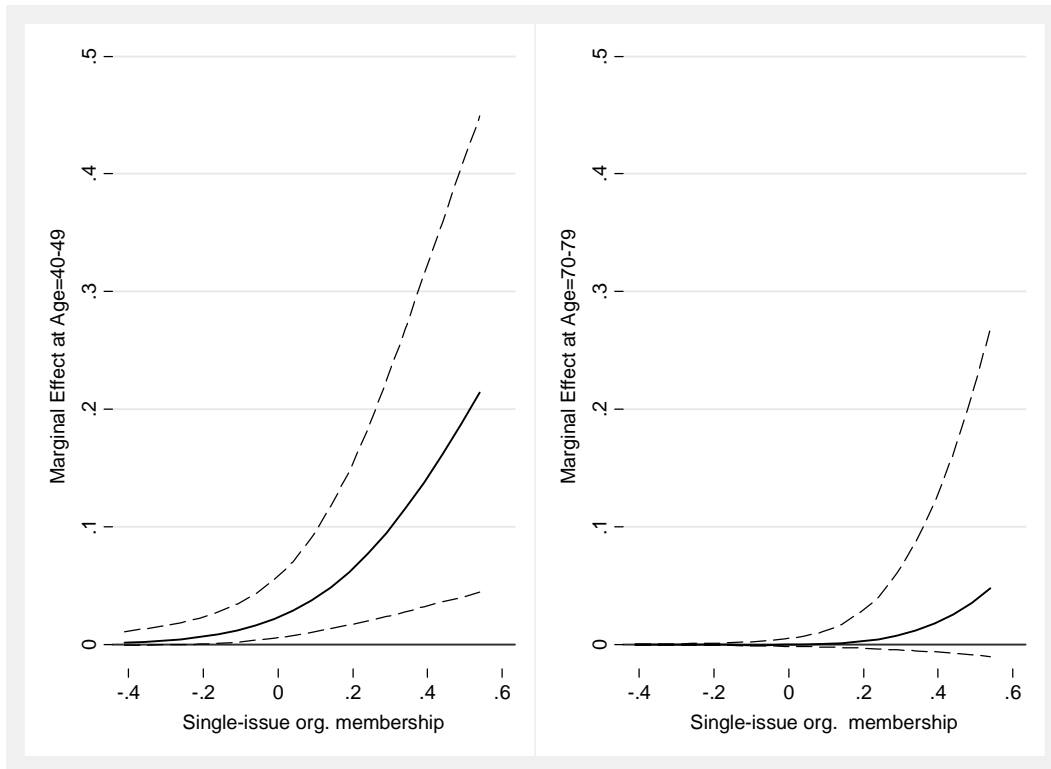
Union membership

Figure A.13: Simulated confidence intervals for all values of average popularity of organisation at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)



*Single-issue organisation membership*

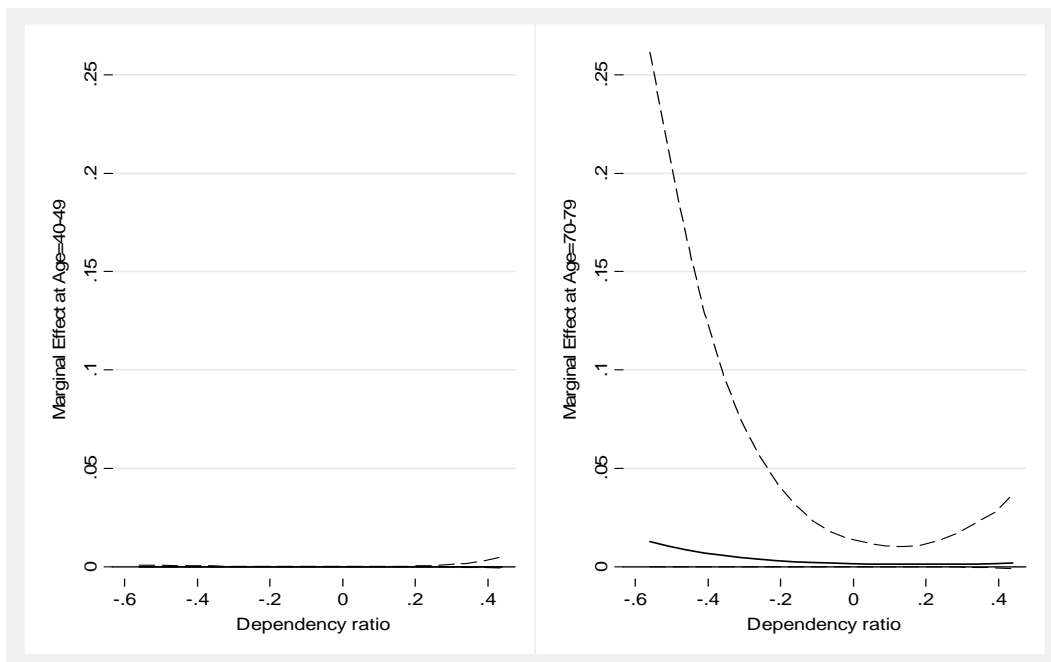
**Figure A.14: Simulated confidence intervals for all values of average popularity of organisation at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



*Dependency ratio*

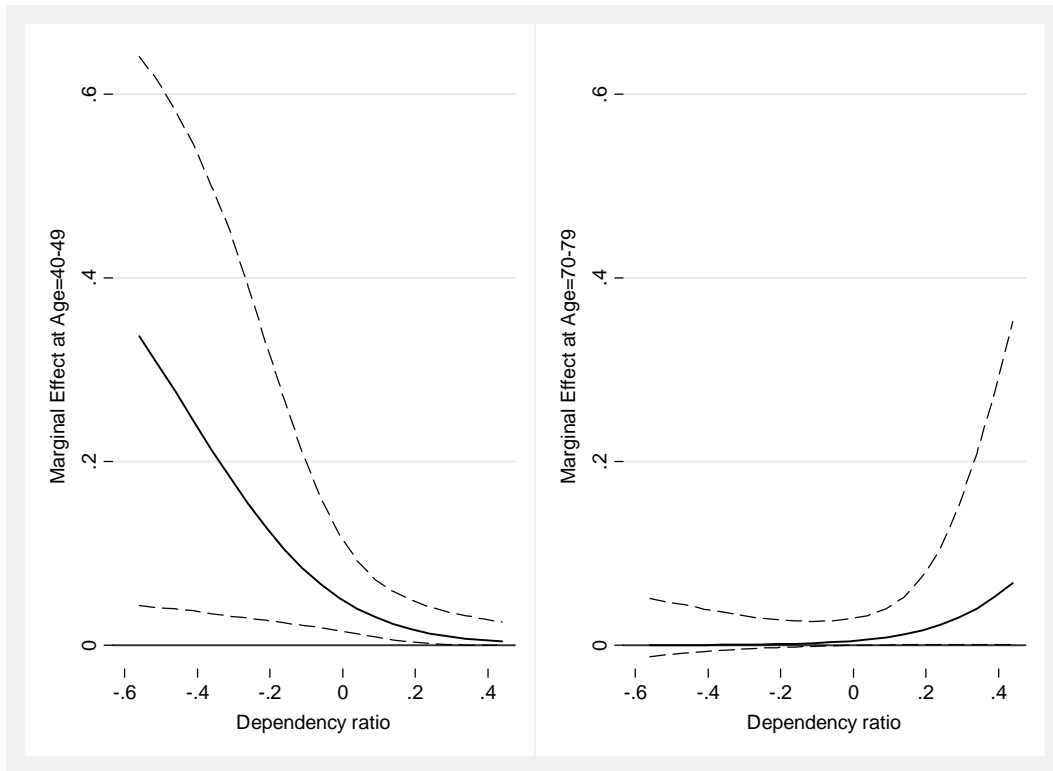
*Party membership*

**Figure A.15: Simulated confidence intervals for all values of the dependency ratio at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



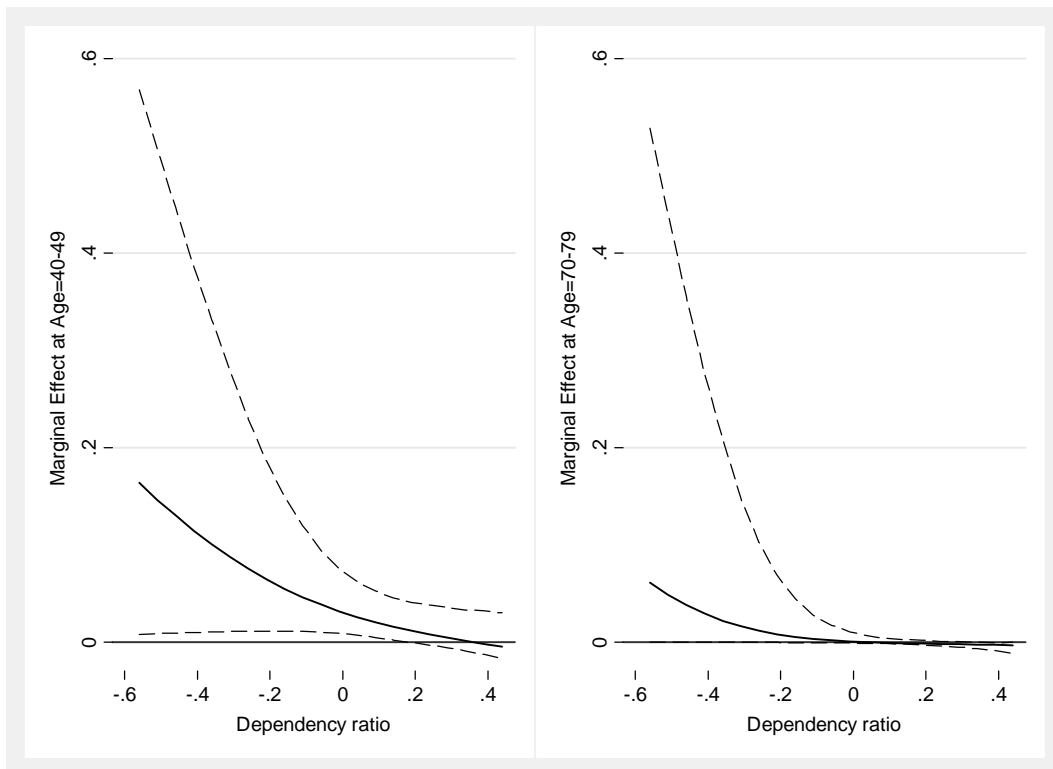
*Union membership*

**Figure A.16: Simulated confidence intervals for all values of the dependency ratio at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



*Single-issue organisation membership*

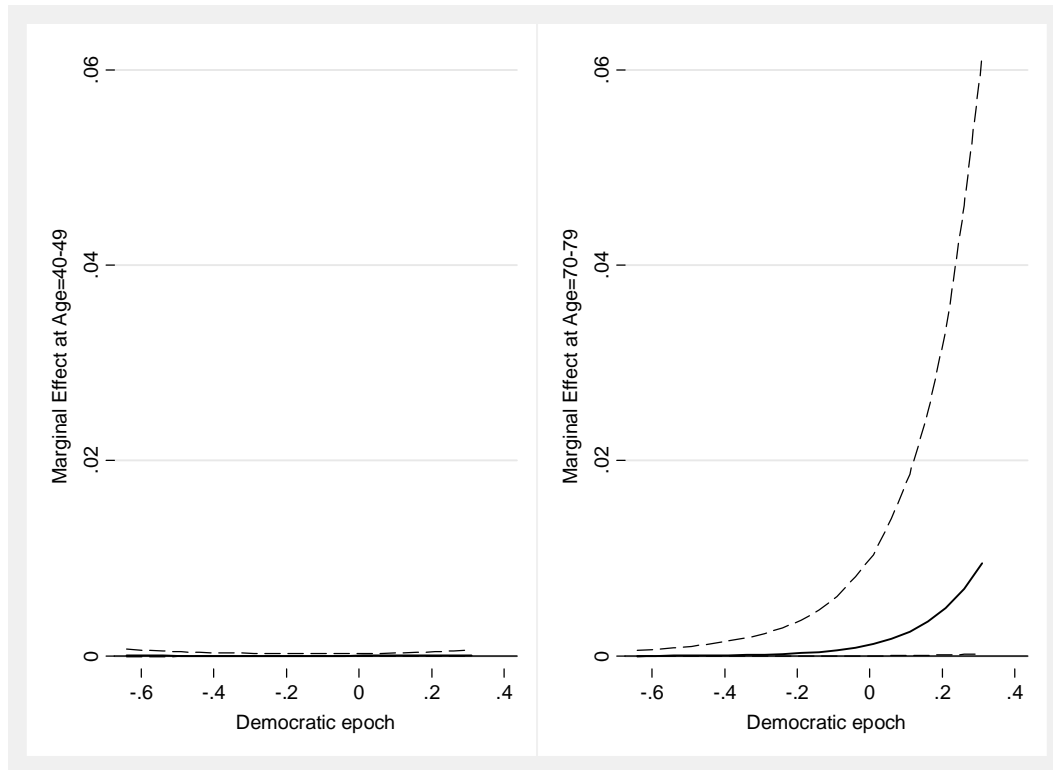
**Figure A.17: Simulated confidence intervals for all values of the dependency ratio at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



*Democratic epoch*

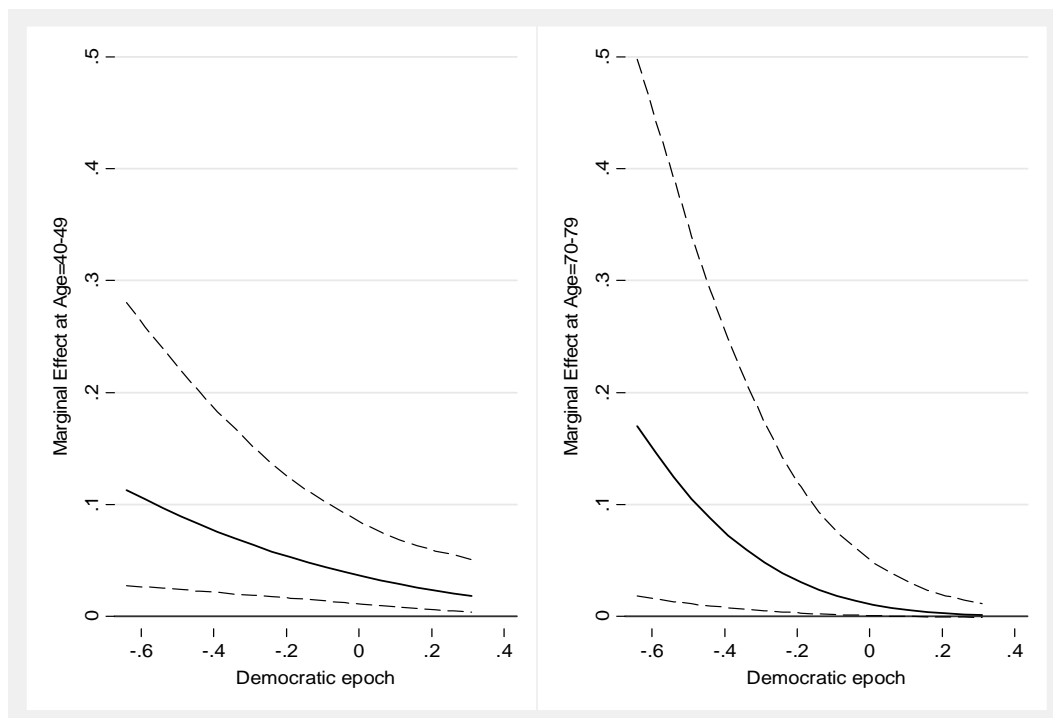
*Party membership*

**Figure A.18:** Simulated confidence intervals for all values of democratic epoch at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)



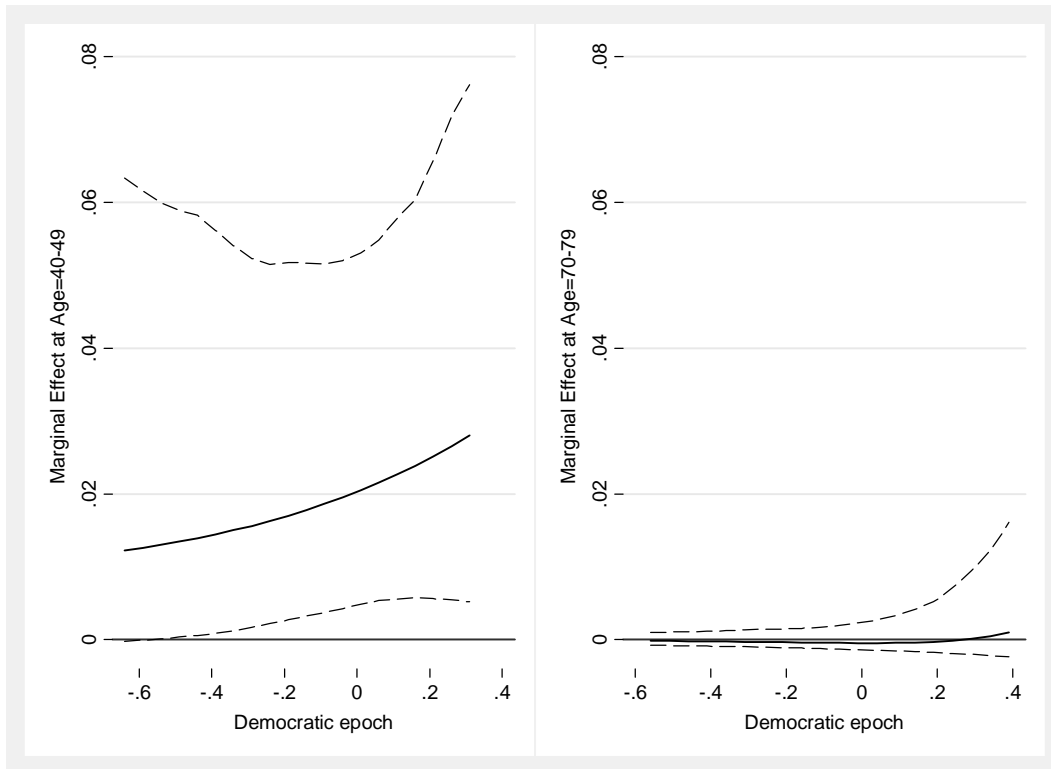
*Union membership*

**Figure A.19:** Simulated confidence intervals for all values of democratic epoch at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)



*Single-issue organisation membership*

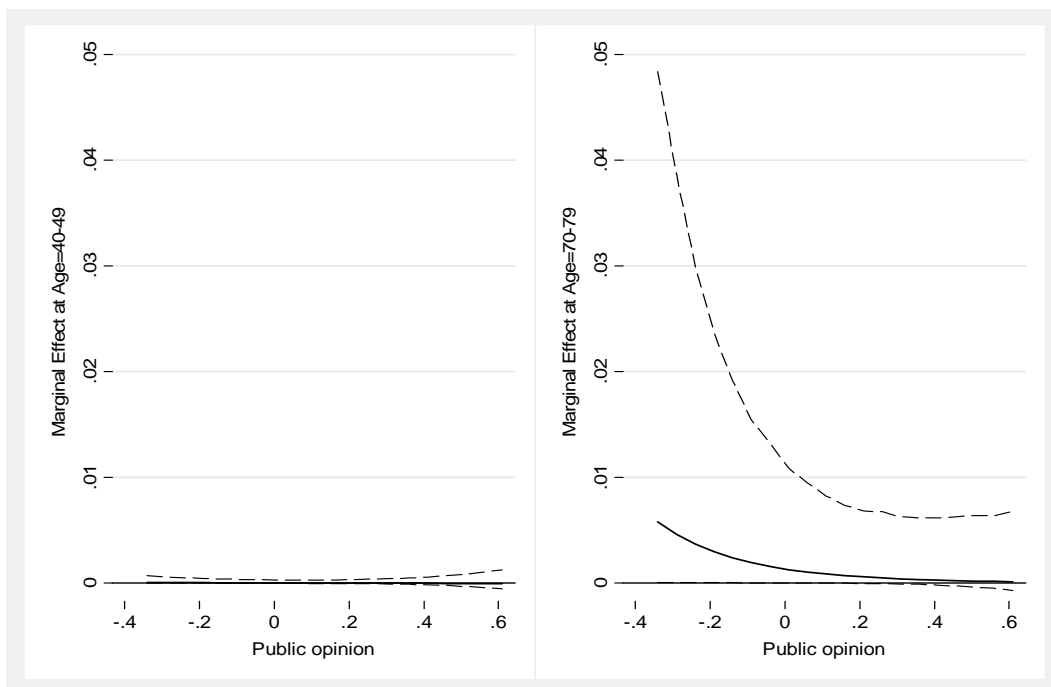
**Figure A.20: Simulated confidence intervals for all values of democratic epoch at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



*Public opinion concerning older people*

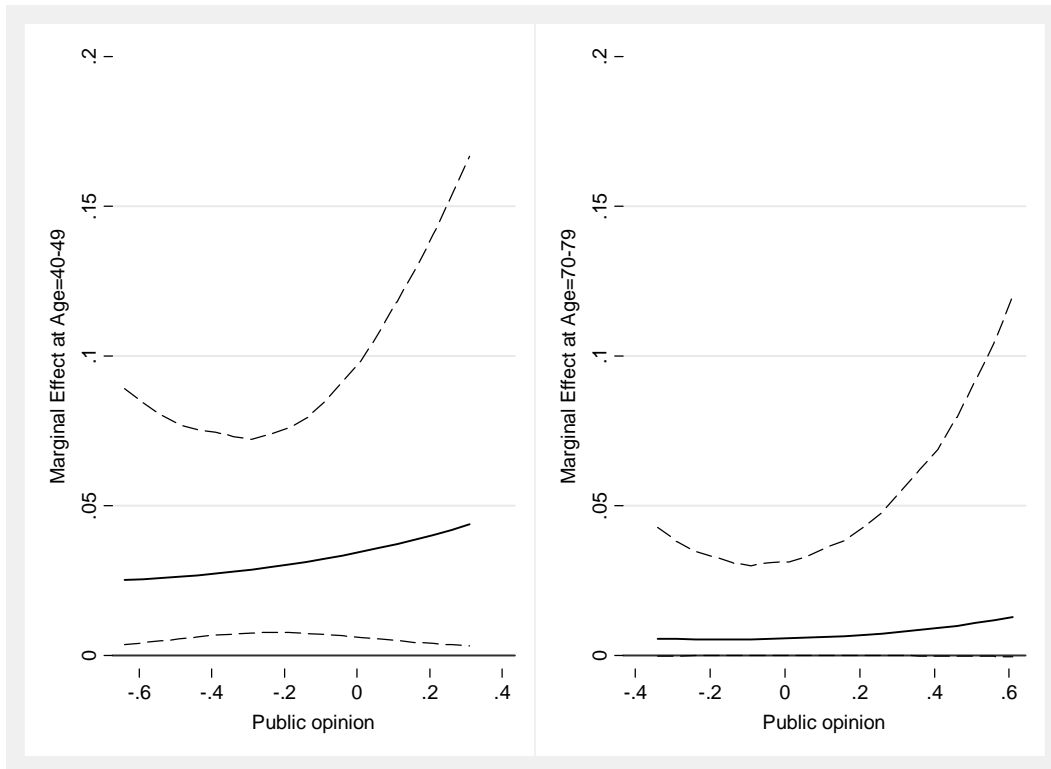
*Party membership*

**Figure A.21: Simulated confidence intervals for all values of democratic epoch at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



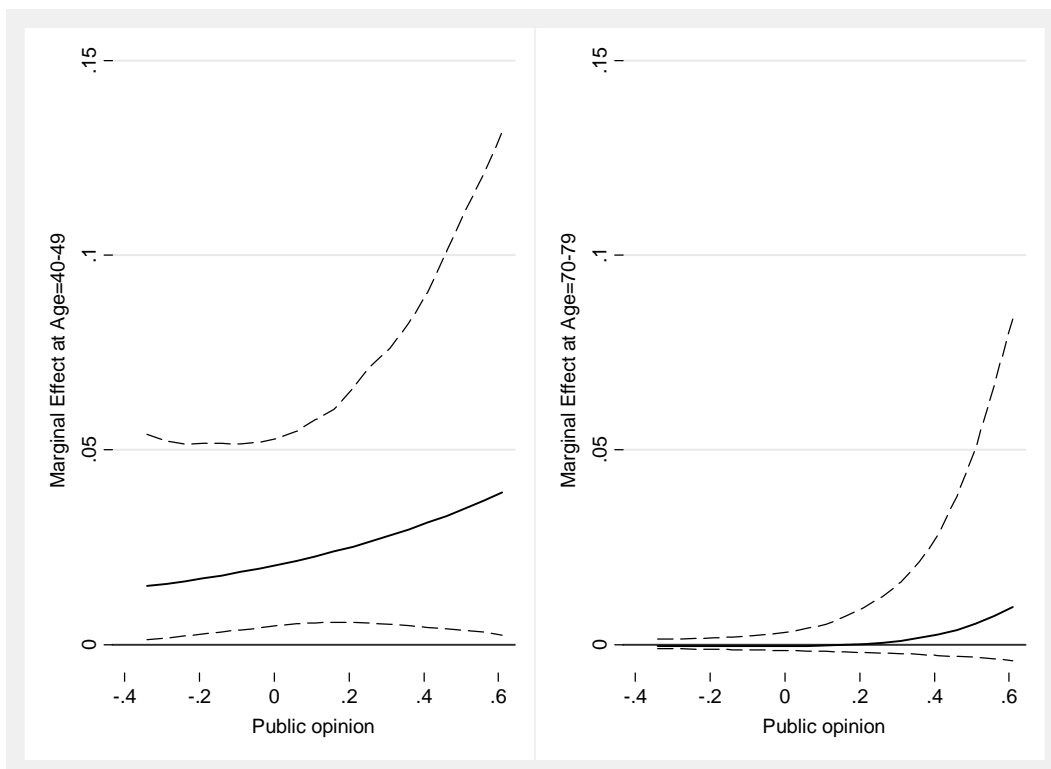
*Union membership*

**Figure A.22: Simulated confidence intervals for all values of democratic epoch at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



*Single-issue organisation membership*

**Figure A.23: Simulated confidence intervals for all values of democratic epoch at two points of age relative to the baseline category (18-29 year olds) (40-49, 70-79 year olds)**



## Survey estimates from the Wold Values Survey 1990-2000 (chapter 5, figures 5.2-5.4)

### Party membership

**Table A.12: Membership changes, absolute and old age, political parties in 25 European countries, 1990–2000**

	$\Delta$ repres ratio 2000– 1990	% member s 1990	% member s 2000	$\Delta$ % member s 2000– 1990	% member s older people 1990	% member s older people 2000	$\Delta$ % member s older people 2000– 1990	Repres ratio 1990	Repres ratio 2000
	1	2	3	4	5	6	7	8	9
Countries									
Poland	1.73	0.9	0.9	0.0	18.8	50.0	31.2	1.26	2.99
Czech Republic	1.62	5.0	4.1	–0.9	24.8	55.1	30.3	1.39	3.01
Latvia	1.32	18.6	1.9	–16.7	7.2	36.8	29.6	0.41	1.74
Malta	0.94	8.6	6.2	–2.4	12.9	30.7	17.8	0.88	1.82
Italy	0.87	5.0	4.1	–0.9	12.9	35.8	22.9	0.61	1.48
Ireland	0.78	3.8	4.1	0.3	18.4	30.0	11.6	1.21	1.99
Germany	0.68	8.8	2.9	–5.9	20.5	39.0	18.5	1.00	1.68
Russia	0.54	11.3	0.7	–10.6	20.4	33.3	12.9	1.28	1.82
Great Britain	0.49	4.9	2.4	–2.5	29.2	39.1	9.9	1.40	1.89
Finland	0.40	13.8	6.0	–7.8	18.5	27.9	9.4	1.00	1.40
Iceland	0.31	15.1	19.1	4.0	15.1	20.1	5.0	1.03	1.34
Estonia	0.31	8.3	1.7	–6.6	13.8	23.5	9.7	0.81	1.12
Slovakia	0.26	2.8	6.9	4.1	16.1	20.7	4.6	1.09	1.34
Spain	0.25	1.8	2.0	0.2	13.5	20.8	7.3	0.71	0.96
Lithuania	0.21	7.7	2.0	–5.7	17.6	25.0	7.4	1.09	1.30
Belgium	0.12	5.8	7.0	1.2	23.0	27.1	4.1	1.12	1.23
Netherlands	0.08	9.4	9.3	–0.1	35.4	38.7	3.3	2.05	2.13
Sweden	0.08	10.3	10.3	0.0	33.3	34.3	1.0	1.46	1.55
Austria	–0.08	11.9	11.8	–0.1	27.0	26.1	–0.9	1.34	1.27
Denmark	–0.20	6.5	6.7	0.2	29.9	25.0	–4.9	1.47	1.26
France	–0.20	2.7	1.9	–0.8	22.2	20.0	–2.2	1.16	0.96
Slovenia	–0.22	3.3	3.0	–0.3	17.7	16.7	–1.0	1.08	0.86
Hungary	–0.63	2.4	1.7	–0.7	45.8	35.3	–10.5	2.41	1.78
Portugal	–0.95	4.0	1.6	–2.4	23.4	6.3	–17.1	1.24	0.29
Romania	–1.23	2.5	2.3	–0.2	32.1	15.4	–16.7	2.04	0.81
Mean	0.30	7.0	4.8	–2.2	22.0	29.3	7.3	1.22	1.52
Correlations	–0.37	(cols 4 & 7)	–0.28	(cols 1 & 4)					

#### Explanatory notes:

Column 1: Change of the age composition (with controlled demographic change) between 2000 and 1999; difference between columns 9 and 8, column 2: % of the population that identified themselves as members in 1990, column 3: % of the population that identified themselves as members in 1999/2000, column 4: difference between 3 and 2, column 5: % of members who were 60 and older in 1990, column 6: % of members who were 60 and older in 1999/2000, column 7: difference between 6 and 5, column 8: representation ratio in 1990, the ratio of the proportion of all members who were 60 and older (column 5) divided by the ratio of residents 60 and older in the country, column 9: representation ratio in 1999/2000, the ratio of the proportion of all members who were 60 and older (column 6) divided by the ratio of residents 60 and older in the country

*Trade unions*

**Table A.13: Membership changes, absolute and old age, trade unions in 25 European countries, 1990–2000**

	$\Delta$ repres ratio 2000– 1990	% members 1990	% members 2000	$\Delta$ % members 2000– 1990	% members older people 1990	% members older people 2000	$\Delta$ % members older people 2000–1990	Repres ratio 1990	Repres ratio 2000
	1	2	3	4	5	6	7	8	9
Countries									
Czech Republic	0.64	24.1	10.2	-13.9	8.5	20.5	12.0	0.48	1.12
Italy	0.59	6.0	6.2	0.2	11.7	27.6	15.9	0.55	1.14
Great Britain	0.45	14.4	7.3	-7.1	12.2	21.4	9.2	0.59	1.03
Estonia	0.45	61.1	4.7	-56.4	8.0	19.2	11.2	0.47	0.91
Finland	0.32	35.9	33.7	-2.2	3.8	10.4	6.6	0.21	0.52
France	0.31	5.2	4.1	-1.1	13.5	21.2	7.7	0.71	1.02
Iceland	0.25	59.7	59.1	-0.6	10.7	14.7	4.0	0.73	0.98
Slovakia	0.21	22.2	16.2	-6.0	4.8	8.3	3.5	0.32	0.54
Ireland	0.19	8.8	10.1	1.3	3.4	6.2	2.8	0.22	0.41
Netherlands	0.18	19.1	23.7	4.6	16.5	20.7	4.2	0.95	1.14
Spain	0.16	3.2	3.5	0.3	7.5	11.9	4.4	0.39	0.55
Slovenia	0.09	19.6	16.9	-2.7	1.0	2.9	1.9	0.06	0.15
Denmark	0.09	49.0	54.4	5.4	7.5	9.0	1.5	0.37	0.45
Sweden	0.05	58.6	62.4	3.8	13.6	14.4	0.8	0.60	0.65
Latvia	-0.05	52.1	11.3	-40.8	6.7	7.0	0.3	0.39	0.33
Germany	-0.06	31.3	7.0	-24.3	16.7	17.5	0.8	0.82	0.75
Poland	-0.07	22.2	10.0	-12.2	9.2	9.2	0.0	0.62	0.55
Belgium	-0.07	14.4	15.9	1.5	14.2	13.6	-0.6	0.69	0.62
Romania	-0.12	19.6	9.3	-10.3	1.9	0.0	-1.9	0.12	0.00
Russia	-0.12	61.7	23.1	-38.6	8.1	7.1	-1.0	0.51	0.39
Austria	-0.13	19.3	18.9	-0.4	21.6	19.5	-2.1	1.07	0.95
Hungary	-0.16	31.7	7.1	-24.6	18.0	15.5	-2.5	0.95	0.78
Lithuania	-0.28	44.3	2.2	-42.1	12.1	9.1	-3.0	0.75	0.47
Portugal	-0.32	4.5	2.4	-2.1	13.2	8.3	-4.9	0.70	0.39
Malta	-0.49	8.4	9.2	0.8	12.9	6.5	-6.4	0.88	0.38
Mean	0.08	27.9	17.2	-10.7	10.3	12.9	2.6	0.57	0.65
Correlations	0.01	(cols 4 & 7)	0.09	(cols 1 & 4)					

Explanatory notes: see Table 7.



*Single-issue organisations*

**Table A.14: Membership changes, absolute and old age, single-issue organisations (local pol. action, environmental, human rights, peace) in 25 European countries, 1990–2000**

	$\Delta$ repres ratio 2000– 1990	% members 1990	% members 2000	$\Delta$ % members 2000– 1999	% members older people 1990	% members older people 2000	$\Delta$ % members older people 2000– 1999	Repres ratio 1990	Repres ratio 2000
	1	2	3	4	5	6	7	8	9
Countries									
Latvia	1.40	11.4	2.1	–9.3	10.8	42.9	32.1	0.62	2.02
Estonia	1.11	8.4	3.4	–5.0	7.4	32.4	25.0	0.43	1.54
Slovenia	0.69	7.6	11.8	4.2	15.6	31.9	16.3	0.95	1.64
Denmark	0.56	20.5	20.9	0.4	14.2	24.8	10.6	0.70	1.25
Italy	0.52	6.6	7.4	0.8	6.8	20.4	13.6	0.32	0.84
Hungary	0.48	4.0	3.1	–0.9	25.0	35.5	10.5	1.32	1.79
Poland	0.30	5.0	3.0	–2.0	22.5	30.3	7.8	1.51	1.81
France	0.28	9.1	5.2	–3.9	22.0	29.8	7.8	1.15	1.43
Romania	0.28	2.0	1.9	–0.1	18.2	27.3	9.1	1.16	1.44
Iceland	0.19	10.4	12.5	2.1	11.0	14.1	3.1	0.75	0.94
Ireland	0.17	6.9	11.0	4.1	21.7	24.1	2.4	1.43	1.60
Lithuania	0.17	5.5	1.8	–3.7	11.3	16.7	5.4	0.70	0.87
Belgium	0.16	16.5	19.4	2.9	18.3	23.1	4.8	0.89	1.05
Netherlands	0.16	35.9	55.2	19.3	17.5	21.3	3.8	1.01	1.17
Czech Republic	0.14	10.3	9.8	–0.5	20.2	23.4	3.2	1.13	1.28
Spain	0.08	3.4	5.9	2.5	10.8	14.1	3.3	0.57	0.65
Sweden	0.05	22.2	28.5	6.3	18.8	19.4	0.6	0.82	0.87
Finland	–0.05	11.9	12.4	0.5	15.7	15.8	0.1	0.85	0.79
Slovakia	–0.12	10.4	10.4	0.0	17.1	15.9	–1.2	1.16	1.03
Great Britain	–0.13	8.8	6.1	–2.7	22.9	20.0	–2.9	1.10	0.97
Portugal	–0.14	3.1	3.2	0.1	16.2	15.6	–0.6	0.86	0.73
Austria	–0.19	9.5	13.5	4.0	22.3	18.9	–3.4	1.11	0.92
Germany	–0.36	10.2	3.0	–7.2	23.4	18.3	–5.1	1.15	0.79
Russia	–0.51	5.0	1.6	–3.4	23.7	18.0	–5.7	1.49	0.98
Malta	–1.01	4.7	4.8	0.1	29.4	16.7	–12.7	2.00	0.99
Mean	0.17	10.0	10.3	0.3	17.7	22.8	5.1	1.01	1.18
Correlations	–0.24 (cols 4 & 7)	–0.17 (cols 1 and 4)							

Explanatory notes: see Table 7.

## Part 6: Supplementary regressions and test, chapter 6

### Regression models for interactions between age and macro-level variables

**Table A.15: Random intercept binary logistic regression models, three modes of non-institutionalised participation, interactions between age and average level of participation (base for figure 6.5)**

	Contacting mode		Individual mode		Collective mode	
	Model 7		Model 8		Model 9	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average level of participation	0.6979**	0.2622	1.4012***	0.244	2.3726***	0.2827
Age <sup>2</sup>	-0.0005***	0.0001	-0.0004***	0.0001	-0.0001	0.0001
Age	0.0049**	0.0017	-0.0109***	0.0014	-0.0246***	0.0025
Age X average level of participation	0.0166**	0.0051	0.0024	0.0032	-0.0092	0.0048
Trade union member	0.15**	0.05	0.22***	0.04	0.52***	0.06
Single-issue org. member	0.13*	0.06	0.47***	0.05	0.25***	0.07
Party member	1.07***	0.07	0.60***	0.07	1.05***	0.08
<i>Cohort effects</i>						
Education	0.59***	0.08	0.82***	0.07	0.34**	0.11
Left-Right	-0.21*	0.08	-0.70***	0.07	-1.65***	0.11
Town size	-0.34***	0.06	0.31***	0.05	0.87***	0.08
Postmaterialism	0.44**	0.14	0.64***	0.11	1.23***	0.17
Religiosity	0.15*	0.07	-0.15**	0.05	-0.29***	0.08
Experience of democracy before 30	0.06	0.08	0.22***	0.07	-0.17	0.10
<i>Cohort/life-cycle effects</i>						
Political interest	0.76***	0.08	1.20***	0.06	1.43***	0.10
Political information	0.11	0.18	0.44**	0.14	-0.19	0.22
Income	0.08	0.10	0.06	0.08	-0.04	0.13
Social networks (logged)	1.82***	0.08	1.55***	0.06	1.43***	0.10
Internal political efficacy	1.66***	0.10	0.77***	0.08	0.77***	0.13
External political efficacy	0.39***	0.09	0.21**	0.07	0.33**	0.11
Political satisfaction	-0.50***	0.11	-0.80***	0.09	-1.02***	0.14
General satisfaction	-0.24	0.13	-0.08	0.10	0.05	0.16
Female	0.10**	0.04	-0.30***	0.03	0.03	0.05
<i>Life-cycle effects</i>						
Employed	-0.19***	0.05	-0.02	0.04	-0.23***	0.06
Self-employed	0.25***	0.06	-0.02	0.06	-0.38***	0.09
Duration of residence	0.41***	0.10	-0.25**	0.08	0.01	0.12
Living with partner	0.03	0.04	-0.02	0.03	-0.12*	0.05
Number of children	0.83***	0.19	0.09	0.16	-0.45	0.26
Health	-0.09	0.09	-0.08	0.07	0.37**	0.11
Pension as main source of income	-0.05	0.06	0.05	0.05	-0.15	0.09
Constant	-1.92***	0.11	-0.78***	0.10	-3.00***	0.14
$\sigma_u$	0.26		0.34		0.38	
Intra-class correlation coefficient	0.02		0.03		0.04	
Valid N	30352		30260		30415	
Loglikelihood	-11020		-15865		-7434	
AIC	22102		31792		14931	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

**Table A.16: Random intercept binary logistic regression models, three modes of non-institutionalised participation, interactions between age and the dependency ratio (base for figure 6.5)**

	Contacting mode		Individual mode		Collective mode	
	Model 10		Model 11		Model 12	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average level of participation	0.8078**	0.2746	1.5588***	0.2339	1.9776***	0.2309
Dependency ratio	0.4731	0.3379	0.8331*	0.3969	1.6001***	0.3927
Age <sup>2</sup>	-0.0005***	0.0001	-0.0004***	0.0001	-0.0001	0.0001
Age	0.0051**	0.0018	-0.0096***	0.0013	-0.0244***	0.0025
Age X dependency ratio	-0.0150*	0.0062	-0.0145**	0.0049	-0.0192*	0.0088
Trade union member	0.15**	0.05	0.22***	0.04	0.52***	0.06
Single-issue org. member	0.13*	0.06	0.46***	0.05	0.25***	0.07
Party member	1.07***	0.07	0.60***	0.07	1.06***	0.08
<i>Cohort effects</i>						
Education	0.58***	0.08	0.80***	0.07	0.35***	0.10
Left-Right	-0.21*	0.08	-0.70***	0.07	-1.65***	0.11
Town size	-0.35***	0.06	0.31***	0.05	0.87***	0.08
Postmaterialism	0.44**	0.14	0.64***	0.11	1.25***	0.17
Religiosity	0.15*	0.07	-0.16**	0.05	-0.30***	0.08
Experience of democracy before 30	0.12	0.07	0.24***	0.06	-0.15	0.10
<i>Cohort/life-cycle effects</i>						
Political interest	0.76***	0.08	1.20***	0.06	1.42***	0.10
Political information	0.12	0.18	0.44**	0.14	-0.17	0.22
Income	0.08	0.10	0.07	0.08	-0.05	0.13
Social networks (logged)	1.82***	0.08	1.55***	0.06	1.43***	0.10
Internal political efficacy	1.67***	0.10	0.78***	0.08	0.76***	0.13
External political efficacy	0.39***	0.09	0.22**	0.07	0.33**	0.11
Political satisfaction	-0.50***	0.11	-0.80***	0.09	-1.01***	0.14
General satisfaction	-0.23	0.13	-0.08	0.10	0.06	0.16
Female	0.10**	0.04	-0.30***	0.03	0.03	0.05
<i>Life-cycle effects</i>						
Employed	-0.19***	0.05	-0.02	0.04	-0.22***	0.06
Self-employed	0.25***	0.06	-0.02	0.06	-0.38***	0.09
Duration of residence	0.41***	0.10	-0.25***	0.08	0.00	0.12
Living with partner	0.03	0.04	-0.02	0.03	-0.12*	0.05
Number of children	0.81***	0.19	0.10	0.16	-0.40	0.26
Health	-0.10	0.09	-0.08	0.07	0.37**	0.11
Pension as main source of income	-0.04	0.06	0.05	0.05	-0.16	0.09
Constant	-2.00***	0.11	-0.87***	0.10	-3.13***	0.13
$\sigma_u$	0.25		0.31		0.27	
Intra-class correlation coefficient	0.02		0.03		0.02	
Valid N	30352		30260		30415	
Loglikelihood	-11022		-15859		-7427	
AIC	22107		31782		14918	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

**Table A.17: Random intercept binary logistic regression models, three modes of non-institutionalised participation, interactions between age and democratic epoch (base for figure 6.5)**

	Contacting mode		Individual mode		Collective mode	
	Model 13		Model 14		Model 15	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average level of participation	0.8137**	0.3095	1.1112***	0.2407	2.4619***	0.2972
Democratic epoch	-0.0087	0.1885	0.6273**	0.1947	0.1712	0.2454
Age <sup>2</sup>	-0.0005***	0.0001	-0.0004***	0.0001	-0.0001	0.0001
Age	0.0017	0.0018	-0.0125***	0.0014	-0.0289***	0.0023
Age X democratic epoch	0.0179***	0.0039	0.0108***	0.0031	0.0169***	0.0051
Trade union member	0.15**	0.05	0.21***	0.04	0.53***	0.06
Single-issue org. member	0.13*	0.06	0.46***	0.05	0.25***	0.07
Party member	1.07***	0.07	0.59***	0.07	1.05***	0.08
<i>Cohort effects</i>						
Education	0.61***	0.08	0.84***	0.07	0.40***	0.11
Left-Right	-0.23**	0.08	-0.71***	0.07	-1.66***	0.11
Town size	-0.33***	0.06	0.32***	0.05	0.88***	0.08
Postmaterialism	0.43**	0.14	0.62***	0.11	1.22***	0.17
Religiosity	0.15*	0.07	-0.16**	0.05	-0.29***	0.08
Experience of democracy before 30	-0.18	0.11	-0.01	0.09	-0.48***	0.14
<i>Cohort/life-cycle effects</i>						
Political interest	0.76***	0.08	1.20***	0.06	1.42***	0.10
Political information	0.13	0.18	0.45**	0.14	-0.16	0.22
Income	0.08	0.10	0.05	0.08	-0.08	0.13
Social networks (logged)	1.81***	0.08	1.54***	0.06	1.42***	0.10
Internal political efficacy	1.66***	0.10	0.78***	0.08	0.77***	0.13
External political efficacy	0.39***	0.09	0.21**	0.07	0.33**	0.11
Political satisfaction	-0.50***	0.11	-0.80***	0.09	-1.02***	0.14
General satisfaction	-0.23	0.13	-0.08	0.10	0.06	0.16
Female	0.10**	0.04	-0.30***	0.03	0.03	0.05
<i>Life-cycle effects</i>						
Employed	-0.19***	0.05	-0.02	0.04	-0.22***	0.06
Self-employed	0.26***	0.06	-0.02	0.06	-0.37***	0.09
Duration of residence	0.41***	0.10	-0.25**	0.08	0.00	0.12
Living with partner	0.04	0.04	-0.02	0.03	-0.10	0.05
Number of children	0.85***	0.19	0.11	0.16	-0.39	0.26
Health	-0.11	0.09	-0.08	0.07	0.37**	0.11
Pension as main source of income	-0.03	0.06	0.06	0.05	-0.15	0.09
Constant	-1.72***	0.12	-0.55***	0.11	-2.78***	0.17
$\sigma_u$	0.26		0.31		0.41	
Intra-class correlation coefficient	0.02		0.03		0.05	
Valid N	30352		30260		30415	
Loglikelihood	-11014		-15856		-7431	
AIC	22092		31777		14925	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

**Table A.18: Random intercept binary logistic regression models, three modes of non-institutionalised participation, interactions between age and public opinion concerning older people (base for figure 6.5)**

	Contacting mode		Individual mode		Collective mode	
	Model 16		Model 17		Model 18	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Average level of participation	0.7688**	0.2948	1.4183***	0.2887	2.5865***	0.2342
Age <sup>2</sup>	-0.0005***	0.0001	-0.0004***	0.0001	-0.0001	0.0001
Age	0.0032	0.0018	-0.0110***	0.0014	-0.0279***	0.0023
Helpfulness towards older people	0.1235	0.2162	0.0716	0.294	0.7579**	0.2389
Age X helpfulness	-0.0174***	0.0041	-0.0041	0.0031	-0.0133**	0.005
Trade union member	0.15**	0.05	0.22***	0.04	0.53***	0.06
Single-issue org. member	0.13*	0.06	0.47***	0.05	0.25***	0.07
Party member	1.09***	0.07	0.63***	0.07	1.09***	0.09
<i>Cohort effects</i>						
Education	0.59***	0.08	0.84***	0.07	0.38***	0.11
Left-Right	-0.23**	0.09	-0.68***	0.07	-1.63***	0.11
Town size	-0.34***	0.07	0.30***	0.05	0.88***	0.08
Postmaterialism	0.43**	0.14	0.64***	0.12	1.27***	0.17
Religiosity	0.13	0.07	-0.16**	0.05	-0.31***	0.08
Experience of democracy before 30	0.15*	0.07	0.24***	0.06	-0.13	0.10
<i>Cohort/life-cycle effects</i>						
Political interest	0.76***	0.08	1.21***	0.06	1.43***	0.10
Political information	0.14	0.18	0.45**	0.14	-0.16	0.22
Income	0.07	0.10	0.04	0.08	-0.05	0.13
Social networks (logged)	1.83***	0.08	1.55***	0.07	1.44***	0.10
Internal political efficacy	1.65***	0.10	0.77***	0.08	0.75***	0.13
External political efficacy	0.39***	0.09	0.21**	0.07	0.33**	0.11
Political satisfaction	-0.52***	0.11	-0.82***	0.09	-1.02***	0.14
General satisfaction	-0.23	0.13	-0.08	0.10	0.04	0.16
Female	0.09*	0.04	-0.30***	0.03	0.03	0.05
<i>Life-cycle effects</i>						
Employed	-0.19***	0.05	-0.02	0.04	-0.23***	0.06
Self-employed	0.26***	0.07	-0.02	0.06	-0.38***	0.09
Duration of residence	0.42***	0.10	-0.24**	0.08	0.03	0.12
Living with partner	0.03	0.04	-0.02	0.03	-0.10	0.06
Number of children	0.81***	0.20	0.11	0.16	-0.44	0.27
Health	-0.08	0.09	-0.08	0.07	0.40***	0.12
Pension as main source of income	-0.06	0.07	0.05	0.05	-0.16	0.09
Constant	-1.97***	0.11	-0.80***	0.10	-3.08***	0.13
$\sigma_u$	0.27		0.35		0.30	
Intra-class correlation coefficient	0.02		0.04		0.03	
Valid N	26743		26655		26804	
Loglikelihood	-10644		-15336		-7204	
AIC	21352		30736		14471	

Note: \*\*\*/\*\*/\* significant at 0.001/0.01/0.05 respectively. Observations weighted by population weight.  
Source: ESS.

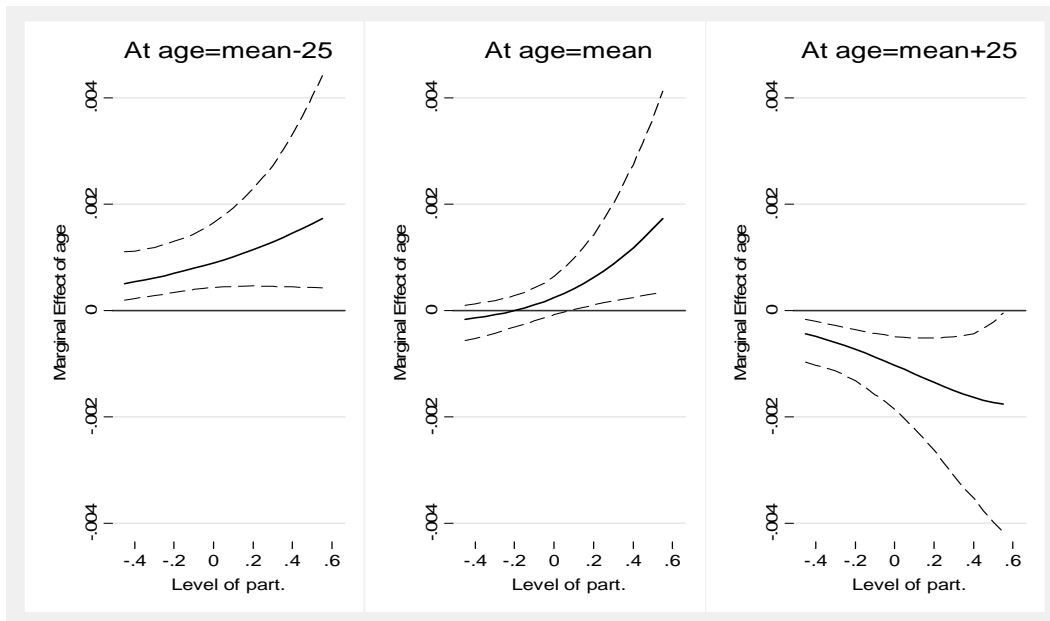
## Simulated confidence intervals for models with interactions in chapter 6

The following graphs can be interpreted like the ones in part 3. The graph on the left shows the slope and its associated uncertainty at the age of about 22; the middle one does the same for the age of about 47 and the right finally the same for the age of 72.

*Average level of participation*

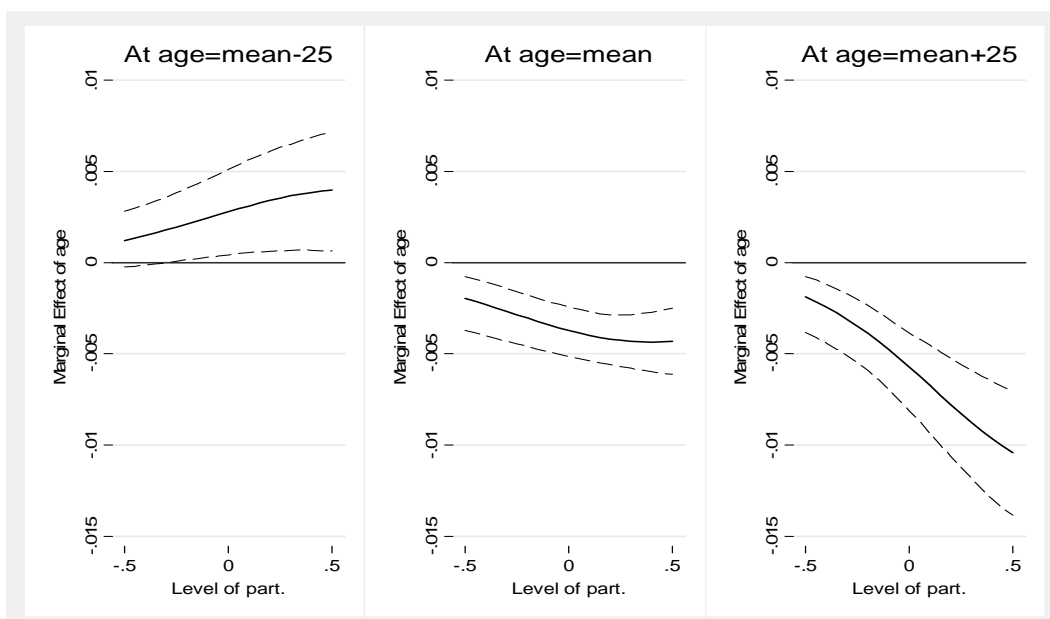
*Contacting*

**Figure A.24: Simulated confidence intervals for all values of average level of participation at three points of age (mean-25, mean, mean+25)**



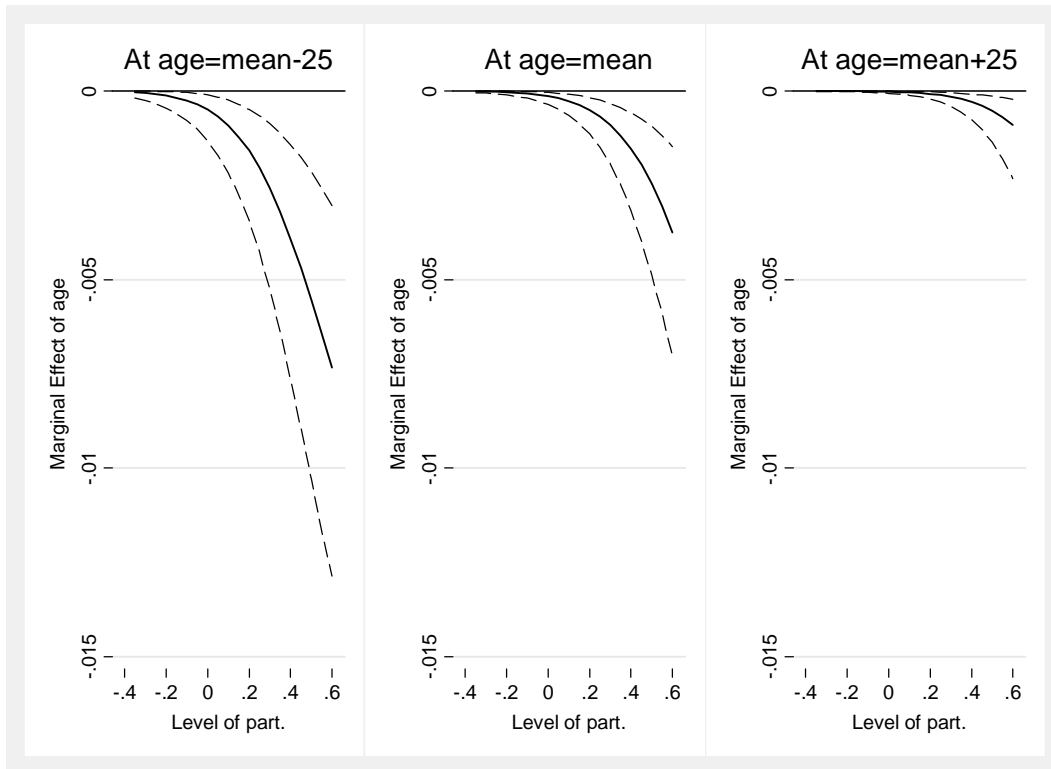
*Individual mode*

**Figure A.25: Simulated confidence intervals for all values of average level of participation at three points of age (mean-25, mean, mean+25)**



*Collective mode*

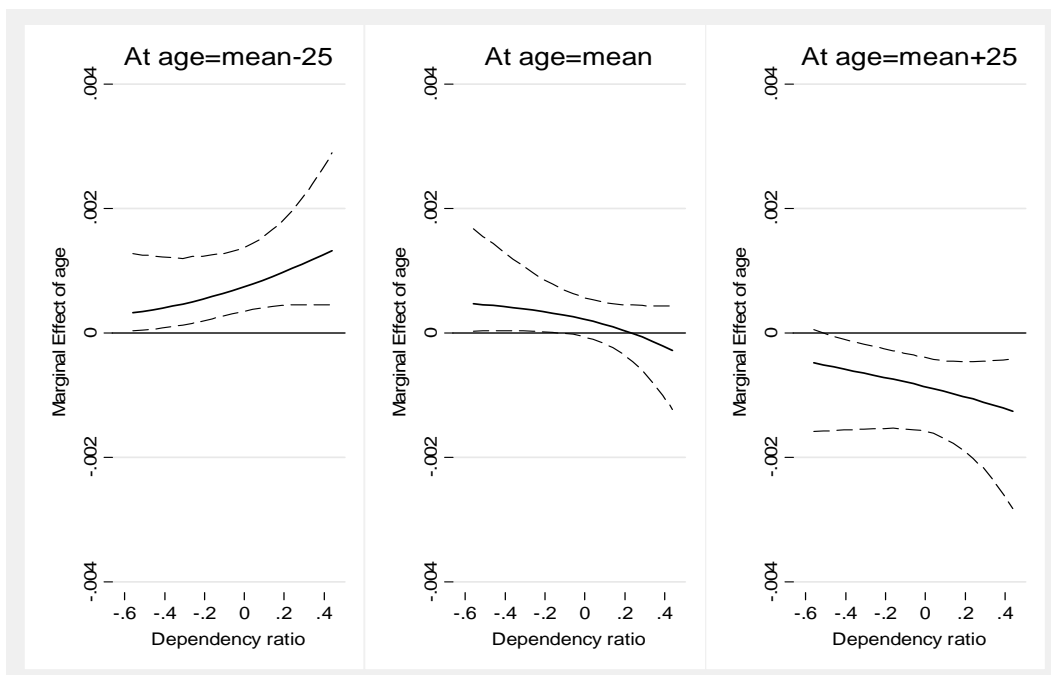
**Figure A.26: Simulated confidence intervals for all values of average level of participation at three points of age (mean-25, mean, mean+25)**



*Dependency ratio*

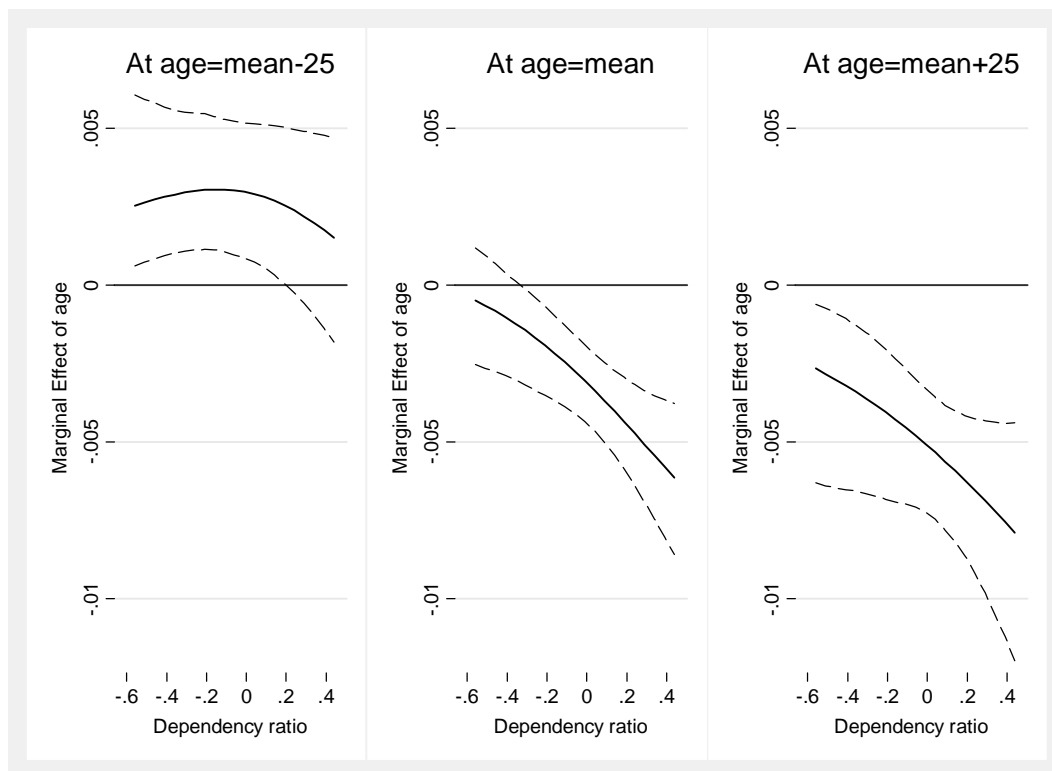
*Contacting*

**Figure A.27: Simulated confidence intervals for all values of the dependency ratio at three points of age (mean-25, mean, mean+25)**



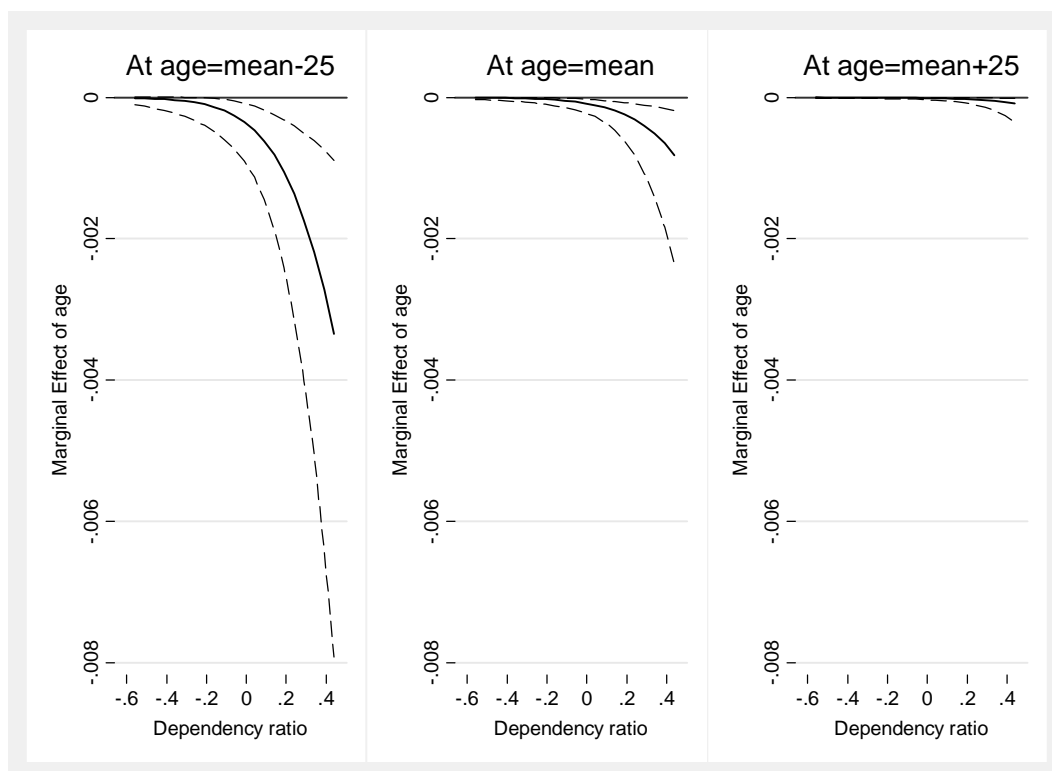
*Individual mode*

**Figure A.28: Simulated confidence intervals for all values of the dependency ratio at three points of age (mean-25, mean, mean+25)**



*Collective mode*

**Figure A.29: Simulated confidence intervals for all values of the dependency ratio at three points of age (mean-25, mean, mean+25)**

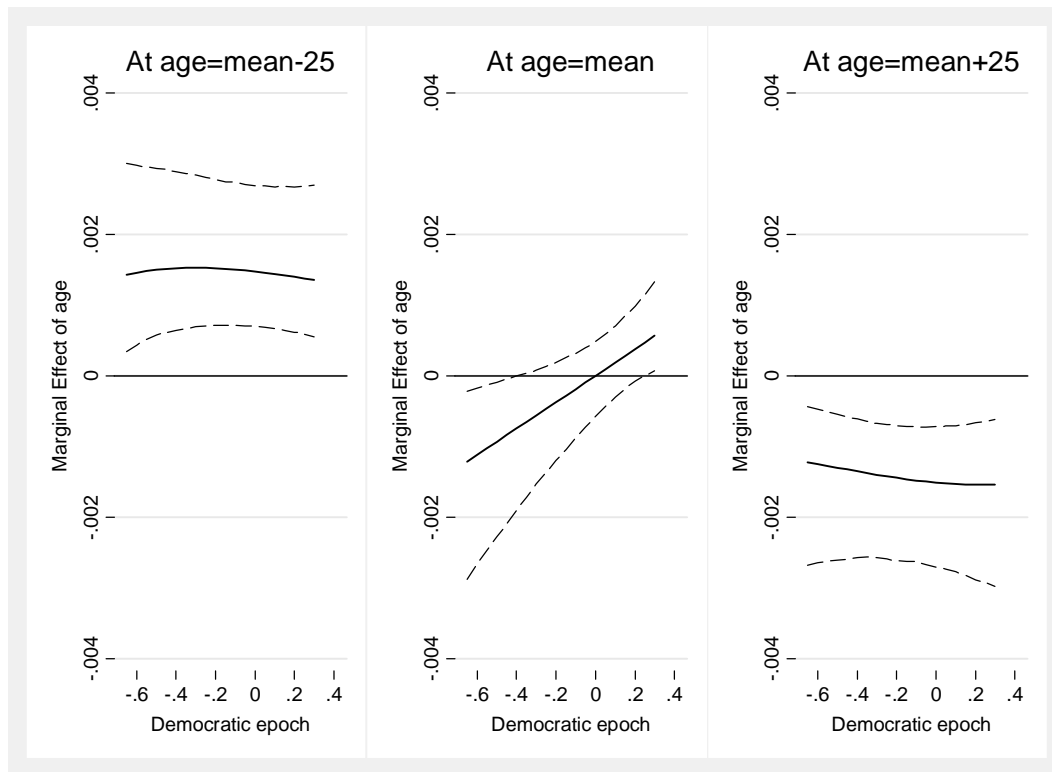




*Democratic epoch*

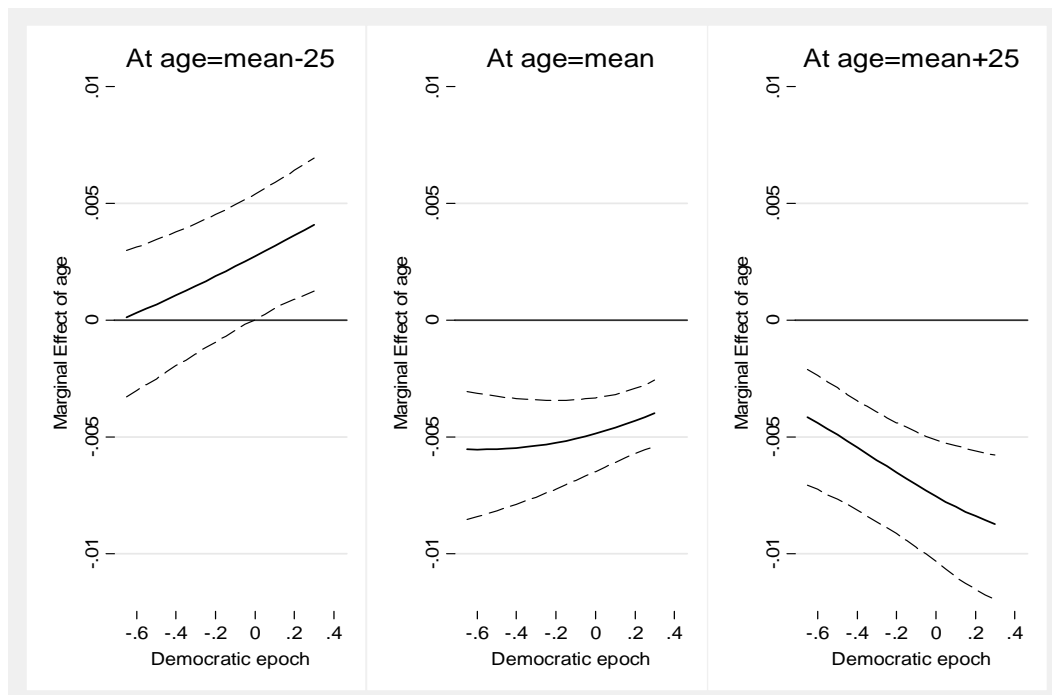
*Contacting*

**Figure A.30: Simulated confidence intervals for all values of democratic epoch at three points of age (mean-25, mean, mean+25)**



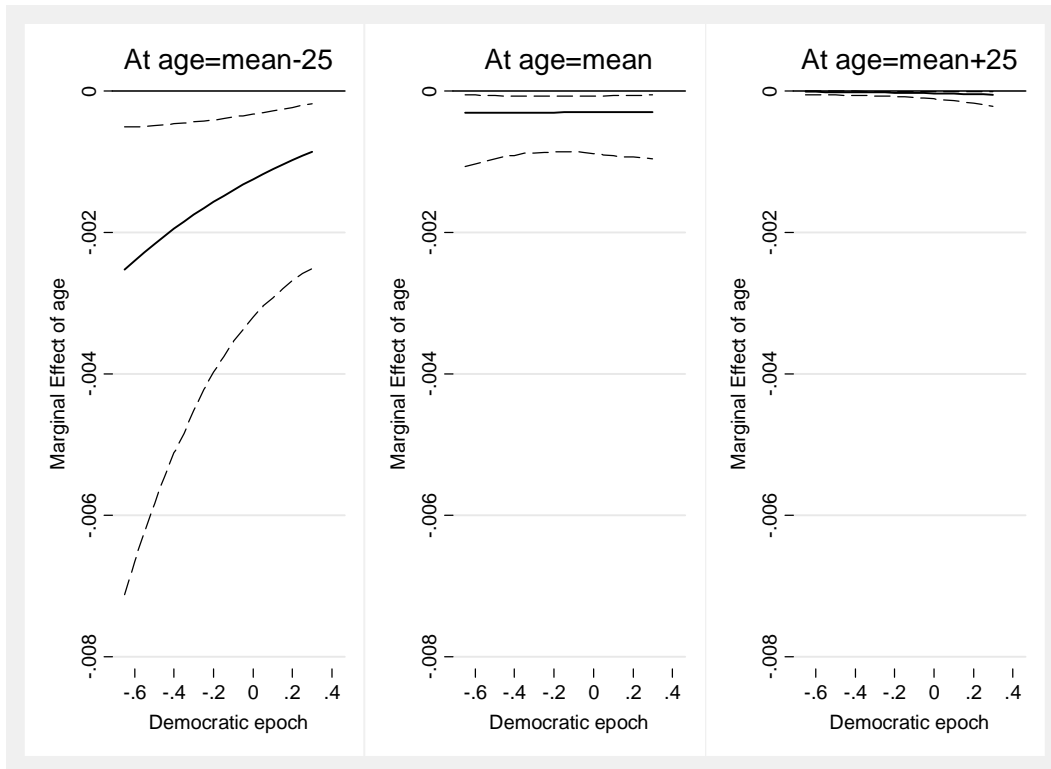
*Individual mode*

**Figure A.31: Simulated confidence intervals for all values of democratic epoch at three points of age (mean-25, mean, mean+25)**



*Collective mode*

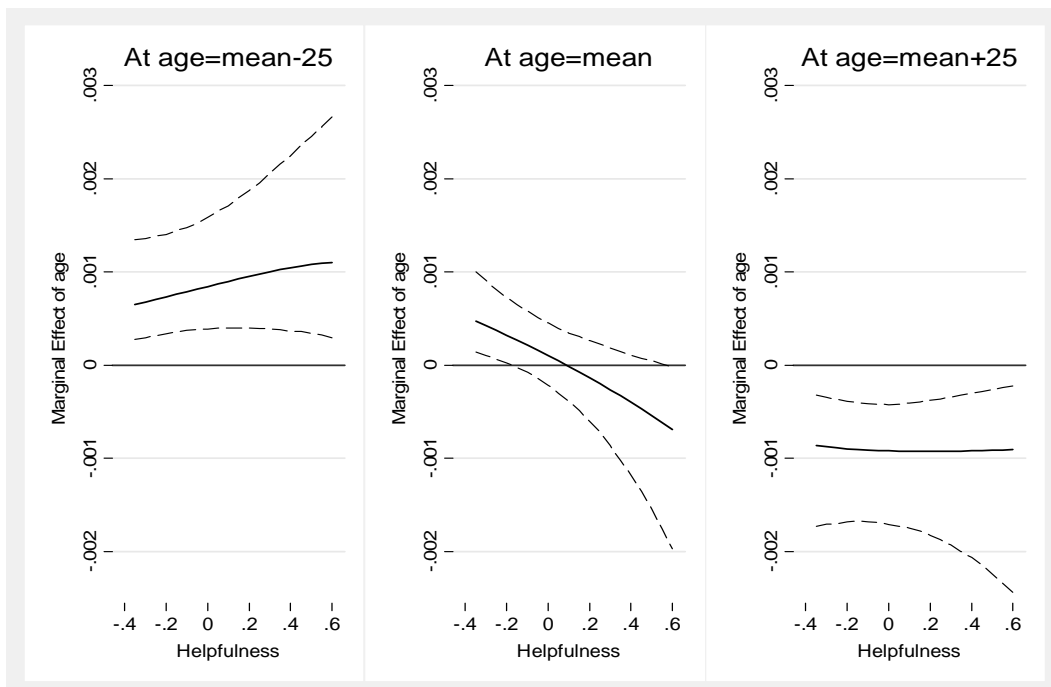
**Figure A.32: Simulated confidence intervals for all values of democratic epoch at three points of age (mean-25, mean, mean+25)**



*Public opinion concerning older people*

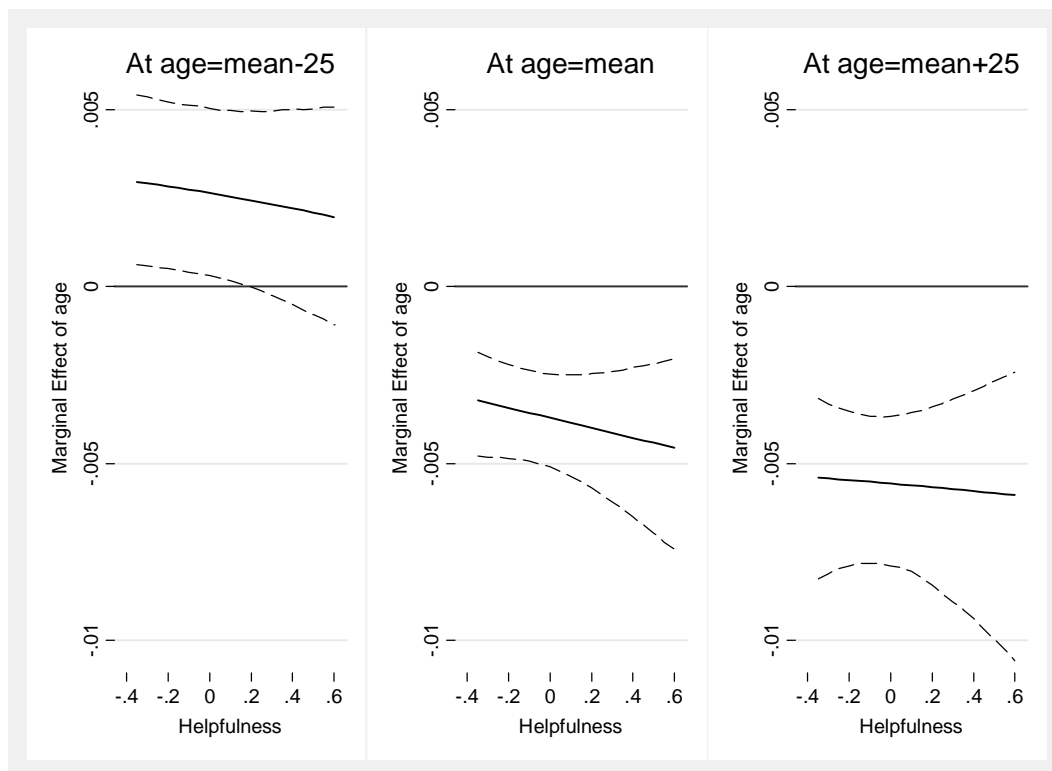
*Contacting*

**Figure A.33: Simulated confidence intervals for all values of the public opinion concerning older people at three points of age (mean-25, mean, mean+25)**



*Individual mode*

**Figure A.34: Simulated confidence intervals for all values of the public opinion concerning older people at three points of age (mean-25, mean, mean+25)**



*Collective mode*

**Figure A.35: Simulated confidence intervals for all values of the public opinion concerning older people at three points of age (mean-25, mean, mean+25)**

