Age-Based Polarization in a Time of Population Ageing

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Draft version, comments and suggestions are very welcome.

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Abstract

Across the globe, many societies are undergoing an unprecedented process of population ageing. While the share of working age people (20-64 year old) is shrinking, the share of elderly people (65 year old) is rapidly increasing. While age effects on preference formation and political behaviour are well documented, we know much less about the consequences of population ageing. We argue that while the potential for age-based polarization is generally muted due life cycle effects and family bonds, when societies age and resource competition between age groups increases, polarization between age groups is expected to increase. We examine our argument based on two studies. First, we examine existing cross-sectional survey data from over 20 European countries (study 1) to show that age-based polarization is correlated with population ageing. Second, we aim to gain causal leverage, and examine our proposed mechanism based on resource competition, using two novel survey experiments conducted during the first and second wave of the COVID-19 pandemic (study 2). Overall, our evidence suggests that increased resource competition due to population ageing has the potential to increase age-based polarization in society.

The world population is ageing rapidly. By 2030, the world's population of people aged 65 years and older is expected to double to almost 1.5 billion people.[1] While the shift in the age composition of a population towards older age groups, a phenomenon known as *population ageing*, initially started in high-income countries, low- and middle-income countries are only a few decades behind. While the economic and social consequences of population ageing, for example for health care and pension costs, economic growth, the labour market, family life, have been well documented (e.g. Lloyd-Sherlock et al., 2012; , N.d.; Bloom et al., 2015), we know much less about the consequences of population ageing for political attitude formation. While political scientists have paid close attention to age-based differences in political preference formation and behaviour (e.g. Inglehart, 1971; Norris, 2004; Wattenberg, 2009; Flanagan, 2009; Neundorf, 2010,0; Dalton, 2009; Sloam, 2014; Smets, 2016,0), the consequences of population ageing are less well understood.

There are many reasons to expect that population ageing may increase age-based polarization – which we define as issue-based and affective polarization between age groups (see next section). Social science evidence suggests that growing competition over resources could strain inter-generational solidarity. Not only has the 20th century pattern of generation-on-generation improvement of living standards become increasingly under strain, with younger generations falling behind their predecessors at the same age, especially when it comes to home ownership and wealth (e.g. Gibson-Davis and Percheski, 2018; Pfeffer and Killewald, 2018; Ferrari, 2020), the risks associated with important societal challenges like climate change or public debt sustainability are not be evenly distributed across different age groups (Fairbrother et al., 2021). At the same time, however, there many reasons to suspect that life cycle effects and family ties will mute the potential for age-based polarization (Foner, 1974). Everyone ages, so there is an instrumental interest for elderly-friendly policies and spending even among the young. What is more, family ties that cross-cut age groups foster understanding and empathy across different age groups. Understanding the relationship between population ageing and age-based polarization is of crucial importance as it could erode intergenerational solidarity on which our societies are build. This is even more important in light of the COVID-19 pandemic which had asymmetric effects across age groups. While mortality rates were lower for younger generations compared to older ones, a significant part of the burden associated with non-pharmaceutical interventions tended to fall on the young (Alstadsæter et al., 2020; Montenovo et al., 2020), who were unable to attend school or university or lost their jobs.

We argue that in advanced industrial societies that provide at least some degree of welfare provision for their citizens, the potential for age-based polarization increases as societies age. This is because the increased resource competition associated with population ageing. Population ageing increases government spending on pensions, health care and long term care provided for older citizens – even after subtracting the portion funded by tax payments from the elderly – and may become unsustainable unless either taxes are raised, benefits reduced or both, especially in pay-as you-go pension systems widely employed in the most advanced welfare states

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[1]https://www.who.int/health-topics/ageingtab=tab$_1$

(e.g. Pierson, 1998, 2000; Schäfer and Streeck, 2013). Due to these distributive conflicts related to population ageing, polarization in society may increasingly play out along age lines (e.g. Castels, 2004; Esping-Andersen and Sarasa, 2002; Galasso and Profeta, 2004; Lynch, 2006; Mulligan and Sala-i Martin, 2003; Pampel and Williamson, 1989; Persson and Tabellini, 2010; Tepe and Vanhuysse, 2009).

We examine our argument using two studies. First, we examine existing cross-sectional survey data from the European Social Survey and World Value Survey for 20 European countries (study 1). The results demonstrate that age-based polarization increases in countries with a larger share of elderly, even after controlling for a host of individual and contextual controls. Second, we explore our argument in a more causal way and examine our proposed mechanism rooted in resource competition between age groups in two pre-registered survey experiments conducted during the first (June 2020) and second wave (May 2021) of the COVID-19 pandemic (study 2).[2] We conduct our experiments in the context of the pandemic because its age-based consequences provided a realistic context to prime resource competition between age groups. The results suggest that exposure to a resource conflict vignette fuelled age-based polarization. This evidence suggests that the resource competition due to the COVID-19 pandemic may have increased the potential for age-based polarization in society.

This study makes three important contributions. First, the political consequences of population ageing have not received a lot of attention in political science. This is unfortunate as virtually all societies will pass through an extraordinary transition in years to come, in which the share of the elderly will double and the proportion of adult life spent beyond age 65 will increase substantially. Existing work shows that age matters for political preference formation and political behaviour (e.g. Inglehart, 1971; Norris, 2004; Wattenberg, 2009; Flanagan, 2009; Neundorf, 2010,0; Dalton, 2009; Sloam, 2014; Smets, 2016,0), but this study suggests that under certain conditions the age structure of a society itself may drive political conflict. Second, while an important body of work studies political polarization based on political parties (Iyengar et al., 2019, for an overview see), this study suggests that policy-based and affective polarization based on age may also be an important source of conflict in society. Future research should examine the extent to which age can cut across party-based polarization. Third, this study sheds light on the way the COVID-19 pandemic may have put a strain on intergenerational solidarity and how it may have a long-lasting effects on societies through intergenerational conflict. If resource competition between age groups persists and remains unaddressed, it may put policies that rely on intergenerational solidarity, from pension and health care over fiscal policy to combating climate change, potentially at risk (Goerres and Tepe, 2010; Galasso and Profeta, 2002; Daatland and Lowenstein, 2005).

This paper is structured as follows. First, we present our theoretical argument and expectations. Next, we present each of the two empirical study in turn by elaborating the data and model specification used and the main results. Finally, we conclude by summarizing the study's main findings and contributions.

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[2]Pre-registration link experiment 1: https://osf.io/b3zmh. Pre-registration link experiment 2: https://osf.io/b3zmh.

1 Age-Based Polarization and Population ageing

Population ageing in advanced industrial societies has been associated with lower economic growth and higher total cost of health and retirement programs for the elderly that strain public budgets (for an overview see Lee and Mason, 2017). Due to the distributive conflicts associated with population ageing, polarization may increasingly play out along age lines (e.g. Castels, 2004; Esping-Andersen and Sarasa, 2002; Galasso and Profeta, 2004; Lynch, 2006; Mulligan and Sala-i Martin, 2003; Pampel and Williamson, 1989; Persson and Tabellini, 2010; Tepe and Vanhuysse, 2009). Yet, the extent to which it does is currently not well understood. An important line of research has documented how age affects political preference formation and political behaviour. Generations have markedly different political attitudes and voting preferences (Flanagan, 2009), display different world views as they have lived through different historical periods (Inglehart, 1971; Neundorf, 2010; Smets, 2017), and starkly differ in their political participation and engagement (Norris, 2004; Wattenberg, 2009; Dalton, 2009; Sloam, 2014; Smets, 2016). But what about the consequences of population ageing?

We argue that population ageing increases the potential of age-based polarization, because of the competition over public resources that increases as a population ages. In keeping with existing work on political polarization (?Iyengar et al., 2019; Mason, 2015), we define age-based polarization based on an issue-based and affective component. Issue-based polarization refers to the different preferences about policies between groups (?). While it traditionally referred to differences between partisan groups, it has been recently applied to other groups, for example opinion-based groups (?) Here we examine differences in policy preferences between age groups. Policies might have different consequences for different age groups and therefore may be viewed very differently by these groups. Work on climate change or European integration for example demonstrates differences between age groups (). Affective polarization refers to dislike of the out-group. In the case of political parties, this means that people instinctively divide up the world into an in-group, own party, and an out-group, the opposing party (Iyengar et al., 2019; Mason, 2015). When it comes to the affective component of age-based polarization, it would refers to more positive feelings for the age in-group and negative evaluations of the age out-group.

We argue that population ageing increases resource competition between age groups, and as a result differences in policy preferences and in- and out-group between age groups

makes distributional conflict and differences between age groups more salient.

The potential for age-based polarization is likely to increase as societies age. This is due to the increased resource competition in countries with established welfare systems. Population ageing is expected to increase distributive conflict over public resources. This is because as the share of elderly in society increases, more public resources have to be diverted towards the elderly to support the total cost of health and retirement programs for the elderly. This means a rapidly growing number of elderly citizens need to be supported by a shrinking labor active population (e.g. Pierson, 1998, 2000; Schäfer and Streeck, 2013). When it comes to policy age-based polarization, we expect distributive conflicts to increasingly play out along

age lines with younger age groups wishing to increase spending towards education, job creation, childcare provision or climate change action, while older age groups wishing to keep pension and healthcare spending steady or even increase it. Due to these distributive conflicts related to population ageing, preferences about policies that have age-based trade-offs, like pension or health care, may increasingly play out along age lines (e.g. Castels, 2004; Esping-Andersen and Sarasa, 2002; Galasso and Profeta, 2004; Lynch, 2006; Mulligan and Sala-i Martin, 2003; Pampel and Williamson, 1989; Persson and Tabellini, 2010; Tepe and Vanhuysse, 2009).

When it comes to affective age-based polarization, intergroup threat theory (ITT) would also lead us to expect to see more polarization based on resource competition due population ageing. ITT suggests that when an out-group is perceived as representing a symbolic or realistic threat to in-groups (CITES)[3], intergroup conflict intensifies (Stephan and Stephan, 2017). When younger age groups feel that their job prospects and education are being harmed by the elderly and, in turn, the elderly perceive mounting ageism in society, affective age-based polarization is likely to increase.

We examine

We expect that highlighting the trade-off embedded in non-pharmaceutical interventions, i.e. protecting the elderly against infection with adverse economic effects for the young, increases inter-generational conflict as measured by attitudes towards age groups and support for policies that include an inter-generational trade-off and are not directly related to COVID-19 (**Hypothesis 1**).

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[3]Realistic threats are defined as concerns about physical harm or loss of resources, while symbolic threat is defined as the validity or integrity of the ingroup's meaning system (Stephan and Stephan, 2017).

2 Evidence from Two Empirical Studies

We rely on two studies to test our theoretical expectations. We discuss the data, model specification and results of each study in turn.

2.1 Study 1: Data and Model Specification

In a first step, we examine the demand side expectation of our argument. Based on our theory of age-based political conflict, we expect that when the share of elderly in society increases age-based polarization also increases as a result. Specifically, we expect both affective and policy polarization to increase, that is to say population ageing should coincide with more prejudice and animosity between different age groups as well as with age strongly structuring people's policy preferences.

Study 1 presents observational evidence using existing survey data from over 20 European countries based on the round 4 of the European Social Survey (ESS), which includes a specific battery of questions on ageism; the round 6 of the World Values Survey as well as the Eurobarometer (EB) 65.1 on pensions. A complete list of survey items and their data sources are listed in table 1. As is shown in the table, When it comes to affective age-based polarization, our main data source for the analysis is the 4$^{\text{th}}$ wave of the ESS, which includes a set of questions about attitudes towards different age groups. We complement this analysis with a few items from the round 6 of the WVS. To measure preferences in relation to policies that imply a clear inter-generational trade-off, we use items from the Eurobarometer 65.1, which focuses on pension and penison reforms. Whenever possible, we combine survey items into scales using factor analysis.[4]

Finally,in order to test how population ageing might structure intergenerational attitudes and policy preferences, we combine the individual level data with country-level data on population ageing. To measure population ageing at the country-level, we use data for old-age dependency ratio from the Organization for Economic Cooperation and Development (OECD) Statistics. Old-age dependency ratio "(...) is defined as the number of individuals aged 65 and over per 100 people of working age defined as those aged between 20 and 64" (OECD, 2017).

In terms of analysis, we first estimate the effect of age on attitudes towards other age groups, perceived age-based prejudice and policy preferences. We use the following specification,

$$y_{ic} = \alpha + \beta Age\ Groups_i + X_i'\gamma + \zeta_c + \epsilon_{ic}, \tag{1}$$

where, i indexes individual respondents and c countries. y_{ic} are the different measures of affective and policy-based intergenerational polarization. $Age\ Groups_i$ is a categorical variable that divides respondents into three groups: the first includes respondents aged between 16 to 30; the second between 31 and 60 and the last 61 and older. X_i' is a vector of control variables

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[4]All our scales present Cronbach's alpha above 0.7. More details can be found in the appendix.

that includes gender, income and, when available, religious domination and citizenship. ζ_c are country fixed effects. Since all the models involve only one wave, we do not add year fixed effects. ϵ_{ic} are robust standard errors.

In order to analyze how a country's age structure affects the way age shapes attitudes and policy preferences, we construct the following random effects specification:

$$y_{ic} = \gamma_{10} + \gamma_{11}\textit{Old-age dep. ratio}_c + \gamma_{20}\textit{Age}_{ic} + \gamma_{21}\textit{Old-age dep. ratio}_c \times \textit{Age}_{ic} + X'\eta + \zeta_{1c} + \epsilon_{ic}, \quad (2)$$

where $\textit{Old-age dep. ratio}_c$ is the old age dependency ratio of country c and $\textit{Age}_{ic}$ is the age of the respondent. X' is the same vector of individual level controls as in equation 3, ζ_{1c} are random intercepts and, ϵ_{ic} robust standard errors. For robustness checks, we also run the OLS specification in 3, but adding the interaction between age groups and old age dependency ratio, while excluding country FE.

	Dependent Varibles	Data source
Attitudes	Status of people in their 20s	ESS4
	Status of people in their 70s	ESS4
	Index of views about the old ("items inclided: most people view those in their 70s as having high moral standards", "most people view those in their 70s with respect", "most people view those in their 70s as competent" and "most people view those in their 70s as friendly."	ESS4
	Index of views about the young ("items inclided: most people view those in their 20s as having high moral standards", "most people view those in their 20s with respect", "most people view those in their 20s as competent" and "most people view those in their 20s as friendly."	ESS4
	People over 70 are a burden on health services these days	ESS4
	Older people have too much political influence	WVS6
	Older people get more than their fair share of government	WVS6
	Older people are a burden on society	WVS6
Policy	People over 50 should give up work to make space to the young	Eurobarometer 65.1, Pensions
	Raise taxes to mantain pension levels.	Eurobarometer 65.1, Pensions
	Lower pension levels to do not increae taxes.	Eurobarometer 65.1, Pensions
	Reduce gov. spending in other areas to increase pensions.	Eurobarometer 65.1, Pensions
Semi-behavioral	Index measuring how often respondent suffer age-based prejudice. Includes the following items: "How often past year felt lack of respect because of age"; "How often past year treated badly because of age"; "How often past year treated with prejudice because of age".	ESS4

Table 1: Dependent Variables and Data Sources

2.2   Study 1: Empirical Results

Table 3 and 2 present the results for selected dependent variables. Column 1 in table 3 shows the correlation between age groups and the frequency that respondents felt that they were discriminated because of their age in the previous year. Column 2 adds individual level controls. While column 4 shows the results for the model with the interaction between age groups and the old-age dependency ratio of countries. Column 5 adds individual level controls to the model including the interaction term. Overall, the results suggest that younger people experience prejudice because of their age more often than older people. Moreover, this pattern is more pronounced in older societies, as is also shown in figure 1.

Table 2 presents analogous results for a policy that benefits younger people in detriment of older individuals, i.e., lower pension levels to do not increase taxes. Columns 1 and 2 show that older individuals tend to oppose more with this policy as compared to younger respondents. However, columns 3 and 4 show that the relationship between age and support for this policy does not seem to be moderated by how old societies are. Figure 2 shows graphically how old-age dependency ratio does not moderate the relationship between age and policy preferences as regards pensions.

Due to space constraints, we present the full set of tables and graphs showing the results of study 1 can in the appendix. Here below we summarize the results in tables 4 and 5.

Overall, we observe that for most dependent variables, age correlates with attitudes and, especially, policy preferences as our theory would predict. More specifically, respondents tend to hold more positive attitudes towards their own age group or towards age groups that are closer to their own. When it comes to policy preferences, this pattern is even more clear. However, we do observe a few cases in which individuals have more negative attitudes towards their own age groups than individuals who belong to other age groups. This is the case, for example, of the variables "people over 70 are a burden to the health care these days" and "the elderly are a burden to society."

When it comes to how old age dependency ratio moderates the relationship between age and attitudes and policy preferences, our results broadly mirror the patterns shown in tables 3 and 2. More specifically, old age dependency ratio seems to moderate the effect of age on attitudes, but not on policy preferences. We speculate that this pattern might be explained by the way the questions are asked. While pension cuts and tax increases to finance pensions are more likely in older societies, older individuals will suffer more from pension cuts than younger individuals independently of how old societies are. Likewise, tax increases to finance pensions will always impact disproportionately younger people. By contrast, attitudes towards age groups measure the level of animosity between age groups. Possibly, increasing competition over resources might, over time, create animosity between groups.

	(1) Age-based prejudice	(2) Age-based prejudice	(3) Age-based prejudice	(4) Age-based prejudice
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.464***	-0.468***	-0.050	-0.059
	(0.015)	(0.015)	(0.071)	(0.071)
45-64yo	-0.522***	-0.522***	0.119	0.109
	(0.015)	(0.015)	(0.074)	(0.074)
65yo+	-0.450***	-0.449***	0.149*	0.128
	(0.017)	(0.017)	(0.084)	(0.084)
Dep. ratio			0.007	0.007
			(0.007)	(0.007)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			-0.019***	-0.018***
			(0.003)	(0.003)
45-64yo × Dep. ratio			-0.028***	-0.028***
			(0.003)	(0.003)
65yo+ × Dep. ratio			-0.027***	-0.026***
			(0.004)	(0.004)
Constant	0.429***	0.389***	0.274*	0.252
	(0.033)	(0.033)	(0.165)	(0.161)
sqrt(psi_S)	0.152***	0.144***	0.140***	0.133***
	(0.022)	(0.021)	(0.020)	(0.019)
sqrt(psi_I)	0.876***	0.875***	0.875***	0.874***
	(0.003)	(0.003)	(0.003)	(0.003)
Controls		X		X

Standard errors in parentheses

$*\ p < 0.10$, $**\ p < 0.05$, $***\ p < 0.01$

Table 2: Effect of age on the extent to which respondent experiences prejudice because of their age (MLM) Dependent variable is an index that includes the following variables "How often past year felt lack of respect because of age"; "How often past year treated badly because of age"; "How often past year treated with prejudice because of age". For all items, the values range from (0) never (...) (4) very often.

	(1)	(2)	(3)	(4)
	Lower pensions	Lower pensions	Lower pensions	Lower pensions
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.090***	-0.090***	-0.411*	-0.409*
	(0.026)	(0.026)	(0.214)	(0.214)
45-64yo	-0.169***	-0.169***	-0.357	-0.356
	(0.026)	(0.026)	(0.224)	(0.224)
65yo+	-0.198***	-0.198***	-0.543**	-0.544**
	(0.029)	(0.029)	(0.253)	(0.253)
depratio			-0.004	-0.004
			(0.016)	(0.016)
15-24yo × depratio			0.000	0.000
			(.)	(.)
25-44yo × depratio			0.014	0.014
			(0.009)	(0.009)
45-64yo × depratio			0.008	0.008
			(0.009)	(0.009)
65yo+ × depratio			0.015	0.015
			(0.011)	(0.011)
Constant	2.351***	2.359***	2.447***	2.456***
	(0.047)	(0.048)	(0.382)	(0.382)
sqrt(psi_S)	0.161***	0.161***	0.160***	0.160***
	(0.031)	(0.031)	(0.030)	(0.030)
sqrt(psi_I)	0.937***	0.937***	0.937***	0.937***
	(0.006)	(0.006)	(0.006)	(0.006)
Controls		X		X

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Effect of age on agreement with statement "Lower pension levels to do not increase taxes" (MLM) Dependent variable is agreement with the statement "Lower pension levels to do not increase taxes". (1) Strongly disagree (...) (4) Strongly agree.
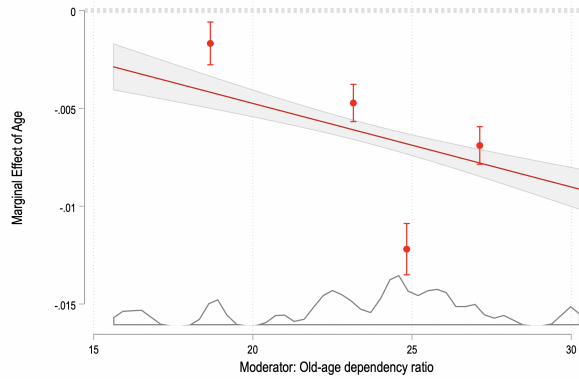
Figure 1: Effect of age on how much respondent perceives to have suffered prejudice because of their age in the last year Marginal effects computed based on OLS regression. Controls include gender, religious denomination and income.
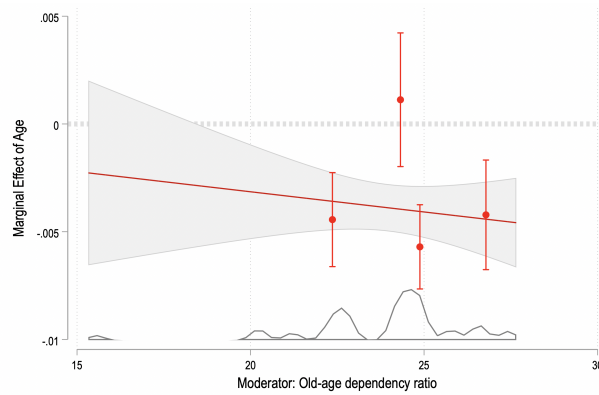
Figure 2: Effect of age on how much respondents agree that the government should lower pensions to avoid increasing taxes. Marginal effects computed based on OLS regression. Controls include gender and income.

	Position consistent with self-interest	Mixed (depends on age groups being compared)	Position inconsistent with self-interest
Attitudes	Status of people in their 20s Views about the old Older people get more than their fair share of government Old people have too much political influence	Status of people in their 70s Difference in status between the old and the young Views about the young Difference between views about the old and the young	People over 70 are a burden to the health care these days Elderly are a burden to society
Policy	Raise taxes to maintain pension levels Lower pension levels to do not increase taxes		
Semi-behavioral	Age-based prejudice		

Table 4: Summary of results: how age shapes political attitudes and preferences

14

	Old-age dep. ratio increases age-based polarization	Age-based polarization not moderated by old-age dep. ratio	Old-age dep. ratio decreases age-based polarization
Attitudes	Status of people in their 20s Views about the old Older people have too much political influence Difference in status between old and young (mixed results) Older people get more than their fair share of government (mixed results) People over 70 are a burden on health services these days (mixed)	Older people are a burden to society	Status of people in their 70s (mixed) Views about the young (mixed) Difference between views about the old and the young (mixed)
Policy		Raise taxes to maintain pension levels Lower pension level to do not increase taxes	
Semi-behavioral	Suffer prejudice because of age		

Table 5: Summary of results: how old-age dependency ratio moderates the effect of age on attitudes and preferences

2.3   Study 2: Data and Model Specification

In our second study, Study 2, we examine how the content of age-based rhetoric matters. Specifically, we explore if being exposed to more conflictual age-based rhetoric fuels age-based polarization. If the evidence suggests that being exposed to more conflictual age-based rhetoric fuels age-based polarization, we can expect the COVID-19 pandemic to provide an opening for age-based political conflict. We examine this conjecture through two pre-registered survey experiments conducted during the first and second wave of the COVID-19 pandemic in Italy with representative samples of the Italian population in terms of age, gender and region of residency.[5] The first experiment took place towards the end of the first COVID-19 wave in Italy, i.e., between June 19 and 28, 2020. The second, went to the field towards the end of the second wave, i.e., between May 17 and June 2021, 2021.[6] We expose respondent to one of two treatments: 1) an informational vignette highlighting increased competition over public resources between age groups, or 2) an informational vignette designed to convey a message of perspective-taking empathy between age groups. During the first experiment, conducted during the first wave of the pandemic, we focused on the immediate health crisis and its effects on the elderly, while during the second experiment, conducted during the second wave of the pandemic, we focused on the economic consequences of pandemic and its effects on the young. In both experiments we have three conditions: the control group, resource competition informational vignette (conflictual rhetoric) and empathy informational vignette (emphatic rhetoric). Respondents assigned to the control group received no vignette, the ones assigned to the resource competition condition received an informational vignette highlighting the resource competition between age groups involved in non-pharmaceutical interventions (see below) and, the respondents assigned to the empathy condition received a text underscoring the worries of either the elderly (experiment 1) or the young (experiment 2) during the pandemic. The vignettes used in the experiments are reproduced below.

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[5]The pre-analysis plans for both experiments can be found at `https://osf.io/u6ypr/`.

[6]A similar version of the first experiment was also conducted in the Netherlands, however the analysis of the manipulation checks indicates that the treatments did not work on the Dutch sample.

Resource Competition Informational Vignette

Experiment 1:

Please, read carefully the text below. We will then ask you questions about this text.
COVID-19 is an infectious disease that can cause severe respiratory infections, pneumonia or in severe circumstance death. Although all age groups are at risk of contracting COVID-19, most people who develop a severe form of the disease are elderly people over 65 years old.
In order to protect older people, countries around the globe have enforced strict lockdowns that do not allow young and highly productive people to go to work or school. Due to the adverse economic effects associated with lockdowns, many young people might face reduced job prospects or find themselves out of a job in the near future.
Question: Think about the consequences of the lockdown for society and how it affects different age groups. To what extent do you think that the effect of the lockdown is dependent on age? [*single line text box.*]

Experiment 2:

The COVID-19 pandemic has sparked off an economic downturn. Although all age groups suffer from the adverse economic consequences from the pandemic, younger people are most at risk of unemployment and suffering long-lasting negative effects on earnings and job prospects.
Due to the high mortality risk for elderly people, countries across the globe have focused on protecting older people. For example, elderly people were favored over younger people in early vaccination drives. Moreover, due social distancing measures to protect the elderly, young and highly productive people could not go to work or school and face reduced job and job prospects.
Question: Think about the consequences of the lockdown for society and how it affects different age groups. To what extent do you think that the effect of the lockdown is dependent on age? [*single line text box.*]

Empathy Informational Vignette

Experiment 1:

Please, read carefully the text below. We will then ask you questions about this text.
COVID-19 is an infectious disease that can cause severe respiratory infections, pneumonia or in severe circumstance death. Although all age groups are at risk of contracting COVID-19, most people who develop a severe form of the disease are elderly people over 70 years old.
Many elderly people have expressed how concerned they feel after being informed by their doctor about the COVID-19 outbreak. One elderly man of 82 states: "my doctor told me that I am not eligible for an ICU place if I too get COVID-19. He told me that I would have to stay at home even if I would fall really ill and could not breathe on my own. I feel horrified when I think that I may die not only without proper health care, but also alone, since my relatives would not be allowed to visit me"
Question: Try to put yourself in the shoes of an elderly person. Try to imagine the limitations and the risks that you would face if you were this person. What would you do to cope with mental health issues during the COVID-19 outbreak? [*single line text box.*]

Experiment 2:

Please, read carefully the text below. We will then ask you questions about this text.
The COVID-19 pandemic has sparked off an economic downturn. Although all age groups suffer from the adverse economic consequences from the pandemic, younger people are most at risk of unemployment and suffering long-lasting negative effects on earnings and job prospects.
Many young people have expressed how anxious they feel about unemployment and their job prospects. A 25 year old woman states: "Since February last year and then again in October, a nightmare begun. There are no job opportunities. I sent hundreds of applications and for each job opening, there are more than a thousand applicants. When I think that my classmates who graduated in 2019 had no problem in finding a job, I feel very depressed."
Manipulation check: Try to put yourself in the shoes of a young person. Try to imagine the difficulties and the challenges that you would face if you were this person. What would you do to cope with mental health issues if you were about the enter the labor market in a time of economic crisis? [*single line text box.*]

Our outcomes of interest are two survey items tapping into affective age-based polarization and three measuring support for policies that involve trade-offs between age groups, policy age-based polarization. Following Adida, Lo and Platas (2018), we add a quasi-behavioral outcome

in which respondents are given the opportunity to write a message to the prime minister in favor of either the rights of the elderly (first experiment) or the young (second experiment). The list of outcomes can be found in the Table below.

Pre-treatment questions include: items measuring respondents' perceptions in relation to compliance with non-pharmaceutical interventions in the country, items measuring how worried respondents are as to the health risk represented by COVID-19 and its economic and social consequences; self-position in the left-right scale, an item on authoritarianism, batteries of items measuring contact either with the elderly (first experiment) or with the young (second experiment), a battery of items measuring empathic concern taken from Simas, Clifford and Kirkland (2020) and items measuring position on the income distribution and social class. The entire questionnaire in English and its Italian translation are in appendix 5.

Following the approach proposed by Mutz (2011) and Lin et al. (2013), we analyze the data using OLS (in the case of continuous outcome measures) or logistic regression (in the case of a dichotomous outcome measure, i.e. the behavioral outcome) with robust standard errors and a series of selected covariates that, based on previous research (Goerres and Tepe, 2010; Sørensen, 2013; Silverstein and Parrott, 1997; Krekula, Nikander and Wilińska, 2018; Lev, Wurm and Ayalon, 2018; Swift et al., 2018), we expect explain a significant share of the variance in our outcomes of interest. By doing so, we aim at increasing the accuracy of our results. Our preferred specification is as follows:

$$Outcome_{ir} = \alpha_r + Treatment_{a(i)} + \delta' X_i' + \epsilon_i, \tag{3}$$

where i indexes respondents and r Italian regions. $Treatment_{a(i)}$ is a categorical variable indicating the condition to which respondent i was assigned (i.e., control, resource competition or empathy prime). X_i is a vector of covariates that may include the duration in seconds that the respondent took to finish the questionnaire, a gender dummy and income. Our results remain substantially unchanged if we exclude these covariates (see appendix 6.0.0.2).

Outcome Measures

Attitudes towards generational in- and out-groups

- I am interested in how you think most people in Italy view the status of people in their 70s (20s). By social status I mean prestige, social standing or position in society; I do not mean participation in social groups or activities. (00) Extremely low status (...) (10) Extremely high status. *(In experiment 1 we ask about the status of people in their 70s, while in the experiment 2 we ask about the status of people in their 20s).*

- Could you tell me whether you agree or disagree with the following statement? Older people get more than their fair share from the government. (00) Strongly disagree (...) (10) Strongly agree.

Preferences over policies with intergenerational trade-offs

- Given the fact that the share of elderly people in the population is growing, many different proposals have been put forward. Please, tell me to what extent you agree of disagree with the following statement: "Current pension levels should be maintained even if this means raising taxes or contributions." (00) Strongly disagree (...) (10) Strongly agree.

- People in their late 60's should give up work to make way to younger and unemployed people. (00) Strongly disagree (...) (10) Strongly agree.

- Suppose two equally sick people need the same heart operation. One is aged 30, the other 70. To what extent do you agree that the 30 year old should get the operation first. (00) Strongly disagree (...) (10) Strongly agree.

Behavioral outcome

- Would you like to write a message to Prime Minister Giuseppe Conte (Mario Draghi) in support for promoting the rights of the elderly (young)? The message is completely anonymous and will be delivered to him in the next weeks. *(In experiment 1, we ask about a message in support for the rights of the elderly, while in experiment 2 we ask about a message in support for the rights of the young).*

    * Yes
    * No

- *If "yes" in the previous question:* Write the message below *[essay text box].*

2.4 Study 3: Empirical Results

In line with the pre-registration plans, we present the main results of the resource competition and empathy informational vignettes, where we expect the resource competition vignette to increase age-based polarization and empathy to lower it. We also pre-registered a series of heterogenous treatment effects, some of which are reported in the appendix due to space constraints.

Figure 3 shows that being assigned to the resource competition vignette increased the perception of the status of elderly people vis-a-vis other groups in experiment 1 and young people vis-a-vis other groups in experiment 2, which is in line with our pre-registered hypotheses. We find no statistically significant effects for the empathy vignette.

Table 38 shows the heterogeneous treatment effects of the resource competition vignette on the status of the elderly (columns 1 to 3) and the young (columns 4 to 6). The first three columns suggest that the resource competition vignette increases the status of the elderly especially among outgroups that are more compliant with non-pharmaceutical interventions (i.e., "health measures"). Likewise, the last three columns show similar patterns for the status of the young in experiment 2.

Figure 3 also shows that being assigned to the resource competition vignette increased the perception of the old people get more than their fair share of government in both experiments. The empathy vignette did so only in the second experiment. Also, in the case of these dependent variables, the effect of the tradeoff vignette is stronger among respondents that comply more with non-pharmaceutical interventions, but only in the first experiment (see columns 1 to 4 of Table 7). This is likely to be because non-pharmaceutical interventions were much less restrictive by the time we conducted the second experiment.

Figure 4 shows the results for policy preferences, while figure 5 displays the results for the semi-behavioral outcome, i.e., writing a letter to the PM in favor of the rights of the elderly (experiment 1) and young (experiment 2). Although a few coefficients are statistically significant at the 90% level, we do not find consistent patterns.

Moving on to the heterogeneous treatment effects, Tables 1 and 2 display some preliminary results testing our pre-registered hypotheses.

Overall, the experimental results from the first and second wave of the COVID-19 pandemic in Italy suggest that a crisis has the potential to increase age-based political conflict in so far as it increases conflictual age-based rehtoric. The results are stronger for affective age-based polarization. Unlike our pre-registered expectations, the empathy vignette had no consistent effect on age-based polarization. Overall, the evidence from Study 3 suggests that a crisis period may indeed act as a critical juncture by opening the scope for age-based political conflict, but interestingly more when it comes affective age-based than policy age-based polarization.
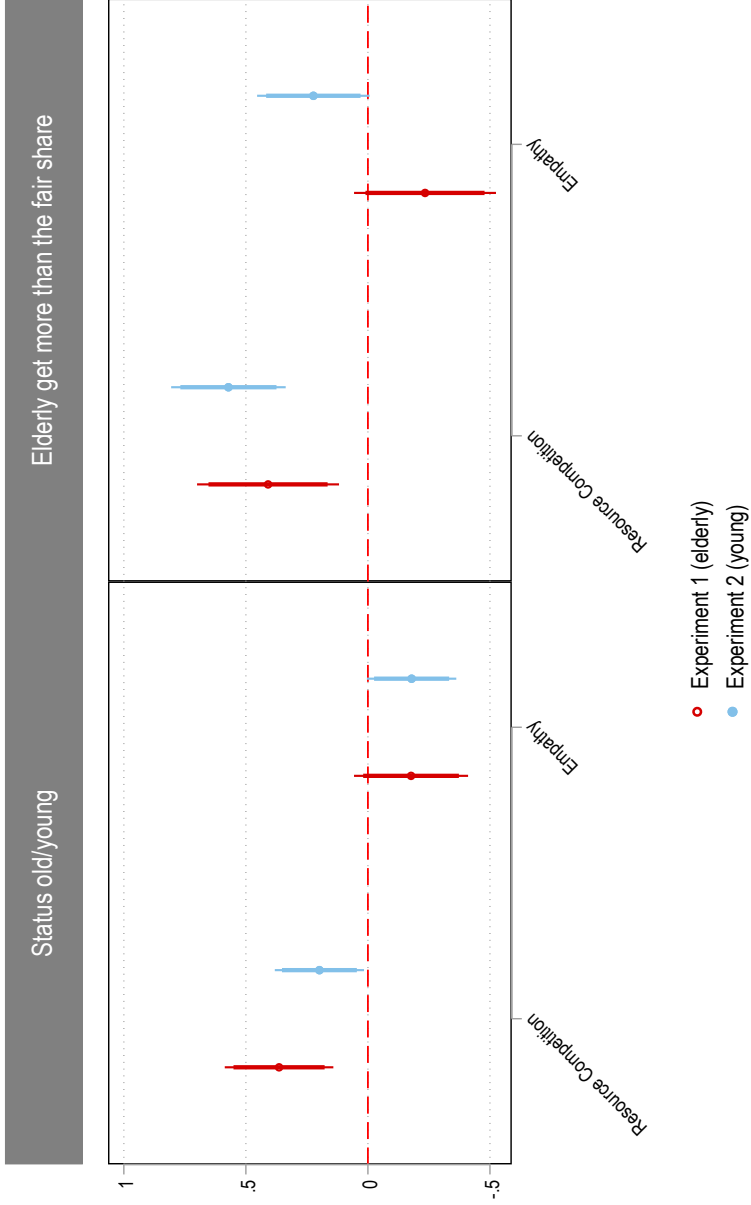
Figure 3: Treatment Effects on Attitudes
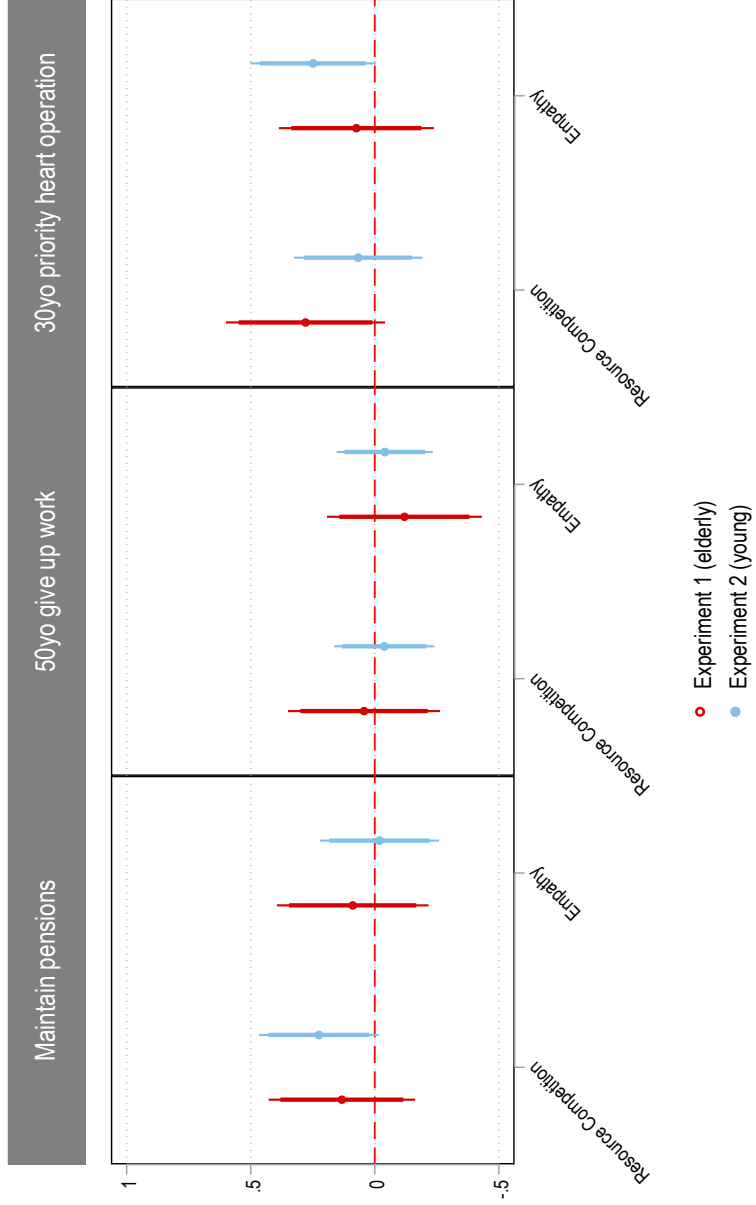
Figure 4: Treatment Effects on Policy Preferences
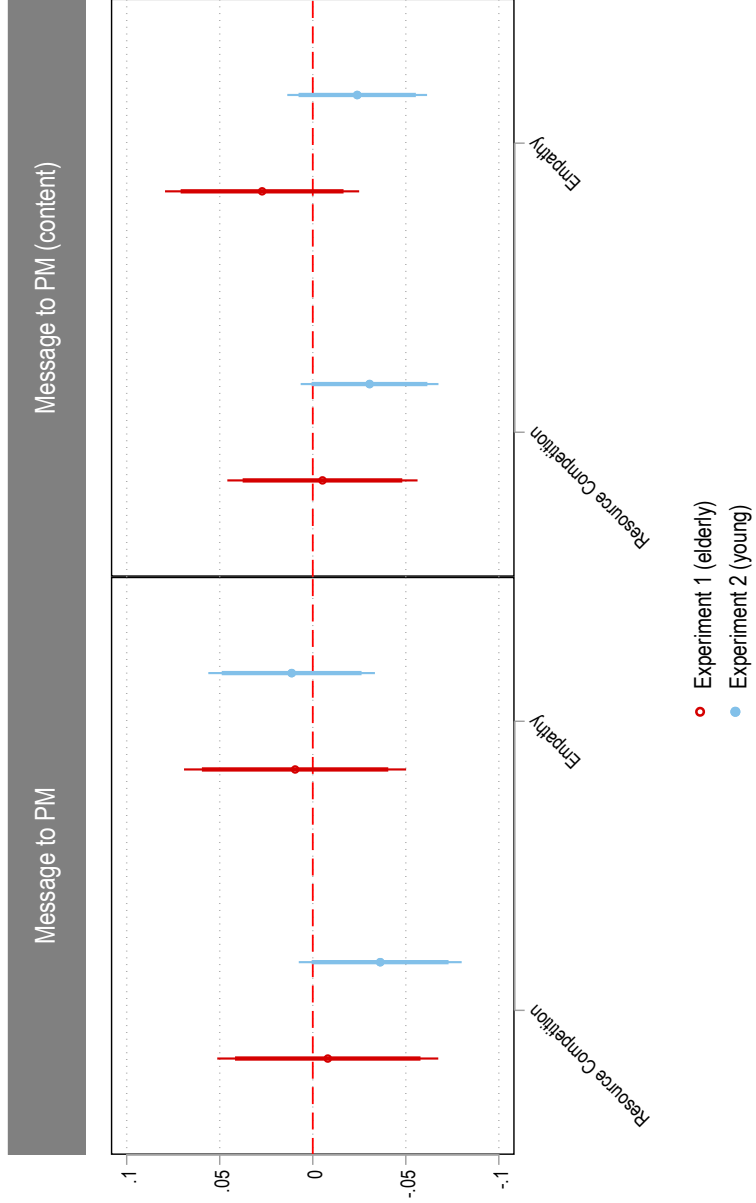
Figure 5: Treatment Effects on Semi-behavioral outcome

	Experiment 1 (Status 70yo)			Experiment 2 (Status 30yo)		
	(1)	(2)	(3)	(4)	(5)	(6)
Trade-off	0.289***	0.335***	-0.704	0.137	0.142	-0.800
	(0.104)	(0.121)	(2.055)	(0.0848)	(0.0986)	(1.719)
Empathy	-0.203*	-0.310**	-1.178	-0.150*	-0.125	-1.479
	(0.107)	(0.128)	(1.861)	(0.0859)	(0.0995)	(1.586)
Trade-off × Health measures, std	0.219**	0.236**	0.307	0.187**	0.227**	-0.0644
	(0.107)	(0.115)	(0.271)	(0.0925)	(0.0996)	(0.238)
Empathy × Health measures, std	-0.152	-0.104	-0.675**	0.179*	0.168*	0.440*
	(0.106)	(0.115)	(0.325)	(0.0922)	(0.100)	(0.237)
Trade-off × Worry COVID, std	0.124	0.0808	0.306	-0.0184	0.0704	-0.655**
	(0.124)	(0.141)	(0.283)	(0.0952)	(0.101)	(0.297)
Empathy × Worry COVID, std	0.0558	0.0305	0.197	-0.267***	-0.230**	-0.352
	(0.125)	(0.141)	(0.307)	(0.0947)	(0.100)	(0.289)
Trade-off × Age, std	0.101	0.106	0.643	0.0697	0.0823	-0.604
	(0.117)	(0.144)	(1.514)	(0.0910)	(0.122)	(1.065)
Empathy × Age, std	0.150	0.0458	1.289	-0.217**	-0.266**	-1.128
	(0.122)	(0.150)	(1.341)	(0.0913)	(0.124)	(0.998)
Trade-off × Empathic concern, std	0.168	0.154	0.185	-0.0233	-0.0138	-0.202
	(0.120)	(0.129)	(0.350)	(0.0930)	(0.101)	(0.240)
Empathy × Empathic concern, std	0.125	0.106	0.0893	-0.240**	-0.178*	-0.591**
	(0.121)	(0.129)	(0.346)	(0.0966)	(0.105)	(0.246)
Trade-off × L-R scale, std	-0.0101	-0.0363	0.0877	-0.0707	0.0101	-0.724**
	(0.103)	(0.112)	(0.287)	(0.0901)	(0.0933)	(0.325)
Empathy × L-R scale, std	-0.205*	-0.332***	0.284	-0.0925	-0.0464	-0.554**
	(0.107)	(0.120)	(0.252)	(0.0938)	(0.0992)	(0.265)
Trade-off × Authoritarianism, std	0.0439	0.0383	0.335	0.0441	-0.0405	0.680***
	(0.130)	(0.140)	(0.403)	(0.0952)	(0.101)	(0.247)
Empathy × Authoritarianism, std	0.179	0.173	0.317	0.0706	-0.0496	0.706***
	(0.125)	(0.135)	(0.350)	(0.0946)	(0.0983)	(0.255)
Trade-off × Contact, std		-0.0201			0.0465	
		(0.119)			(0.0933)	
Empathy × Contact, std		0.117			-0.138	
		(0.115)			(0.0968)	
Observations	1816	1551	265	3006	2546	460
R^2	0.126	0.137	0.230	0.0846	0.0948	0.185
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	OLS	OLS	OLS	OLS	OLS
Sample	All	Outgroups	Ingroups	All	Outgroups	Ingroups

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Heterogeneous Effects of Treatments: Status of the Old and the Young

	Experiment 1 (Sh. Gov.)			Experiment 2 (Sh. Gov.)		
	(1)	(2)	(3)	(4)	(5)	(6)
Trade-off	0.343**	0.322**	0.193	0.528***	0.591***	3.879*
	(0.135)	(0.153)	(2.384)	(0.106)	(0.125)	(2.018)
Empathy	-0.273**	-0.433***	-4.476*	0.198*	0.204*	3.870**
	(0.133)	(0.152)	(2.402)	(0.104)	(0.122)	(1.964)
Trade-off × Health measures, std	0.391***	0.449***	0.178	-0.0201	0.0381	-0.108
	(0.135)	(0.147)	(0.345)	(0.115)	(0.124)	(0.303)
Empathy × Health measures, std	-0.106	-0.0807	-0.497	0.107	0.121	0.160
	(0.129)	(0.141)	(0.338)	(0.109)	(0.119)	(0.296)
Trade-off × Worry COVID, std	-0.0505	0.0602	-0.406	0.0909	0.0893	0.272
	(0.150)	(0.170)	(0.312)	(0.126)	(0.135)	(0.358)
Empathy × Worry COVID, std	0.0437	0.140	-0.199	0.178	0.214*	0.195
	(0.134)	(0.150)	(0.297)	(0.117)	(0.124)	(0.359)
Trade-off × Age, std	-0.0665	-0.179	-0.363	0.132	-0.0165	2.517*
	(0.142)	(0.175)	(1.691)	(0.114)	(0.152)	(1.288)
Empathy × Age, std	-0.00634	-0.192	3.541**	0.0561	0.0209	2.422*
	(0.143)	(0.175)	(1.782)	(0.110)	(0.146)	(1.242)
Trade-off × Empathic concern, std	0.257*	0.226	0.321	-0.0718	-0.0552	-0.143
	(0.146)	(0.154)	(0.448)	(0.119)	(0.129)	(0.315)
Empathy × Empathic concern, std	0.231*	0.278*	-0.183	-0.101	-0.0278	-0.488
	(0.136)	(0.146)	(0.364)	(0.115)	(0.127)	(0.312)
Trade-off × L-R scale, std	0.127	0.162	-0.0853	-0.0186	-0.0516	0.0943
	(0.131)	(0.144)	(0.338)	(0.112)	(0.117)	(0.412)
Empathy × L-R scale, std	-0.292**	-0.301**	-0.141	-0.140	-0.138	-0.184
	(0.130)	(0.152)	(0.277)	(0.110)	(0.114)	(0.369)
Trade-off × Authoritarianism, std	-0.169	-0.377**	1.317***	-0.00463	0.00858	-0.246
	(0.171)	(0.182)	(0.474)	(0.129)	(0.143)	(0.330)
Empathy × Authoritarianism, std	0.228	0.133	0.691*	-0.122	-0.177	-0.0315
	(0.146)	(0.154)	(0.407)	(0.121)	(0.130)	(0.343)
Trade-off × Contact, std		-0.0610			-0.0887	
		(0.153)			(0.121)	
Empathy × Contact, std		0.0798			-0.0658	
		(0.146)			(0.117)	
Observations	1816	1551	265	3006	2546	460
^{2}	0.223	0.224	0.254	0.148	0.148	0.130
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	OLS	OLS	OLS	OLS	OLS
Sample	All	Outgroups	Ingroups	All	Outgroups	Ingroups

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Heterogeneous Effects of Treatments: Fair Share of Government

3 Conclusion

While age effects in political behaviour and preference formation are well documented in the literature, we know much less about the political consequences of demographic changes. While demographic processes are generally slow, the COVID-19 pandemic has put intergenerational solidarity under strain. While mortality rates were much lower for younger generations compared to older ones, a significant part of the burden associated with non-pharmaceutical interventions disproportionally fell on the young. In order to understand the extent to which long-term demographic change and the immediate impact of COVID-19 pandemic has the potential to spark conflict across age groups, this study develops a theory of age-based political conflict. It outlines the conditions under whihc population ageing may pit age groups against each other and shape the content of political conflict.

Our argument is that while population ageing has the potential to spark off age-based political conflict, because increased competition over public resources increases age-based polarization, this only happens when a society's age structure makes the mobilization of this polarization electorally attractive for political entrepreneurs. Generally, this is not the case as a a higher share of elderly increases the potential electoral costs associated with the mobilization of age-based polarization. This is because in ageing societies the share of elderly voters grows, and unlike the young, elderly voters act as a highly mobilized single-minded voting block ready to punish changes in pension and health care rights and benefits. Yet, the COVID-19 pandemic presented an opening for age-based political conflict by dramatically increasing resource competition between age groups and thus making it difficult for political entrepreneurs to ignore and making electoral mobilization easier. We tested our theoretical conjectures by relying on empirical evidence from three empirical studies. We examine existing survey data from over 20 European countries as well as document novel experimental and textual data from the Italian context. The evidence largely supports our main theoretical conjectures about the political consequences of population ageing. It further suggests that the COVID-19 pandemic has increased the potential for age-based political conflict in Italy, with potential long-lasting consequences for intergenerational solidarity. While we acknowledge that Italy in many ways is a most likely case, we would encourage future research to examine the potential for age-based political conflict in other countries as well.

Our results are important for several reasons. First, they inform important societal and scientific debates about the conditions under which age-based polarization is heightened and how political conflict may come to be defined along age lines (Rodrigues et al., 2012; Daatland and Lowenstein, 2005). We suggest that the interaction between demand and supply factors is crucial, and this provides important insights for understanding how societal divisions become politicized more generally. Second, this study sheds light on the way the COVID-19 pandemic may have put a strain on intergenerational solidarity and how it may have a long-lasting effect by triggering age-based political conflict. Third, increasing the potential for age-based political conflict as a result of demographic changes and crises, such as the COVID-19 pandemic, may put policies that rely on intergenerational solidarity, such as social policy and complementary

forms of care, potentially at risk (Goerres and Tepe, 2010; Galasso and Profeta, 2002; Daatland and Lowenstein, 2005). Our results suggests that policy makers should pay careful attention to growing age-based polarization, especially in times of crises, when political entrepreneurs may be more willing to actively mobilize polarization between age groups.

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4 Appendix

TO BE COMPLETED

4.1 Factor Analysis of Survey Items

4.2 List of Twitter Accounts

5 Survey Experiment Questionnaire

5.0.0.1 English

5.0.0.2 Italian Translation

5.1 Summary Statistics

5.2 Tables

6 Study 1: additional results

Table 8: Effect of age on perception of status of people in their 20s (OLS)

	(1) Status ppl. 20s	(2) Status ppl. 20s	(3) Status ppl. 20s	(4) Status ppl. 20s
15-24yo	0 (.)	0 (.)	0 (.)	0 (.)
25-44yo	-0.453*** (0.0370)	-0.466*** (0.0369)	-0.297 (0.202)	-0.312 (0.201)
45-64yo	-0.435*** (0.0372)	-0.455*** (0.0372)	-0.133 (0.207)	-0.0848 (0.207)
65yo+	-0.318*** (0.0402)	-0.360*** (0.0407)	0.419* (0.232)	0.594** (0.234)
25-44yo × Dep. ratio			-0.00888 (0.00861)	-0.00880 (0.00859)
45-64yo × Dep. ratio			-0.0143 (0.00882)	-0.0173* (0.00883)
65yo+ × Dep. ratio			-0.0334*** (0.00981)	-0.0422*** (0.00990)
Observations	39309	39309	39309	39309
R-squared	0.100	0.105	0.0139	0.0353
Controls		X		X
Country FE	X	X		X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$

Table 8: Effect of age on perception of status of people in their 20s (OLS)
Dependent variable is "How most people view status of people in their 20s" (0) "Extremely low status" (...) "Extremely high status"

	(1) Status ppl. 20s	(2) Status ppl. 20s	(3) Status ppl. 20s	(4) Status ppl. 20s
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.453***	-0.466***	-0.242	-0.290*
	(0.036)	(0.036)	(0.168)	(0.168)
45-64yo	-0.436***	-0.455***	-0.005	-0.082
	(0.037)	(0.037)	(0.176)	(0.176)
65yo+	-0.319***	-0.360***	0.593***	0.469**
	(0.039)	(0.040)	(0.202)	(0.201)
Dep. ratio			-0.031	-0.007
			(0.030)	(0.029)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			-0.010	-0.008
			(0.007)	(0.007)
45-64yo × Dep. ratio			-0.019**	-0.017**
			(0.008)	(0.008)
65yo+ × Dep. ratio			-0.040***	-0.036***
			(0.009)	(0.009)
Constant	5.571***	5.538***	6.293***	5.707***
	(0.134)	(0.129)	(0.706)	(0.692)
sqrt(psi_S)	0.661***	0.621***	0.632***	0.614***
	(0.092)	(0.087)	(0.088)	(0.086)
sqrt(psi_I)	2.065***	2.059***	2.064***	2.058***
	(0.007)	(0.007)	(0.007)	(0.007)
Controls		X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 9: Effect of age on perception of status of people in their 20s (MLM)
Dependent variable is "How most people view status of people in their 20s" (0) "Extremely low status" (...) "Extremely high status"

Marginal Effect of D on Y

.005

0

-.005

-.01

15

Marginal Effect of D on Y
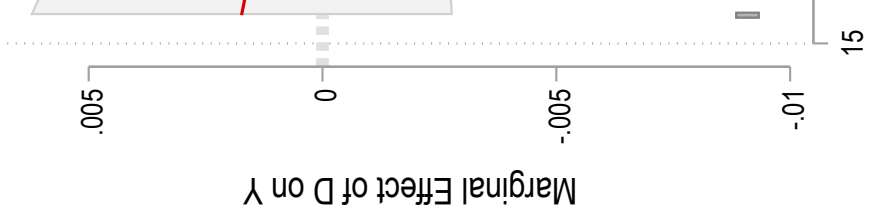
Figure 33: Effect of ...
Dependent variable ≤ 0.10
(4) Strongly agree. Expl...
Table 37: Effect of ...
is comparable across ...
(MLM) Dependent var...
disagree (...) (4) Strongly...

	(1) Status ppl. 70s	(2) Status ppl. 70s	(3) Status ppl. 70s	(4) Status ppl. 70s
15-24yo	0 (.)	0 (.)	0 (.)	0 (.)
25-44yo	-0.200*** (0.0398)	-0.204*** (0.0399)	0.270 (0.218)	0.297 (0.218)
45-64yo	-0.293*** (0.0401)	-0.312*** (0.0402)	0.133 (0.226)	0.209 (0.226)
65yo+	-0.236*** (0.0432)	-0.282*** (0.0438)	-0.161 (0.256)	0.0621 (0.254)
25-44yo × Dep. ratio			-0.0160* (0.00929)	-0.0182* (0.00929)
45-64yo × Dep. ratio			-0.0160* (0.00959)	-0.0209** (0.00960)
65yo+ × Dep. ratio			-0.00268 (0.0108)	-0.0151 (0.0107)
Observations	39506	39506	39506	39506
R-squared	0.112	0.114	0.00303	0.0268
Controls		X		X
Country FE	X	X	X	X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 10: Effect of age on status of people over 70s (OLS) Dependent variable is "How most people view status of people over 70" (0) "Extremely low status" (...) "Extremely high status". Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.

	(1)	(2)	(3)	(4)
	Status ppl. 70s	Status ppl. 70s	Status ppl. 70s	Status ppl. 70s
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.199***	-0.203***	0.001	0.017
	(0.040)	(0.040)	(0.184)	(0.184)
45-64yo	-0.293***	-0.311***	0.012	0.017
	(0.040)	(0.040)	(0.193)	(0.193)
65yo+	-0.236***	-0.281***	-0.255	-0.255
	(0.043)	(0.043)	(0.220)	(0.220)
Dep. ratio			0.029	0.042
			(0.038)	(0.037)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			-0.009	-0.010
			(0.008)	(0.008)
45-64yo × Dep. ratio			-0.013	-0.014*
			(0.008)	(0.008)
65yo+ × Dep. ratio			0.000	-0.002
			(0.009)	(0.009)
Constant	4.951***	5.141***	4.294***	4.172***
	(0.161)	(0.161)	(0.889)	(0.867)
sqrt(psi_S)	0.804	0.787*	0.799	0.775*
	(0.112)	(0.110)	(0.111)	(0.108)
sqrt(psi_I)	2.261***	2.257***	2.261***	2.257***
	(0.008)	(0.008)	(0.008)	(0.008)
Controls		X		X

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 11: Effect of age on status of people over 70s (OLS) Dependent variable is "How most people view status of people over 70" (0) "Extremely low status" (...) "Extremely high status". Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
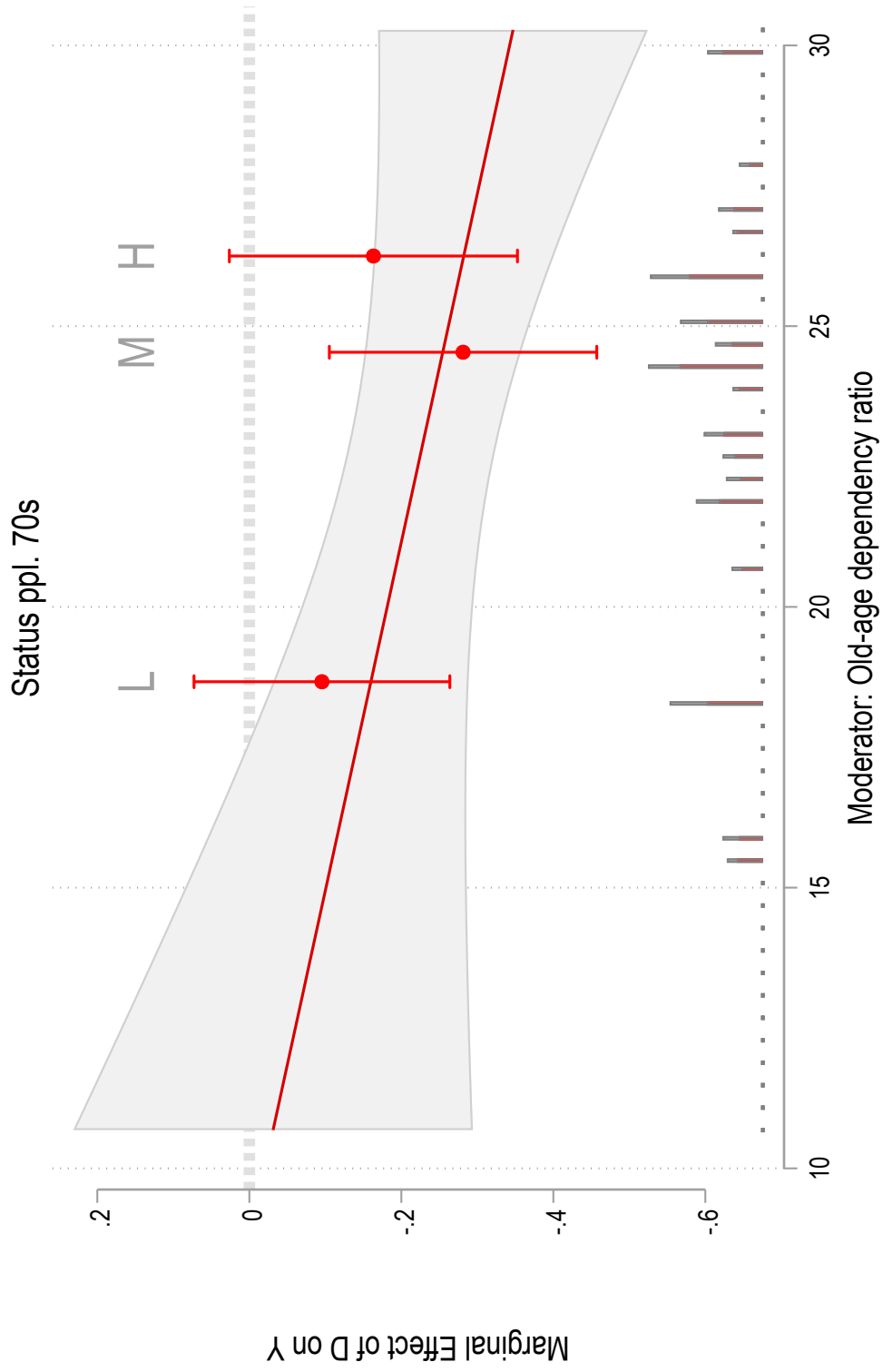
Figure 6: Effect of age on status of people over 70 (OLS) Dependent variable is "How most people view status of people over 70" (0) "Extremely low status" (...) "Extremely high status". Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
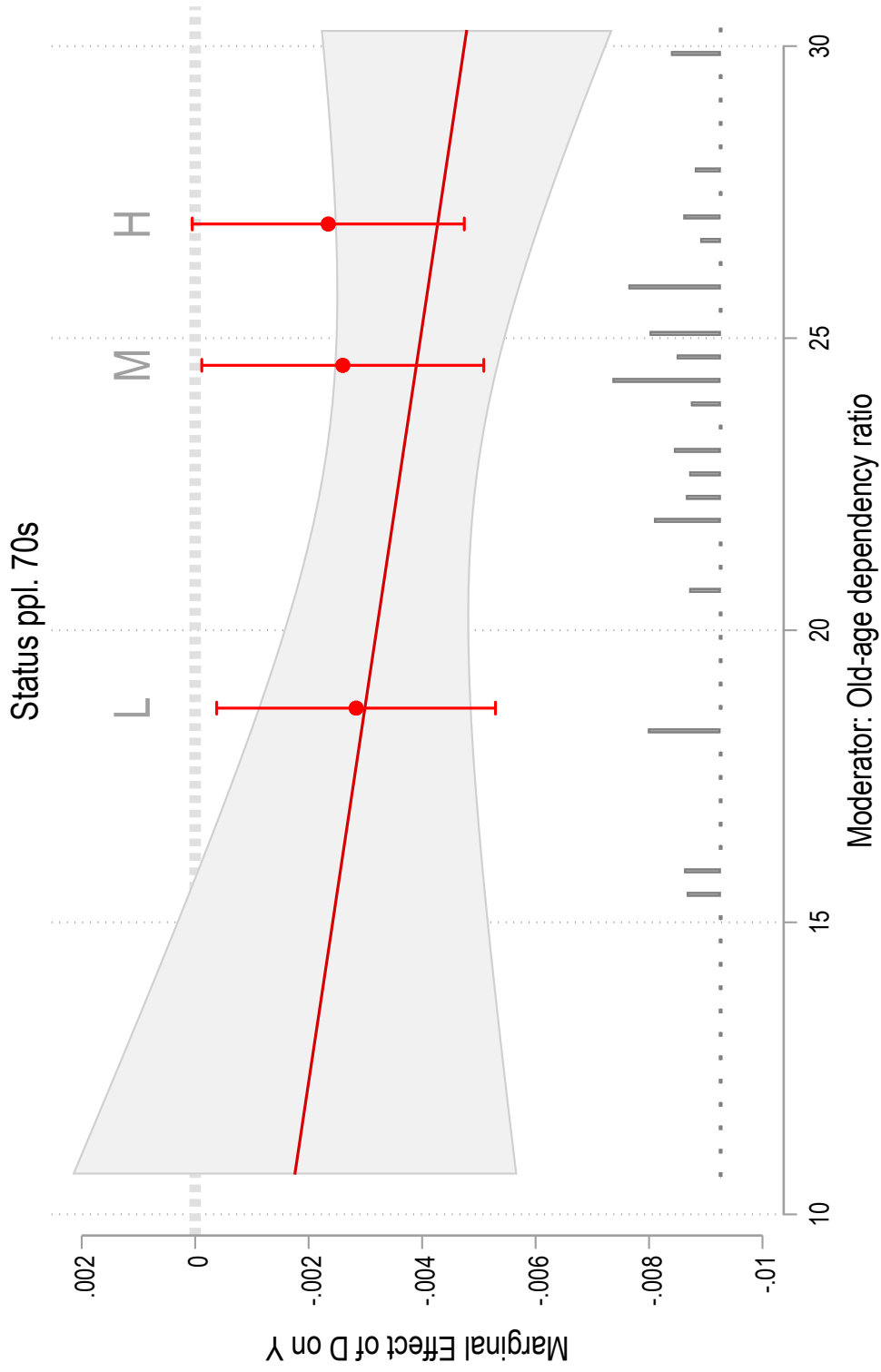
Figure 7: Effect of age on status of people over 70 (OLS) Dependent variable is "How most people view status of people over 70" (0) "Extremely low status" (...) "Extremely high status". Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1) Diff. status	(2) Diff. status	(3) Diff. status	(4) Diff. status
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	0.258***	0.267***	0.583**	0.631**
	(0.0511)	(0.0511)	(0.289)	(0.289)
45-64yo	0.147***	0.148***	0.316	0.347
	(0.0514)	(0.0515)	(0.298)	(0.298)
65yo+	0.105*	0.100*	-0.514	-0.472
	(0.0559)	(0.0567)	(0.335)	(0.336)
25-44yo × Dep. ratio			-0.00763	-0.0100
			(0.0123)	(0.0123)
45-64yo × Dep. ratio			-0.00351	-0.00546
			(0.0126)	(0.0126)
65yo+ × Dep. ratio			0.0293**	0.0259*
			(0.0141)	(0.0142)
Observations	39067	39067	39067	39067
R-squared	0.0948	0.0982	0.0122	0.0195
Controls		X		X
Country FE	X	X		X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 12: Effect of age on the difference between the status of people over 70 and in their 20s (OLS) Dependent variable is the status of the old minus the status of the young. Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.

|	(1) Diff. status	(2) Diff. status	(3) Diff. status	(4) Diff. status
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	0.260***	0.268***	0.276	0.337
	(0.051)	(0.051)	(0.234)	(0.234)
45-64yo	0.148***	0.148***	0.076	0.153
	(0.051)	(0.051)	(0.246)	(0.245)
65yo+	0.106*	0.101*	-0.791***	-0.672**
	(0.055)	(0.055)	(0.281)	(0.281)
Dep. ratio			0.060	0.050
			(0.040)	(0.042)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			-0.001	-0.003
			(0.010)	(0.010)
45-64yo × Dep. ratio			0.003	-0.000
			(0.011)	(0.011)
65yo+ × Dep. ratio			0.039***	0.033***
			(0.012)	(0.012)
Constant	-0.623***	-0.402**	-2.018**	-1.571
	(0.180)	(0.186)	(0.944)	(0.976)
sqrt(psi_S)	0.888	0.896	0.842	0.866
	(0.124)	(0.125)	(0.118)	(0.121)
sqrt(psi_I)	2.869***	2.863***	2.868***	2.863***
	(0.010)	(0.010)	(0.010)	(0.010)
Controls		X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 13: Effect of age on the difference between the status of people over 70 and in their 20s (MLM) Dependent variable is the status of the old minus the status of the young. Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
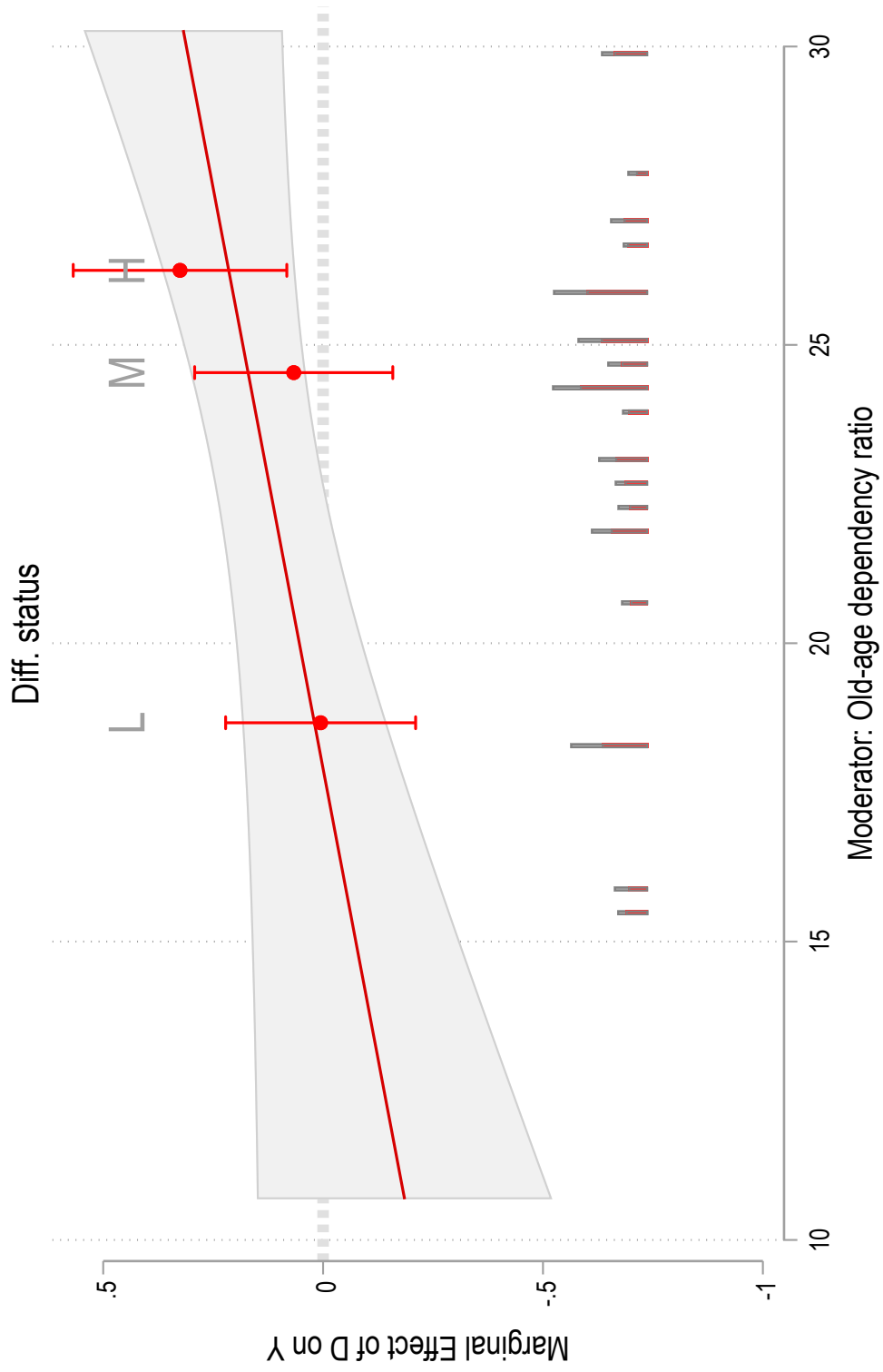
Figure 8: Effect of age on the difference between the status of the old and the young Dependent variable the status of the old minus the status of the young. Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
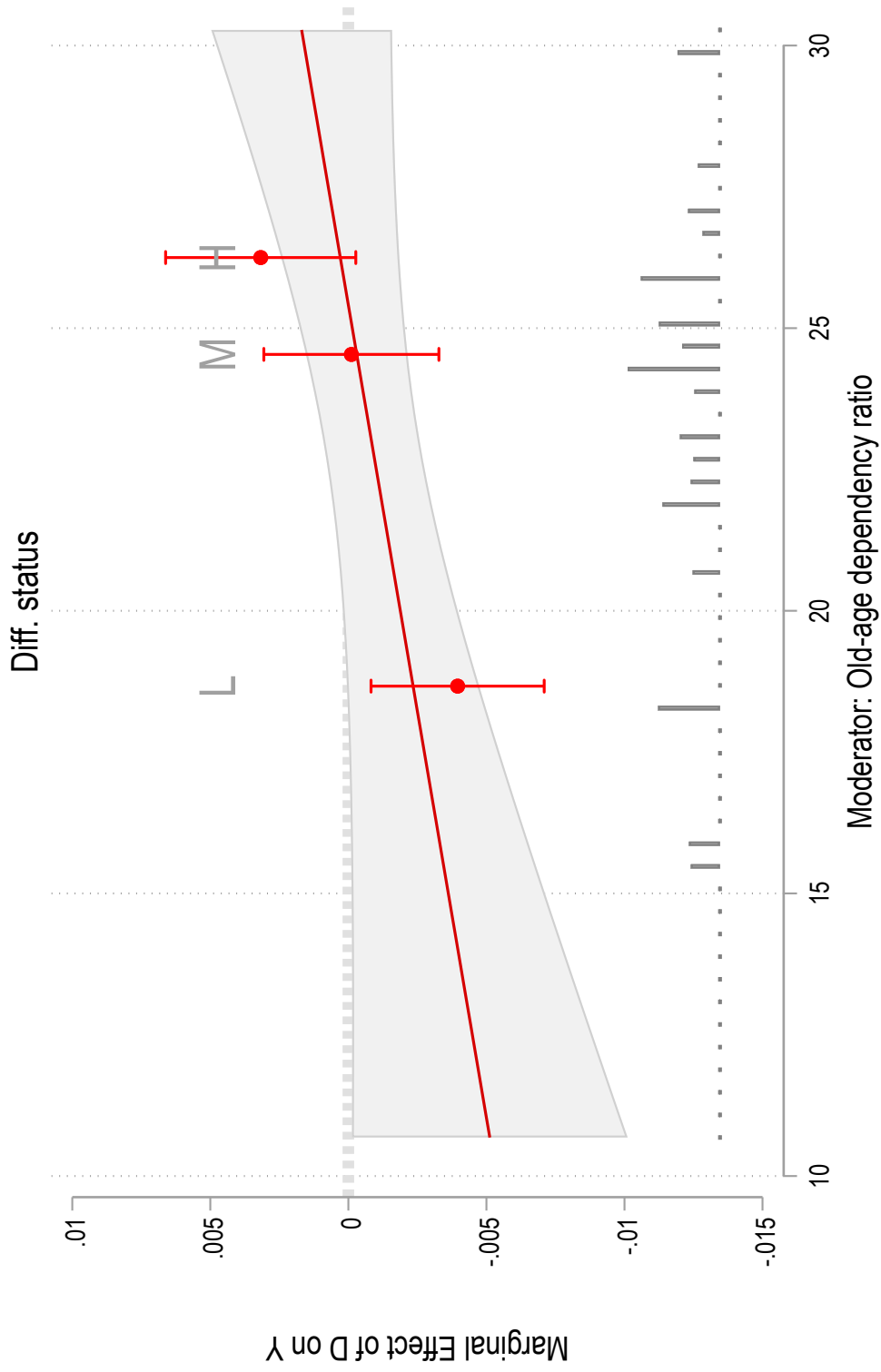
Figure 9: Effect of age on the difference between the status of the old and the young (OLS) Effect of age on the difference between the status of the old and the young. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

| | (1) | (2) | (3) | (4) |
	Views about the young	Views about the young	Views about the young	Views about the young
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	-0.123***	-0.126***	0.0146	0.0437
	(0.0152)	(0.0152)	(0.0838)	(0.0833)
45-64yo	-0.0365**	-0.0419***	-0.0255	0.0199
	(0.0152)	(0.0152)	(0.0850)	(0.0846)
65yo+	0.0373**	0.0245	-0.156	-0.0662
	(0.0165)	(0.0167)	(0.0954)	(0.0944)
25-44yo × Dep. ratio			-0.00623*	-0.00771**
			(0.00357)	(0.00357)
45-64yo × Dep. ratio			-0.00130	-0.00362
			(0.00361)	(0.00361)
65yo+ × Dep. ratio			0.00720*	0.00234
			(0.00402)	(0.00400)
Observations	38285	38285	38285	38285
R-squared	0.0949	0.0975	0.0125	0.0358
Controls		X		X
Country FE	X	X		X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 14: Effect of age on an index measuring general views about the young (OLS). The variables included in the index include: "most people view those in their 20s as having high moral standards", "most people view those in their 20s with respect", "most people view those in their 20s as competent" and "most people view those in their 20s as friendly." Higher values indicate more positive about the young.

	(1)	(2)	(3)	(4)
	Views about the young	Views about the young	Views about the young	Views about the young
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.123***	-0.126***	0.041	0.034
	(0.015)	(0.015)	(0.069)	(0.069)
45-64yo	-0.037**	-0.042***	0.052	0.037
	(0.015)	(0.015)	(0.072)	(0.072)
65yo+	0.037**	0.024	0.064	0.036
	(0.016)	(0.016)	(0.082)	(0.082)
Dep. ratio			-0.010	-0.002
			(0.012)	(0.011)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			-0.007**	-0.007**
			(0.003)	(0.003)
45-64yo × Dep. ratio			-0.004	-0.004
			(0.003)	(0.003)
65yo+ × Dep. ratio			-0.001	-0.001
			(0.004)	(0.004)
Constant	0.046	0.046	0.280	0.085
	(0.052)	(0.048)	(0.281)	(0.259)
sqrt(psi_S)	0.258***	0.230***	0.251***	0.228***
	(0.036)	(0.032)	(0.035)	(0.032)
sqrt(psi_I)	0.832***	0.831***	0.832***	0.831***
	(0.003)	(0.003)	(0.003)	(0.003)
Controls		X		X

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 15: Effect of age on an index measuring general views about the young (MLM). The variables included in the index include: "most people view those in their 20s as having high moral standards", "most people view those in their 20s with respect", "most people view those in their 20s as competent" and "most people view those in their 20s as friendly." Higher values indicate more positive about the young.
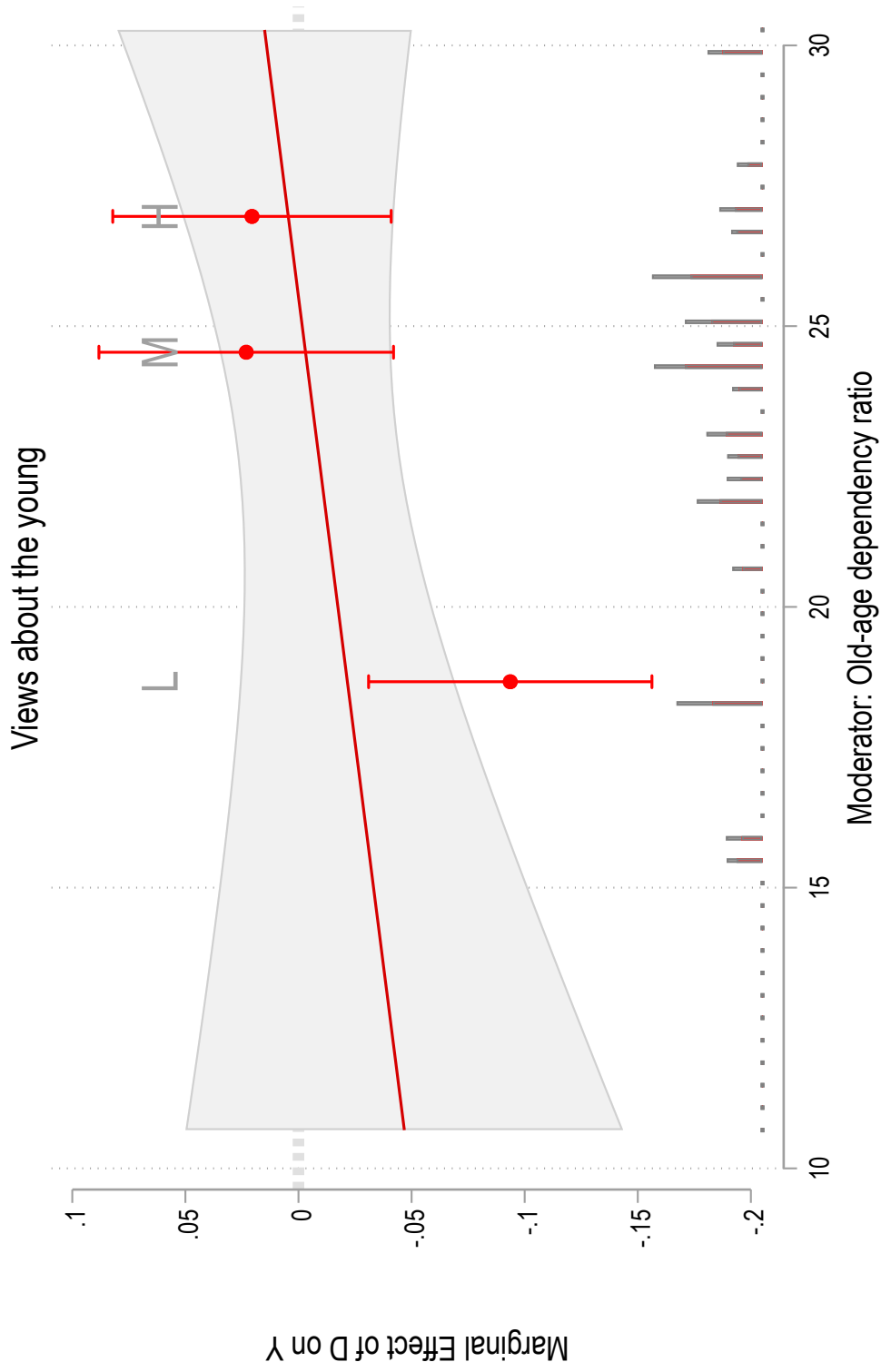
Figure 10: Effect of age on an index measuring views about the young. The variables included in the index include: "most people view those in their 20s as having high moral standards", "most people view those in their 20s with respect", "most people view those in their 20s as competent" and "most people view those in their 20s as friendly." Higher values indicate more positive about the young. Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.

Figure 11: Effect of age on an index measuring views about the young. The variables included in the index include: "most people view those in their 20s as having high moral standards", "most people view those in their 20s with respect", "most people view those in their 20s as competent" and "most people view those in their 20s as friendly." Higher values indicate more positive about the young. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1) Views about the old	(2) Views about the old	(3) Views about the old	(4) Views about the old
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	0.00548	0.00327	0.0123	0.0201
	(0.0147)	(0.0147)	(0.0851)	(0.0852)
45-64yo	0.0641***	0.0593***	0.105	0.131
	(0.0147)	(0.0147)	(0.0864)	(0.0867)
65yo+	0.0858***	0.0722***	0.112	0.158
	(0.0159)	(0.0162)	(0.0962)	(0.0965)
25-44yo × Dep. ratio			-0.000192	-0.000829
			(0.00360)	(0.00361)
45-64yo × Dep. ratio			-0.00190	-0.00351
			(0.00365)	(0.00366)
65yo+ × Dep. ratio			-0.000933	-0.00395
			(0.00404)	(0.00405)
Observations	38285	38285	38285	38285
R-squared	0.0425	0.0455	0.00308	0.00810
Controls		X		X
Country FE	X	X		

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* p < 0.10, ** p < 0.05, *** p < 0.01$

Table 16: Effect of age on an index measuring general views about the elderly (OLS). The variables included in the index include: "most people view those over 70 as having high moral standards", "most people view those over 70 with respect", "most people view those over 70 as competent" and "most people view those over 70 as friendly." Higher values indicate more positive about the elderly.

| | (1) | (2) | (3) | (4) |
	Views about the old	Views about the old	Views about the old	Views about the old
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	0.005	0.003	-0.044	-0.035
	(0.014)	(0.014)	(0.067)	(0.067)
45-64yo	0.064***	0.059***	0.050	0.064
	(0.014)	(0.015)	(0.070)	(0.070)
65yo+	0.086***	0.072***	0.051	0.070
	(0.016)	(0.016)	(0.080)	(0.080)
Dep. ratio			-0.007	-0.003
			(0.008)	(0.008)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			0.002	0.002
			(0.003)	(0.003)
45-64yo × Dep. ratio			0.001	-0.000
			(0.003)	(0.003)
65yo+ × Dep. ratio			0.002	0.000
			(0.003)	(0.003)
Constant	-0.025	0.032	0.141	0.110
	(0.035)	(0.037)	(0.192)	(0.195)
sqrt(psi_S)	0.169***	0.168***	0.167***	0.168***
	(0.024)	(0.024)	(0.024)	(0.024)
sqrt(psi_I)	0.808***	0.807***	0.808***	0.807***
	(0.003)	(0.003)	(0.003)	(0.003)
Controls		X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 17: Effect of age on an index measuring general views about the elderly (MLM). The variables included in the index include: "most people view those over 70 as having high moral standards", "most people view those over 70 with respect", "most people view those over 70 as competent" and "most people view those over 70 as friendly." Higher values indicate more positive about the elderly.
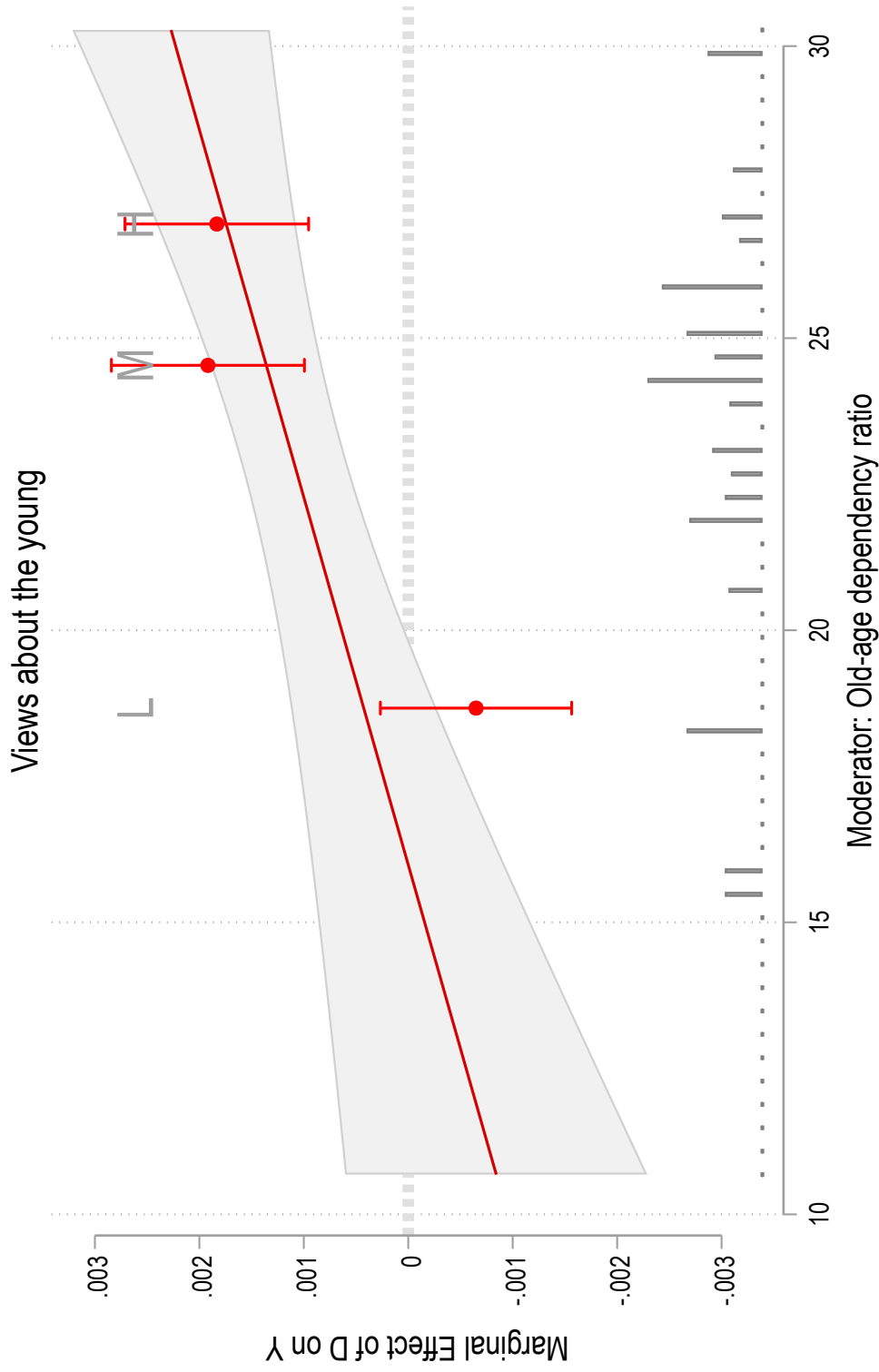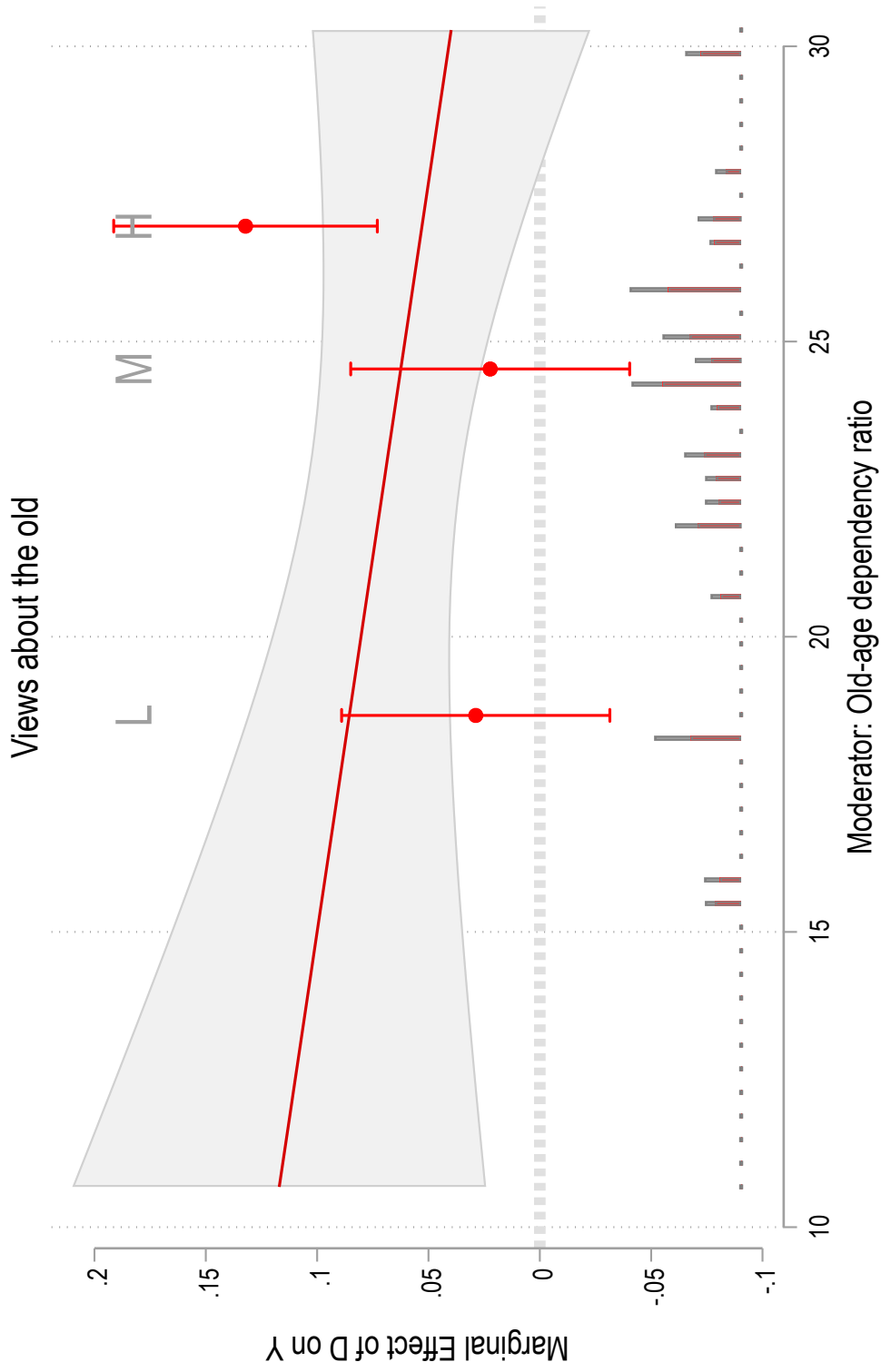
Figure 12: Effect of age on an index measuring views about the elderly. The variables included in the index include: "most people view those over 70 as having high moral standards", "most people view those over 70 with respect", "most people view those over 70 as competent" and "most people view those over 70 as friendly." Higher values indicate more positive about the elderly. Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
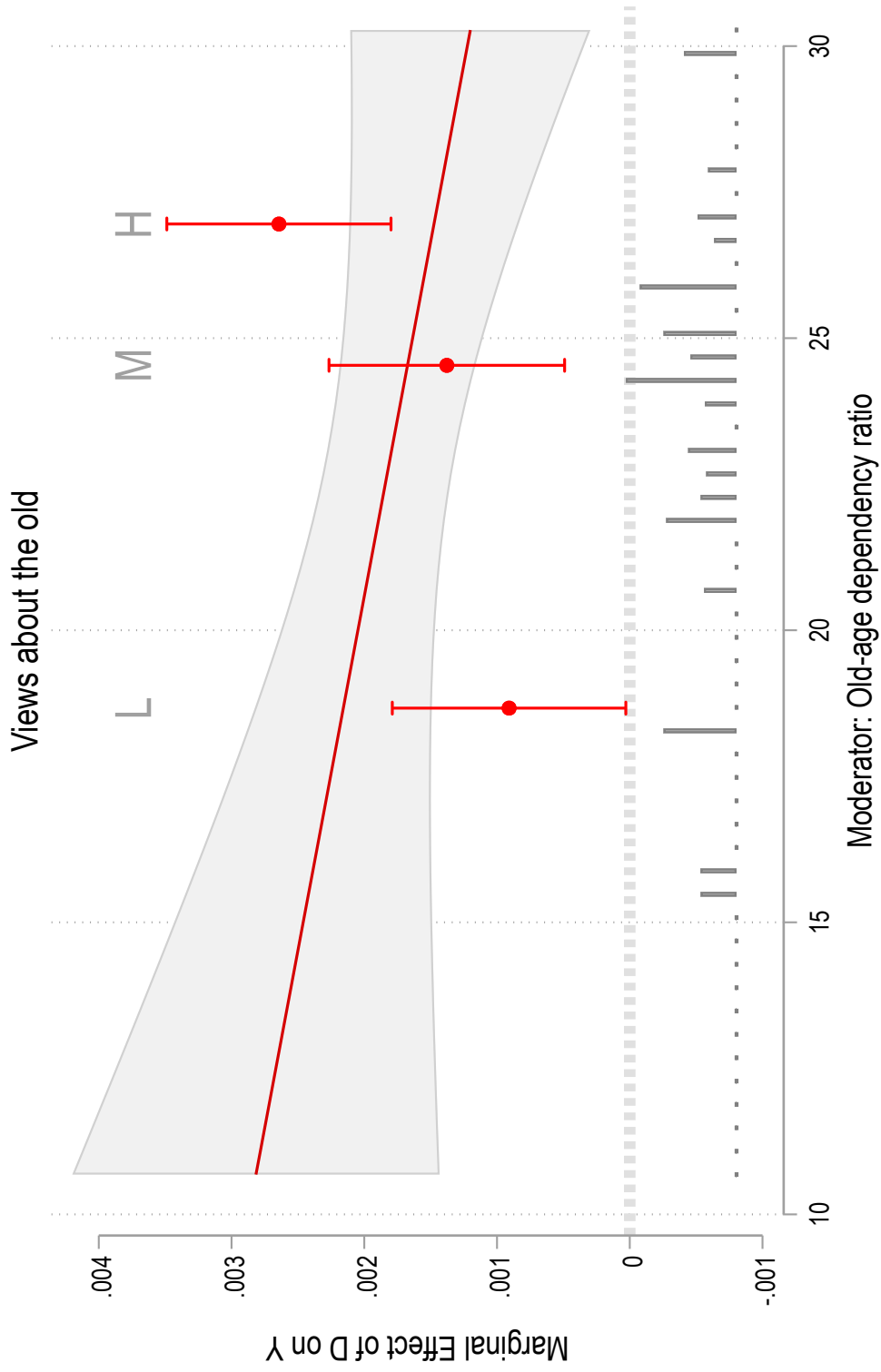
Figure 13: Effect of age on an index measuring views about the elderly. The variables included in the index include: "most people view those over 70 as having high moral standards", "most people view those over 70 with respect", "most people view those over 70 as competent" and "most people view those over 70 as friendly." Higher values indicate more positive about the elderly. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1)	(2)	(3)	(4)
	view on the old vs. young	view on the old vs. young	view on the old vs. young	view on the old vs. young
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	0.128***	0.130***	-0.00226	-0.0235
	(0.0157)	(0.0157)	(0.0769)	(0.0765)
45-64yo	0.101***	0.101***	0.130*	0.111
	(0.0157)	(0.0157)	(0.0787)	(0.0784)
65yo+	0.0484***	0.0477***	0.268***	0.224**
	(0.0170)	(0.0172)	(0.0925)	(0.0921)
25-44yo × Dep. ratio			0.00604*	0.00689**
			(0.00330)	(0.00329)
45-64yo × Dep. ratio			-0.000599	0.000112
			(0.00336)	(0.00335)
65yo+ × Dep. ratio			-0.00813**	-0.00628
			(0.00390)	(0.00388)
Observations	38285	38285	38285	38285
R-squared	0.0850	0.0890	0.00565	0.0229
Controls		X		X
Country FE	X	X		X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 18: Difference between views on the young and the old (OLS)

| | (1) | (2) | (3) | (4) |
	view on the old vs. young	view on the old vs. young	view on the old vs. young	view on the old vs. young
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	0.129***	0.130***	-0.085	-0.069
	(0.015)	(0.015)	(0.071)	(0.071)
45-64yo	0.101***	0.101***	-0.003	0.027
	(0.015)	(0.015)	(0.074)	(0.074)
65yo+	0.049***	0.048***	-0.013	0.032
	(0.017)	(0.017)	(0.085)	(0.085)
Dep. ratio			0.003	-0.002
			(0.013)	(0.012)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			0.009***	0.009***
			(0.003)	(0.003)
45-64yo × Dep. ratio			0.005	0.003
			(0.003)	(0.003)
65yo+ × Dep. ratio			0.003	0.001
			(0.004)	(0.004)
Constant	-0.071	-0.013	-0.139	0.026
	(0.054)	(0.054)	(0.298)	(0.293)
sqrt(psi_S)	0.268***	0.260***	0.266***	0.260***
	(0.038)	(0.036)	(0.037)	(0.036)
sqrt(psi_I)	0.857***	0.855***	0.856***	0.855***
	(0.003)	(0.003)	(0.003)	(0.003)
Controls		X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 19: Difference between views on the old and the young (MLM)
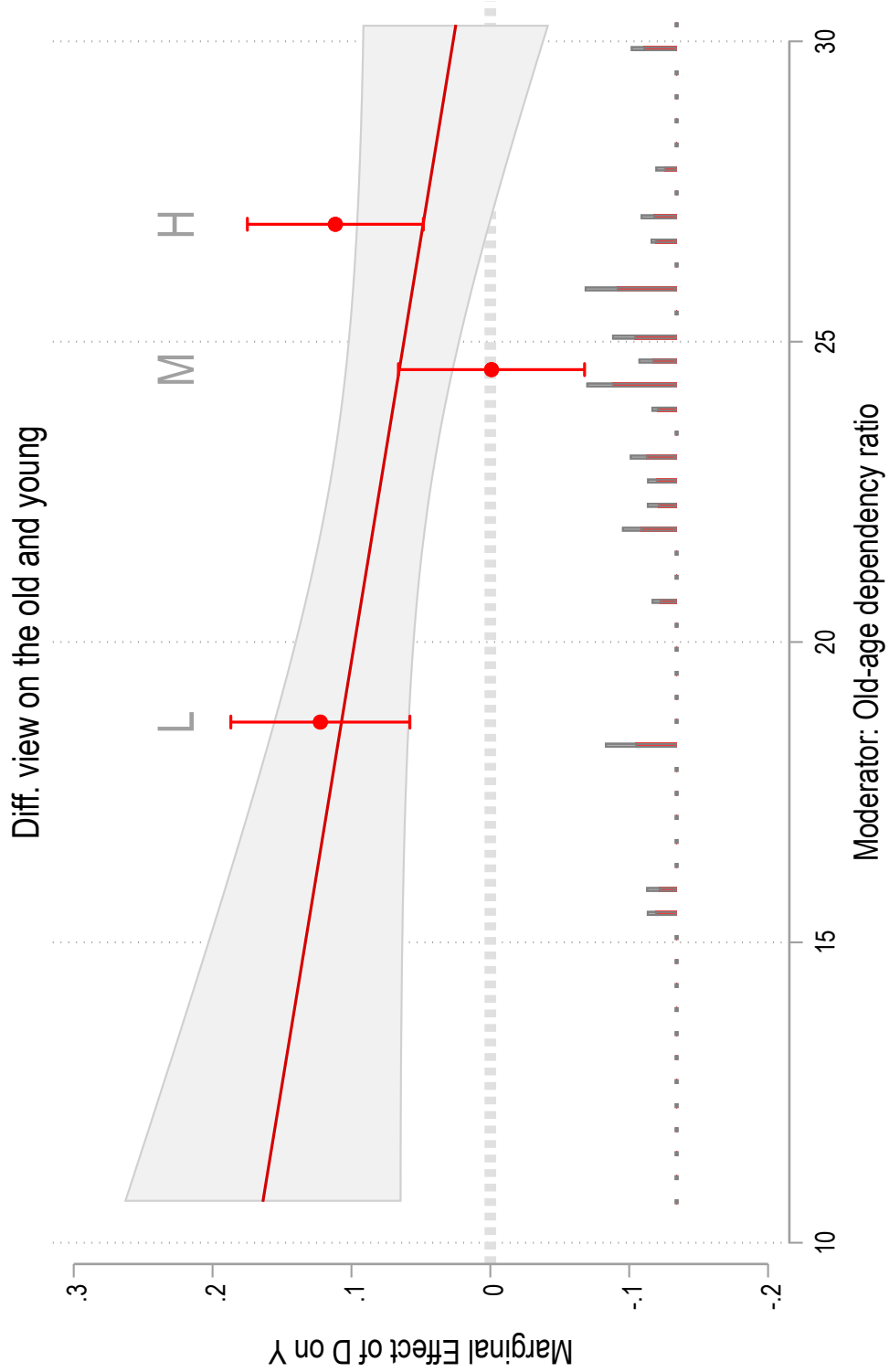
Figure 14: Effect of age on difference between views on the old and young Dependent variable is views on the old minus views on the young. Higher values indicate higher perception of the status of the elderly as opposed with of the young. Explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.

Figure 15: Effect of age on difference between views on the old and young Dependent variable is views on the old minus views on the young. Higher values indicate higher perception of the status of the elderly as opposed with of the young. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1) Health care	(2) Health care	(3) Health care	(4) Health care
15-24yo	0 (.)	0 (.)	0 (.)	0 (.)
25-44yo	0.0336 (0.0442)	0.0270 (0.0442)	-0.182 (0.226)	-0.277 (0.225)
45-64yo	0.115*** (0.0444)	0.110** (0.0446)	0.457* (0.234)	0.183 (0.233)
65yo+	0.327*** (0.0477)	0.317*** (0.0484)	0.797*** (0.264)	0.382 (0.264)
25-44yo × Dep. ratio			0.00878 (0.00969)	0.0127 (0.00964)
45-64yo × Dep. ratio			-0.0139 (0.00996)	-0.00212 (0.00993)
65yo+ × Dep. ratio			-0.0200* (0.0111)	-0.00167 (0.0111)
Observations	39884	39884	39884	39884
R-squared	0.107	0.108	0.0246	0.0309
Controls		X		X
Country FE	X	X		X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 20: Effect of age on agreement with " People over 70 a burden on health service these days" (OLS) Dependent variable is level of agreement with " People over 70 a burden on health service these days" 0 "No burden" (...) 10 "A great burden"

	(1) Health care	(2) Health care	(3) Health care	(4) Health care
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	0.034	0.027	-0.146	-0.143
	(0.045)	(0.045)	(0.206)	(0.206)
45-64yo	0.115**	0.110**	0.118	0.140
	(0.045)	(0.045)	(0.215)	(0.215)
65yo+	0.327***	0.318***	0.278	0.332
	(0.048)	(0.049)	(0.245)	(0.245)
Dep. ratio			0.076**	0.075**
			(0.037)	(0.038)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			0.008	0.008
			(0.009)	(0.009)
45-64yo × Dep. ratio			-0.000	-0.001
			(0.009)	(0.009)
65yo+ × Dep. ratio			0.002	-0.000
			(0.011)	(0.011)
Constant	5.133***	5.166***	3.377***	3.438***
	(0.169)	(0.175)	(0.863)	(0.888)
sqrt(psi_S)	0.841	0.853	0.771*	0.789*
	(0.117)	(0.119)	(0.108)	(0.110)
sqrt(psi_I)	2.537***	2.536***	2.537***	2.536***
	(0.009)	(0.009)	(0.009)	(0.009)
Controls		X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 21: Effect of age on agreement with " People over 70 a burden on health service these days" (MLM) Dependent variable is level of agreement with "People over 70 a burden on health service these days" 0 "No burden" (...) 10 "A great burden"

59
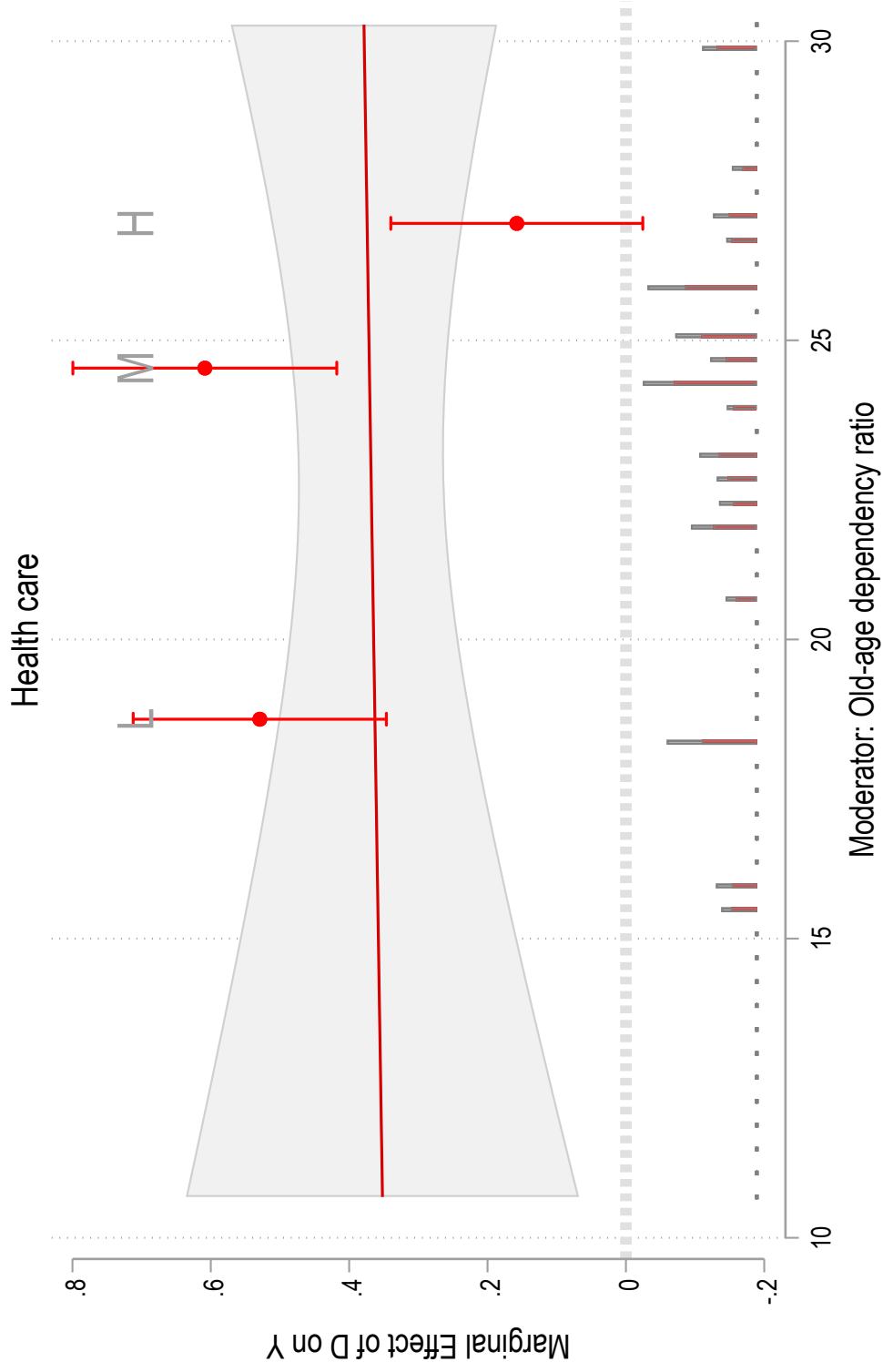
Figure 16: Effect of age on level of agreement with "People over 70 a burden on health service these days" Dependent variable is level of agreement with " People over 70 a burden on health service these days" 0 "No burden" (...) 10 "A great burden". Explanatory variable is age as a continuous variable. Moderator var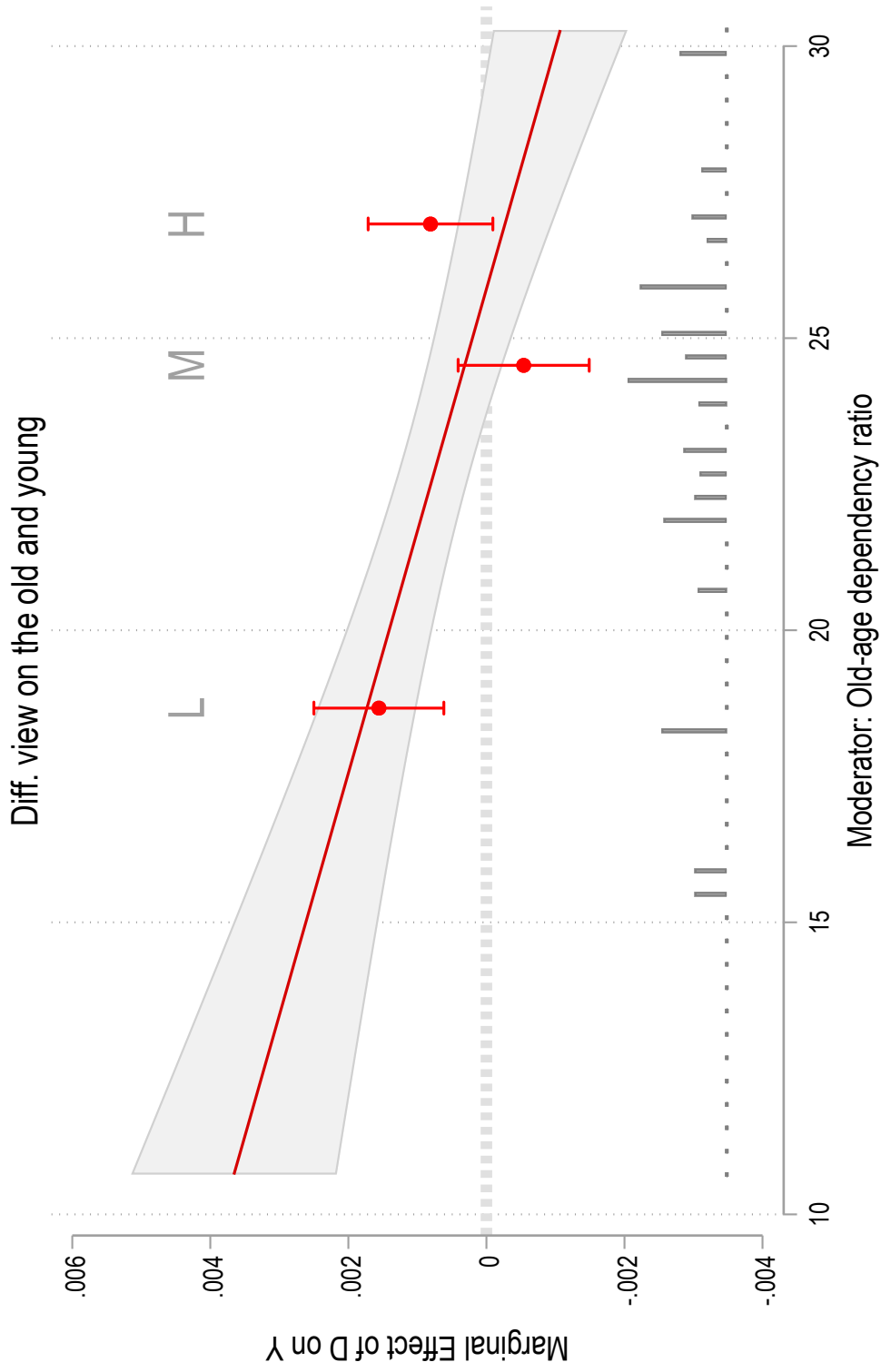iable is dependency ratio of country where respondent lives. Moderator variable is dependency ratio of country where respondent lives.
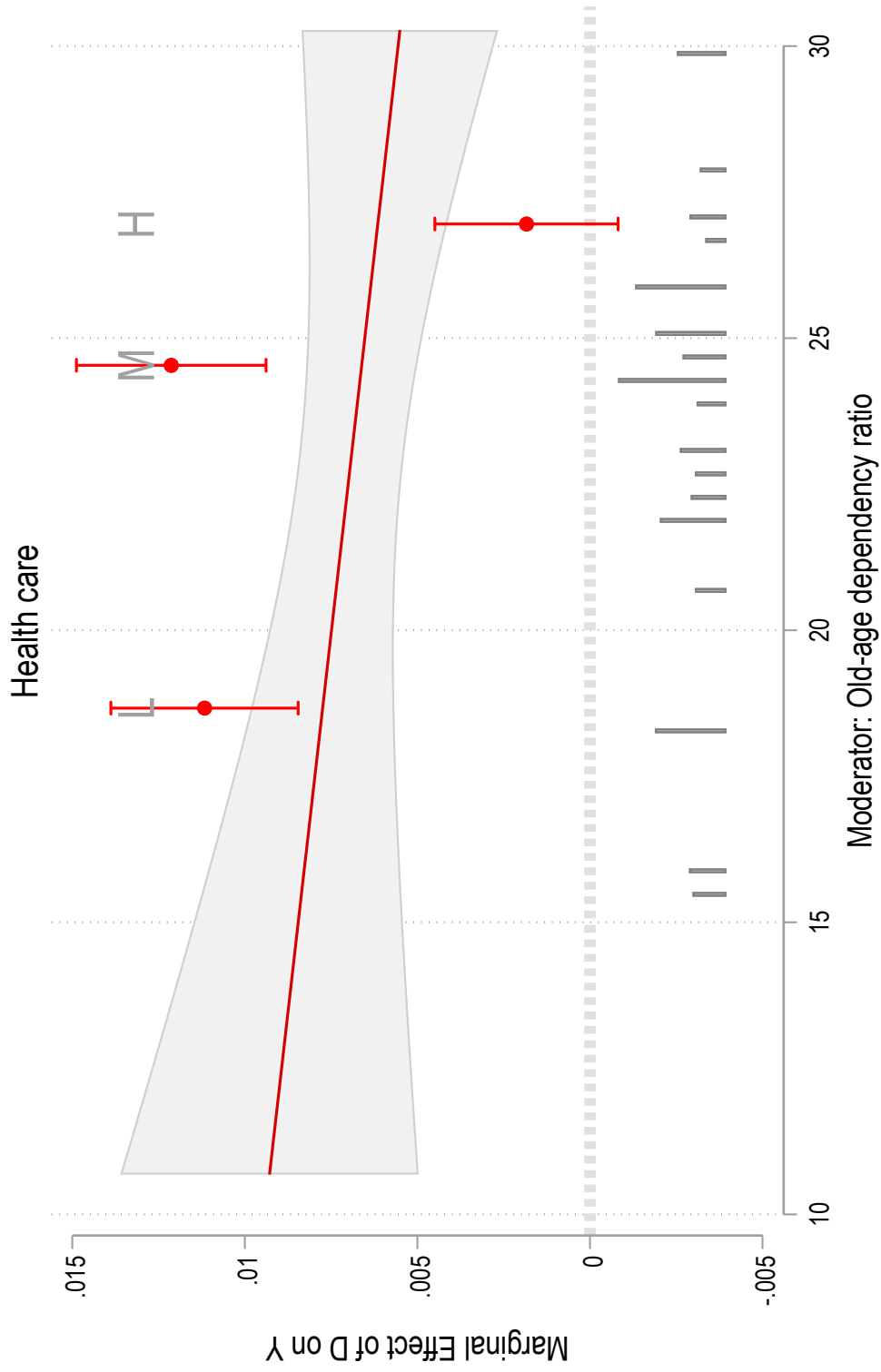
Figure 17: Effect of age on level of agreement with "People over 70 a burden on health service these days" Dependent variable is level of agreement with " People over 70 a burden on health service these days" 0 "No burden" (...) 10 "A great burden". Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1)	(2)	(3)	(4)
	Age-based prejudice	Age-based prejudice	Age-based prejudice	Age-based prejudice
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	-0.464***	-0.468***	-0.0492	-0.0657
	(0.0178)	(0.0178)	(0.0844)	(0.0845)
45-64yo	-0.522***	-0.522***	0.163*	0.110
	(0.0178)	(0.0179)	(0.0870)	(0.0876)
65yo+	-0.450***	-0.449***	0.236**	0.137
	(0.0190)	(0.0192)	(0.0976)	(0.0985)
25-44yo × Dep. ratio			-0.0187***	-0.0179***
			(0.00364)	(0.00364)
45-64yo × Dep. ratio			-0.0302***	-0.0277***
			(0.00372)	(0.00374)
65yo+ × Dep. ratio			-0.0304***	-0.0256***
			(0.00413)	(0.00417)
Observations	40086	40086	40086	40086
R-squared	0.0569	0.0586	0.0357	0.0432
Controls		X		X
Country FE	X	X		X

Standard errors in parentheses

All models include country FE. Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 22: Effect of age on the extent to which respondent experiences prejudice because of their age (OLS) Dependent variable is an index that includes the following variables "How often past year felt lack of respect because of age"; "How often past year treated badly because of age"; "How often past year treated with prejudice because of age". For all items, the values range from (0) never (...) (4) very often.

	(1) Age-based prejudice	(2) Age-based prejudice	(3) Age-based prejudice	(4) Age-based prejudice
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.464***	-0.468***	-0.050	-0.059
	(0.015)	(0.015)	(0.071)	(0.071)
45-64yo	-0.522***	-0.522***	0.119	0.109
	(0.015)	(0.015)	(0.074)	(0.074)
65yo+	-0.450***	-0.449***	0.149*	0.128
	(0.017)	(0.017)	(0.084)	(0.084)
Dep. ratio			0.007	0.007
			(0.007)	(0.007)
15-24yo × Dep. ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep. ratio			-0.019***	-0.018***
			(0.003)	(0.003)
45-64yo × Dep. ratio			-0.028***	-0.028***
			(0.003)	(0.003)
65yo+ × Dep. ratio			-0.027***	-0.026***
			(0.004)	(0.004)
Constant	0.429***	0.389***	0.274*	0.252
	(0.033)	(0.033)	(0.165)	(0.161)
sqrt(psi_S)	0.152***	0.144***	0.140***	0.133***
	(0.022)	(0.021)	(0.020)	(0.019)
sqrt(psi_I)	0.876***	0.875***	0.875***	0.874***
	(0.003)	(0.003)	(0.003)	(0.003)
Controls		X		X

Standard errors in parentheses

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 23: Effect of age on the extent to which respondent experiences prejudice because of their age (MLM) Dependent variable is an index that includes the following variables "How often past year felt lack of respect because of age"; "How often past year treated badly because of age"; "How often past year treated with prejudice because of age". For all items, the values range from (0) never (…) (4) very often.
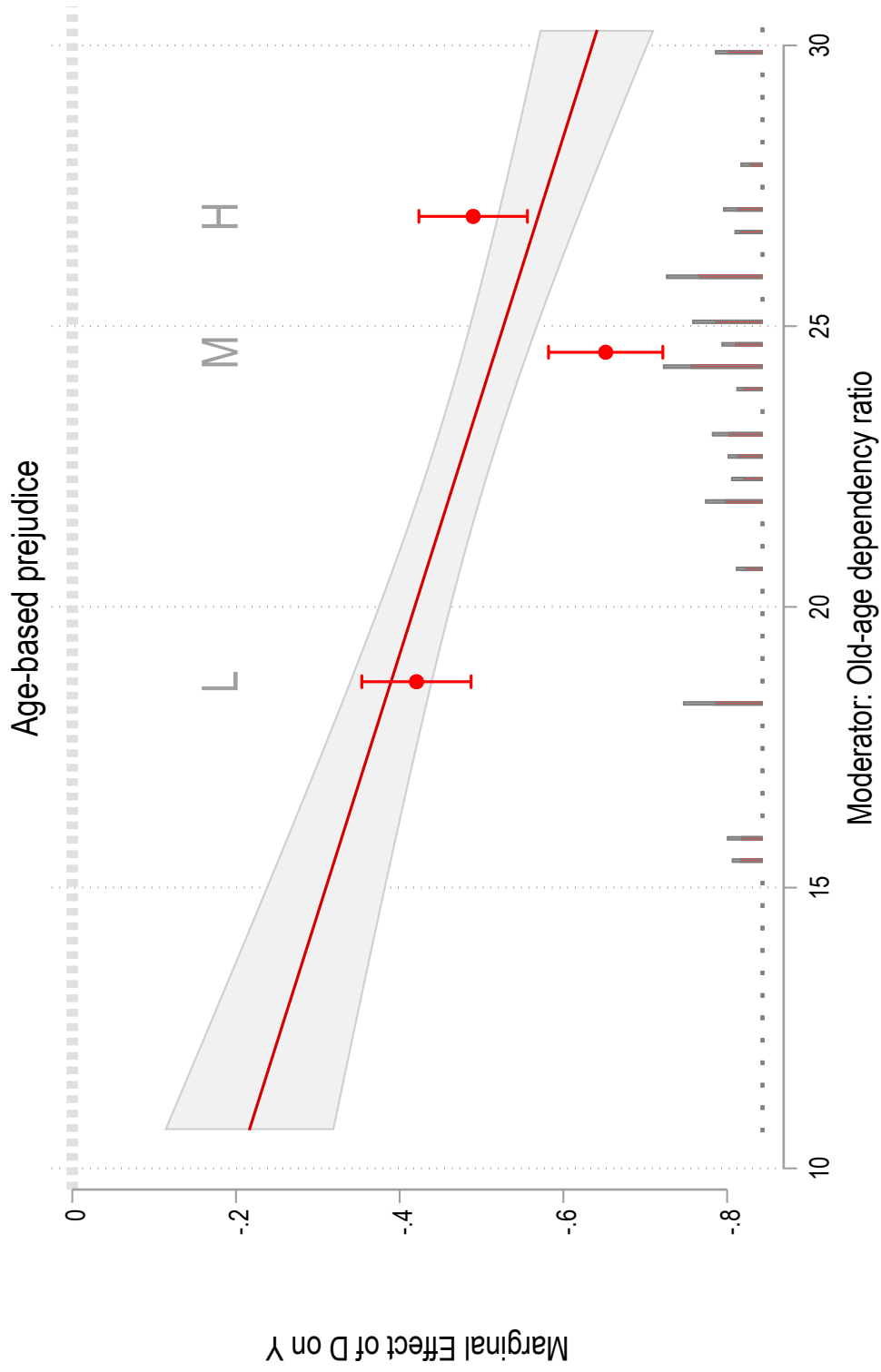
Figure 18: Effect of age on the extent to which respondent experiences prejudice because of their age Dependent variable is an index that includes the following variables "How often past year felt lack of respect because of age"; "How often past year treated badly because of age"; "How often past year treated with prejudice because of age". For all items, the values range from (0) never (…) (4) very often. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
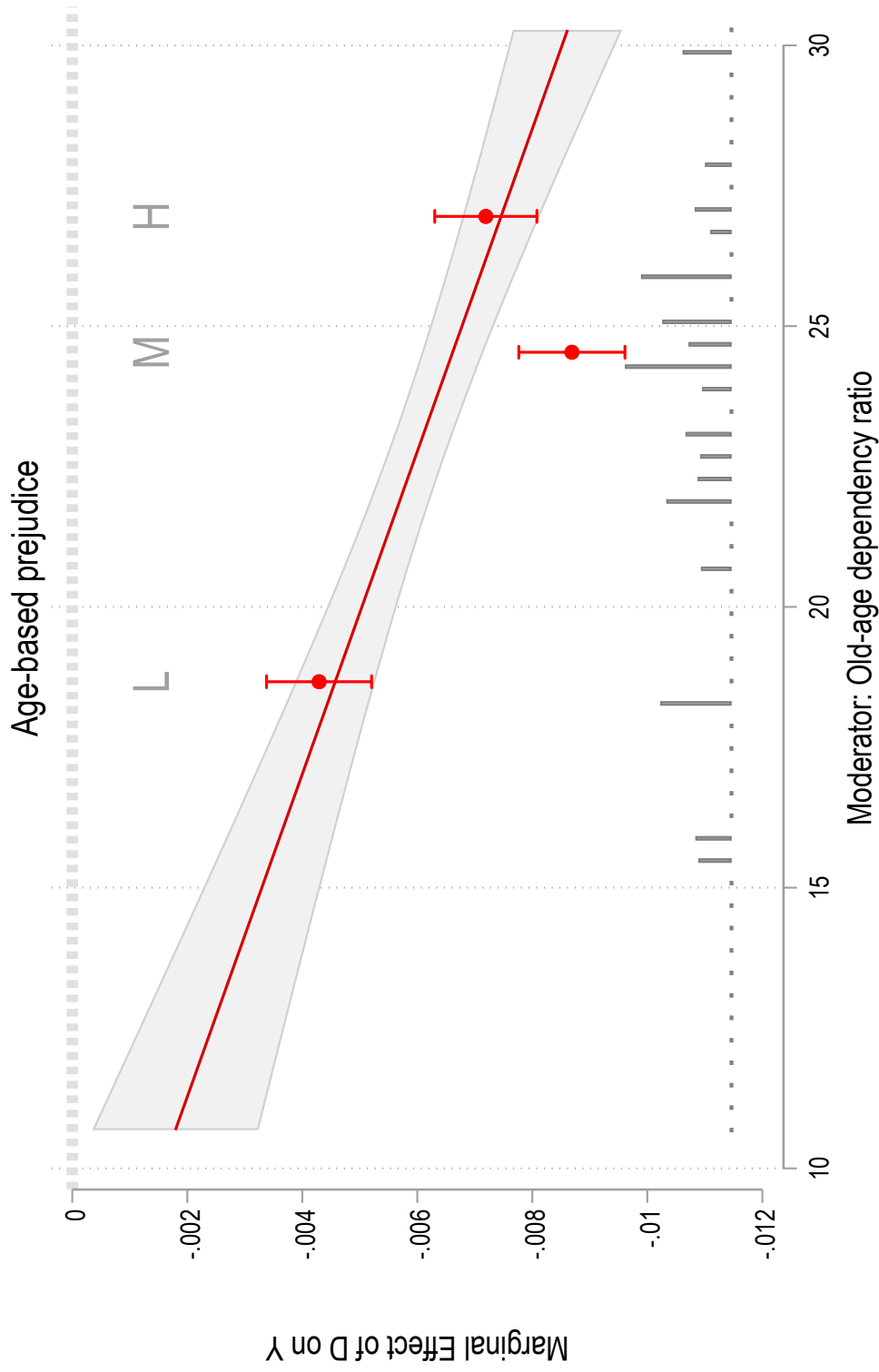
Figure 19: Effect of age on the extent to which respondent experiences prejudice because of their age Dependent variable is an index that includes the following variables "How often past year felt lack of respect because of age"; "How often past year treated badly because of age"; "How often past year treated with prejudice because of age". For all items, the values range from (0) never (…) (4) very often. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1) Fair share	(2) Fair share	(3) Fair share	(4) Fair share
15-24yo	0 (.)	0 (.)	0 (.)	0 (.)
25-44yo	-0.0656*** (0.0180)	-0.0619*** (0.0180)	-0.0134 (0.0774)	-0.0258 (0.0765)
45-64yo	-0.166*** (0.0179)	-0.156*** (0.0179)	-0.195** (0.0805)	-0.0842 (0.0802)
65yo+	-0.270*** (0.0191)	-0.257*** (0.0191)	-0.328*** (0.0935)	-0.0969 (0.0933)
25-44yo × Dep ratio			-0.00265 (0.00339)	-0.00147 (0.00335)
45-64yo × Dep ratio			0.00131 (0.00348)	-0.00256 (0.00346)
65yo+ × Dep ratio			0.00285 (0.00395)	-0.00612 (0.00393)
Observations	18353	18352	18353	18352
R-squared	0.0970	0.102	0.0408	0.0664
Controls		X		X

Standard errors in parentheses

Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 24: Effect of age on agreement with statement "older people get more than their fair share of government" (OLS) Dependent variable is agreement with the statement "older people get more than their fair share of government". (1) Strongly disagree (...) (4) Strongly agree.

	(1) Fair share	(2) Fair share	(3) Fair share	(4) Fair share
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.066***	-0.065***	-0.060	-0.058
	(0.017)	(0.017)	(0.064)	(0.064)
45-64yo	-0.166***	-0.165***	-0.139**	-0.134**
	(0.017)	(0.017)	(0.068)	(0.068)
65yo+	-0.270***	-0.268***	-0.197**	-0.186**
	(0.019)	(0.019)	(0.081)	(0.081)
Dep ratio			-0.016	-0.016
			(0.009)	(0.009)
15-24yo × Dep ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep ratio			-0.000	-0.000
			(0.003)	(0.003)
45-64yo × Dep ratio			-0.001	-0.001
			(0.003)	(0.003)
65yo+ × Dep ratio			-0.003	-0.004
			(0.003)	(0.003)
Constant	1.887***	1.939***	2.239***	2.290***
	(0.056)	(0.058)	(0.219)	(0.219)
sqrt(psi_S)	0.193***	0.193***	0.173***	0.173***
	(0.038)	(0.038)	(0.034)	(0.034)
sqrt(psi_I)	0.676***	0.676***	0.676***	0.676***
	(0.004)	(0.004)	(0.004)	(0.004)
Controls		X		X

Standard errors in parentheses

$* p < 0.10, ** p < 0.05, *** p < 0.01$

Table 25: Effect of age on agreement with statement "older people get more than their fair share of government" (MLM) Dependent variable is agreement with the statement "older people get more than their fair share of government". (1) Strongly disagree (...) (4) Strongly agree.
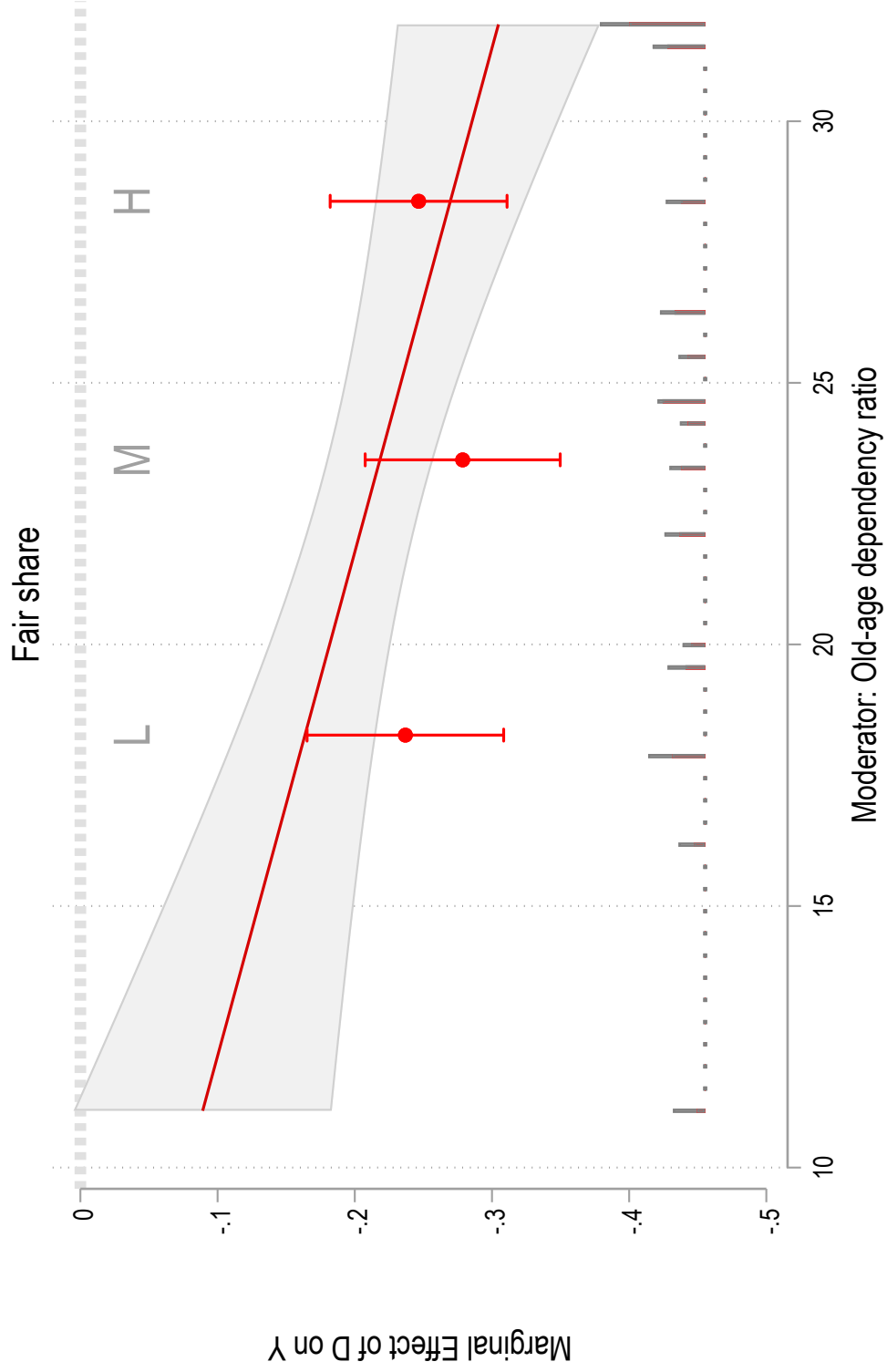
Figure 20: Effect of age on agreement with statement "older people get more than their fair share of government" Dependent variable is agreement with the statement "older people get more than their fair share of government". (1) Strongly disagree (...) (4) Strongly agree. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.

Figure 21: Effect of age on agreement with statement "older people get more than their fair share of government." Dependent variable is agreement with the statement "older people get more than their fair share of government". (1) Strongly disagree (...) (4) Strongly agree. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1)	(2)	(3)	(4)
	Elderly are bruden	Elderly are bruden	Elderly are bruden	Elderly are bruden
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	-0.0400**	-0.0360*	0.00769	0.0170
	(0.0189)	(0.0189)	(0.0814)	(0.0816)
45-64yo	-0.0281	-0.0197	0.0237	0.0380
	(0.0193)	(0.0193)	(0.0866)	(0.0874)
65yo+	0.0973***	0.111***	0.106	0.121
	(0.0222)	(0.0223)	(0.106)	(0.108)
25-44yo × Dep ratio			-0.00216	-0.00262
			(0.00359)	(0.00360)
45-64yo × Dep ratio			-0.00222	-0.00285
			(0.00377)	(0.00380)
65yo+ × Dep ratio			-0.000874	-0.00136
			(0.00451)	(0.00458)
Observations	18372	18371	18372	18371
R-squared	0.0338	0.0366	0.00526	0.00986
Controls		X		X

Standard errors in parentheses

Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10, \ ** \ p < 0.05, \ *** \ p < 0.01$

Table 26: Effect of age on agreement with statement " Older people are a burden on society" (OLS) Dependent variable is agreement with the statement " Older people are a burden on society". (1) Strongly disagree (...) (4) Strongly agree.

	(1)	(2)	(3)	(4)
	Elderly are bruden	Elderly are bruden	Elderly are bruden	Elderly are bruden
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.040**	-0.039**	-0.020	-0.020
	(0.019)	(0.019)	(0.074)	(0.074)
45-64yo	-0.028	-0.027	-0.015	-0.014
	(0.020)	(0.020)	(0.078)	(0.078)
65yo+	0.097***	0.099***	0.089	0.095
	(0.021)	(0.021)	(0.094)	(0.094)
Dep ratio			-0.005	-0.005
			(0.008)	(0.008)
15-24yo × Dep ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep ratio			-0.001	-0.001
			(0.003)	(0.003)
45-64yo × Dep ratio			-0.001	-0.001
			(0.003)	(0.003)
65yo+ × Dep ratio			0.000	0.000
			(0.004)	(0.004)
Constant	1.846***	1.887***	1.967***	2.007***
	(0.046)	(0.049)	(0.195)	(0.196)
sqrt(psi_S)	0.153***	0.154***	0.150***	0.150***
	(0.031)	(0.031)	(0.030)	(0.030)
sqrt(psi_I)	0.781***	0.780***	0.781***	0.780***
	(0.004)	(0.004)	(0.004)	(0.004)
Controls	X	X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 27: Effect of age on agreement with statement " Older people are a burden on society" (MLM) Dependent variable is agreement with the statement "Older people are a burden on society". (1) Strongly disagree (...) (4) Strongly agree.

Figure 22: Effect of age on agreement with statement " Older people are a burden on society" Dependent variable is agreement with the statement "Older people are a burden on society". (1) Strongly disagree (...) (4) Strongly agree. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
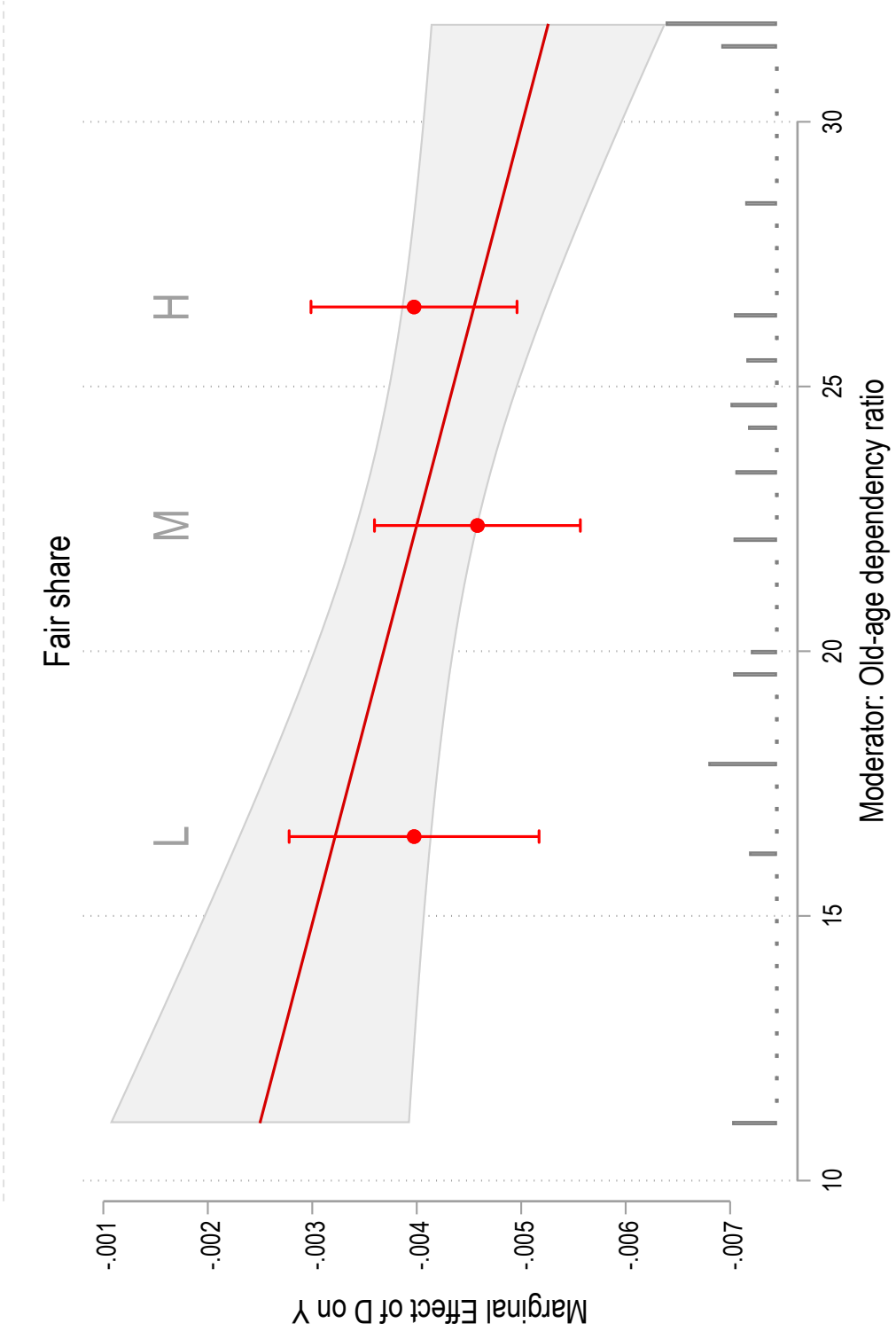
Figure 23: Effect of age on agreement with statement "older people are a burden on society" Dependent variable is agreement with the statement "older people are a burden on society". (1) Strongly disagree (...) (4) Strongly agree. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1) Pol. influence	(2) Pol. influence	(3) Pol. influence	(4) Pol. influence
15-24yo	0 (.)	0 (.)	0 (.)	0 (.)
25-44yo	-0.0522** (0.0210)	-0.0482** (0.0209)	-0.0173 (0.0799)	-0.0267 (0.0795)
45-64yo	-0.116*** (0.0210)	-0.112*** (0.0210)	-0.0481 (0.0847)	-0.0185 (0.0851)
65yo+	-0.218*** (0.0230)	-0.211*** (0.0231)	-0.0943 (0.103)	-0.00198 (0.104)
25-44yo × Dep ratio			-0.00215 (0.00362)	-0.00161 (0.00361)
45-64yo × Dep ratio			-0.00392 (0.00376)	-0.00488 (0.00377)
65yo+ × Dep ratio			-0.00684 (0.00440)	-0.0102** (0.00443)
Observations	17619	17619	17619	17619
R-squared	0.0688	0.0734	0.0258	0.0381
Controls		X		X

Standard errors in parentheses

Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10, \ ** \ p < 0.05, \ *** \ p < 0.01$

Table 28: Effect of age on agreement with statement "old people have too much political influence" (OLS) Dependent variable is agreement with the statement "old people have too much political influence". (1) Strongly disagree (...) (4) Strongly agree.

	(1) Pol. influence	(2) Pol. influence	(3) Pol. influence	(4) Pol. influence
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.052***	-0.050**	-0.015	-0.012
	(0.020)	(0.020)	(0.077)	(0.077)
45-64yo	-0.116***	-0.114***	0.027	0.032
	(0.020)	(0.020)	(0.081)	(0.081)
65yo+	-0.219***	-0.215***	0.010	0.028
	(0.022)	(0.022)	(0.098)	(0.098)
Dep ratio			-0.015	-0.015
			(0.009)	(0.009)
15-24yo × Dep ratio			0.000	0.000
			(.)	(.)
25-44yo × Dep ratio			-0.002	-0.002
			(0.003)	(0.003)
45-64yo × Dep ratio			-0.006*	-0.007*
			(0.004)	(0.004)
65yo+ × Dep ratio			-0.010**	-0.011**
			(0.004)	(0.004)
Constant	2.371***	2.510***	2.721***	2.859***
	(0.058)	(0.060)	(0.218)	(0.219)
sqrt(psi_S)	0.198***	0.198***	0.170***	0.170***
	(0.039)	(0.039)	(0.034)	(0.034)
sqrt(psi_I)	0.794***	0.793***	0.794***	0.793***
	(0.004)	(0.004)	(0.004)	(0.004)
Controls		X		X

Standard errors in parentheses

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 29: Effect of age on agreement with statement "old people have too much political influence" (MLM) Dependent variable is agreement with the statement "old people have too much political influence". (1) Strongly disagree (...) (4) Strongly agree.
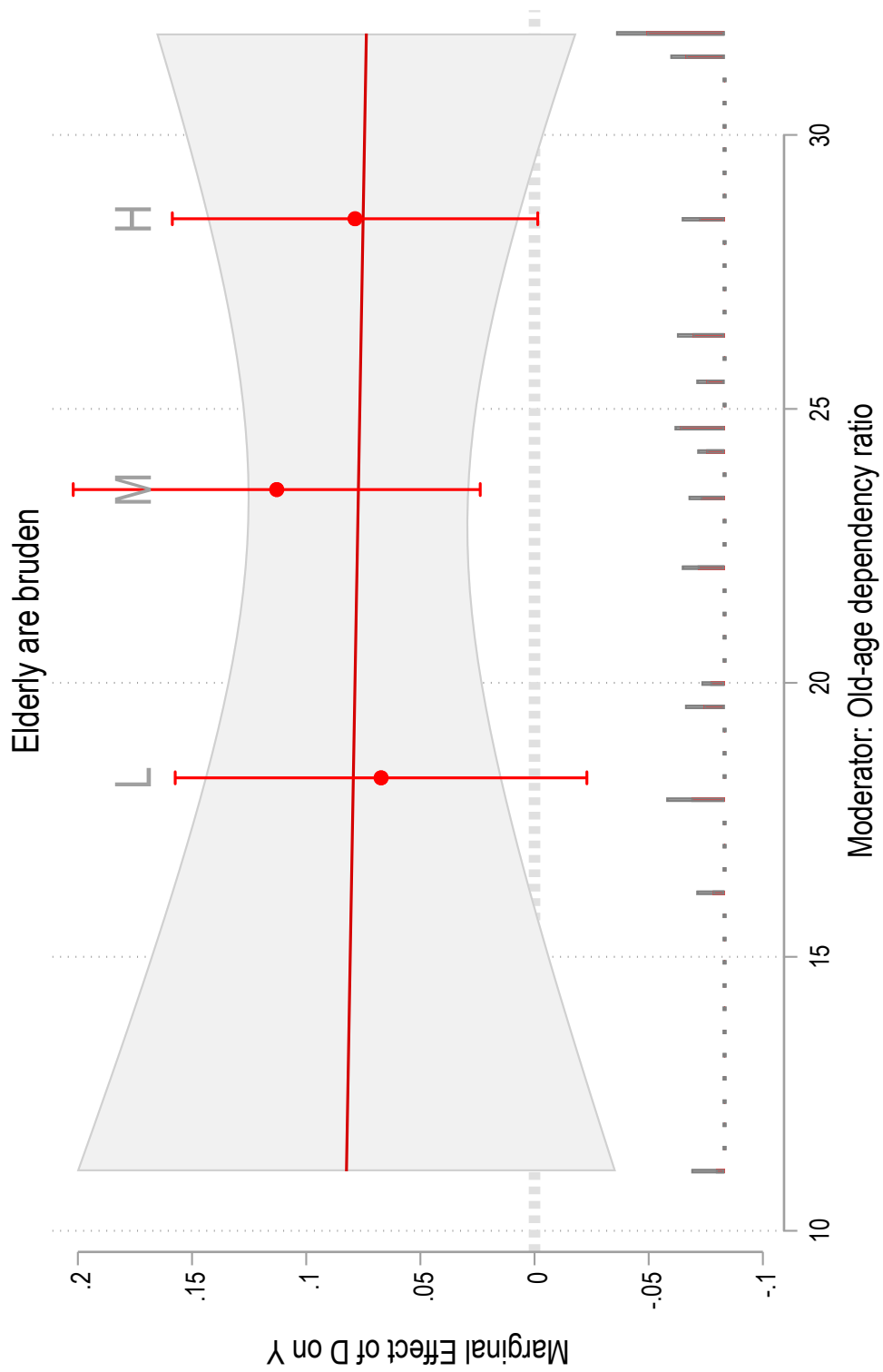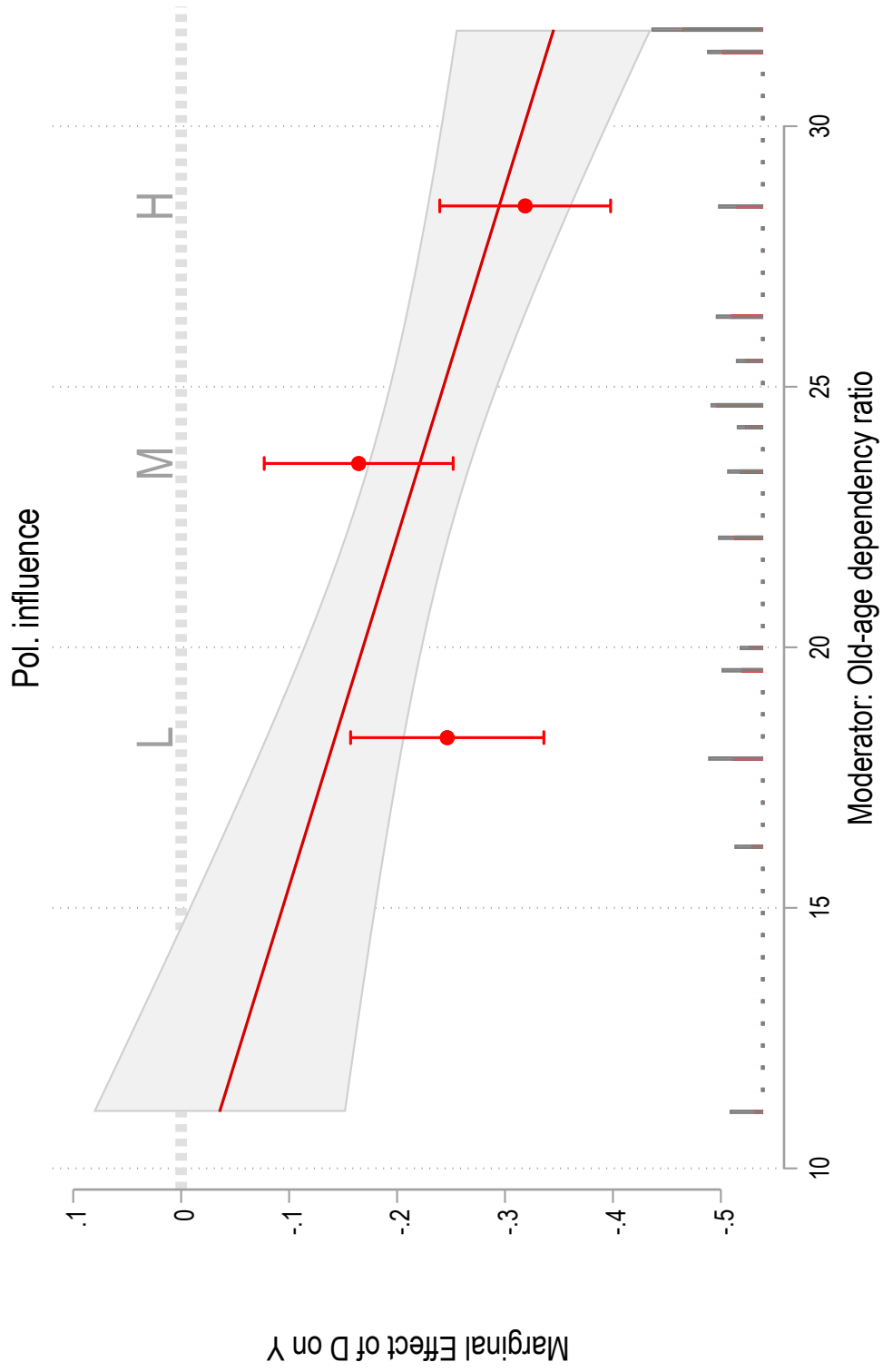
Figure 24: Effect of age on agreement with statement "Older people are a burden on society." Dependent variable is agreement with the statement "Old people have too much political influence". (1) Strongly disagree (...) (4) Strongly agree. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
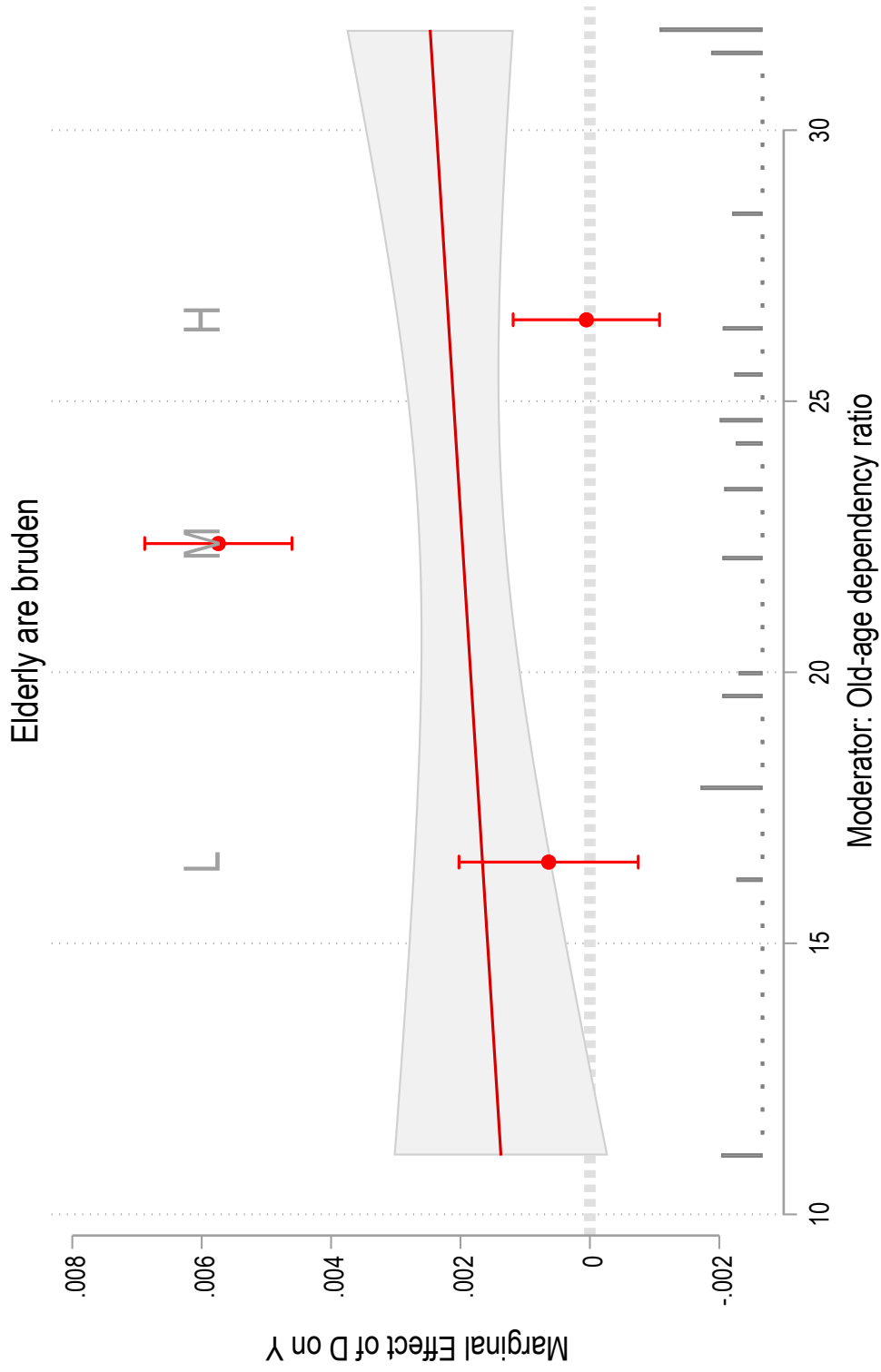
Figure 25: Effect of age on agreement with statement "older people are a burden on society." Dependent variable is agreement with the statement "Old people have too much political influence". (1) Strongly disagree (...) (4) Strongly agree. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

| | (1) | (2) | (3) | (4) |
	Maintain pensions	Maintain pensions	Maintain pensions	Maintain pensions
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	0.122***	0.122***	-0.0535	-0.0545
	(0.0225)	(0.0225)	(0.175)	(0.175)
45-64yo	0.296***	0.296***	0.387**	0.386**
	(0.0228)	(0.0228)	(0.178)	(0.179)
65yo+	0.371***	0.370***	0.730***	0.730***
	(0.0245)	(0.0245)	(0.194)	(0.194)
25-44yo × depratio			0.00715	0.00719
			(0.00743)	(0.00743)
45-64yo × depratio			-0.00395	-0.00394
			(0.00758)	(0.00758)
65yo+ × depratio			-0.0153*	-0.0153*
			(0.00823)	(0.00823)
Observations	14207	14207	14207	14207
R-squared	0.0720	0.0721	0.0364	0.0364
Controls		X		X

Standard errors in parentheses

Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 30: Effect of age on agreement with statement "Raise taxes to maintain pension levels" (OLS) Dependent variable is agreement with the statement "Raise taxes to maintain pension levels". (1) Strongly disagree (...) (4) Strongly agree.

	(1) Maintain pensions	(2) Maintain pensions	(3) Maintain pensions	(4) Maintain pensions
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	0.121***	0.121***	-0.113	-0.114
	(0.022)	(0.022)	(0.182)	(0.182)
45-64yo	0.295***	0.295***	0.289	0.289
	(0.023)	(0.023)	(0.190)	(0.190)
65yo+	0.370***	0.370***	0.660***	0.660***
	(0.025)	(0.025)	(0.212)	(0.212)
depratio			-0.038**	-0.038**
			(0.016)	(0.016)
15-24yo × depratio			0.000	0.000
			(.)	(.)
25-44yo × depratio			0.010	0.010
			(0.008)	(0.008)
45-64yo × depratio			0.000	0.000
			(0.008)	(0.008)
65yo+ × depratio			-0.012	-0.012
			(0.009)	(0.009)
Constant	2.907***	2.903***	3.809***	3.805***
	(0.053)	(0.054)	(0.371)	(0.371)
sqrt(psi_S)	0.193***	0.193***	0.161***	0.161***
	(0.036)	(0.036)	(0.030)	(0.030)
sqrt(psi_I)	0.838***	0.838***	0.837***	0.837***
	(0.005)	(0.005)	(0.005)	(0.005)
Controls		X		X

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 31: Effect of age on agreement with statement "Raise taxes to maintain pension levels" (MLM) Dependent variable is agreement with the statement "Raise taxes to maintain pension levels". (1) Strongly disagree (...) (4) Strongly agree.
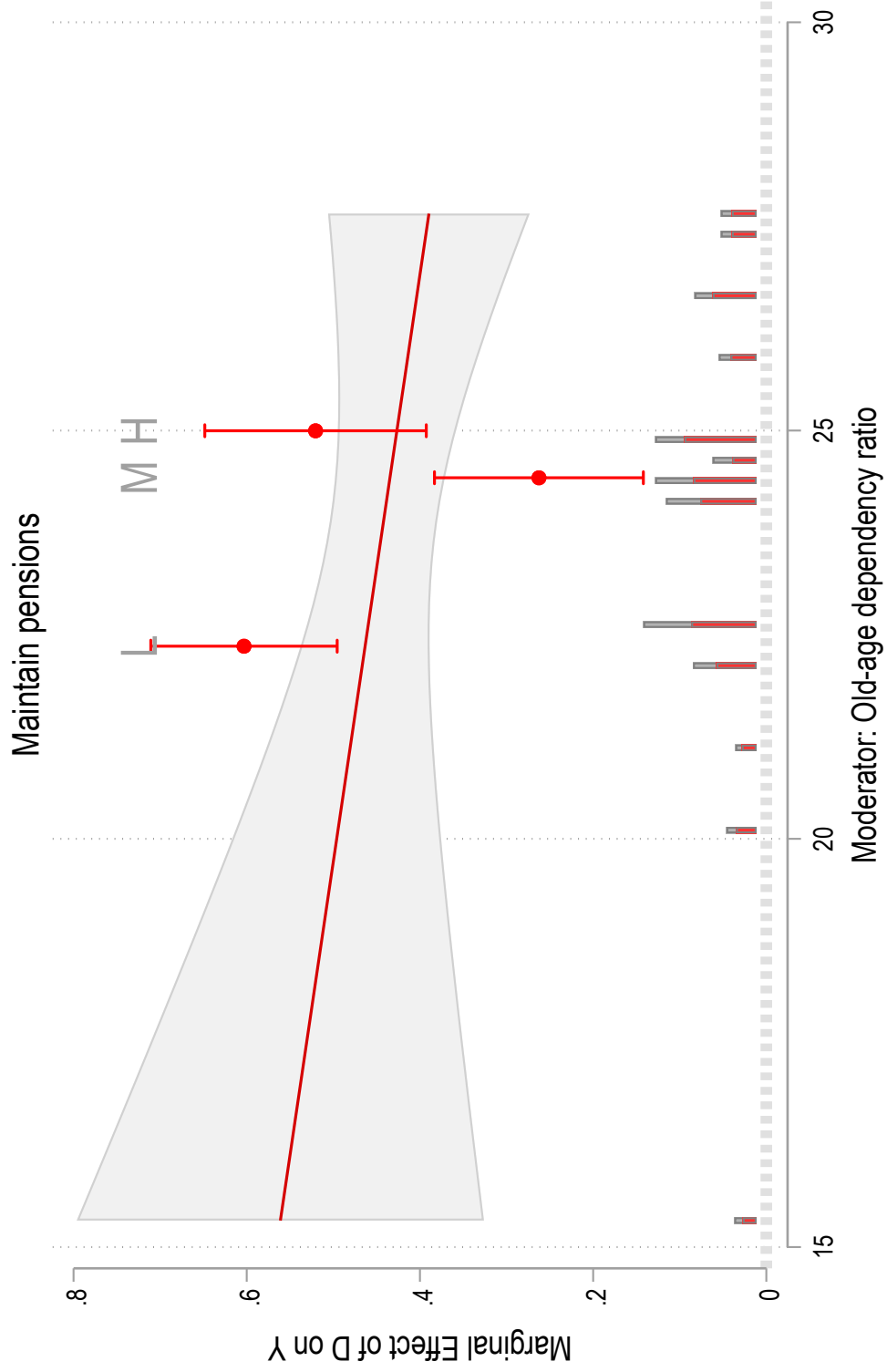
Figure 26: Effect of age on agreement with statement "Raise taxes to maintain pension levels." Dependent variable is agreement with the statement "Raise taxes to maintain pension levels". (1) Strongly disagree (...) (4) Strongly agree. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
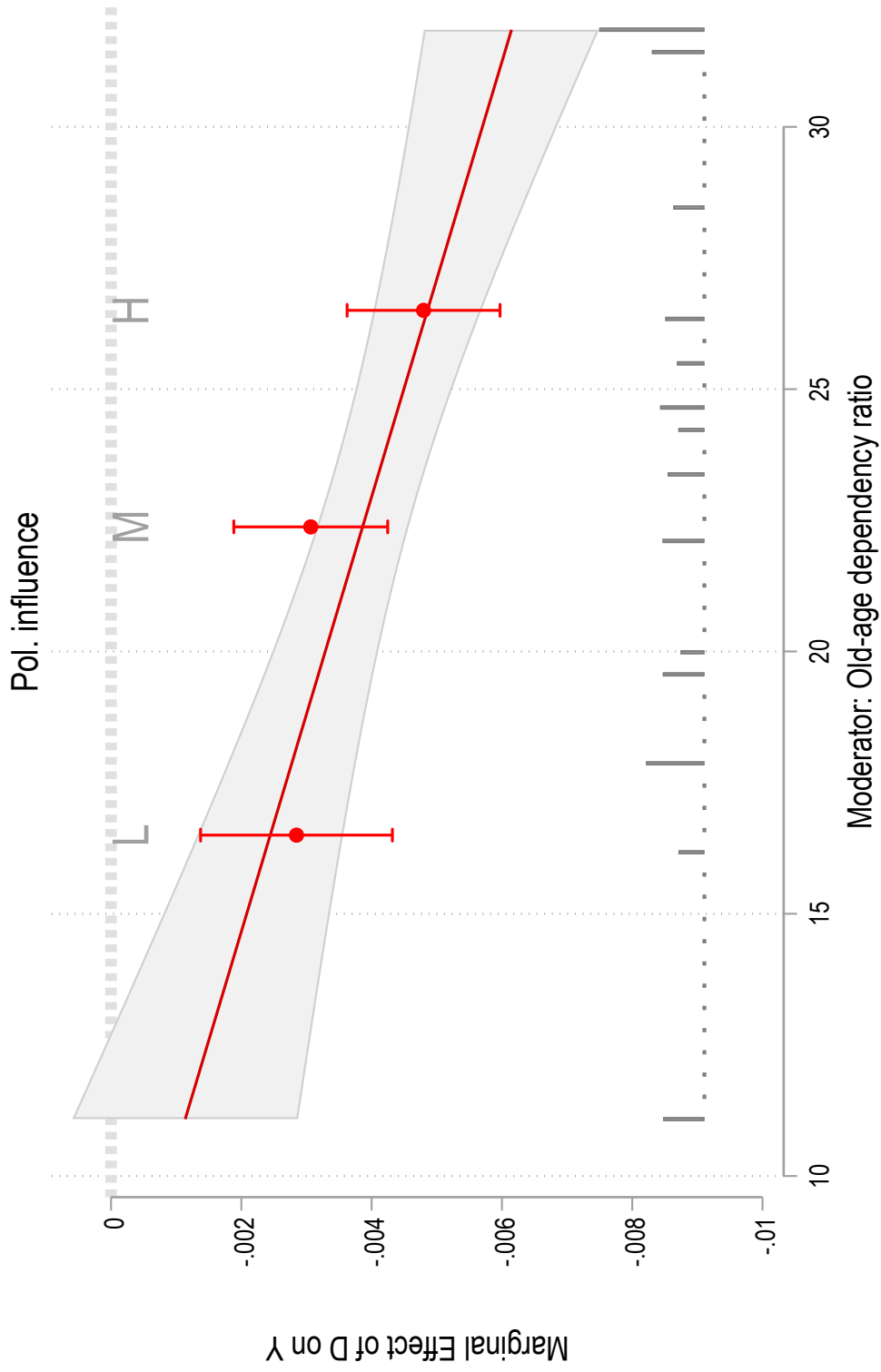
Figure 27: Effect of age on agreement with statement "Raise taxes to maintain pension levels" Dependent variable is agreement with the statement ""Raise taxes to maintain pension levels". (1) Strongly disagree (...) (4) Strongly agree. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1) Lower pensions	(2) Lower pensions	(3) Lower pensions	(4) Lower pensions
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	-0.0900***	-0.0897***	-0.496**	-0.495**
	(0.0246)	(0.0246)	(0.213)	(0.213)
45-64yo	-0.169***	-0.169***	-0.461**	-0.461**
	(0.0254)	(0.0254)	(0.224)	(0.224)
65yo+	-0.198***	-0.198***	-0.604**	-0.605**
	(0.0281)	(0.0281)	(0.258)	(0.258)
25-44yo × depratio			0.0172*	0.0172*
			(0.00896)	(0.00896)
45-64yo × depratio			0.0122	0.0122
			(0.00937)	(0.00937)
65yo+ × depratio			0.0174	0.0174
			(0.0108)	(0.0108)
Observations	13549	13549	13549	13549
R-squared	0.0342	0.0343	0.00538	0.00542
Controls		X		X

Standard errors in parentheses

Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table 32: Effect of age on agreement with statement "Lower pension levels to do not increase taxes" (OLS) Dependent variable is agreement with the statement "Lower pension levels to do not increase taxes". (1) Strongly disagree (...) (4) Strongly agree.

	(1)	(2)	(3)	(4)
	Lower pensions	Lower pensions	Lower pensions	Lower pensions
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	-0.090***	-0.090***	-0.411*	-0.409*
	(0.026)	(0.026)	(0.214)	(0.214)
45-64yo	-0.169***	-0.169***	-0.357	-0.356
	(0.026)	(0.026)	(0.224)	(0.224)
65yo+	-0.198***	-0.198***	-0.543**	-0.544**
	(0.029)	(0.029)	(0.253)	(0.253)
depratio			-0.004	-0.004
			(0.016)	(0.016)
15-24yo × depratio			0.000	0.000
			(.)	(.)
25-44yo × depratio			0.014	0.014
			(0.009)	(0.009)
45-64yo × depratio			0.008	0.008
			(0.009)	(0.009)
65yo+ × depratio			0.015	0.015
			(0.011)	(0.011)
Constant	2.351***	2.359***	2.447***	2.456***
	(0.047)	(0.048)	(0.382)	(0.382)
sqrt(psi_S)	0.161***	0.161***	0.160***	0.160***
	(0.031)	(0.031)	(0.030)	(0.030)
sqrt(psi_I)	0.937***	0.937***	0.937***	0.937***
	(0.006)	(0.006)	(0.006)	(0.006)
Controls		X	X	X

Standard errors in parentheses

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 33: Effect of age on agreement with statement "Lower pension levels to do not increase taxes" (MLM) Dependent variable is agreement with the statement "Lower pension levels to do not increase taxes". (1) Strongly disagree (...) (4) Strongly agree.
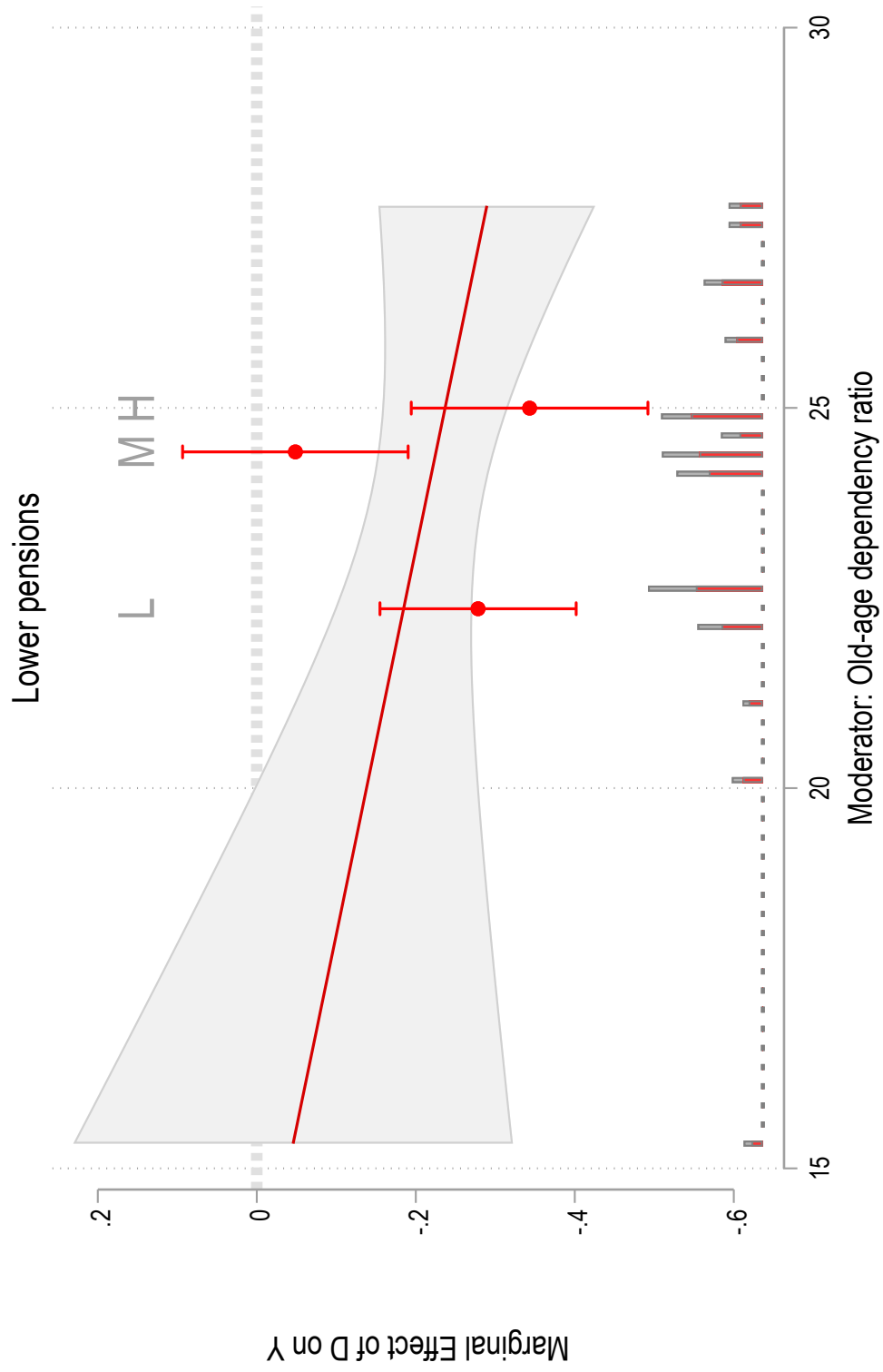
Figure 28: Effect of age on agreement with statement "Lower pension levels to do not increase taxes." Dependent variable is agreement with the statement "Lower pension levels to do not increase taxes". (1) Strongly disagree (...) (4) Strongly agree. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
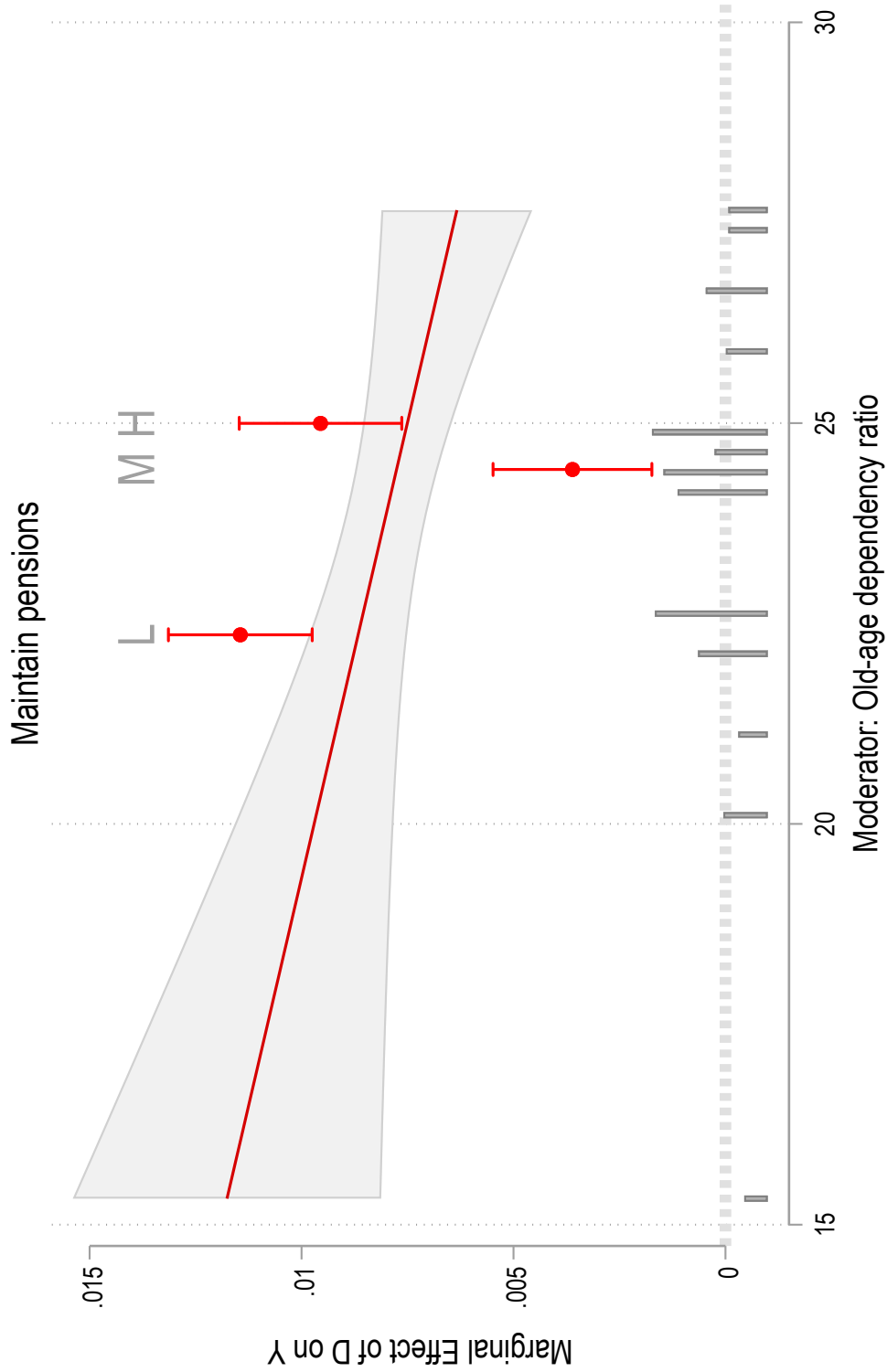
Figure 29: Effect of age on agreement with statement "Lower pension levels to do not increase taxes" Dependent variable is agreement with the statement "Lower pension levels to do not increase taxes". (1) Strongly disagree (...) (4) Strongly agree. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

	(1)	(2)	(3)	(4)
	Increase pensions	Increase pensions	Increase pensions	Increase pensions
15-24yo	0	0	0	0
	(.)	(.)	(.)	(.)
25-44yo	0.162***	0.161***	0.00775	0.00335
	(0.0210)	(0.0210)	(0.180)	(0.180)
45-64yo	0.225***	0.224***	0.0464	0.0454
	(0.0217)	(0.0217)	(0.190)	(0.189)
65yo+	0.294***	0.292***	0.0721	0.0743
	(0.0235)	(0.0235)	(0.207)	(0.207)
25-44yo × depratio			0.00655	0.00671
			(0.00757)	(0.00756)
45-64yo × depratio			0.00704	0.00708
			(0.00794)	(0.00793)
65yo+ × depratio			0.00888	0.00874
			(0.00862)	(0.00861)
Observations	14623	14623	14623	14623
R-squared	0.0590	0.0596	0.0112	0.0118
Controls		X		X

Standard errors in parentheses

Controls include gender, whether respondent is a citizen of the country where she lives, religion and income.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 34: Effect of age on agreement with statement "Reduce government spending in other areas to increase pensions" (OLS) Dependent variable is agreement with the statement "Reduce government spending in other areas to increase pensions". (1) Strongly disagree (...) (4) Strongly agree.

	(1) Increase pensions	(2) Increase pensions	(3) Increase pensions	(4) Increase pensions
15-24yo	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)
25-44yo	0.162***	0.161***	0.045	0.040
	(0.021)	(0.021)	(0.170)	(0.170)
45-64yo	0.225***	0.224***	0.092	0.090
	(0.021)	(0.021)	(0.179)	(0.178)
65yo+	0.293***	0.292***	0.063	0.065
	(0.023)	(0.023)	(0.198)	(0.198)
depratio			0.001	0.001
			(0.017)	(0.017)
15-24yo × depratio			0.000	0.000
			(.)	(.)
25-44yo × depratio			0.005	0.005
			(0.007)	(0.007)
45-64yo × depratio			0.006	0.006
			(0.008)	(0.008)
65yo+ × depratio			0.010	0.010
			(0.008)	(0.008)
Constant	3.047***	3.027***	3.024***	3.005***
	(0.050)	(0.050)	(0.403)	(0.403)
sqrt(psi_S)	0.181***	0.181***	0.180***	0.180***
	(0.034)	(0.034)	(0.033)	(0.033)
sqrt(psi_I)	0.803***	0.803***	0.803***	0.803***
	(0.005)	(0.005)	(0.005)	(0.005)
Controls		X		X

Standard errors in parentheses

$* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$

Table 35: Effect of age on agreement with statement "Reduce government spending in other areas to increase pensions" (MLM) Dependent variable is agreement with the statement "Reduce government spending in other areas to increase pensions". (1) Strongly disagree (...) (4) Strongly agree.
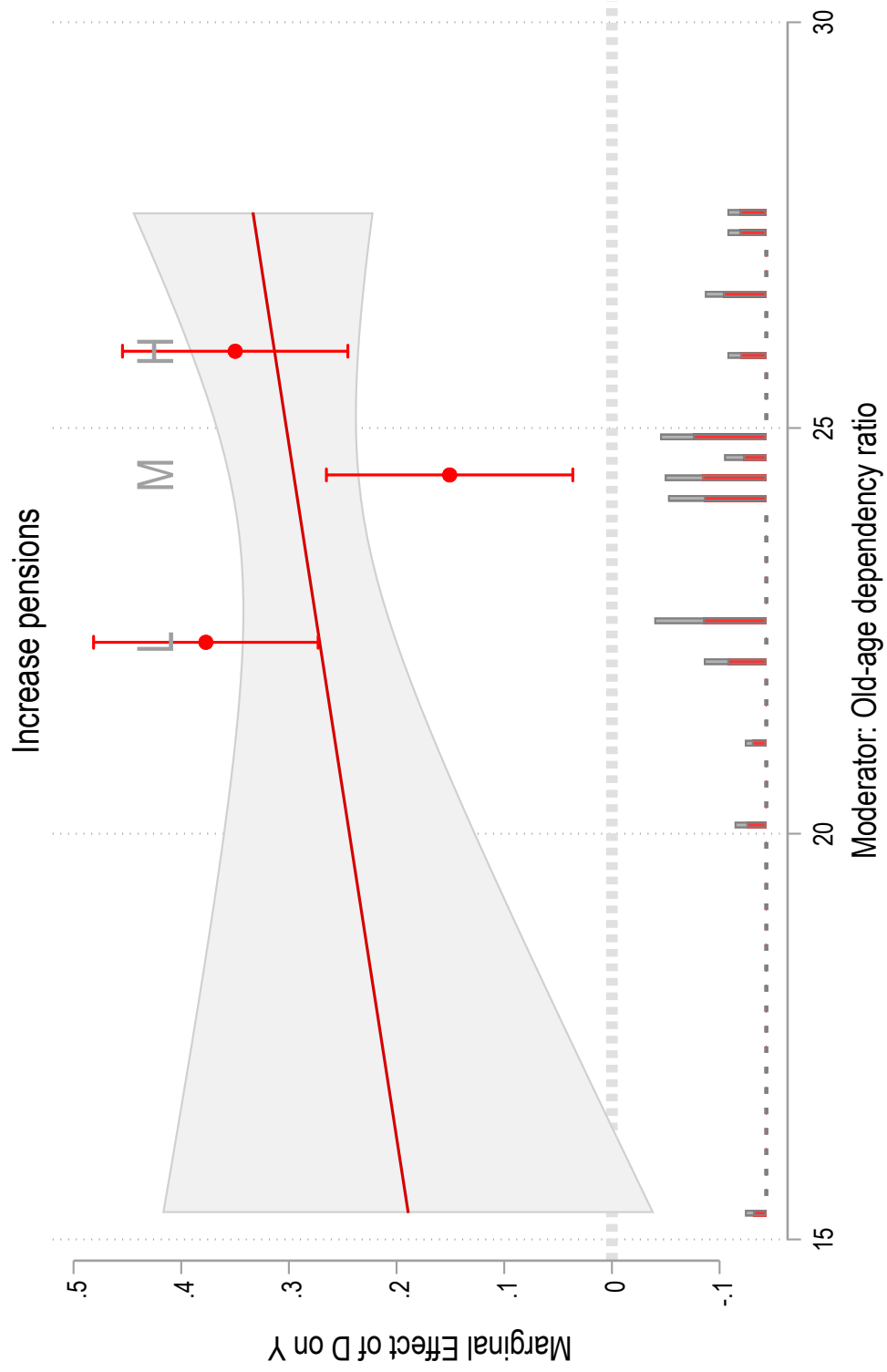
Figure 30: Effect of age on agreement with statement "Lower pension levels to do not increase taxes." Dependent variable is agreement with the statement "Reduce government spending in other areas to increase pensions". (1) Strongly disagree (...) (4) Strongly agree. Main explanatory variable is age as a continuous variable. Moderator variable is dependency ratio of country where respondent lives.
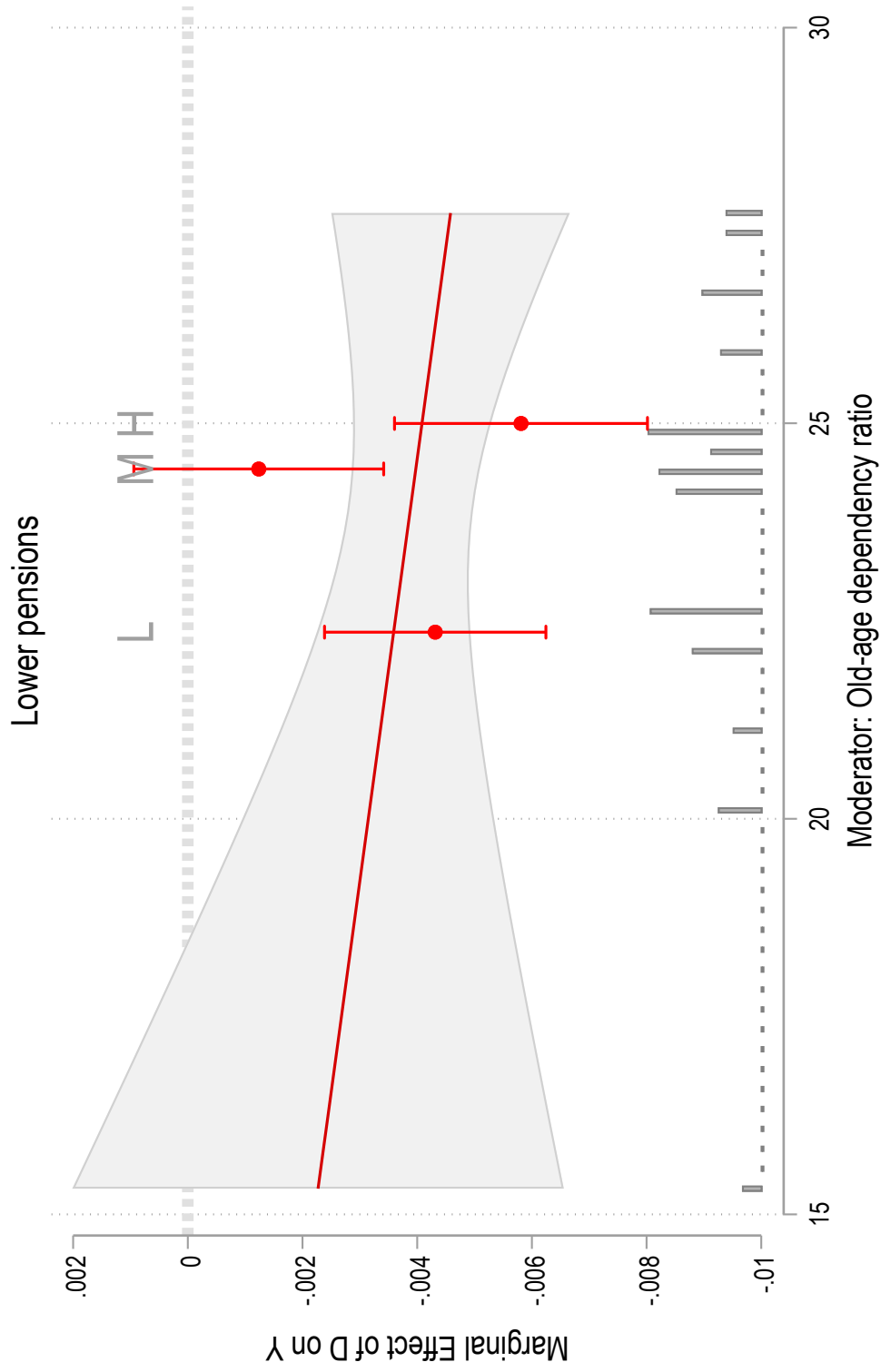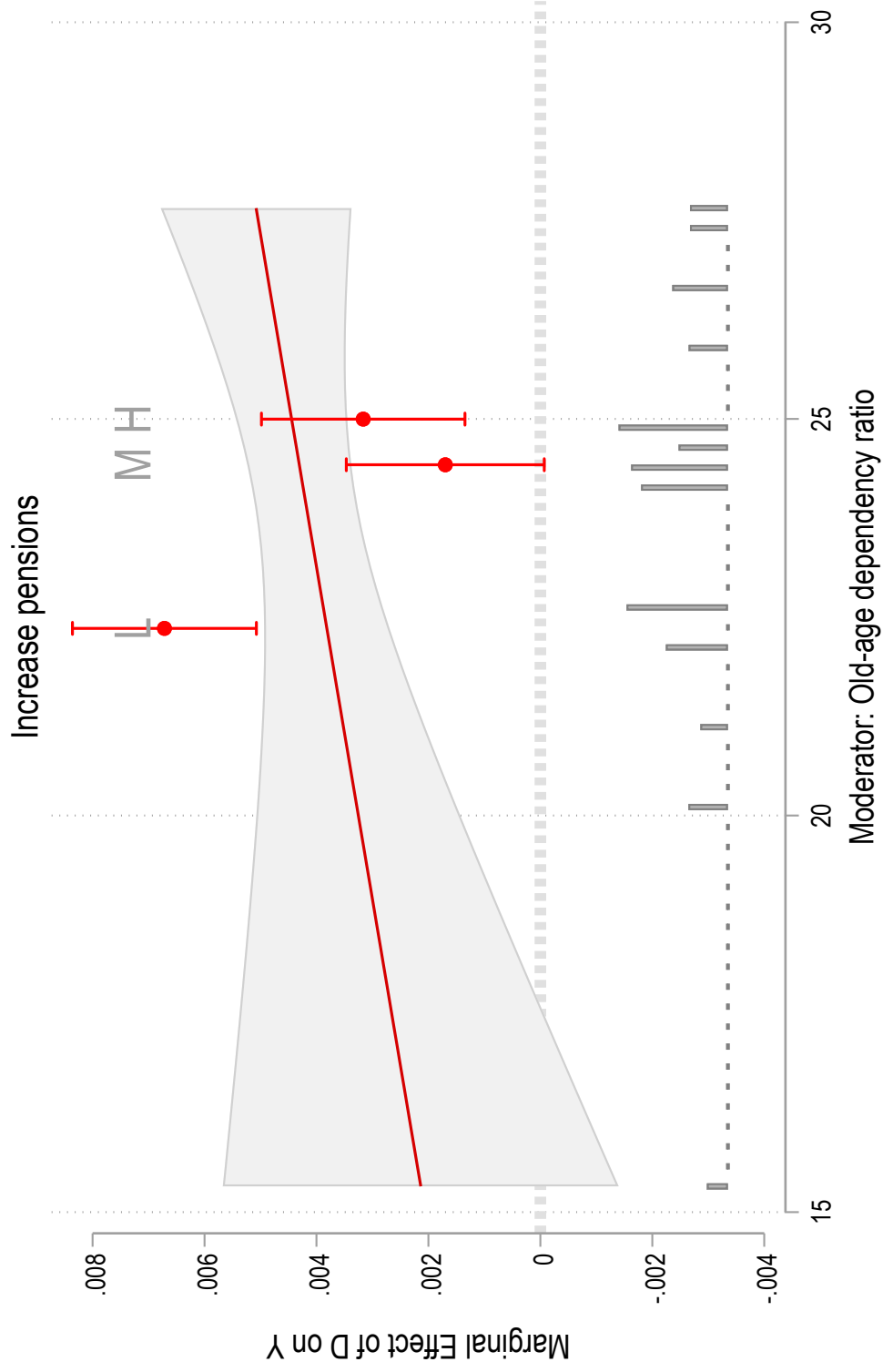
Figure 31: Effect of age on agreement with statement "Reduce government spending in other areas to increase pensions" Dependent variable is agreement with the statement "Reduce government spending in other areas to increase pensions". (1) Strongly disagree (...) (4) Strongly agree. Explanatory variable is a dummy equals zero if respondent is between 15 and 24 and one if respondent is above 60. The objective is to compare individuals at the extremes of the age distribution. Moderator variable is dependency ratio of country where respondent lives.

6.0.0.1   Study 2

6.0.0.2   Study 3

6.0.0.3   Main Results

6.0.0.4   Heterogeneous Effects

	Experiment 1 (Pensions)			Experiment 2 (Pensions)		
	(1)	(2)	(3)	(4)	(5)	(6)
Trade-off	0.124	0.0976	0.803	0.201*	0.264**	-1.270
	(0.136)	(0.158)	(2.242)	(0.107)	(0.124)	(1.759)
Empathy	-0.00764	0.0164	-1.481	0.0187	0.0391	-1.994
	(0.145)	(0.176)	(2.813)	(0.109)	(0.122)	(2.048)
Trade-off $\times$ Health measures, std	0.0936	0.105	0.153	-0.0573	-0.0541	-0.100
	(0.140)	(0.152)	(0.360)	(0.116)	(0.130)	(0.256)
Empathy $\times$ Health measures, std	0.0915	0.0384	0.219	0.00844	0.0154	0.0615
	(0.147)	(0.160)	(0.368)	(0.117)	(0.130)	(0.285)
Trade-off $\times$ Worry COVID, std	-0.0436	-0.000427	-0.463	0.134	0.143	0.107
	(0.162)	(0.177)	(0.385)	(0.129)	(0.140)	(0.328)
Empathy $\times$ Worry COVID, std	0.101	0.176	-0.196	-0.0331	-0.0831	0.387
	(0.170)	(0.181)	(0.531)	(0.128)	(0.140)	(0.343)
Trade-off $\times$ Age, std	0.183	0.161	-0.433	0.00683	-0.0737	-0.944
	(0.144)	(0.179)	(1.655)	(0.111)	(0.155)	(1.082)
Empathy $\times$ Age, std	0.0386	0.0604	1.062	-0.165	-0.188	-1.356
	(0.156)	(0.196)	(2.070)	(0.114)	(0.153)	(1.270)
Trade-off $\times$ Empathic concern, std	0.296*	0.215	0.633	-0.156	-0.140	-0.161
	(0.161)	(0.168)	(0.485)	(0.117)	(0.130)	(0.250)
Empathy $\times$ Empathic concern, std	0.147	0.0916	0.415	-0.189	-0.168	-0.328
	(0.161)	(0.169)	(0.564)	(0.119)	(0.131)	(0.300)
Trade-off $\times$ L-R scale, std	-0.0140	-0.00138	0.293	-0.147	-0.182	0.196
	(0.147)	(0.160)	(0.348)	(0.116)	(0.125)	(0.324)
Empathy $\times$ L-R scale, std	0.117	0.157	0.100	-0.0850	-0.0968	-0.0244
	(0.154)	(0.169)	(0.402)	(0.121)	(0.130)	(0.334)
Trade-off $\times$ Authoritarianism, std	0.0590	-0.0181	0.163	0.126	-0.00205	0.679**
	(0.175)	(0.186)	(0.501)	(0.137)	(0.154)	(0.294)
Empathy $\times$ Authoritarianism, std	0.100	0.0707	-0.0416	0.150	0.158	0.0199
	(0.180)	(0.186)	(0.557)	(0.133)	(0.147)	(0.307)
Trade-off $\times$ Contact, std		0.204			0.0118	
		(0.152)			(0.124)	
Empathy $\times$ Contact, std		-0.00111			0.0454	
		(0.161)			(0.124)	
Observations	1816	1551	265	3006	2546	460
R^2	0.0908	0.0852	0.188	0.0784	0.0795	0.101
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	OLS	OLS	OLS	OLS	OLS
Sample	All	Outgroups	Ingroups	All	Outgroups	Ingroups

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 38: Heterogeneous Effects of Treatments: Young Should Get Heart Operation First

	Experiment 1 (Work)			Experiment 2 (Work)		
	(1)	(2)	(3)	(4)	(5)	(6)
Trade-off	0.00601	0.0642	-5.845**	-0.0323	-0.00615	-1.541
	(0.148)	(0.174)	(2.784)	(0.0941)	(0.108)	(2.015)
Empathy	0.0111	-0.191	-2.204	-0.0762	-0.00767	1.729
	(0.151)	(0.185)	(2.837)	(0.0912)	(0.103)	(1.922)
Trade-off × Health measures, std	-0.0182	-0.217	1.189***	0.0628	0.123	-0.228
	(0.145)	(0.151)	(0.427)	(0.105)	(0.112)	(0.321)
Empathy × Health measures, std	0.245*	0.191	0.417	0.00735	0.0664	-0.271
	(0.142)	(0.152)	(0.431)	(0.0974)	(0.102)	(0.302)
Trade-off × Worry COVID, std	-0.128	0.00431	-0.749*	0.0715	-0.00409	0.614*
	(0.175)	(0.196)	(0.414)	(0.112)	(0.119)	(0.325)
Empathy × Worry COVID, std	-0.218	-0.105	-0.695*	-0.0371	-0.0869	0.254
	(0.163)	(0.184)	(0.410)	(0.106)	(0.110)	(0.330)
Trade-off × Age, std	0.0124	0.127	3.500*	-0.115	-0.173	-0.773
	(0.158)	(0.195)	(1.952)	(0.102)	(0.132)	(1.292)
Empathy × Age, std	0.0957	-0.0880	2.169	0.0146	-0.117	1.458
	(0.157)	(0.199)	(2.028)	(0.101)	(0.125)	(1.218)
Trade-off × Empathic concern, std	-0.241	-0.201	-0.324	-0.0164	-0.0447	0.154
	(0.164)	(0.170)	(0.641)	(0.109)	(0.118)	(0.289)
Empathy × Empathic concern, std	-0.0944	-0.00278	-0.870	0.0300	-0.0530	0.398
	(0.161)	(0.167)	(0.592)	(0.106)	(0.109)	(0.339)
Trade-off × L-R scale, std	0.0518	0.0120	-0.0751	-0.0693	-0.0492	-0.132
	(0.143)	(0.155)	(0.394)	(0.0976)	(0.102)	(0.346)
Empathy × L-R scale, std	0.0525	-0.0190	0.187	-0.0211	0.00406	-0.0153
	(0.150)	(0.164)	(0.387)	(0.0931)	(0.0971)	(0.309)
Trade-off × Authoritarianism, std	0.136	0.0990	0.707	-0.107	-0.0126	-0.543*
	(0.179)	(0.190)	(0.601)	(0.124)	(0.138)	(0.304)
Empathy × Authoritarianism, std	-0.118	-0.119	-0.156	0.0261	0.122	-0.539*
	(0.171)	(0.180)	(0.519)	(0.119)	(0.128)	(0.307)
Trade-off × Contact, std		-0.0447			0.0240	
		(0.158)			(0.100)	
Empathy × Contact, std		0.143			0.0243	
		(0.155)			(0.0970)	
Observations	1816	1551	265	3006	2546	460
R^2	0.0705	0.0694	0.243	0.0711	0.0762	0.143
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	OLS	OLS	OLS	OLS	OLS
Sample	All	Outgroups	Ingroups	All	Outgroups	Ingroups

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 39: Heterogeneous Effects of Treatments: Status of the Old and the Young

	Experiment 1 (Health care)			Experiment 2 (Health care)		
	(1)	(2)	(3)	(4)	(5)	(6)
Trade-off	0.284*	0.292	2.188	0.0931	0.104	-1.113
	(0.154)	(0.180)	(3.200)	(0.119)	(0.136)	(2.038)
Empathy	0.0406	0.0517	-4.504	0.236**	0.281**	0.629
	(0.151)	(0.183)	(2.956)	(0.117)	(0.133)	(1.973)
Trade-off × Health measures, std	0.0211	0.0598	0.0940	-0.0766	-0.0992	-0.0107
	(0.154)	(0.165)	(0.453)	(0.127)	(0.138)	(0.324)
Empathy × Health measures, std	-0.0163	0.0713	-0.469	-0.0613	-0.0231	-0.369
	(0.152)	(0.162)	(0.465)	(0.121)	(0.132)	(0.303)
Trade-off × Worry COVID, std	0.175	0.191	0.460	0.137	0.0591	0.730**
	(0.185)	(0.202)	(0.522)	(0.143)	(0.155)	(0.358)
Empathy × Worry COVID, std	0.273	0.289	0.324	0.0795	0.0407	-0.0289
	(0.169)	(0.185)	(0.489)	(0.135)	(0.146)	(0.354)
Trade-off × Age, std	-0.131	-0.271	-1.573	-0.0979	-0.128	-0.762
	(0.164)	(0.197)	(2.236)	(0.125)	(0.172)	(1.272)
Empathy × Age, std	-0.0469	-0.105	3.491	-0.0998	-0.165	0.230
	(0.167)	(0.200)	(2.115)	(0.121)	(0.166)	(1.222)
Trade-off × Empathic concern, std	0.0108	-0.000980	-0.0868	0.0431	0.0393	0.234
	(0.181)	(0.190)	(0.641)	(0.133)	(0.145)	(0.351)
Empathy × Empathic concern, std	-0.00895	-0.0919	0.647	0.0151	-0.0879	0.685**
	(0.166)	(0.174)	(0.598)	(0.131)	(0.143)	(0.318)
Trade-off × L-R scale, std	0.119	0.176	-0.328	-0.0214	-0.0638	0.335
	(0.162)	(0.177)	(0.433)	(0.129)	(0.138)	(0.352)
Empathy × L-R scale, std	0.0735	0.0562	0.227	0.0783	0.0576	0.452
	(0.156)	(0.172)	(0.402)	(0.128)	(0.140)	(0.323)
Trade-off × Authoritarianism, std	-0.171	-0.298	0.898	0.0501	0.103	-0.223
	(0.193)	(0.203)	(0.667)	(0.139)	(0.154)	(0.328)
Empathy × Authoritarianism, std	-0.0965	-0.0725	-0.268	0.201	0.223	0.0922
	(0.171)	(0.177)	(0.585)	(0.138)	(0.149)	(0.342)
Trade-off × Contact, std		-0.266			0.0493	
		(0.169)			(0.136)	
Empathy × Contact, std		-0.0454			0.114	
		(0.159)			(0.133)	
Observations	1816	1551	265	3006	2546	460
R^2	0.0742	0.0872	0.149	0.0366	0.0351	0.124
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	OLS	OLS	OLS	OLS	OLS
Sample	All	Outgroups	Ingroups	All	Outgroups	Ingroups

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 40: Heterogeneous Effects of Treatments: Status of the Old and the Young

	Experiment 1 (Message PM - Elderly)			Experiment 2 (Message PM - Young)		
	(1)	(2)	(3)	(4)	(5)	(6)
Trade-off	0.284*	0.292	2.188	0.0931	0.104	-1.113
	(0.154)	(0.180)	(3.200)	(0.119)	(0.136)	(2.038)
Empathy	0.0406	0.0517	-4.504	0.236**	0.281**	0.629
	(0.151)	(0.183)	(2.956)	(0.117)	(0.133)	(1.973)
Trade-off × Health measures, std	0.0211	0.0598	0.0940	-0.0766	-0.0992	-0.0107
	(0.154)	(0.165)	(0.453)	(0.127)	(0.138)	(0.324)
Empathy × Health measures, std	-0.0163	0.0713	-0.469	-0.0613	-0.0231	-0.369
	(0.152)	(0.162)	(0.465)	(0.121)	(0.132)	(0.303)
Trade-off × Worry COVID, std	0.175	0.191	0.460	0.137	0.0591	0.730**
	(0.185)	(0.202)	(0.522)	(0.143)	(0.155)	(0.358)
Empathy × Worry COVID, std	0.273	0.289	0.324	0.0795	0.0407	-0.0289
	(0.169)	(0.185)	(0.489)	(0.135)	(0.146)	(0.354)
Trade-off × Age, std	-0.131	-0.271	-1.573	-0.0979	-0.128	-0.762
	(0.164)	(0.197)	(2.236)	(0.125)	(0.172)	(1.272)
Empathy × Age, std	-0.0469	-0.105	3.491	-0.0998	-0.165	0.230
	(0.167)	(0.200)	(2.115)	(0.121)	(0.166)	(1.222)
Trade-off × Empathic concern, std	0.0108	-0.000980	-0.0868	0.0431	0.0393	0.234
	(0.181)	(0.190)	(0.641)	(0.133)	(0.145)	(0.351)
Empathy × Empathic concern, std	-0.00895	-0.0919	0.647	0.0151	-0.0879	0.685**
	(0.166)	(0.174)	(0.598)	(0.131)	(0.143)	(0.318)
Trade-off × L-R scale, std	0.119	0.176	-0.328	-0.0214	-0.0638	0.335
	(0.162)	(0.177)	(0.433)	(0.129)	(0.138)	(0.352)
Empathy × L-R scale, std	0.0735	0.0562	0.227	0.0783	0.0576	0.452
	(0.156)	(0.172)	(0.402)	(0.128)	(0.140)	(0.323)
Trade-off × Authoritarianism, std	-0.171	-0.298	0.898	0.0501	0.103	-0.223
	(0.193)	(0.203)	(0.667)	(0.139)	(0.154)	(0.328)
Empathy × Authoritarianism, std	-0.0965	-0.0725	-0.268	0.201	0.223	0.0922
	(0.171)	(0.177)	(0.585)	(0.138)	(0.149)	(0.342)
Trade-off × Contact, std		-0.266			0.0493	
		(0.169)			(0.136)	
Empathy × Contact, std		-0.0454			0.114	
		(0.159)			(0.133)	
Observations	1816	1551	265	3006	2546	460
R^2	0.0742	0.0872	0.149	0.0366	0.0351	0.124
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	OLS	OLS	OLS	OLS	OLS
Sample	All	Outgroups	Ingroups	All	Outgroups	Ingroups

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 41: Heterogeneous Effects of Treatments: Status of the Old and the Young