Online Appendix for

“Early-Adulthood Economic Experiences and the Formation of Democratic Support”

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# **Harmonizing Survey Data**

We base our harmonization of survey data on the procedure outlined by Neundorf, Gerschewski and Olar (2020). For additional details on the procedure, see their online appendix. To provide an overview of the variables used to construct our outcome, we replicate Table A3.2 from their online appendix in Table A0, which contains the wording of the survey question used from each dataset. The responses in each dataset were recoded to fit on the same 0-100 scale, where 100 implies complete agreement with the statement: “Democracy is the best form of government.” The four-category datasets are scored as follows (from lowest to highest degree of agreement): 1 to 0, 2 to 33.33, 3 to 66.66, and 4 to 100. The seven-category dataset is scored as follows: 1 to 0, 2, to 16.66, 3 to 33.33, 4 to 50, 5 to 66.66, 6 to 83.33, and 7 to 100.

|  |
| --- |
| **Table A0:** Variables Used for Outcome Measure |
| Dataset | Categories | Question wording |
| Latinobarometer  | 4 | Do you strongly agree (1), agree (2), disagree (3) or strongly disagree (4) with the following statements? Democracy may have problems but it is the best system of government. Strongly agree; agree; disagree; strongly disagree; -2 no answer; -1 don't know  |
| World Values Survey  | 4 | I'm going to read off some things that people sometimes say about a democratic political system. Could you please tell me if you agree strongly (1), agree (2), disagree (3), or disagree strongly (4), after I read each one of them? Democracy may have problems but its better than any other form of government  |
| Americas Barometer  | 7 | Democracy may have problems, but it is better than any other form of government. To what extent do you agree or disagree with this statement? 1 strongly disagree - 7 strongly agree  |
| Asian Barometer  | 4 | Do you agree or disagree with the following statement. Democracy may have its problems, but it is still the best form of government.' 1 Strongly agree; 2 agree; 3 disagree; 4 strongly disagree  |
| European Value Survey  | 4 | I'm going to read off some things that people sometimes say about a democratic political system. Could you please tell me if you agree strongly (1), agree (2), disagree (3), disagree strongly (4) after I read each of them? Democracy may have problems but its better than any other form of government  |
| Central and Eastern Eurobarometer  | 4 | Please tell me how strongly you agree or disagree with the following statement: 'Democracy may have problems but its better than any other form of government.' 1 agree strongly; 2 agree; 3 disagree; 4 disagree strongly  |
| Afrobarometer  | 4 | Do you strongly agree (1), agree (2), disagree (3) or strongly disagree (4) with the following statements? Democracy may have problems but it is the best system of government. Strongly agree; agree; disagree; strongly disagree; -2 no answer; -1 don't know  |

**Table A1:** Descriptive statistics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Mean | SD | Min | Max |
| Economic performance (adulthood) | 1.89 | 2.38 | -25.10 | 29.32 |
| Democracy (adulthood) | 0.64 | 0.43 | 0.00 | 1.00 |
| GDP/Cap (adulthood) | 9.00 | 0.72 | 6.30 | 11.27 |
| Population size (log; adulthood) | 9.36 | 1.43 | 4.91 | 14.09 |
| Gender | 0.51 | 0.50 | 0.00 | 1.00 |
| Marital status | 0.70 | 0.46 | 0.00 | 1.00 |
| Education | 1.86 | 0.72 | 1.00 | 3.00 |
| Religion | 1.05 | 0.64 | 0.00 | 3.00 |

# **Alternative Standard Errors**

In Table A2, we report our main results using standard errors clustered on country. Our results remain substantially the same across all models.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table A2:** Alternative Standard Errors

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | FE | FE | RE | + Current growth | + Current regime | + Individual controls |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Economic growth (e. adult.) | -0.043 | -0.160\*\*\* | -0.156\*\*\* | -0.206\*\*\* | -0.224\*\*\* | -0.139\*\* |
|  | (0.038) | (0.040) | (0.040) | (0.043) | (0.038) | (0.044) |
|  |  |  |  |  |  |  |
| Democracy (e. adult.) | 0.909\* | 0.392 | 0.415 | 0.379 | 0.392 | 0.315 |
|  | (0.352) | (0.370) | (0.366) | (0.378) | (0.350) | (0.395) |
|  |  |  |  |  |  |  |
| Eco. (e. adult.) X Dem. (e. adult.) |  | 0.256\*\*\* | 0.265\*\*\* | 0.291\*\*\* | 0.309\*\*\* | 0.240\*\* |
|  |  | (0.067) | (0.068) | (0.067) | (0.061) | (0.072) |
|  |  |  |  |  |  |  |
| GDP/Cap (log; e. adult.) | -0.479 | -0.655 | -0.321 | -0.615 | -0.711 | -1.132\* |
|  | (0.475) | (0.460) | (0.412) | (0.448) | (0.458) | (0.473) |
|  |  |  |  |  |  |  |
| Pop. size (log; e. adult.) | -0.622 | -0.649 | -0.295 | -0.780 | -0.796 | -1.037 |
|  | (1.039) | (1.014) | (0.592) | (0.970) | (1.012) | (0.967) |
|  |  |  |  |  |  |  |
| Current GDP/Cap growth |  |  |  | 0.011 |  |  |
|  |  |  |  | (0.014) |  |  |
|  |  |  |  |  |  |  |
| Cur. growth X Dem. (e. adult.) |  |  |  | -0.010 |  |  |
|  |  |  |  | (0.016) |  |  |
|  |  |  |  |  |  |  |
| Current regime type |  |  |  |  | 0.189 |  |
|  |  |  |  |  | (0.213) |  |
|  |  |  |  |  |  |  |
| Country FE | Y | Y |  | Y | Y | Y |
| Random FE |  |  | Y |  |  |  |
| Cohort FE (10‒year) | Y | Y | Y | Y | Y | Y |
| Age FE (10‒year) | Y | Y | Y | Y | Y | Y |
| Year FE | Y | Y | Y | Y | Y | Y |
| Individual controls |  |  |  |  |  | Y |
| Observations | 412,632 | 412,632 | 412,632 | 395,980 | 391,625 | 378,108 |

**Note:** Standard errors clustered by country in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. |

# **Alternative Measures of Economic Experiences**

Figure A1 plots the marginal effect of growth during early adulthood in autocracies and democracies. The graph substitutes our measure of economic growth with data from the Penn World Tables (v9.0; Feenstra, Inklaar, and Timmer 2015). Our findings remain with this alternative measure.

|  |
| --- |
| **Figure A1:** Alternative Measure of Growth |
|  |
| **Note**: Based on Model 2 from Table 1 with alternative measures of growth and 95% confidence intervals. |

Using an average of the annual growth rate is likely to capture positive growth well. However, it may not adequately measure economic crisis (see e.g. Krishnarajan 2019: 8). Therefore, we employ an alternative indicator of economic crises developed based on discussions within the economics literature (see e.g. Pritchett 2000; Hall 2011; Krishnarajan 2019): the current-trend (CT) ratio, which reflects the ratio between current GDP/cap and the average GDP/cap for the prior five years. This measure compares a country’s current wealth with its previous average wealth (the trend) and thus captures the depth of an economic crisis. Formally, it can be specified as follows for country *i* at year *t*:

$$CT\_{i,t}=\frac{GDP/cap\_{i,t}}{\sum\_{k=1}^{n}\frac{GDP/cap\_{i,t-k}}{n}}$$

where *n* is the number of years used to calculate prior wealth—here five. We then compute the average current-trend ratio during an individual’s early adulthood and use it in place of our growth measure. Figure A2 reports the findings. Reassuringly, we recover a similar effect of economic growth during early adulthood.

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| **Figure A2:** Alternative Measure of Economic Experiences |
|  |
| **Note:** Based on Model 2 from Table 1 where growth during early adulthood is exchanged with the CT ratio during early adulthood. With 95% confidence intervals. |

# **Varying the Age Cut-off of the Sample**

In Table A3, we report the results from a series of regressions where we change the age cut-off in one-year increments. The differential impact of economic growth during early adulthood across regime type holds across different age cut-offs for the sample. The effect weakens somewhat as the mean age in our sample increases, which is in line with our results from Figure 5 in the main article.

|  |
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| **Table A3:** Varying the Age Cut-off |
| *Age cut-off* | 29 | 30 | 31 | 32 | 33 | 34 |
| Econ. growth. (e. adult.) | -0.176\*\*\* | -0.191\*\*\* | -0.193\*\*\* | -0.197\*\*\* | -0.191\*\*\* | -0.188\*\*\* |
| (0.045) | (0.045) | (0.048) | (0.049) | (0.050) | (0.050) |
|  |  |  |  |  |  |  |
| Eco. X Dem. (e. adult.) | 0.261\*\*\* | 0.269\*\*\* | 0.278\*\*\* | 0.278\*\*\* | 0.279\*\*\* | 0.285\*\*\* |
| (0.063) | (0.064) | (0.065) | (0.066) | (0.067) | (0.069) |
|  |  |  |  |  |  |  |
| *Age cut-off* | 35 | 36 | 37 | 38 | 39 | 40 |
| Econ. growth (e. adult.) | -0.160\*\*\* | -0.169\*\* | -0.157\*\* | -0.143\*\* | -0.121\* | -0.109\* |
| (0.045) | (0.052) | (0.052) | (0.052) | (0.052) | (0.054) |
|  |  |  |  |  |  |  |
| Eco. X Dem. (e. adult.) | 0.256\*\*\* | 0.297\*\*\* | 0.277\*\*\* | 0.261\*\*\* | 0.235\*\* | 0.209\*\* |
| (0.063) | (0.071) | (0.072) | (0.073) | (0.075) | (0.078) |
|  |  |  |  |  |  |

**Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.

Based on Model 2 from Table 1 with alternative age cut-offs for the sample. The constituent term for democracy during adulthood is included in all models but not reported.

# **Comparing Different Periods in Life**

We argue that early adulthood (age 18‒28) is a particularly important period in people’s lives concerning experiences with the economy and the formation of democratic support. We prod this expectation below. Table A4 presents the effect of economic growth across regime type during different periods of life: adolescence (age 10-17), our operationalization of early adulthood (age 18-28), and an alternative period comprising the later years of early adulthood (age 29-34). Model 1 shows that there is no lasting impact of economic growth during adolescence, while Model 2 confirms the impact of growth during early adulthood. Model 3 further shows that experiences with the economy during age 29-34 are insignificant for democratic support. These results support our focus on the early adulthood years 18‒28.

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| **Table A4:** Using Alternative Periods in Life |
|  | (1) | (2) | (3) |
| Economic growth (age 10‒17) | -0.052 |  |  |
| (0.034) |  |  |
|  |  |  |  |
| Eco. (age 10‒17) X Dem. (age 10‒17) | 0.033 |  |  |
| (0.048) |  |  |
|  |  |  |  |
| Economic growth (age 18‒28) |  | -0.160\*\*\* |  |
|  | (0.045) |  |
|  |  |  |  |
| Eco. (age 18‒28) X Dem. (age 18‒28) |  | 0.256\*\*\* |  |
|  | (0.063) |  |
|  |  |  |  |
| Economic growth (age 29‒34) |  |  | -0.031 |
|  |  | (0.049) |
|  |  |  |
| Eco. (age 29‒34) X Dem. (age 29‒34) |  |  | 0.042 |
|  |  | (0.060) |
| Observations | 550457 | 412632 | 327786 |
| **Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. Based on Model 2 from Table 1. The constituent term for democracy during adulthood is included in all models but not reported. |

To further test if our expectation holds, we run a series of regressions using age windows in intervals of four years (8-12, 13-17, 18-22, 23-27, 28-32), thus allowing for greater flexibility. If early adulthood is the key period, we would primarily expect an effect for the intervals 18-22 and 23-27. Figure A3 shows the results. There is no difference in effect of pre-adulthood (ages 8-12 and 13-17) economic experiences on support for democracy across different regimes. In addition, the effect of growth is insignificant in autocracies and democracies for both age windows. However, in early adulthood (ages 18-22 and 23-27) we find a significantly different impact of growth between democracies and autocracies. The direction of the effects mirrors our results from Figure 3. For the 18-22 age window, the impact of growth in democracies is significant and positive, and close to significant and negative for autocracies. Conversely, for the 23-27 age window, the impact of growth in autocracies is negative and significant, and positive and barely insignificant for democracies. Experiences accrued during age 28-32 have no impact on later democratic support. Overall, Figure A3 supports our focus on early adulthood.

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| **Figure A3:** Using Different Age Windows |
|  |
| **Note:** Based on the setup from Model 2 in Table 1. Control variables are measured at the same age window as democracy and growth. With 95% confidence intervals. |

# **Alternative Explanations: Autocratic Regime Type**

We contend that the main difference in the impact of economic growth during early adulthood is between individuals in autocracies vis-à-vis democracies. However, our results may reflect that differences in economic growth among autocracies is driven by variation in the type of autocracy, which could also temper support for democracy. To test if this is the case, we repeat our main model and control for the type of autocracy (party, monarchy, personalist, or military) experienced in early adulthood (if any). The data is from Anckar and Fredriksson (2019). Figure A4 presents the findings. The differential effects of economic growth remain the same and the effect sizes closely resemble those shown in Figure 3 in the main article. Consequently, our results are not an artefact of regime type variations within the group of autocracies.

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| **Figure A4:** Controlling for Autocratic Regime Type during Adulthood |
|  |
| **Note:** Based on Model 2 from Table 1 with added controls for autocratic regime type during early adulthood. With 95% confidence intervals. |

# **Alternative Explanations: Regime Change**

Our findings may simply reflect that regimes experiencing low growth are more likely to break down and transition either to or away from democracy. To prod this, we rerun our main model (Model 2 from Table 1) and include two additional controls: an indicator equal to 1 if an individual has experienced a transition to democracy between early adulthood and the year measuring that individual’s regime support, and an indicator equal to 1 if an individual has experienced a breakdown of democracy during the same period. Our results remain unchanged, as depicted in Figure A5.

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| --- |
| **Figure A5:** Controlling for Regime Change between Early Adulthood and Now |
|  |
| **Note:** Based on Model 2 from Table 1 with added controls for regime change after early adulthood. With 95% confidence intervals. |

# **Alternative Explanations: Repression**

We focus on economic growth under different regimes. However, one could imagine that variation in repression may also affect growth and support for the regime. We therefore replicate our main model (Model 2 from Table 1) and control for the extent of repression during early adulthood. Specifically, we use V-Dem’s (Coppedge et al. 2020) indicator *v2csreprss,* which measures the extent to which the government pursues and violently tries to shut down civil society organizations, to indicate experience of repression. Figure A6 shows that this does not alter our findings.

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| **Figure A6:** Controlling for Repression During Early Adulthood |
|  |
| **Note:** Based on Model 2 from Table 1 with added controls for repression in early adulthood. With 95% confidence intervals. |

# **Alternative Explanations: Use of Performance Legitimacy Claims**

Our analyses focus on the connection individuals make between economic growth and the regime in place during early adulthood, solidifying one central aspect of performance legitimacy for that regime. However, the strength of this connection might vary depending on the strength of the use of performance legitimacy claims by the regime. In turn, the regime’s legitimation strategy could influence regime stability and hence its likelihood of transitioning to democracy. To evaluate whether this could explain our findings, Table A5 presents results where we control for the government’s use of performance legitimacy claims during early adulthood (based on V-Dem’s *v2exl\_legitperf* variable, Coppedge et al. 2020). It measures the extent to which the government refers to performance (understood as e.g. economic growth, poverty reduction, and absence of corruption) in order to justify the regime (in contrast to referring to either the leader’s individual characteristics or legal norms). Our main findings do not change.

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| --- |
| **Table A5:** Controls for use of Performance Legitimacy Claims |
|  | (1) | (2) |
| Economic growth (e. adult.) | -0.163\*\*\* | -0.162\*\*\* |
| (0.039) | (0.039) |
|  |  |  |
| Democracy (e. adult.) | 0.384 | 0.459 |
|  | (0.392) | (0.483) |
|  |  |  |
| Eco. (e. adult.) X Dem. (e. adult.) | 0.251\*\*\* | 0.253\*\*\* |
| (0.068) | (0.067) |
|  |  |  |
| Perf. leg. claims (e. adult.) | 0.353 | 0.422 |
| (0.266) | (0.337) |
|  |  |  |
| Perf. leg. (e. adult.) X Dem. (e. adult.) |  | -0.179 |
|  | (0.396) |
|  |  |  |
| Observations | 410,397 | 410,397 |

**Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1,

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. Based on Model 2 from Table 1.

# **Alternative Controls for Current Regime and Growth**

Like our main findings, the impact of the current regime or economic situation may also reflect an average of the last few years rather than just the last year. To account for this, we repeat Models 4 and 5 from Table 1 and exchange our indicators of current GDP/cap growth and current regime type for measures that capture average growth or regime type in the last 10 years. Table A6 reports these models. Reassuringly, our results basically remain the same.

|  |
| --- |
| **Table A6:** Alternative controls for current regime and growth |
|  | (1) | (2) |
| Economic growth (e. adult.) | -0.185\*\*\* | -0.158\*\*\* |
| (0.034) | (0.040) |
|  |  |  |
| Democracy (e. adult.) | 0.085 | 0.437 |
|  | (0.712) | (0.367) |
|  |  |  |
| Eco. (e. adult.) X Dem. (e. adult.) | 0.248\*\*\* | 0.254\*\*\* |
| (0.065) | (0.068) |
|  |  |  |
| Current GDP/cap growth (10-year window) | 0.434\* |  |
| (0.198) |  |
|  |  |  |
| Cur. growth X Dem.  | 0.150 |  |
| (0.243) |  |
|  |  |  |
| Current regime type (10-year window) |  | -1.086 |
|  | (2.980) |
|  |  |  |
| Observations | 412,632 | 412,632 |

**Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1,

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. Based on Models 4 and 5 from Table 1.

# **Endurance in Democracies Versus Autocracies**

Figure 5 in the main article indicates that the impact of early-adulthood economic growth is more enduring in autocracies than in democracies. To assess whether this difference is significant, Figure A7 presents the absolute value of the effect of early-adulthood growth in autocracies and democracies at different ages. We do not find a significant difference in endurance.

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| --- |
| **Figure A7:** Difference in Endurance? |
|  |
| **Note:** Based on models from Figure 4. With 95% confidence intervals. |

# **Variation among Democracies and Autocracies**

In Figure A8, we substitute the use of the *democracy* indicator from Boix, Miller, and Rosato (2018) with the interval-scaled *polyarchy* measure from the Varieties of Democracy project version 10 (Coppedge et al. 2020) to construct our 10-year moving average during ages 18-28. Our results stay the same with a continuous measure of democracy.

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| **Figure A8:** Continuous Measure of Democracy  |
|  |
| **Note**: Based on Model 2 from Table 1 with continous measure of democracy and 95% confidence intervals. |

We have argued that the main difference in the effect of early-adulthood economic experiences on democratic support is between individuals who then lived under democracy and autocracy. However, it is plausible that this effect also varies by other regime components, such as civil liberties and personalization, within the groups of autocracy and democracy. To assess whether this is the case, we split our sample into individuals who lived under democracy and individuals who lived under autocracy during early adulthood. Within each sample, we then test whether the effect of growth differs depending on other regime components. First, we consider whether economic experiences had a varying impact on individuals who lived under democracy during early adulthood based on the degree of democracy (measured by V-Dem’s *polyarchy* variable, Coppedge et al. 2020). We do the same for individuals living in autocracy during early adulthood, as, for instance, some autocracies host semi-competitive elections while others have none. The concept of democracy may also include dimensions beyond free and fair elections. Thus, we repeat the analyses with V-Dem’s *Liberal component index* (ibid.), which captures differences in the protection of civil liberties and the rule of law. Individuals who spent early adulthood in autocracies may have been exposed to different types of rule, such as military regimes or monarchies. We therefore consider whether the impact of growth on individuals who lived in autocracies during early adulthood varies by the type of autocracy in place (data from Anckar and Fredriksson 2019).

|  |
| --- |
| **Table A7:** Varying Effects of Early Adulthood Growth by Regime Component |
| Regime component during early adult. | Regime during early adult. | P-value of interaction with growth |
| Polyarchy (V-Dem) | Democracy | 0.532 |
| Liberal component (V-Dem) | Democracy | 0.780 |
| Polyarchy (V-Dem) | Autocracy | 0.012\* |
| Liberal component (V-Dem) | Autocracy | 0.377 |
| Monarchy (Anckar et al.) | Autocracy | 0.011\* |
| Party (Anckar et al.) | Autocracy | 0.654 |
| Personalist (Anckar et al.) | Autocracy | 0.099 |
| Military (Anckar et al.) | Autocracy | 0.584 |
| **Note:** \* p < 0.05. The constituent terms for each regime component during early adulthood and growth during early adulthood are included in the models. All regime components are measured as their average value during ages 18-28.  |

Table A7 presents the p-values for the interactions between growth during early adulthood and each regime component across individuals who experienced early adulthood in either democracies or autocracies. All our models are based on Model 1 from Table 1. We find no evidence of substantial variation in effect size along regime components, except for monarchies and autocracies that are closer to democracies (experiencing growth in monarchies during early adulthood is associated with less support for democracy, and the negative impact of growth on support for democracy is weaker in autocracies that have a higher polyarchy score).

# **Mixed Democratic Experiences**

A substantial number of individuals in our dataset experienced both democracy and autocracy during early adulthood. So far, we have treated our democracy indicator as linear, assuming that growth has an effect among individuals experiencing, for example, democracy in 80% of the 18-28 period that is closer to the effect experienced by individuals living under “60 %” as compared to “0 %” democracy, and so on. However, one could imagine that experiencing regime change during early adulthood might alter this relationship. To assess whether this is the case, we run two tests. First, we replicate our baseline model excluding all individuals with mixed democratic experiences during early adulthood. Second, we create an indicator variable splitting the sample into those that only experienced democracy, those that only experienced autocracy, and those that experienced both. Next, we interact this indicator with our measure of early-adulthood growth, thus allowing growth to have a disparate effect in the middle group. Figure A9 presents the findings. The left graph shows that our results are unchanged when excluding all individuals with mixed democratic experiences. In addition, the right graph supports our specification as the coefficient sizes follow a roughly linear trend.

|  |
| --- |
| **Figure A9:** Mixed Democratic Experiences  |
|  |
| **Note**: Based on Model 2 from Table 1 and 95% confidence intervals. |

# **The Level of Economic Development During Early Adulthood**

In this section, we consider whether the level of economic development (measured as logged GDP per capita) during early adulthood predicts democratic support based on the regime in place during early adulthood. Figure A10 shows the results. Consistent with prior findings, support for democracy increases with the level of economic development for individuals that experienced democracy during early adulthood. There is no relationship between support and GDP/cap for individuals that experienced autocracy during early adulthood.

|  |
| --- |
| **Figure A10:** Predicted support for democracy  |
|  |
| **Note**: Based on Model 2 from Table 1 without country fixed effects and 95% confidence intervals. |

# **Using the Original Scale**

In this section, we replicate our main models using the original scale of the constituent datasets (see the “Harmonizing Survey Data” section for more details on this). Figure A11 presents the results. A standard deviation increase in growth is estimated to decrease support for democracy for individuals that experienced autocracy during early adulthood by -0.023, or 0,575 if translated to the scale used in the article (based on the four-category outcome used for most of our respondents).

**Figure A11:** Main Results Illustrated using Original Scale



**Note:** Based on Model 2 from Table 1. With 95% confidence intervals.

# **Handling Missing Values**

One might worry that respondents with missing values on support for democracy or on early-adulthood economic and regime experiences differ fundamentally from the respondents that are included in our analyses, thus biasing our findings. To assess whether this is the case, we make two analyses. First, we investigate whether our main covariates explain missingness in our support for democracy measure (using as outcome an indicator that is equal to 1 if there is no data on a respondent’s support for democracy and 0 otherwise), and whether missingness in our main covariates can be explained by support for democracy among our respondents (using as outcome an indicator that is equal to 1 if there is no data on either early adulthood growth or regime and 0 otherwise). Table A8 shows the results. Reassuringly, neither early-adulthood growth nor early-adulthood regime type predicts missingness in our measure of support for democracy. However, support for democracy is correlated with missing values on our indicators of early-adulthood experiences. Therefore, as our second analysis, we check whether this influences our findings by imputing the missing values. Specifically, we use the multiple imputation procedure suggested by Blackwell, Honaker, and King (2017) and impute missing values in our main variables. Table A9 reports the findings across five imputed datasets. While the results differ slightly between imputed datasets, the overall pattern remains.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table A8:** Predicting missingness

|  |  |  |
| --- | --- | --- |
| Missingness in | Y | X |
|  | (1) | (2) |
| Economic growth (e. adulthoold) | 0.001 |  |
|  | (0.001) |  |
|  |  |  |
| Democracy (e. adulthood) | -0.010 |  |
|  | (0.013) |  |
|  |  |  |
| Support for democracy |  | -0.007\* |
|  |  | (0.003) |
|  |  |  |
| Country FE | Y | Y |
| Cohort FE (10‒year) | Y | Y |
| Age FE (10‒year) | Y | Y |
| Year FE | Y | Y |
| Observations | 576,499 | 458,777 |

**Note:** Standard errors clustered by country in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.**Table A9:** Results using imputed datasets |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Imputed dataset number | 1 | 2 | 3  | 4 | 5 |
|  | (1) | (2) | (3) | (4) | (5) |
| Economic growth (e. adulthood) | -0.050+ | -0.054+ | -0.043 | -0.035 | -0.056\* |
|  | (0.028) | (0.028) | (0.029) | (0.029) | (0.028) |
|  |  |  |  |  |  |
| Democracy (e. adulthood) | 2.286\*\*\* | 2.249\*\*\* | 2.356\*\*\* | 2.437\*\*\* | 2.262\*\*\* |
|  | (0.255) | (0.252) | (0.252) | (0.265) | (0.248) |
|  |  |  |  |  |  |
| Eco. (e. adult.) X Dem. (e. adult.) | 0.088+ | 0.127\*\* | 0.132\*\* | 0.110\* | 0.143\*\* |
|  | (0.048) | (0.047) | (0.048) | (0.049) | (0.047) |
|  |  |  |  |  |  |
| Country FE | Y | Y | Y | Y | Y |
| Cohort FE (10‒year) | Y | Y | Y | Y | Y |
| Age FE (10‒year) | Y | Y | Y | Y | Y |
| Year FE | Y | Y | Y | Y | Y |
| Observations | 638,399 | 638,399 | 638,399 | 638,399 | 638,399 |

**Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.

# **Heterogeneous effects**

In this section, we consider whether our findings are driven by specific subgroups. We examine differences in individual characteristics: female versus male, education level (primary or less versus secondary versus post-secondary), religion (Non-religious versus Christians versus Muslims), and employed versus non-employed (including retired). Data on these characteristics are included in the dataset we use for our main analyses. Table A10 shows the interaction between early adulthood experiences with regime and growth within the different subgroups mentioned above. The relationship is slightly stronger for males in comparison with females, although it is still significant for female individuals. The impact of early-adulthood growth and regime is primarily present among individuals with post-secondary education. Religion does not appear to influence our findings as the interaction appears across our three categories. Finally, our interaction is present both among employed and non-employed individuals. This is reassuring as it suggests that our results do not simply reflect persistence in economic fortunes from early adulthood into later life.

**Table A10:** Effects across individual characteristics

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subgroup | Female | Male | Edu. Primary or less | Edu. Secondary | Edu. Post-secondary | Non-religious | Christians | Muslims | Employed | Not employed |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Economic perf. (e. adult.) | -0.098 | -0.215\*\*\* | -0.121+ | -0.161\* | -0.036 | -0.289\* | -0.148\* | -0.189\*\*\* | -0.112\* | -0.132\*\* |
|  | (0.061) | (0.051) | (0.062) | (0.063) | (0.059) | (0.122) | (0.058) | (0.056) | (0.055) | (0.048) |
|  |  |  |  |  |  |  |  |  |  |  |
| Democracy (e. adult.) | 0.477 | 0.327 | 0.292 | 0.785\* | 0.083 | -0.085 | 0.297 | 0.675 | 0.368 | 0.269 |
|  | (0.354) | (0.343) | (0.393) | (0.366) | (0.491) | (0.678) | (0.337) | (1.120) | (0.377) | (0.344) |
|  |  |  |  |  |  |  |  |  |  |  |
| Eco. (e. a.) x Dem. (e. a.) | 0.172\* | 0.333\*\*\* | 0.230\* | 0.309\*\*\* | 0.110 | 0.439\*\* | 0.230\*\* | 0.454\* | 0.200\* | 0.225\*\* |
|  | (0.080) | (0.076) | (0.097) | (0.088) | (0.089) | (0.148) | (0.077) | (0.220) | (0.080) | (0.079) |
|  |  |  |  |  |  |  |  |  |  |  |
| Observations | 211778 | 200603 | 137872 | 185614 | 81248 | 47586 | 293465 | 22163 | 221096 | 152917 |

**Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. Based on Model 2 from Table 1.

# **Single-country analyses**

Table A11 presents four separate single-country analyses. Models 1 and 2 provide single-country analyses based on country-year data in our sample for Portugal and Poland, which include both democratic and autocratic spells. In Portugal, this involves Salazar’s dictatorship until 1974 and the following period of democracy. In Poland, it involves the communist and military dictatorships and the following period of democracy from 1989. In addition, Portugal and Poland are fruitful cases because their democratic spells represent different contexts for achieving democratic support. Portugal represents a legacy of military and proto-fascist dictatorship. Poland represents a communist legacy and a part of the post-communist space, which so many analyses in the literature have been focused on. As is evident for these two single-country analyses, the interaction terms are substantial and statistically significant, as in the main analyses in Table 1.

Model 3 examines the effects of early adulthood in a rich autocracy. Specifically, it includes country-years for South Korea before 1988 when it was autocratic and experienced its famous economic boom, only interrupted by a short economic slump in the early 1980s and banking and inflation crises in the mid-1980s. At the same time, South Korea is a paradigmatic case for our theory as it should be typical of the positive relationship between growth and autocratic regime support. Indeed, before the country’s democratization in 1988, South Korea was often used as an example of how modernization mechanisms did not necessarily work because growth could also stabilize autocratic rule. Following our argument, early-adulthood economic growth negatively affects democratic support: the higher the growth, the lower is later-life democratic support, and vice versa.

Model 4 examines the effects of early adulthood in a poor democracy. Specifically, it includes country-years for Chile before 1973 and after 1989. Before 1973, Chile only saw slow growth from a low development level, which South Korea surpassed by the late 1970s. After 1989, Chile also experienced an economic miracle comparable to South Korea’s, but growth rates and development levels have still been substantially lower than in South Korea. Chile is further interesting for our theory because it represents a different context than the democratic spells of Poland and Portugal. The pre-1973 spell under Allende saw experiments with various populist-socialist reforms such as regarding land distribution, which contrasts with the capitalist reformations of post-1974 Portugal and post-1989 Poland. Also, post-1989 Chile saw a radical break with the past including trials against the human rights atrocities of Pinochet, while the forms of transition in Portugal and Poland also involved radical economic transformations. Also following our argument, early-adulthood economic growth positively affects democratic support: the higher the growth, the higher is later-life democratic support, and vice versa.

**Table A11:** Single-country analyses

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Portugal | Poland | South Korea (autocratic years only) | Chile (democratic years only) |
|  | (1) | (2) | (3) | (4) |
| Economic growth (e. adult.) | -2.486\*\* | -0.185 | -0.544\* | 2.551\*\* |
|  | (0.692) | (0.126) | (0.165) | (0.564) |
|  |  |  |  |  |
| Democracy (e. adult.) | -36.029\*\* | -1.655 |  |  |
|  | (8.623) | (1.618) |  |  |
|  |  |  |  |  |
| Ec. (e. adult.) X Dem. (e. adult.) | 4.073\* | 1.271\* |  |  |
|  | (1.673) | (0.415) |  |  |
|  |  |  |  |  |
| GDP/cap (log; e. adult.) | 1.046 | -13.051\* | -8.693 | 4.629 |
|  | (2.731) | (4.059) | (34.087) | (9.609) |
|  |  |  |  |  |
| Pop. size (log; e. adult.) | 132.350\* | 32.504\* | 2.981 | 4.732 |
| (38.814) | (9.924) | (128.915) | (11.592) |
|  |  |  |  |  |
| Constant | -1110.306\* | -185.938+ | 105.015 | -20.795 |
|  | (365.363) | (80.675) | (1035.715) | (112.962) |
|  |  |  |  |  |
| Cohort FE (10‒year) | Y | Y | Y | Y |
| Age FE (10‒year) | Y | Y | Y | Y |
| Year FE | Y | Y | Y | Y |
| Observations | 4893 | 3777 | 1669 | 4787 |

**Note:** Standard errors clustered by country-cohort in parentheses + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.

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