Communist Legacies and Left-Authoritarianism

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Abstract
Communist regimes were avowedly leftist authoritarian regimes, a relative rarity among autocracies. The growing literature on regime legacies would lead us to expect that postcommunist citizens would be more likely to exhibit “left-authoritarian” attitudes than their counterparts elsewhere. Finding that this is the case, we rely on 157 surveys from 88 countries to test if a living through Communism legacy model can account for this surplus of left-authoritarian attitudes. Employing both aggregate and micro-level analyses, we find strong support for the predictions of this model. Moving beyond previous legacy studies, we then test a variety of hypothesized mechanisms to explain how exposure to communist rule could have led to the regime congruent left-authoritarian attitudes. Of the mechanisms tested, greater state penetration of society is associated with a strong socialization effect and religious attendance—and in particular attending Catholic religious services—is associated with weaker socialization effects.

Keywords
East European politics, nondemocratic regimes, elections, public opinion, voting behavior, Russia/former Soviet Union

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Introduction

Political scientists are paying increasing attention to the effects of regime legacies not just on institutions (Acemoglu et al., 2002; Crawford & Lijphart, 1995; Hagopian, 1993), but also on attitudes and behavior (Bernhard & Karakoç, 2007; Darden & Grzymala-Busse, 2006; Joly, 2017; Neundorf, 2010). Interestingly, though, there has been little research to date on the effect of legacies on left–right self-identification, and most of the existing studies are limited to single countries (Neundorf, 2009) or regions (Thorisdottir, Jost, Liviatan, & Shrout, 2007).1

If one were to posit a regime legacy likely to affect left–right self-identification, probably the first to spring to mind would be the likelihood that communist regimes would leave behind a leftist legacy, due to the almost existential link between communism and left-wing ideology.2 In our recent book Communism’s Shadow: Historical Legacies and Contemporary Political Attitudes (Pop-Eleches & Tucker, 2017), we put forward a theoretical framework and empirical methodology for examining the effect of communist era legacies on attitudes that includes empirical work on attitudes toward democracy, markets, social welfare, and gender equality. When we replicate our general approach of comparing attitudes held by postcommunist citizens with those held by citizens in non-postcommunist countries using the World Values Survey (WVS), we do indeed find a postcommunist leftist bias.3 Interestingly, though, this leftist surplus is largely limited to people with low levels of support for democracy; among pro-democracy postcommunist citizens the postcommunist left-wing “bias” disappears. The left-hand panel of Figure 1 demonstrates this pattern graphically by plotting the predicted left–right orientation, on a 1 to 10 scale, of postcommunist citizens (gray diamonds) as opposed to citizens from countries in the rest of the world (black circles) on the basis of a standardized index of support for democracy normalized to a mean of zero for respondents in the third, fourth, and fifth waves (1995-2009) of the WVS.4

Similarly interesting is the fact that judging by the right-hand panel of Figure 1, the “democratic deficit” of postcommunist citizens we identified in the book is largely driven by leftists: Postcommunist citizens who self-identify as rightists do not seem to have much less support for democracy than right-wingers in other parts of the world.

As we have no real theoretical prior as to whether democratic attitudes cause left–right self-placement or vice versa, we here focus on whether or not there is a communist legacy effect on the intersection of left–right self-placement and attitudes toward democracy, or, put another way, whether the surplus of left-authoritarians in postcommunist countries represents a communist
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legacy effect. In doing so, we seek to advance our understanding of legacy effects and ideological self-placement, but also to expand the study of legacy effects on attitudes beyond just individual attitudes and into what we call “attitude combinations.” By “attitude combinations” we mean the intersection of two different types of attitudes. For example, we could contrast leftist-nationalist attitudes with leftist-cosmopolitan attitudes or rightist-nationalist attitudes. In any of these cases, one could hypothesize a legacy affect for a particular regime type on a particular attitude combination. Here, we focus on the legacy effect of communist regimes on the left-authoritarian combination.

To accomplish this goal, we utilize the theoretical framework that had the strongest empirical support in our book—that communist legacy effects are due to the experience of living through Communism—to test whether this model can also help us understand why we find a surplus of left-authoritarians in postcommunist countries. We draw out the living through Communism legacy model in greater detail in the following section, but the basic argument is contained in the name: Communist legacies are transmitted as a result of

Figure 1. Ideology and support for democracy.
The left panel in Figure 1 is based on a HLM regression of Left–Right self-placement on the Democracy support index interacted with the postcommunist citizen dummy variable plus a series of survey year dummies. It shows that postcommunist citizens only exhibit a leftist bias among non-democrats. In the right panel, we regressed the Democracy support index on Left–Right self-placement interacted with the postcommunist citizen dummy variable. It shows that only left-leaning postcommunist citizens exhibit a democratic support deficit compared with their noncommunist counterparts. HLM = hierarchical linear models.
the experience of actually living through communist rule, and therefore we expect to see more of the predicted effect (e.g., less support for democracy, more leftist self-identification) among citizens who have lived through more years of communist rule. This is hypothesized to be the case because communist regimes sought to inculcate a set of attitudes among the citizenry that were consistent with key tenets of communist ideology.

For our empirical analyses, we draw on data from the WVS that includes 157 surveys conducted in 88 different countries (including 51 surveys from 24 postcommunist countries), allowing us to compare the prevalence of left-authoritarian attitudes in postcommunist countries to the rest of the world.

Our empirical strategy is twofold. First, we examine at the aggregate level patterns consistent with this left-authoritarian surplus in postcommunist countries being a legacy effect of living through Communism: does the overall size of this gap decrease over time; and is there a larger surplus among older cohorts than younger cohorts? Finding results consistent with the living through Communism legacy model at the aggregate level, we then demonstrate that at the individual level more years of exposure to communist rule are associated with a greater likelihood of expressing left-authoritarian views. Taken together, these two sets of findings provide strong evidence that the living through Communism legacy model can explain the left-authoritarian surplus in postcommunist countries, or, put another way, that left-authoritarianism is indeed a communist legacy, and it is a legacy that flows through actually having lived through Communism, and especially through the harsher forms of communist rule.

Building on this finding, we then devote the second half of the empirical analysis to disentangling the mechanisms by which living through communism led to a preference for left-authoritarian attitudes. To do so, we identify mechanisms that could explain the differential effects of exposure to Communism by gender, place of residence, and religion. For reasons that we explain in detail in the following section, we specifically examine the potential impact of societal penetration by the regime, workforce participation, military conscription, Communist Party (CP) membership, and religion as potential mechanisms through which exposure to communist rule could affect left-authoritarian attitudes. Of all the hypothesized mechanism, we find empirical support for societal penetration in explaining urban–rural differences and church attendance accounting for the greater resistance among women against communist exposure effects. But the negative findings—that we find no evidence of gender differences in communist socialization being due to the army, the CP, or work force participation—are perhaps just as interesting.
Taken together, we make four contributions. First, we extend our previous work beyond the attitudes examined in Pop-Eleches and Tucker (2017) to include another fundamental political attitude: ideology. In replicating the empirical support for the living through Communism legacy model in another context, we add to the accumulated scientific evidence associated with empirical support for the theory. Second, we move the study of attitudinal legacy effects forward by introducing the idea of legacy effects on “attitude combinations,” here the intersection of ideology and support for democracy, an innovation that we believe will open up many fruitful areas of research in the future. Third, we think the concept of “left-authoritarians” is unto itself an interesting subject of study, even beyond its value for studying legacies of communism, and consider this a contribution to what is a fairly sparse literature on the topic in political science. Finally, we move beyond our earlier analysis in Pop-Eleches and Tucker (2017) to not only demonstrate that additional years of exposure to communism are associated with a greater likelihood of expressing left-authoritarian attitudes, but test a series of more detailed mechanisms by which exposure may have translated into greater support for left-authoritarianism.

We proceed as follows. In the next section, we introduce the core theoretical arguments underlying our empirical analyses and related literature. In Section 3, we describe the data and methods used to test our hypotheses. In Section 4, we demonstrate that there is evidence consistent with a living through Communism legacy model at both the aggregate- and microlevel, before assessing in Section 5 potential mechanisms for the relationship between exposure to communist rule and left-authoritarian attitudes. In the concluding section, we consider the implications of these findings for both our understanding of legacies and postcommunist politics.

Communism and Left-Authoritarian Legacies

Our theoretical arguments—and empirical analyses—in this article begin with two assumptions. The first is that if we were to expect a general legacy effect from communist rule on ideological self-identification it would be a leftist legacy effect. The obvious starting point of such a discussion is the widespread conception of communist regimes as embodiments of leftist ideologies. Although this conception was not universal, it was nevertheless one of the few points on which the communist regimes agreed with their most vocal political critics, many of whom hailed from the right of the ideological spectrum. Although one can of course argue—as some on the left have done—that by the 1980s the communist regimes of Eastern Europe had preserved very little of the initial leftist ideological appeals that characterized
late 19th century Marxist movements, the identification of leftist ideology with communism was sufficiently strong in postcommunist Eastern Europe to preclude in most countries the rise of successful and genuinely leftist political parties without ties to the communist regime.11

The second assumption is that if we were to expect a general legacy effect from communist rule on attitudes toward democracy, it would be in the direction of less support for democracy as a form of government. Despite their rhetorical claims of being “people’s democracies,” and the nominal existence of multiple political parties in Poland and East Germany, communist regimes were based fundamentally on single-party rule by the CP and thus opposed most elements of electoral and liberal democracy. Unsurprisingly, prior work (Neundorf, 2010; Pop-Eleches & Tucker, 2017, pp. 98-135) has documented a postcommunist deficit in support for democratic rule.

Taken together, then, our \textit{a priori} expectation for a communist legacy effect on the “attitude combination” of ideology and democracy would be that we should expect a surplus of \textit{left-authoritarians} among postcommunist citizens. We expect this to be the case not only because postcommunist citizens were more leftist and less pro-democratic but because—as Figure 1 (above) shows—in the former communist bloc leftist ideology and nondemocratic values were more likely to “go together” than elsewhere in the world. In particular, citizens who broadly embraced communist regimes should be expected to subscribe to both their leftist ideology and their antidemocratic character, whereas those who rejected them may have adopted opposing preferences in terms of both ideology and regime preferences.

Although we discuss the logistics of measuring left-authoritarianism in the following section, for now we want to be very clear as to what we mean by this conceptually. Left-authoritarian, at least for the purpose of this article, refers to individuals who \textit{both} self-identify on the left side of the ideological spectrum and are on the “less supportive” side of a continuum measuring support for democracy. Thus, we could compare left-authoritarians with center-authoritarians and right-authoritarians or, alternatively, to left democrats. Although all of these are interesting comparisons in their own right, in this study we focus on the left-authoritarian category versus all other categories, examining whether we find more left-authoritarians in postcommunist countries than in the rest of the world.

However, the question remains how we would know whether any propensity for left-authoritarianism among postcommunist citizens was indeed a \textit{legacy} of communism as opposed to being present for other reasons. To address this challenge, we adapt the theoretical framework from Pop-Eleches and Tucker (2017) that models postcommunist legacy effects as a function of \textit{living through Communism}. This approach springs from the long-standing
literature on political socialization, which argues that all political regimes—to one extent or another—seek to inculcate attitudes supportive of the regime into their citizens (Dennis, 1968; Greenstein, 1969, 1971). In many cases, these efforts may be lackadaisical or passive, but in the case of Soviet Communism, there was clearly an active attempt to create a “Socialist Man” (Deutscher, 1967), complete with requisite attitudes and beliefs. Communist citizens were not simply expected to accept the rule of the communists, but rather expected to embrace and embody the precepts of socialism, which includes a leftist ideology and skepticism of multiparty democracy.12

Thus, at the most basic level, the living through Communism legacy model predicts that the more a person has been exposed to communist rule, the more likely it is that the individual will hold left-authoritarian attitudes. However, the intensity of any given individual’s exposure to the regime’s socialization efforts will vary even for similar lengths of exposure; in the context of our discussion here, we might expect more intense exposure to magnify exposure effects. These variations in intensity might be a function of the nature of the regime—we would expect stronger attitudinal effects for people living in regimes that devote significant resources to ideological indoctrination—or they might be related to the position of a given individual in society, which could result in more or less intense exposure to regime socialization efforts. Similarly, we might expect the resistance of an individual to a given dose of communist exposure to also vary across predictable individual characteristics, and that resistance would then weaken the effect of exposure on the predicted increase in likelihood of hold a left-authoritarian attitude. Thus, we would expect the cumulative effect of exposure to communism on left-authoritarian self-identification to be a function of (a) the length of exposure to communism, (b) the intensity of that exposure, and (c) resistance to that exposure.

In this article, building on earlier work, our first step toward analyzing the heterogeneity of communist exposure effects is to analyze the attitudinal consequences of variations in the timing of communist exposure. The first such variation is due to the differential timing of communist regime subtypes in the member countries of the Eastern Bloc. Thus, depending on their age and country of origin, communist citizens were exposed to varying mixes of hardline versus “softer” communist regimes. As hardline regimes typically featured greater ideological rigidity and greater repression against dissenting voice, we would expect the intensity of communist exposure to have been stronger among people living through such regimes. The second variation captures the age at which different respondents experienced communism: in line with the “impressionable years” hypothesis, we would expect resistance to communist socialization to be weaker for early exposure (as a child or
adolescent). However, age at the time of exposure may also be linked to variations in the intensity of indoctrination efforts: Children are primarily affected through the education system, whereas adults may be influenced by a variety of channels, ranging from higher education, to the workplace and the welfare state.

As a second step, we assess the moderating effect of three key sociodemographic characteristics on the link between communist exposure and left-authoritarian orientations. First, given the importance of religion for ideology and the atheist nature of communist regimes, we investigate the extent to which religion provided a basis for resistance against communist socialization efforts (see, for example, Wittenberg, 2006). Thus, we would expect that followers of particular religious denominations to be more likely to resist communist imprinting (Janos, 2000). This could be because of holding a social identity as a member of a particular religious denomination or because of the act of attending religious services. This latter effect could be due to repeatedly hearing similar messages that are clearly articulated by the clergy, or simply the fact that attending religious service was at odds with the expectations of an atheist regime, and thus could represent an individual act of resistance. Second, we rely on Jowitt’s (1992) argument that communist regimes achieved much greater penetration in urban settings to expect that urban residents will have experienced more intense communist exposure than rural respondents. Similarly, we might expect men to have been exposed to more intense communist socialization because they were less likely to go to church, more likely to be in the formal work force (despite massive increases in labor participation among women), to belong to the CP, and because they were affected by universal conscription, the military being another potential avenue of regime indoctrination.

These three modifiers thus provide us with a means of getting at the mechanisms by which exposure to communism could have affected left-authoritarian attitudes. Starting with religion, we have some a priori expectations about the resistance effects of religious denominations. In particular, we would expect Catholics to be more resistant to communist socialization because the Catholic Church—particularly in the 1980s—played a much more visible role in the fight against communism than the other main religious denominations in the region (Janos, 2000). Wittenberg (2006), however, demonstrated something akin to what we are calling a resistance effect among Protestants, as well as Catholics in Hungary, and Pop-Eleches and Tucker (2017) consistently found the resistance effects to be stronger among Catholics and Protestants than Eastern Orthodox Christians or Muslims. Again, we can examine this at the individual level by assessing directly whether exposure effects are weaker among Catholics and Protestants. Of course, it may be the
case that denomination is less important than simply the decision to attend any religious services under a regime that was ostensibly atheist; we can test for this potential mechanism by examining variation in exposure effects not by denomination, but simply by frequency of attendance. Finally, it may be the case that both of these mechanisms are at work: frequent religious attendance in a particular denomination may be what was driving resistance to communist messages.

Turning to urban–rural differences, if rural residents are predicted to have less intense exposure to communist messages because of the weaker penetration of communist regimes in the rural/agrarian sector (Jowitt, 1992), then we should expect there to be less of a rural–urban distinction in countries that underwent collectivization of agriculture than in countries where agriculture primarily took place on privately owned land (Conquest, 1986; Hunter, 1988). The logic here is that the experience of living in a village with a state or collective farm would be more similar to the experience of living and working in urban settings dominated by state-owned factories with a strong CP presence than living in traditional villages with small private plots. Another possibility, though, is that the effect works through religious attendance. If people in the countryside were more likely to attend religious services under Communism than those living in urban areas, then the exposure effect could be weaker among rural residents because of the higher resistance to communist exposure from church attendance. We can test this mechanism at the individual level by observing whether any rural/urban distinction in exposure effects are reduced once we account for religious attendance.14

Finally, for sex-based distinctions, if men have a higher intensity exposure to communist propaganda because of participation in the military, then we should expect the distinction in exposure effects between men and women to be larger for age cohorts that were of conscription-age during Communism than for those who were not. If effects are driven by workforce participation—that is, men getting more exposure to communist propaganda by dint of receiving it at their workplace—then we should expect the distinction in the exposure effect between men and women to be larger in countries with lower levels of female workforce participation. Alternatively, if women attended religious services more than men, then we would expect the distinction in the exposure effect between men and women to disappear once we account for religious attendance. Finally, if the effect of communist exposure was transmitted through actual CP membership, we would expect the distinction between men and women to be smaller in countries where there was more of a balance between men and women in the CP; put another way, the distinction should decrease as the share of women among party members increases.

Table 1 concisely summarizes these arguments.
To test the hypotheses developed in the preceding section, we use data from three waves (1995-1997, 1999-2002, and 2004-2009) of the World Values Survey (WVS), which yielded 157 surveys from 88 countries (including 51 surveys from 24 postcommunist countries). In addition to the individual-level survey data, we collected data on a range of country-level indicators for each of the 88 countries for which we had survey data.

Our dependent variable is a dichotomous indicator of left-authoritarian orientation coded 1 if a respondent identified as left of center (4 or below on the 10-point left–right self-placement question in the WVS) and scored below the median on a seven-question democracy support index, and zero otherwise. Such left-authoritarian respondents accounted for 10% of non-communist and 14% of postcommunist respondents.
We operationalize our main independent variable—communist exposure—as the number of years past the age of six lived under a communist regime. Furthermore, to test the attitudinal impact of different types of communist rule, we coded the number of years the respondent lived in either hardline communist regime or a “softline” communist regime. To test the impact of exposure timing, we distinguish between early exposure (between the ages of 6 and 17) and adult exposure (18 and older.)

To identify the impact of individual communist exposure, we need to disentangle the effects of exposure from those of age, given that respondents with longer periods of exposure to communist rule were typically older. Therefore, in line with the general approach in age-period-cohort (APC) models, we estimated the effects of exposure while controlling for age and survey year. Alternatively, in some of the tests we use the more traditional approach of using birth cohorts (by decade) and then controlling for age and survey year.

In line with the theoretical discussion in Section 2, we also test whether the impact of communist exposure was moderated by three types of demographic differences: sex, urban/rural residence, and religion, which included survey-based information about both religious attendance and religious denomination (identified by dummy variables for the four most important religions in the former communist bloc: Catholicism, Protestantism, Eastern Orthodoxy, and Islam.)

To capture the mechanisms underlying these “first-order” moderating effects, we also collected information that taps into the mechanisms summarized in Table 1. To delve deeper into the differences in communist state presence experienced by urban versus rural respondents, we created a dichotomous variable identifying countries with low versus high proportions of collectivization of agriculture. To test the mechanisms underlying the gender differences in communist exposure effects we used the following indicators: for the socializing role of the military, we coded male respondents based on whether they were of draft age during the time their country was ruled by a communist regime. As the WVS surveys did not include individual employment histories and current employment was arguably a poor and possibly biased indicator of past employment, we tried to measure gender-based differences in work experiences by distinguishing between countries with low versus high rates of female labor participation under Communism. Finally, as the WVS surveys also lacked individual-level information about CP membership, we used the female share of CP membership as a proxy for the relative likelihood of women being CP members and, thus, exposed to additional indoctrination. Note that as the last three factors (employment, military draft, and CP membership) only affect adults, for
these tests we use adult rather than total communist exposure. Table 1 concisely summarizes both our theoretical explanations in this regard (as laid in the previous section) as well as the hypothesized empirical effects for which we will test in these cases.

Following Pop-Eleches and Tucker (2017), to establish that the postcommunist exceptionalism in left-authoritarian attitudes is indeed a legacy of Communism, rather than an artifact of the particular parts of the world were communist regimes ruled in the 20th century, our empirical analyses include a battery of precommunist and time-invariant country-level controls that capture differences in geography and historical developmental and institutional legacies. Moreover, all the tests of the effects of communist exposure include a series of standard demographic controls, including education level, settlement size, household income, and sex. Given the multilevel nature of our data, we use hierarchical linear models (HLM) with random intercepts in the models establishing postcommunist exceptionalism and the impact of communist exposure. We use within-country survey weights for the individual surveys and cross-country weights that adjust for sample size differences across countries.

For the analyses testing the heterogeneity of communist exposure effects on left-authoritarian attitudes, we focus instead on intra-regional comparisons of respondents from ex-communist countries. However, once we limit ourselves to intra-regional analyses of only postcommunist countries, any estimate of years of exposure controlling for age becomes much more sensitive to model specification. For this reason, we use constrained regression analysis with age fixed at the estimated effect of age on left-authoritarian attitudes excluding the postcommunist countries.

**Empirical Results**

We begin by testing the aggregate level implications of the *living through Communism* legacy model: that the postcommunist left-authoritarian surplus—vis-a-vis citizens in the rest of the world—should decline over time and that there should be a larger left-authoritarian surplus among older cohorts than younger cohorts. To do so, we simply test for the existence and durability of a postcommunist difference in the likelihood of being left-authoritarian by interacting the postcommunist citizen indicator with survey year (and squared survey year). The left panel in Figure 2 reveals that during the first decade after the fall of Soviet Communism, postcommunist citizens were significantly more likely to be left-authoritarian and this difference was substantively fairly large (the 5% marginal effect represents a
However, over the course of the late 1990s and especially after 2000, this difference started to decline gradually, and by the end of the time period in our study, the effect was not only statistically insignificant but also substantively close to zero.

This fairly rapid decline of the communist legacy is qualified by the analysis in the right panel of Figure 2, which illustrates the temporal evolution in the differences in left-authoritarianism for two age cohorts: respondents born in the 1930s, who lived most of their lives under communist regimes, and respondents born in the 1980s, who experienced communism only for a few years as relatively young children. Two patterns in the right panel are worth noting: First, there is a striking difference between the left-authoritarian “surplus” among the older postcommunist age cohort (for whom the effect was twice as large as for the overall population in the left panel), and the attitudes of the younger postcommunist cohorts, which actually exhibited a lower likelihood of embracing left-authoritarianism than their non-communist counterparts (and this difference was statistically significant after 1999). Second, there appears to be virtually no temporal variation in the size of these gaps with these two cohorts. This suggests that the overall 50% increase over the 10% baseline among noncommunist respondents.)

Figure 2. Temporal evolution of postcommunist differences in left-authoritarianism.
The two graphs in this figure report the differences between postcommunist and noncommunist citizens on the probability of a left-authoritarian orientation from 1995 to 2007. The dependent variable is a dichotomous indicator of left-authoritarian orientation. The results in the left panel indicate a declining postcommunist difference but the right panel shows that differences for different cohorts were largely unchanged.
decline in postcommunist exceptionalism was largely due to generational replacement (as older left-authoritarians were gradually replaced in the sample by younger generations with limited or no exposure to Communism.)

The opposite effects for older versus younger postcommunist cohorts in Figure 2 suggest that rather than being driven by some country-level characteristics in the 1990s and 2000s that drove East Europeans to embrace leftist ideology and reject democracy, the overall surplus in left-authoritarianism seems to be limited to individuals with extensive personal life experiences with Communism. Therefore, our next step, in line with our theoretical framework, is to test the extent to which individual exposure to communist regimes can account for left-authoritarian attitudes.

The first two models in Table 2 confirm that additional years of exposure to communist rule translated into a higher likelihood of being left-authoritarian. The results of the first model, which are illustrated in Figure 3, show that although postcommunist citizens without personal exposure to Communism were actually significantly less likely to be left-authoritarian than noncommunist respondents (all of whom, by definition, have 0 years of exposure to communism), the probability of subscribing to the worldview of the communist regime increased significantly for respondents with longer communist exposures. Thus, respondents exposed to the full dose of East European communism (roughly 45 years) were more than twice as likely to express left-authoritarian values as their noncommunist counterparts and more than 3 times more likely than their compatriots who came of age after the fall of Communism. These results are confirmed in the country-fixed effects specification in Model 2, which only leverages attitudinal variation between different age cohorts within individual postcommunist countries, and therefore addresses possible concerns that the results in Model 1 could be driven by cross-country differences beyond the precommunist controls already included in the model.

To test the impact of variations in the nature of communist regime subtypes, in the next two models in Table 2 we differentiate between the attitudinal impact of hardline versus “softline” authoritarian regimes. In line with our expectations based on the greater intensity of communist exposure in Stalinist and neo-Stalinist regimes, we find that the effects of an additional year of communist exposure on the likelihood of adopting left-authoritarian attitudes was roughly twice as large for a year spent living under a hardline communist regime as opposed to a softline communist regime, though the effects were still positive and significant even in countries and time periods where both repression and ideological rigidity had declined since the heyday of Stalinism. In other words, although the direction of the effect was consistent across different communist regime subtypes, the greater intensity of
communist indoctrination in hardline regimes left clear attitudinal traces even decades later.

The last two models in Table 2 distinguish between early communist socialization (ages 6-17) and adult socialization (18 and older.) According to both Models 5 and 6, the effects of adult communist exposure were large and statistically significant predictors of left-authoritarianism, whereas the effects of early exposure were substantively smaller and at best marginally significant. These results suggest that left-authoritarian tendencies were largely shaped after the “impressionable years” and that socialization continued well into adulthood.28
Mechanisms

Religion and Communist Exposure

We now turn to testing some of the mechanisms underlying the overall socialization effects reflected in the discussion above, beginning with the effect of religion and religious attendance. In line with our theoretical discussion summarized in Table 1, we do so by analyzing patterns of heterogeneity in the impact of communist exposure on left-authoritarianism. As a first step, the results in Figure 4 confirm the importance of religion in moderating the effects of communist exposure on the likelihood of adopting a left-authoritarian orientation. The four estimates at the top of Figure 4 confirm that communist exposure was noticeably more likely to trigger left-authoritarian attitudes among Eastern Orthodox and Muslim respondents than for their Catholic and Protestant counterparts and these differences were both substantively and statistically significant. The role of religion in fostering resistance to communist exposure is also confirmed by the next pair of estimates, which indicates that the exposure effects were only about half as large among regular churchgoers as among postcommunist citizens who attended religious services rarely or not at all.

In the final model in Figure 4 we focus on the interaction between religious denomination and religious attendance in driving resistance to

Figure 3. Communist exposure and left-authoritarian orientation. This figure reports the predicted probability of holding a left-authoritarian orientation for postcommunist citizens with different degrees of communist exposure compared with the probability for noncommunist respondents. The predictions are based on the random-effects HLM regression in Model 1 of Table 2 above. HLM = hierarchical linear models.
communist exposure. Doing so allows us to address the question whether the denominational differences in anti-communist resistance discussed above reflect differences in the extent to which different churches used the pulpit to inculcate resistance to communist ideology. The results at the bottom of Figure 4 do not support this explanation: the interdenominational differences among nonchurchgoers are very similar—and in fact substantively and statistically stronger—than among regular churchgoers. We do, however, find some cross-denominational differences in the effects of church attendance: whereas among Catholic and Eastern Orthodox respondents exposure effects were significantly smaller among regular churchgoers, among Muslim and particularly Protestant respondents the differences were substantively smaller and statistically inconclusive.

**Figure 4.** Communist exposure and left-authoritarian orientation: Religion as a moderator.

This figure reports the marginal effects on the probability of a left-authoritarian orientation of a single year of exposure to communism in different types of individuals. The results indicate weaker negative communist exposure effects on democracy support among Catholic and Protestant respondents and among frequent churchgoers. The dependent variable is a dichotomous indicator of left-authoritarian orientation. Full regression results are in Table A5 in the Supplemental Appendix and model numbers in the figure correspond to those in the table.
Urban/Rural Residence and Communist Exposure

Next, we consider the role of residence. Recall that we expect that communist exposure effects to be stronger for urban than rural residents. The first set of coefficients in Figure 5 provides empirical support for this expectation: the substantive effects of exposure to communist rule on the likelihood of being a left-authoritarian are about 40% larger for those living in urban areas (and the difference is significant at a level of $p \leq .05$). The next two sets of tests try to unpack what aspect of the urban experience explains this difference: the more intense nature of communist exposure among urban residents than among village dwellers (particularly in low collectivization countries), or differential religious attendance patterns across urban and rural areas. The set of estimates at the center of Figure 5 (Model 5) provide strong evidence that the urban–rural difference is driven by the greater intensity of communist exposure.
political penetration in urban settings (Jowitt, 1992): thus, the difference in socialization effects was 3 times larger in countries without extensive collectivization of agriculture than in countries where higher collectivization levels meant a greater reach of the communist regime in the countryside. In contrast, the differences between rural and urban churchgoers are fairly similar to the difference between rural and urban nonchurchgoers.

**Differential Communist Exposure Effects for Men versus Women**

Finally, we turn to sex-based differences in communist exposure effects in Figure 6. The first set of estimates (Model 7) confirm that men were somewhat more influenced by communist exposure than women, but the difference was
substantively relatively small (15%) and only marginally significant (at .06 two-tailed.) The next tests presented in Figure 6 explore the mechanisms underlying this difference based on the logic laid out in Table 1.

The first mechanism, which builds on the strong moderating effects of religious attendance in Figure 4 and the fact that women in ex-communist countries were more likely to attend church, tries to assess whether the weaker communist exposure effects on women were due to the fact that women were “inoculated” with greater resistance against communist indoctrination because of their church attendance. We find at least some support for this expectation: thus, exposure effects were very similar for both male and female churchgoers, which means that religious attendance seems to have neutralized the greater effectiveness of communist socialization among men. Meanwhile, among respondents who attended church rarely or not at all, we can still detect stronger exposure effects among men, though the difference is substantively slightly smaller and less statistically significant. In other words, greater religious attendance seems to explain some—but not all—of the weaker socialization effects among women.

By comparison, we found much weaker support for the other three mechanisms we tested as possible explanations for sex-based differences in socialization effects. Thus, the estimates in the middle of Figure 6 (Model 9) suggest that the exposure differences between men and women were more pronounced in countries with higher female labor participation, which is the opposite of what we would expect to see if sex differences were due to women being more shielded from communist socialization because they were more likely to work in the home. Similarly, the greater exposure effects among men were clearer in countries with relatively higher CP membership rates among women, which is at odds with the logic of the mechanism whereby men were more affected by living under communist regimes due to their greater integration into the institutions of the CP state. Finally, the last set of estimates in Figure 6 fails to support the hypothesis that serving in communist militaries played an important role in explaining why men were more affected by communist exposure: exposure effects were very similar for men who were of conscription-age during the communist period and for those who were not, and both categories of men were more affected than women.30

Table 3 concisely summarizes the results of our mechanism-based empirical analyses:

**Conclusion**

Ideology has always occupied a crucial role in the study of political behavior. In this article, we have joined a handful of other scholars (Dinas &
Northmore-Ball, 2019; Neundorf, 2009) in attempting to expand the growing field of legacy studies—and postcommunist legacy studies in particular—to the topic of ideology. But rather than simply looking at the straightforward impact on left–right orientations, we have focused on what should be in many ways an even more direct legacy of communist regimes: a left-authoritarian orientation, characterized by a combination of embracing a leftist ideology and rejecting democratic values. We argue that this approach of looking at attitude combinations offers a fruitful new direction for attitudinal legacy studies by recognizing that particular regimes may shape not only how people think/identify along particular dimensions, but also how different identities and attitudes are linked to each other in their minds. Thus, communist regimes not only made their former subjects more leftist and less pro-democratic, but they also increased the “elective affinity” between leftist ideology and authoritarian regime preferences at the individual level.

The empirical analysis confirms that the greater prevalence of left-authoritarianism among postcommunist citizens was indeed a legacy of living through Communism. Not only were postcommunist citizens with longer personal exposures to communist regimes more likely to embrace left-authoritarianism than their compatriots with limited or no communist exposure, but the latter group does not even exhibit higher left-authoritarian proclivities than citizens of noncommunist countries. These dramatic and highly persistent cross-generational differences among postcommunist citizens suggest that the gradual disappearance of the postcommunist left-authoritarian bias was not driven by a gradual weakening of communist socialization effects but rather by a simple generational replacement process of left-authoritarian older generations giving way to younger generations less affected by communist socialization. The remarkable temporal

<table>
<thead>
<tr>
<th>Distinction</th>
<th>Predicted mechanism</th>
<th>Empirical support?</th>
</tr>
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<tbody>
<tr>
<td>Religion</td>
<td>Religious denom.</td>
<td>Yes</td>
</tr>
<tr>
<td>Religion</td>
<td>Religious attendance</td>
<td>Yes</td>
</tr>
<tr>
<td>Religion</td>
<td>Religious denom./attendance</td>
<td>Weak</td>
</tr>
<tr>
<td>Rural/Urban</td>
<td>State penetration of society</td>
<td>Yes</td>
</tr>
<tr>
<td>Rural/Urban</td>
<td>Religious attendance</td>
<td>No</td>
</tr>
<tr>
<td>Sex</td>
<td>Military participation</td>
<td>No</td>
</tr>
<tr>
<td>Sex</td>
<td>Workforce participation</td>
<td>No</td>
</tr>
<tr>
<td>Sex</td>
<td>Communist party membership</td>
<td>No</td>
</tr>
<tr>
<td>Sex</td>
<td>Religious attendance</td>
<td>Weak</td>
</tr>
</tbody>
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persistence of communist exposure effects among the older generations over the course of more than a decade of turbulent transitional politics is at odds with the expectations of the “life-time learning model” (Mishler & Rose, 1997, 2002), which would lead us to expect that the effects of earlier communist socialization would be gradually supplanted by postcommunist experiences. It is also worth noting that this lack of postcommunist updating—that is, the fact that the communist exposure effects seem to stay constant year after year in the postcommunist era—contrasts with the evidence in Figure 3 (and Figure A2 in the Supplemental Appendix) that there were no “diminishing returns” to communist regime exposure. Taken together, these two findings suggest that while political socialization can continue well into adulthood, there seem to be significant differences across political contexts. Although this question needs to be explored in greater detail by future research, the contrast between the strong and persistent effects of communist socialization and the weak effects of postcommunist exposure suggests that these differences could be driven by variations in either of the resources devoted to indoctrination, which were higher in communist regimes, or by the coherence of the political message, which was arguably lower during the postcommunist transition (with its often contradictory mix of liberal aspirations and communist nostalgia).)

The other main contribution of our article to the study of attitudinal legacies is that we have taken a first step toward unpacking the mechanisms underlying the heterogeneous impact of communist socialization on different types of postcommunist citizens. Although we confirm earlier findings that the effects of communist exposure were attenuated among Catholics and Protestants and among frequent attenders of religious services, we also show that the effects of church attendance were stronger among Catholics than among Protestants, which is in line with the more active anti-communist stance of the Catholic Church than its Protestant counterparts. Our analysis also unpacked the mechanisms underlying the differences in exposure effects based on place of residence and gender. Thus, we show that the stronger impact of communist exposure on urban residents was much more pronounced in countries where collectivization of agriculture had been less successful, which suggests that differences in the intensity of the communist socialization message were likely at the root of the urban–rural difference. Meanwhile, in trying to account for differential socialization effects among men and women, we found some evidence that they are rooted at least partially in the greater church attendance rates among women. Interestingly, we do not find any support for the importance of a range of additional plausible mechanisms, such as the role of gender-based differences in formal employment, CP membership, or military conscription.
One possible concern with the present study is that our reliance on left–right self-placement in constructing our left-authoritarianism category may ignore important variations in whether and how citizens of different countries understand left–right ideology (Neundorf, 2009; Thorisdottir et al., 2007). In earlier work (Pop-Eleches & Tucker, 2010), we demonstrated that while post-communist citizens do not have a significantly harder time placing themselves on a left–right scale, we nevertheless showed that they place greater emphasis on the economic than on the social dimension of left–right orientation. Therefore, in Table A6 in the Supplemental Appendix we show that if we follow Pop-Eleches and Tucker (2010) and define left–right in attitudinal terms (based on a uniform combination of social and economic liberalism), we find very similar links between communist exposure and left-authoritarianism as with the self-placement-based measure used in the main analysis. This finding should alleviate concerns that a different definition of “left–right” in postcommunist countries is driving our results here.

Overall, our study joins a small but growing number of analyses of legacy effects on political attitudes and identities generally, and the legacy of communist regimes more specifically. We have contributed to the accumulation of evidence in support of the living through Communism legacy model, which has important implications for the durability of these legacy effects. As we show in this article, such legacy effects should diminish over time, but, importantly, these reductions in legacy effects look to be due to generational replacement rather than weakening individual socialization effects as the memory of communism fades further into the past. This in turn raises two important questions for future research. First, under what conditions are legacy attitudes transmitted from parents to children? Our analysis of cohort differences suggests that (at least on average) this did not happen in the case of left-authoritarianism, but given that in our previous work (Pop-Eleches & Tucker, 2017) we did document parental transmission effects for market and welfare state attitudes, this question would benefit from systematic work across a broader set of attitudes and using data better suited for testing cross-generational transmission. Second, our study concluded before the recent rise of right-populism throughout Europe. This raises the question of whether aging left-authoritarians—contrary to what we found in the first two decades after the collapse of communism—have recently veered right, or, alternatively, if we are witnessing the rise of a new generation of right-authoritarians. This, however, remains a subject for future research.

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Notes
1. Although see Dinas and Northmore-Ball (2019).
2. On the right, we might say the same about Fascist Italy or Nazi Germany and the puppet regimes they established in Europe during World War II, or about some of the right-wing military regimes in Latin America in the 1970s. However, there are fewer of these regimes, and the “treatment” of exposure to these regimes—however consequential it may have been—was much shorter than communist rule in the 20th century.
3. See Figure A2 in the Supplemental Appendix.
4. The predicted left–right orientation is produced from an hierarchical linear model (HLM) of Left–Right self-placement on the Democracy support index interacted with a postcommunist citizen dummy and controlling for the year of the survey. See Section 3 below for more details on both the data and the methods.
5. Crucially, we estimate this effect independent of age; see Pop-Eleches and Tucker (2017, ch.3) for more details. The alternative model we consider in the book is the living in a postcommunist country model, whereby legacy effects are transmitted due to changes in society due to communist rule, and thus are not predicted to have different effects on people who lived through more or fewer years of communist rule; see Pop-Eleches and Tucker (2017, ch. 2) for more details.
6. Details on how we measure left-authoritarianism are found in Section 3.
7. Our measures for doing so, as described in Section 3, are, however, quite blunt, and some of them are only measured at the aggregate level. Thus, our findings should not in any way be taken as the last word on the matter, but merely an initial set of negative findings.
8. Historically, left-authoritarianism is most clearly associated with communist rule, making it a potentially interesting subject of study in the future outside of the postcommunist world. Although beyond the purview of this article, it could prove very interesting to understand why left-authoritarianism is more prevalent in some non-postcommunist countries than others. In particular, it would
be interesting to see if support from the Soviet bloc during the Cold War might predict higher levels of left-authoritarianism in the current era. Alternatively, it would be interesting to examine whether countries where China has made heavy investments in recent years have also witnessed a concomitant uptick in support for left-authoritarianism.

9. Although see Lefkofridi, Wagner, and Willmann (2014). There was a debate in the psychology literature in the early 1980s about whether the existence of left-authoritarians was more myth or reality, but this predated the collapse of communism; see, for example, Stone (1980); Eysenck (1981); and Ray (1983).

10. It is of course possible that regimes could trigger such powerful resistance as to produce the opposite effect of the desired indoctrination (see Dinas & Northmore-Ball, 2019). Although our tests are designed to uncover such effects, we nevertheless expect the main effects to be in line with communist socialization given our earlier findings that ex-communist citizens were more opposed to markets and democracy more favorable toward state provision of welfare (Pop-Eleches & Tucker, 2017), which is indeed what we found. Nevertheless, for anyone who considers the backlash hypothesis more appealing, Figure 1 can be interpreted as evidence that rejects this hypothesis.

11. In the time period covered by this study, the one notable exception was the Czech Social Democratic Party (CSSD), which was, however, quite centrist in its ideological positions.

12. Of course, this desire was stronger under certain types of communist regimes than others, a point we return to in more detail shortly.

13. Although note that we found the opposite—that socialization effects were stronger in postcommunist countries for years lived under communist rule as an adult as opposed to as a child—in previous work (Pop-Eleches & Tucker, 2017).

14. We unfortunately do not have individual-level measures or religious attendance during the communist period, so we rely on self-reported church attendance at the time of the survey as a proxy for prior church attendance under communism, with the recognition that this is a noisy measure.

15. We omitted China, Cuba, and Vietnam from all analyses on the ground that these are not postcommunist countries, but nor does it make any sense to group communist countries with the category reserved for our control group that did not experience communist rule. Unfortunately, the democracy questions were not asked in the 1989-1993 wave of World Values Survey (WVS), so we could not include surveys from that wave in our main analysis.

16. We address the possibility and implications of different conceptions of left–right ideology among postcommunist citizens in the conclusion. We also present supplementary analyses in Supplemental Appendix II demonstrating that our main findings in the article are robust to alternative approaches to defining and measuring left–right orientation designed to account for differences in conception of left–right across countries.

17. For details about the construction of the democracy index and question wording, see Table A3 in the Supplemental Appendix.
18. See Figure A2 in the Supplemental Appendix for an overview of left-authoritarianism by country.

19. We defined hardline communist exposure as the sum of years a respondent spent in either a Stalinist or a neo-Stalinist regime, whereas softline communist exposure combined post-totalitarian and reform communist regime subtypes. For details on the timing of different subtypes by country, see Pop-Eleches and Tucker (2017, p. 51).

20. Our identification strategy for finding an effect for years of exposure while controlling for the age of respondents is as follows. First, ceiling effects on exposure to communism lead to the fact that—at least for citizens of East Central Europe—age will not be perfectly correlated with exposure for the oldest respondents. Second, communism did not start and end at the same time in all countries, especially when comparing East-Central European and interwar former Soviet republics. Thus, even among the former communist countries, respondents of the same age in a given survey year will have had different years of exposure to communism (e.g., a 70-year-old Russian surveyed in 1999 will have had significantly more exposure to communism than a 70-year-old from Poland surveyed in 1999 due to the earlier start date and later end of communism in the former country compared with the latter). Most importantly, we draw on data that includes multiple countries that were surveyed multiple times over a time period spanning almost two decades. Therefore, if we compare respondents from the same country across different years, we can also get respondents of the same age different lengths of communist exposure (e.g., a 40-year-old surveyed in 1992 will have had 10 more years of exposure to communism than a 40-year-old in the same country surveyed in 2002). See Pop-Eleches and Tucker (2014) for additional details about this approach.

21. The former category included the five former Yugoslav republics in the WVS surveys (Serbia, Croatia, Slovenia, Macedonia, and Bosnia-Herzegovina) plus Poland.

22. Unfortunately we had no information as to whether WVS respondents had actually served in the military or for how long.

23. As temporal coverage was uneven and undermined the direct cross-country comparability of labor participation statistics, we used a cutoff of 50% female labor participation. The countries in our WVS surveys that were classified as low were Albania, Azerbaijan, and the five former Yugoslav republics (Serbia, Croatia, Slovenia, Macedonia, and Bosnia-Herzegovina).

24. As comparable cross-country statistics in sex ratios among Communist Party (CP) members were not available, we calculated these ratios based on the survey responses to a question about individual CP membership in the Life in Transition Surveys (European Bank for Reconstruction and Development [EBRD], 2011).

25. See Table A1 in the Supplemental Appendix for a list of these variables. We do not, however, control for differences in postcommunist economic and political performance because we worried about introducing posttreatment bias in our analyses. Although this may of course result in omitted variable bias, we address these concerns by presenting country and year-fixed effects models in Table 2.
26. Although probit/logit models would have been more appropriate given the dichotomous dependent variable, Stata does not allow the use of weights with multilevel probit models. However, in Table A4 in the Supplemental Appendix we show that our results are virtually identical when using probit models with clustered standard errors.

27. For a more thorough explication of this approach, see Pop-Eleches and Tucker (2017, ch. 3).

28. We found no evidence of diminishing exposure effects—on the contrary, exposure effects seem to get somewhat stronger for longer exposure (see Figure A2 in the Supplemental Appendix).

29. Note that exposure effects among urban respondents were very similar across countries with low versus high levels of collectivization. This suggests that communist regimes that did not manage to implement extensive collectivization were not uniformly less effective in socialization—the difference only applied to rural respondents.

30. Although the statistical significance of the gender difference was weaker than in the estimates at the top of Figure 6, this is largely due to the larger standard errors resulting from the smaller number of respondents in the two male subsamples.

31. This presents an interesting contrast to the literature from advanced industrialized democracies, which was in agreement that the *early* years of one’s life were important for political socialization, with much more debate about the extent to which later experiences matter (Krosnick & Alwin, 1989; Osborne, Sears, & Valentino, 2011; Prior, 2010; Sears & Valentino, 1997; Visser & Krosnick, 1998).

References


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