The Social Origins of Authoritarianism

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Abstract

Despite much attention to the problematic consequences of authoritarianism, little research focuses on the causes of such unquestioning respect for 'proper' authority. Elaborating on the social learning approach to authoritarianism, this paper argues that economic inequality within countries shapes individuals' feelings towards authority. As differences in condition among members of a society increase, so does the relative power of the wealthy. As a result, regardless of their incomes, individuals' experiences are more likely to lead them to view hierarchical relations as natural and, in turn, to hold greater respect for authority. Multilevel models of authoritarianism in countries around the world over three decades support this relative power theory.

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1 Introduction

Why do some people so often just do as they are told? In their unhesitating obedience to orthodox authorities—and indeed, their demands that their fellow citizens similarly obey—such authoritarian individuals are thought to have provided a crucial base of mass support for some of the worst political disasters of the past century, from aggressive war to genocide. The extent to which a country's citizens prefer simply to conform to the pronouncements of 'proper' authority or instead are inclined to think for themselves is therefore a matter of great importance.

The many undesirable consequences of greater deference to such authority have been well established empirically over more than a half century of study. A few examples will suffice. Individuals who are more authoritarian have been repeatedly demonstrated to be more intolerant of ethnic, religious, sexual, and political minorities (e.g., Adorno et al. 1950; Altemeyer 1988; Stenner 2005; Mockabee 2007). Greater respect for authority yields ready support for the aggressive use of military force (e.g., Herzon, Kincaid, and Dalton 1978; Kam and Kinder 2007; Barker, Hurwitz, and Nelson 2008; Hetherington and Weiler 2009). And higher levels of authoritarianism make individuals much more likely to condone and even endorse illegal and blatantly undemocratic government behavior (e.g., Altemeyer 1981; Geddes and Zaller 1989; Canetti-Nisim 2004).

In contrast, the *origins* of respect for authority are far from certain. This paper elaborates on the social learning approach to explaining authoritarianism by arguing that contexts of greater economic inequality shape experiences with authority in ways that should be expected

to increase authoritarianism. Multilevel models that bring together data on authoritarianism from the five waves of the World Values Survey (WVS), conducted over more than two decades in dozens of countries around the world, with inequality data from the Standardized World Income Inequality Database (SWIID) provide impressive support for this hypothesis. These findings constitute important contributions to our understanding of both the origins of authoritarianism and the political effects of economic inequality.

2 Economic Inequality and Authoritarianism

To date, studies of the causes of authoritarianism have taken one of two theoretical approaches; unfortunately, neither provides satisfactory explanations for the wide variations in the extent of deference to authority found across countries and over time. The first approach maintains that respect for authority is innate and genetically determined: some people by their very nature are simply more authoritarian than others (e.g., McCourt et al. 1999; Stenner 2005, 145-146). If authoritarianism is simply inborn, then large cross-national variation must reflect great differences in the genetic endowment of the populations of different countries, a possibility that is extremely unlikely. As has been observed with reference to other behavioral phenomena, wide variation across countries "precludes a deterministic biological account" (Penner 2008, S140).

The second approach casts authoritarianism as the product of social learning, the result of one's individual experiences with authority (e.g., Altemeyer 1988, 54-62; 1996, 76-77). However, this explanation is ultimately unsatisfying: people may be more authoritarian

when they have had experiences with authority that lead them to be so, but the question of why such experiences are more common in some countries and times than others remains unaddressed.

The relative power theory suggests that the answer to this question is economic inequality. It maintains that when economic resources are distributed more unequally, power is distributed more unequally as well (see, e.g., Solt 2008). Societies with higher levels of economic inequality are concomitantly more hierarchical, making experiences that reinforce vertical notions of authority more common and so authoritarianism more widespread.

This is perhaps most easily seen with regard to economic relationships. Money is by definition power in the market; a higher level of economic inequality therefore constitutes a more hierarchical distribution of market power. Everyday economic life provides people with a continuous stream of cues about the shape of this hierarchy and their own position within it. When inequality is greater, poorer individuals are more often in positions of subservience. At work, the greater threat posed by unemployment means that they must increasingly submit to the demands of their employers. In the marketplace, they must accept that they have no access to goods and services that others enjoy or risk incarceration. For richer individuals, on the other hand, greater inequality means that it is easier to find someone who will promptly and unquestioningly fill their orders—whether to deliver a new luxury automobile or to tend to their lawns and gardens. For both richer and poorer individuals, greater economic inequality makes market relations with others much more likely to be characterized by obedience and deference.

Such experiences with authority in the economic sphere should be expected to affect people's attitudes towards authority more generally. It is difficult to view, for instance, one's employer as a superior whose orders must be obeyed without question without viewing government officials similarly (cf. Goodin and Dryzek 1980, 285). Conversely, to continue this example, as greater equality erodes the extent to which employers can demand strict compliance from their workers, the habit of obedience to other authorities also fades. This is an observation that de Tocqueville (1990) made repeatedly: the relative economic equality he saw in the United States in the early nineteenth century led the people there to insist that they were equal in all ways and so to refuse to be deferential to anyone. As economic inequality increases, people are more and more trained by the market to expect command and obedience, and these lessons are then applied in other settings as well.

The relative power theory further suggests that the increased direct exposure to hierarchical experiences just described is complemented by more complete cultural domination. When economic inequality is greater, those among the relatively rich who believe that established authority must always be respected not only are more numerous, they also have more resources to spread this view in the public sphere. Poorer citizens, on the other hand, have fewer resources to resist these efforts in such circumstances, and their greater relative powerlessness leads to "a greater susceptibility to the internalization of the values, beliefs, or rules of the game of the powerful as a further adaptive response—i.e., as a means of escaping the subjective sense of powerlessness, if not its objective condition" (Gaventa 1980, 17). Whether through direct experience or cultural domination, people's views toward authority

are not mere projections of some innate tendency; instead, they reflect the actual social worlds in which they live (see Gabennesch 1972).

The relative power theory is not the only argument linking economic inequality and authoritarianism, however. Insecurity theory provides an alternate understanding of the relationship. In this view, reflexive deference to traditional authority should be understood as a coping mechanism that is adopted when individuals doubt their ability to provide themselves and their families with the necessities of survival and inclusion in their societies (see, e.g., Inglehart and Baker 2000). The psychologically damaging effects of feared or actual deprivation and social isolation are countered by clinging to the refuge of unquestioning obedience to authority: one cannot be faulted, much less stigmatized, if one 'plays by the rules' laid down by traditional authorities. Because economic inequality increases the insecurity of a society's poorer members, they should be expected to become more authoritarian as inequality increases. But because greater economic inequality means not only that the poor are poorer but also that the rich are richer, more inequality should reduce authoritarianism among the more affluent. In other words, the insecurity theory predicts that the effect on one's attitudes towards authority of the distribution of economic resources varies depending on where one falls within the distribution: more inequality should increase authoritarianism among the poorer members of a society, but decrease the authoritarianism of richer members.

Whether greater economic inequality increases authoritarianism among all members of a society, as suggested by the relative power theory; only among the poor, in accordance with the insecurity theory; or not at all, as deterministic arguments for innate and genetic causes

would have it, has yet to be examined empirically. This article provides a first test.

3 Data and Measures

To examine whether and how the extent to which individuals respect authority is affected by the context of economic inequality in which they live, I drew on data from the five waves of the World Values Survey (WVS) conducted between 1981 and 2007, the Standardized World Income Inequality Database (SWIID), and several other sources. The resulting dataset encompasses over two hundred thousand individuals, in over one hundred ninety different country-year contexts, from seventy-eight different countries around the world. The variables included in this dataset are described below.

Authoritarianism. How authoritarianism should be measured has been a central issue in the study of the topic for much of the past half-century. The F-scale originally developed by Adorno et al. (1950) to capture the phenomenon suffered multiple defects that drew a great deal of scholarly attention. The Right-Wing Authoritarianism (RWA) scale addressed these problems (Altemeyer 1981, 1988, 1996), but introduced new ones by incorporating indicators of intolerance, aggression, and conservatism that confuse authoritarianism with its hypothesized effects (Feldman and Stenner 1997; Feldman 2003; Stenner 2005). Recent works have reached the conclusion that child-rearing values are the best indicator of authoritarianism, in particular, whether one considers it especially important for children to learn obedience. The question of how best to raise children is an especially good measure because it invokes fundamental orientations toward authority while remaining both relatively

unobtrusive and distinct from any of authoritarianism's hypothesized effects by avoiding reference to specific political situations (e.g., Stenner 2005, 23-24; Hetherington and Weiler 2009, 48-50).[1]

The WVS offers respondents a list of desirable qualities and asks which, if any, they consider especially important for children to learn: those who chose "obedience" from the list of options were coded one on this variable, and those who did not were coded zero.[2]

Although not employed in the broader literature on authoritarianism, the WVS provides two additional items that provide additional insight. The first is a remarkably straightforward measure of general attitudes towards authority. People were asked to consider a change in their society in the near future towards a greater respect for authority. Those who

[1]In fact, preferences for obedience in childrearing have a long history as a measure in the study of authoritarianism and related concepts. Martin (1964, 86), for example, argued they are ideal for such purposes because what "a person endorses reveals his values, especially regarding the goals of socialization, i.e., what he considers to be the ideal person as an adult." Even earlier, the original F-scale included opinions on the statement "obedience and respect for authority are the most important virtues children should learn" (Adorno et al. 1950, 246).

[2]Stenner (2005, 91) used WVS data to create an authoritarianism index of five different childrearing values: obedience, good manners, tolerance, independence, and imagination. I have chosen not to adopt this index because valuing tolerance conflates authoritarianism with one of its hypothesized effects and because the relationships between authoritarianism and each of the other three values, while perhaps justifiable empirically, are somewhat tenuous conceptually. Nevertheless, a separate analysis of Stenner's index yielded substantively similar results to those presented here for the more straightforward indicator just described.

answered that such a change would be 'a good thing' are coded one; all others are coded zero. A more complex measure based on this question is possible: a three-point scale that distinguishes among the respondents who would welcome increased respect for authority, those who expressed ambivalence, and those who would consider such a change to be a bad thing. This more complicated measure yields substantively similar results, however, and I adopt the simpler measure to facilitate presentation and interpretation. The mean score on this variable across countries and years ($N = 195$) correlates with preferences for obedience at .54 ($p < .001$).

A final measure focuses on authority in the workplace. The WVS asked whether one should follow one's superior's instructions even when one does not fully agree with them or, alternatively, if one should only follow orders when convinced that they are right; respondents were also offered the answer that it depends on the circumstances. Those who answered that orders should always be followed are coded one, and all others are coded zero. Here, too, the ambivalent responses could be coded as a third, intermediate, category, but again the more complicated measure provides results that are substantively similar to those found using the dichotomous measure, and I again choose to present the simpler operationalization. There is reason to question the extent to which this measure captures authoritarian attitudes. Recall that authoritarianism involves submission to a particular kind of authority: only 'proper' leaders are entitled to unquestioning respect. Superiors in the workplace (as elsewhere) who express uncertainty or who fail to conform to convention are vulnerable among authoritarians to not being considered authorities at all, and those lacking the ability to hire and fire are

unlikely to be propped up by economic inequality. Still, it is quite plausible that those who opine that orders should always be followed in the workplace are more authoritarian on average that those who do not. Across countries and years, the percentage of respondents who say orders should always be followed at work are correlated with the percentage that considers obedience especially important at .27 and with the percentage preferring more respect for authority at .31 (both $p < .001$), suggesting that attitudes toward workplace authority are indeed related to and yet distinct from the more general attitudes toward authority captured by those measures. Given that the workplace is an important site of social learning according to the relative power theory, this measure should nevertheless provide us with additional insight into economic inequality's effect on authoritarianism.

Economic Inequality. To determine whether economic inequality can explain differences in authoritarianism across individuals and their societies, we turn to the SWIID for data. Until recently, research on the political effects of economic inequality has been hampered by a lack of comparable data (Neckerman and Torche 2007, 349). Based on inequality data from UNU-WIDER (2008), the Luxembourg Income Study (2009), and additional sources, the SWIID maximizes the comparability of observations for the largest possible sample of countries and years (Solt 2009). I use SWIID data on the Gini index of inequality in net household income for each country and year in our dataset. The Gini index has a theoretical range of 0, which indicates that every household receives an equal share of income, to 100, which indicates that a single household receives all income.

[Figure 1 about here.]

Figure 1 displays the simple bivariate relationships between income inequality and the country-year averages for each of the three WVS measures of authoritarianism. For the questions on obedience as a childrearing value and the desirability of more respect for authority, the percentages of respondents offering the more authoritarian response exhibit strong and easily visible relationships with income inequality. Inequality has a somewhat weaker bivariate relationship with average attitudes toward authority in the workplace, but the correlation is still positive and statistically significant ($p < .001$). That authoritarianism becomes more common with increasing inequality is evidence that some sort of social learning plays a role, but this finding of course cannot adjudicate between the relative power and insecurity theories, which differ in their predictions regarding inequality's effects on individuals of different incomes. Further, many other factors have been suggested to influence authoritarianism and must be taken into account before any firm conclusions are drawn.

Control Variables. A number of aspects of context may help explain why the citizens of some countries are generally more authoritarian than those of others. Economic development is the subject of conflicting hypotheses. Some scholars maintain that as societies grow richer, they allow their members to feel more secure and so to rely less on values that demand obedience to traditional authorities (e.g., Inglehart and Baker 2000). Others argue that the enhanced opportunities that come with development place more responsibility on the individual and thereby trigger a tendency to flee from freedom into reliance on authority (e.g., Fromm 1941; Osterreich 2005). I measure economic development using contemporary GDP per capita, in thousands of 2005 U.S. dollars and adjusted for differences in purchasing

power (Heston, Summers, and Aten 2009).[3] Inglehart and Baker (2000, 38-39) argue that countries' cultural heritages affect the authoritarianism of their inhabitants, with people in historically Roman Catholic countries displaying greater respect for authority and the peoples of countries with a Confucian heritage exhibiting generally less authoritarianism; they also contend that those living in countries with a history of Communism should be expected to be less authoritarian.[4] If tendencies to submit to authority are actually the result of preferences for sameness and conformity rather than their cause (e.g., Feldman 2003; Stenner 2005), the degree to which individuals are confronted with ethnic diversity would seem likely to be relevant.[5] Ethnic diversity is measured as the percentage probability that two randomly selected individuals in a country are of different ethnic groups (Alesina et al. 2003). Finally, nondemocracies may successfully inculcate their citizens with habits of unquestioning and uncritical respect for authority; if this is true, those who live under democratic regimes

[3]Additional measures of modernization that appear in the literature—the size of the industrial or agricultural sectors of the economy or the 'industrial phase,' the difference between the sizes of the industrial and agricultural sectors—were not found to have important effects and their inclusion did not substantively change the results presented below.

[4]I adopt the dichotomous variables employed by Inglehart and Baker (2000) to capture these hypothesized effects of culture. Those authors also propose a more complex division of the world that involves nine different cultural zones as well as the ex-Communist 'superzone.' This more nuanced view of cultural heritages, however, yields substantively similar results, as does excluding the somewhat undertheorized cultural variables from the model entirely.

[5]As ethnic diversity is sometimes thought to yield greater economic inequality (e.g., Tilly 1998), it is especially important to account for whatever effect it may have on authoritarianism to avoid the potential for omitted-variable bias.

should on average exhibit lower levels of our dependent variables than those who do not.[6] Authoritarianism may be expected to decline with the age of the democratic regime, because in younger democracies many citizens have lived substantial fractions of their lives under authoritarian rule (cf. Geddes and Zaller 1989, 331).[7]

Individual characteristics have been the almost exclusive focus of empirical studies of the roots of respect for authority; indeed, the few cross-national studies on the causes of authoritarianism that have been conducted have focused on the extent to which individual characteristics retain their predictive power across contexts rather than the effects of the contexts themselves (e.g., Miller, Slomczynski, and Kohn 1985; Kemmelmeier et al. 2003). It has long been argued that, within any given country, relatively poor and less educated individuals are more authoritarian than their richer and better educated fellow citizens (e.g., Lipset 1959; Lipsitz 1965). Further, one's relative income is central to the insecurity theory of social learning: as economic inequality grows, the circumstances of relatively poor individuals are more and more insecure, and so they increasingly cling to established authority for comfort. Relative income here is measured as the income quintile of the respondent's household within her or his country at the time of the survey. Age is also thought to have a strong positive influence on authoritarianism, although some have found that the effects attributed

[6]Following Przeworski et al. (2000, 15-16), I define democracy as a regime in which the occupants of the country's most important political offices are determined through contested elections with broad suffrage.

[7]The age of democracy was therefore topcoded at 70 years in these analyses, the point at which nearly all citizens had spent their entire adult lives under democratic rule. Using the unbounded age of democracy did not yield substantively different results.

to age merely reflect other life experiences such as getting married or having children (e.g., Altemeyer 1996, 85-88). Differences in the prevalence of these characteristics could account for differences in the prevalence of authoritarianism across countries and over time. The analyses therefore include controls for each individual's household income quintile, years of education, age, gender, marital status, and number of children.

4 Method

To accurately assess the causes of authoritarian values requires not only individual-level data, but also a method that distinguishes between variables that differ across individuals (such as age), those that vary only across countries and over time (like income inequality), and those that vary only across countries and not over time (such as Catholic heritage). If this three-level nature of the data is neglected, the assumption of independent errors is violated (see Steenbergen and Jones 2002). Therefore, the data are analyzed using an explicitly multilevel model. For individual i in country-year j in country k, the equation for this model is:

$$\begin{aligned} Authoritarianism_{ijk} = {} & \gamma_{000} + \gamma_{100} Age_{ijk} + \gamma_{200} Education_{ijk} \\ & + \gamma_{300} Female_{ijk} + \gamma_{400} Married_{ijk} \\ & + \gamma_{500} Children_{ijk} + \gamma_{600} Income\,Quintile_{ijk} \\ & + \gamma_{010} Inequality_{jk} + \gamma_{610} Inequality_{jk} \times Income_{ijk} \\ & + \gamma_{020} GDP/Capita_{jk} + \gamma_{040} Democracy_{jk} \\ & + \gamma_{050} Age\,of\,Democracy_{jk} \\ & + \gamma_{001} Historically\,Catholic_{k} + \gamma_{002} Confucian_{k} \\ & + \gamma_{003} Ex\text{-}Communist_{k} + \gamma_{004} Ethnic\,Diversity_{k} \\ & + r_{0jk} + r_{6jk} Income_{ijk} + u_{00k} \end{aligned} \tag{1}$$

In addition to including predictors at all three levels of analysis, each with a coefficient γ, this multilevel model includes both varying intercepts and varying slopes (see Gelman and Hill 2007). That is, first, that through separate error terms for each country (u_{00k}) and country-year (r_{0jk}), it allows the average level of authoritarianism within these units to vary to reflect circumstances in a particular country or year that remain outside of the model.[8] And second, it includes a separate error term for the coefficient of household income quintile (r_{6jk}) and so allows the estimated effect of this variable to vary from one country-year context to the next. As all of the measures of authoritarianism are dichotomous, the model was estimated using logistic regression. The analyses were conducted using HLM 6.0, and, given the hints of heteroskedasticity evident in Figure 1, robust standard errors were calculated.

Finally, it is important to remember that interaction terms require particular care in interpretation (e.g., Braumoeller 2004). The marginal effect of inequality on the authoritarianism of individuals with a given income is calculated as the partial derivative of Equation (1) with respect to inequality: $\frac{\partial Authoritarianism_{ijk}}{\partial Inequality_{jk}} = \gamma_{010} + \gamma_{610} Income_{ijk}$. That is, the estimated effect on an individual's authoritarianism of a change in inequality equals the sum of the estimated coefficient of inequality, γ_{010}, and the product of the coefficient of the interaction between inequality and income, γ_{610}, and the individual's income. The relative power and insecurity theories make distinctly different predictions regarding these coefficients. The insecurity theory predicts that the coefficient of economic inequality, γ_{010}, will be positive and

[8] In this way, the model is similar to fixed-effect pooled time-series models, which include dummy variables for each country to capture country-specific effects.

that the interaction between inequality and income, γ_{610}, will be strongly negative so that inequality has a negative effect on the authoritarianism of richer individuals. The relative power theory also predicts that γ_{010} will be positive, but maintains that γ_{610} will *not* be strongly negative: inequality will have a strong positive effect on the authoritarianism of all people regardless of their incomes.

5 Analysis and Results

According to the multilevel analyses, the extent of economic inequality in a country is a powerful predictor of the authoritarianism of its citizens. Table 1 presents these results. The first column reports the model of preferences for obedience in childrearing, the second displays the results regarding sentiments on increased respect for authority, and the third the analysis of views on authority in the workplace. Income inequality has a positive effect on all three of the dependent variables and this effect is strong and statistically significant across all incomes. Contrary to the expectations of insecurity theory, γ_{610} is positive for all three dependent variables, meaning that inequality has a larger positive effect on the authoritarianism of those with higher, not lower, incomes. For favoring increased respect for authority and obeying orders at work, the variation across incomes is negligible, both small and failing to statistically significance. These results match the expectations of the relative power theory of social learning and disconfirm the insecurity theory.

[Table 1 about here.]

How strongly does inequality influence authoritarianism? Because the dependent vari-

ables are dichotomous, the coefficients are in logits and so their magnitudes are difficult to interpret directly. Therefore, I used the results to calculate the predicted probabilities of an authoritarian response to each question over the observed range of income inequality when all other variables are held constant at their median values. The results are depicted graphically in Figure 2.

[Figure 2 about here.]

Inequality was estimated to increase the probability of maintaining that obedience is particularly important for children to learn by as much as 26 percentage points, with a 95% confidence interval of plus or minus 12 points, for the hypothetical typical person in a typical context. Although not shown in Figure 2, this effect is estimated to increase with income: for an otherwise typical individual in the poorest household income quintile, the maximum increase in the predicted probability of favoring obedience is only 22 ± 13 percentage points, while one in the richest quintile is estimated to be 30 ± 11 points more likely to hold this authoritarian position in the most unequal context observed than in the least. These were the strongest effects in the model. Those with eighteen or more years of education were 23 ± 4 points less likely to value obedience over other traits than those who were otherwise similar but completely without schooling. This probability was estimated to be 16 ± 10 percentage points lower for those living in countries with a Confucian heritage. The estimated maximum effects, under these assumptions, of children (3 ± 2) and marriage (1 ± 1) were statistically significant but very small.

The probability of preferring more respect for authority in one's society was also esti-

mated to be strongly influenced by the context of economic inequality. Moving from the lowest to the highest observed level of inequality was predicted to increase the probability of an authoritarian response to this item by 21 ± 19 percentage points. This estimate was essentially constant across all income quintiles, and it was second in magnitude to only the estimated 31 ± 19 percentage-point difference between countries with and without a history of Confucianism. Age and education also had substantively important effects: the probability of welcoming more respect for authority was estimated to be 23 ± 4 points higher for the oldest individuals than for otherwise similarly typical eighteen-year-olds and 11 ± 5 points lower for the most educated than the least. This probability was 8 ± 8 points higher in countries with a Catholic religious heritage. Otherwise typical married people were just 3 ± 1 points more likely to say that more respect for authority would be a good thing than their single counterparts.

Finally, the predicted probability of maintaining that orders in the workplace should always be carried out was estimated to rise 26 ± 10 percentage points over the observed range of income inequality, again holding all other variables constant at median values. For this measure, as with preferences for more respect for authority, greater inequality corresponds with nearly identical increases in authoritarianism for all income quintiles. Older people (by up to 17 ± 3 percentage points) and the less educated (by as much as 15 ± 2 points) were also estimated to be more likely to give the authoritarian response to this item. Surprisingly, typical individuals living in the oldest democracies were estimated to be as much as 18 ± 9 percentage points *more* likely to support unquestioning obedience at work than otherwise

similar people living in the newest democracies or under authoritarian rule. People in Confucian countries (by 6 ± 4 points) were less so. Women were estimated to be generally less inclined than men to endorse absolute obedience at work, but by only a tiny amount (2 ± 1 points).

Modernization had no consistent effects on authoritarianism in these analyses. Nor did greater ethnic diversity provoke more demand for conformity through submission to authority. Living in a country with a history of Communism does not appear to affect one's attitudes toward authority either. And the effect of income on authoritarianism is not statistically distinguishable from zero at any observed value of income inequality. To the extent that the Lipset (1959) hypothesis of working-class authoritarianism can be maintained, these results suggest that it is differences in education rather than income that are important (see, e.g., Lipsitz 1965).

Returning to the focus of this inquiry, these analyses demonstrate that economic inequality has strong effects on respect for authority: people who live in contexts of greater inequality are considerably more likely to express more authoritarianism however it is measured. Inequality does not increase the authoritarianism of only the poorest segments of society as suggested by the insecurity theory. Instead, all individuals regardless of income appear to learn greater respect for authority from their more hierarchical social context. The best predictor of differences in authoritarianism across countries since the early 1980s is not the level of development or some aspect of cultural heritage, as earlier studies have suggested, but rather the extent of economic inequality.

6 Conclusions

Despite a resurgence in research on authoritarianism and its consequences in recent years, relatively little progress has been made in explaining its causes. Building on the social learning approach to understanding why some people are so willing to uncritically obey the directives of orthodox authorities, I have argued that the context of economic inequality shapes individuals' experiences with authority and so their attitudes towards it: people will be more likely to simply defer to authority when they live in societies that are in fact more hierarchical. The evidence presented by this study provides powerful support for this relative power theory. Across the countries and over time, where economic inequality is greater, authoritarianism is substantially more widespread among all citizens, regardless of their incomes.

The vast literature on the authoritarianism's effects suggests that this finding has a number of important implications. Research into authoritarianism began as an effort to find the roots of widespread intolerance for Jews in Nazi Germany (Adorno et al. 1950), and the powerful relationship between authoritarianism and intolerance for minorities of virtually all kinds has been well established since then (see, e.g., Stenner 2005). That economic inequality stimulates authoritarianism, then, suggests that redistributive policies should be an effective means of reducing tensions across lines of ethnic or religious difference, curbing discrimination against sexual minorities, and gaining greater respect for advocates of uncommon political views. Conversely, failure to address rising levels of inequality should be expected to yield more intolerance.

Authoritarianism has also long been linked to xenophobia and anti-immigrant sentiment (see, e.g., Hetherington and Weiler 2009); this work therefore sheds additional light on the conditions that promote the acceptance and incorporation of immigrants. Crepaz and Damron (2009) recently found that in a cross-section of fifteen advanced democracies, people living in countries with social-democratic, decommodifying welfare policies are less likely than those where benefits are residual and means-tested to believe that immigrants reduce wages, take jobs away from native-born workers, and are a drain on public services. That higher levels of inequality induce more authoritarian attitudes in countries around the world, most of which have limited welfare spending of any sort, suggests that it is not merely the universalistic form of such social-democratic policies, as Crepaz and Damron (2009, 439-443) argued, but also their inequality-reducing economic consequences that lead to a greater acceptance of immigration. If economic inequality rises despite universalistic welfare policies, xenophobic responses to immigrants can be expected to increase as well (cf. Jesuit, Paradowski, and Mahler 2009, 288).

Another and perhaps even more alarming implication relates to the risk of international conflict. A long line of research has demonstrated that more authoritarian individuals are much more likely to prefer the use of military strength over diplomatic means and to advocate the aggressive use of military force (see, most recently, Kam and Kinder 2007; Barker, Hurwitz, and Nelson 2008; and Hetherington and Weiler 2009). Because they spur authoritarianism, then, higher levels of economic inequality can be seen as a potential threat to the peaceful resolution of international disputes.

Finally, the results presented here underscore the importance of a sophisticated understanding of genetic influences on political phenomena like authoritarianism. By examining twins reared together and apart, McCourt et al. (1999) sought to isolate the genetic and environmental influences on authoritarianism and concluded that genes accounted for about 50% and environment just 35% of the variation observed. But as Charney (2008) pointed out, biologists and geneticists generally reject such efforts to separate 'nature' from 'nurture.' They instead recognize that genes and environment *interact* to generate complex characteristics: the environment influences the action of genes and genes influence an individual's sensitivity to the environment. In other words, due to differences in their genetic inheritance, some individuals will exhibit a given trait when the relevant environment is even mildly stimulating but others will manifest that trait only in a much more stimulating setting, if ever. In any given environment, the trait will exhibit considerable heritability—that is, those who display the trait will tend to differ genetically from those who do not—but in mildly stimulating environments the trait will be much less common than in very stimulating ones (see, e.g., Wahlsten and Gottlieb 1997; McClearn 2004). Viewed against the backdrop of the finding by McCourt et al. (1999) of substantial heritability, then, the sharply increasing frequency of authoritarian attitudes with rising economic inequality found here is powerful evidence of gene-environment interaction: genes alone do not predestine one to authoritarianism regardless of context.

This, in turn, has profound implications for democracy. Reasoning from the proposition that the heritability of authoritarianism renders it fixed and immutable, Stenner (2005, 329-

330) concluded that nothing can be done to ensure the survival of democracy but give in to the demands of the most authoritarian individuals. Mincing no words, she recommended discouraging open dissent, insisting that minorities conform, and demonizing foreigners. One might reasonably question to what extent democracy could possibly survive these "hopeful" but "clear-eyed" prescriptions (Stenner 2005, 329).

In the presence of gene-environment interaction, however, heritability does not imply immutability at all (see, e.g., Wahlsten 1997). It is well established, for example, that height is extremely heritable: relatively tall people in any society are very likely to have had relatively tall biological parents, even if they were adopted. But height is also well understood to be the result of the interaction of genes with certain manipulable aspects of the environment, and so its heritability does not put it beyond the reach of policy. In fact, the effects of improvements in public health and in the availability of nutritious food are readily observed in increased heights from one generation to the next as well as changes in cross-national differences in height over time (see, e.g., Charney 2008, 301).

By demonstrating that authoritarianism is profoundly shaped by the level of economic inequality in a society, therefore, this article suggests a very different set of recommendations than those Stenner (2005) offered to avoid the dangers to democracy posed by authoritarianism. Redistributive policies, by shrinking economic inequality, erode the hierarchies that make holding an uncritical respect for authority appear reasonable among those who may be genetically predisposed to be especially sensitive to this part of their environment. The resulting declines in authoritarianism would reduce intolerance of minorities, acquiescence to

unlawful government action, and aggression against outsiders. The democracy so preserved would indeed be worth saving.

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Figures and Tables

Figure 1: Economic Inequality and Authoritarianism

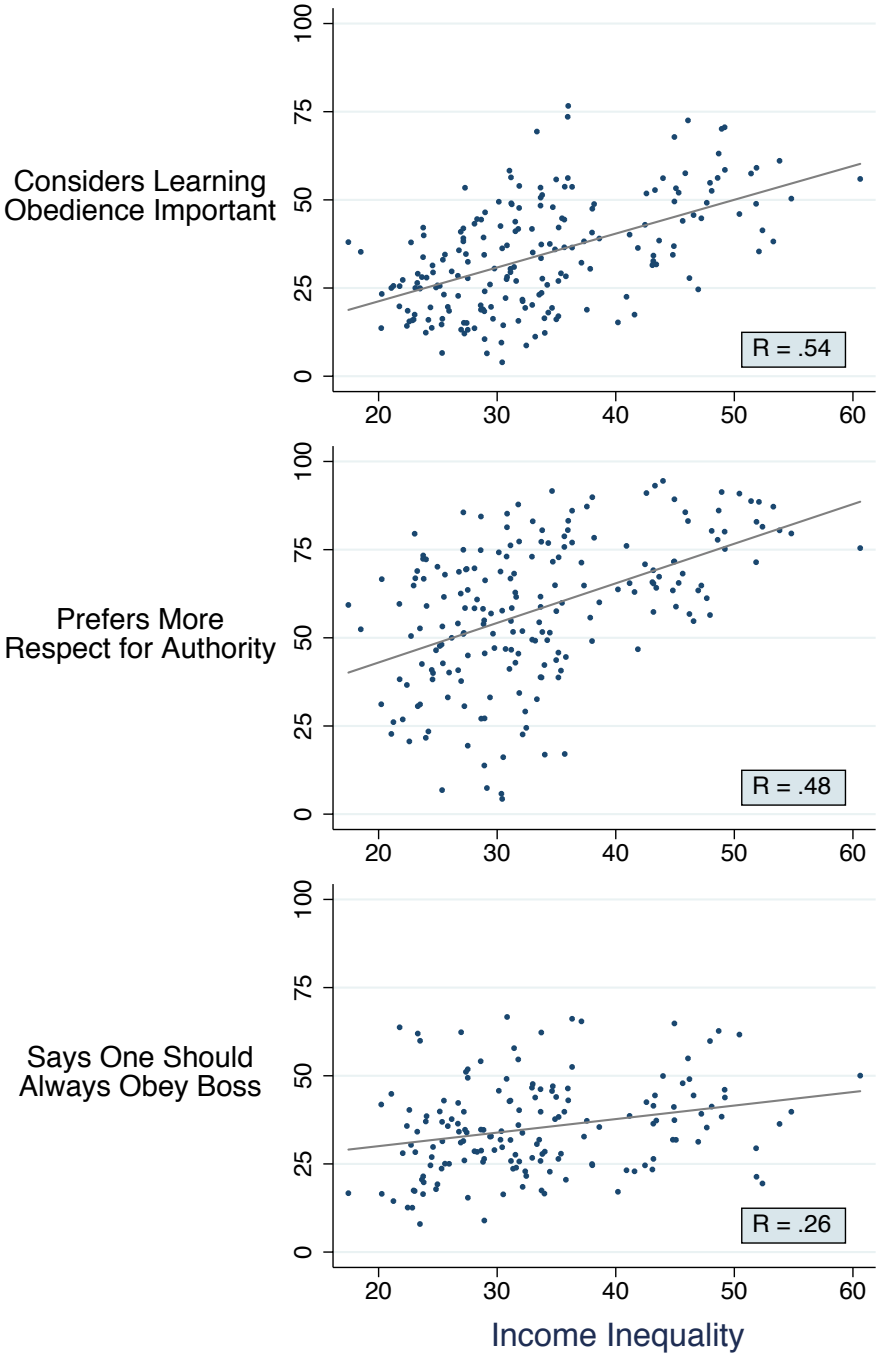
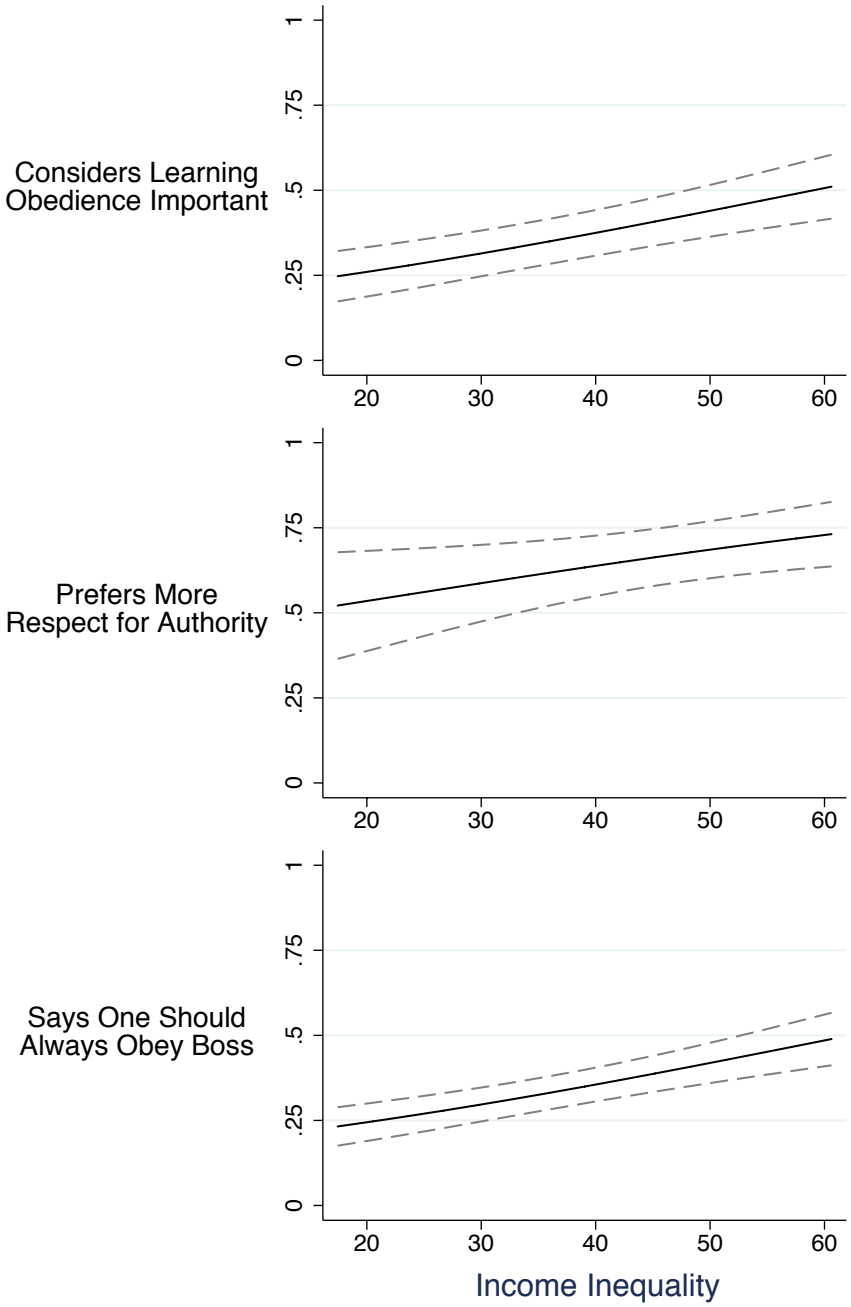


Figure 2: Predicted Probabilities of Authoritarian Responses by Level of Economic Inequality



Source: Analyses presented in Table 1; all other variables fixed at median values.

Table 1: Explaining Authoritarianism

	Considers Learning Obedience Important		Prefers More Respect for Authority		Says One Should Always Obey Boss	
Independent Variable	Estimate	(Std. Error)	Estimate	(Std. Error)	Estimate	(Std. Error)
Income Inequality	.027*	(.006)	.021*	(.010)	.027*	(.007)
Insecurity						
Inequality × Income Quintile	.003*	(.001)	.001	(.001)	<.001	(.001)
Contextual Controls						
GDP/Capita	.007	(.008)	−.010	(.008)	−.001	(.006)
Catholic Heritage	.233	(.117)	.362*	(.165)	−.063	(.095)
Confucian Heritage	−.918*	(.347)	−1.365*	(.470)	−.301*	(.121)
Ex-Communist	−.221	(.178)	−.393	(.225)	−.172	(.124)
Ethnic Pluralism	.005	(.003)	.001	(.004)	−.001	(.002)
Democracy	−.202	(.144)	−.352	(.265)	.127	(.091)
Age of Democracy	−.003	(.004)	−.003	(.006)	.011*	(.003)
Individual Controls						
Age	> −.001	(.001)	.013*	(.001)	.010*	(.001)
Years of Education	−.057*	(.006)	−.026*	(.006)	−.040*	(.003)
Income Quintile	−.178*	(.020)	−.057	(.034)	−.013	(.031)
Female	−.018	(.013)	.019	(.014)	−.074*	(.021)
Married	.043*	(.013)	.123*	(.016)	.014	(.019)
Number of Children	.016*	(.005)	.009	(.006)	.007	(.006)
Constant	−.970*	(.297)	−.153	(.489)	−1.632*	(.278)
Variance Components						
Income Slope	.006*		.009*		.004*	
Country-Year Intercept	.136*		.195*		.112*	
Country Intercept	.211*		.455*		.097*	
Individuals	239,017		225,948		187,440	
Country-Years	198		195		160	
Countries	78		77		72	

*$p < .05$, two-tailed tests.

A Appendix: Included Countries and Years

Albania	1998, 2002	Argentina	1991, 1995, 1999
Armenia	1997	Australia	1981, 1995, 2005
Austria	1990, 1999	Azerbaijan	1997
Bangladesh	1996, 2002	Belarus	1990, 1996, 2000
Belgium	1981, 1990, 1999	Bosnia and Herzegovina	1998, 2001
Brazil	1991, 1997, 2006	Bulgaria	1990, 1997, 1999, 2006
Canada	1982, 1990, 2000	Chile	1990, 1996, 2000, 2005
China	1990, 1995, 2001	Colombia	1998, 2005
Croatia	1996, 1999	Cyprus	2006
Czech Republic	1990, 1991, 1998, 1999	Denmark	1981, 1990, 1999
Dominican Republic	1996	Egypt	2000
El Salvador	1999	Estonia	1990, 1996, 1999
Finland	1990, 1996, 2000, 2005	France	1981, 1990, 1999, 2006
Georgia	1996	Germany	1981, 1990, 1997, 1999, 2006
Great Britain	1981, 1990, 1998, 1999, 2006	Greece	1999
Guatemala	2005	Hungary	1991, 1999
India	1990, 1995, 2001	Indonesia	2001, 2006
Iran	2000	Iraq	2004
Ireland	1981, 1990, 1999	Israel	2001
Italy	1981, 1990, 1999, 2005	Japan	1981, 1990, 1995, 2000
Jordan	2001	Korea, Republic of	1990, 1996, 2001, 2005
Kyrgyz Republic	2003	Latvia	1990, 1996, 1999
Lithuania	1990, 1997, 1999	Luxembourg	1999
Macedonia	1998, 2001	Mexico	1990, 1996, 2000, 2005
Moldova	1996, 2002, 2006	Netherlands	1981, 1990, 1999, 2006
New Zealand	1998, 2004	Nigeria	1990, 1995, 2000
Norway	1982, 1990, 1996	Pakistan	1997, 2001
Peru	1996, 2001	Philippines	2001
Poland	1989, 1990, 1997, 1999, 2005	Portugal	1990, 1999
Puerto Rico	1995, 2001	Romania	1993, 1998, 1999, 2005
Russian Federation	1990, 1995, 1999, 2006	Serbia	2006
Serbia and Montenegro	1996, 2001	Slovak Republic	1990, 1991, 1998, 1999
Slovenia	1992, 1999, 2005	South Africa	1990, 1996, 2001
Spain	1981, 1990, 1995, 1999, 2000, 2007	Sweden	1982, 1990, 1996, 1999, 2006
Switzerland	1989, 1996	Taiwan	1994
Tanzania	2001	Turkey	1990, 1996, 2001
Uganda	2001	Ukraine	1996, 1999, 2006
United States	1982, 1990, 1995, 1999, 2006	Uruguay	1996, 2006
Venezuela	1996, 2000	Viet Nam	2001

Sources: European and World Values Surveys Four-Wave Integrated Data File, 1981-2004, v.20060423, 2006. The European Values Study Foundation and World Values Survey Association. Aggregate File Producers: ASEP/JDS, Madrid, Spain/Tilburg University, Tilburg, the Netherlands. Aggregate File Distributors: ASEP/JDS and ZA, Cologne, Germany. World Values Survey 1981-2008 Official Aggregate v.20090901, 2009. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer: ASEP/JDS, Madrid.