

RESPONSE

Explaining Human Rights Abuses: Comparing Contemporary Factors and Historical Factors

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Why and when do governments abuse human rights? Eric Posner and Adam Chilton argue that long-term historical factors shape contemporary human rights practices. They provide novel evidence that many historical variables emphasized in the economic development literature are correlated with contemporary human rights practices. This article continues the process of testing their argument by conducting several statistical analyses. The analysis yields several key findings. First, the historical variables emphasized by Posner and Chilton, collectively, are fairly powerful in terms of predicting human rights abuses. Second, the historical variables perform less well at predicting contemporary abuses in more populous countries. Third, contemporary judicial independence predicts contemporary abuses in ways not captured by historical variables. Fourth, historical variables perform relatively poorly at predicting abuses during civil wars, when abuses are often at their worst. Finally, many of the individual historical variables do not add significant explanatory power to models that include contemporary variables. The key exceptions are settler mortality and European share of the population during colonization, suggesting that future analyses of the roles of these factors may be especially helpful in improving our understanding of these phenomena.

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I. INTRODUCTION

Why and when do governments abuse human rights? For several decades, researchers have attempted to answer this question by analyzing the political, economic, legal, and cultural factors that appear to affect governments' decision-making. This research agenda has yielded several important findings: Governments tend to repress human rights in order to maintain power when they perceive threats from opposing factions. Democratic governments tend to conduct fewer such abuses than autocratic governments.¹ Repression is less prevalent in richer and smaller countries, while increases in violations of human rights are likely during periods of civil war. Legal institutions also appear to factor into these decisions: countries with independent judiciaries are less likely to violate human rights, and legalized human rights appear to reduce repression.² Normative factors are also crucial, and advocacy groups rely on the power of norms to change social values regarding human rights practices.³

1. Steven C. Poe & C. Neal Tate, *Repression of Human Rights to Personal Integrity in the 1980s: A Global Analysis*, 88 AM. POL. SCI. REV. 853, 866 (1994); Christian Davenport, *Multi-Dimensional Threat Perception and State Repression: An Inquiry into Why States Apply Negative Sanctions*, 39 AM. J. POL. SCI. 683, 706–07 (1995). For other examples from this literature, see generally Martha Finnemore & Kathryn Sikkink, *International Norm Dynamics and Political Change*, 52 INT'L ORG. 887 (1998); CHRISTIAN DAVENPORT, STATE REPRESSION AND THE DOMESTIC DEMOCRATIC PEACE (2007); Courtenay Ryals Conrad & Will H. Moore, *What Stops the Torture?*, 54 AM. J. POL. SCI. 459 (2010); Courtenay R. Conrad & Emily Hencken Ritter, *Treaties, Tenure, and Torture: The Conflicting Domestic Effects of International Law*, 75 J. POL. 397 (2013); Yonatan Lupu, *Best Evidence: The Role of Information in Domestic Judicial Enforcement of International Human Rights Agreements*, 67 INT'L ORG. 469 (2013) [hereinafter Lupu, *Best Evidence*]; Yonatan Lupu, *The Informative Power of Treaty Commitment: Using the Spatial Model to Address Selection Effects*, 57 AM. J. POL. SCI. 912 (2013); Daniel W. Hill, Jr., & Zachary M. Jones, *An Empirical Evaluation of Explanations for State Repression*, 108 AM. POL. SCI. REV. 661 (2014); Yonatan Lupu, *Legislative Veto Players and the Effects of International Human Rights Agreements*, 59 AM. J. POL. SCI. 578 (2015); Adam S. Chilton & Mila Versteeg, *Do Constitutional Rights Make a Difference?* 60 AM. J. POL. SCI. 3 (2016); Christopher J. Fariss, *The Changing Standard of Accountability and the Positive Relationship Between Human Rights Treaty Ratification and Compliance*, BRIT. J. POL. SCI. (forthcoming).

2. BETH A. SIMMONS, *MOBILIZING FOR HUMAN RIGHTS: INTERNATIONAL LAW IN DOMESTIC POLITICS* (2009).

3. KATHRYN SIKKINK, *THE JUSTICE CASCADE: HOW HUMAN RIGHTS PROSECUTIONS ARE CHANGING WORLD POLITICS* (2011).

While the vast literature on the repression of human rights offers many different perspectives, one commonality among scholars with sometimes conflicting views is the focus on the ways in which present-day factors affect human rights practices. Scholars who focus on structural factors provide theories and empirical evidence regarding the relationship between contemporary legal, political, and economic variables and contemporary levels of repression.⁴ Those who focus on norms analyze how contemporary cultural and social values, identities, and ideas affect the respect for human rights.⁵

Eric Posner and Adam Chilton present an important challenge to the human rights literature. They argue that not only contemporary factors but also long-term historical factors shape contemporary human rights practices.⁶ Drawing from the literature on economic development, Posner and Chilton compile a set of historical variables that have been argued in the development literature to shape contemporary economic conditions in many countries.⁷ In turn, they ask us to consider the extent to which these variables may also affect contemporary human rights practices: “Our working hypothesis is that the temporally remote factors (or fixed geographic conditions) that may explain why some countries grow faster than others may also explain why some countries respect human rights more than others.”⁸ Posner and Chilton begin the process of testing this hypothesis by providing preliminary evidence that many of the historical variables emphasized in the economic development literature are correlated with contemporary human rights practices.

In this article, I aim to continue the process of testing Posner and Chilton’s working hypothesis by conducting several statistical analyses. In so doing, I will attempt to address four questions: First, how well do the historical variables predict human rights abuses today? Second, are there certain types of countries in which the predictive power of the historical variables is stronger than others? Third, do historical variables predict human rights abuses better than contemporary variables? Fourth, which historical variables are especially predictive of human rights abuses when we factor in contemporary variables, and vice versa?

4. See, e.g., Davenport, *supra* note 1.

5. See, e.g., SIKKINK, *supra* note 3.

6. See Adam S. Chilton & Eric A. Posner, *The Influence of History on States’ Compliance with Human Rights Obligations*, 56 VA. J. INT’L L. 211, 260 (2016).

7. *Id.* at 260.

8. *Id.* at 218.

II. POSSIBLE RELATIONSHIPS BETWEEN HISTORICAL VARIABLES, CONTEMPORARY FACTORS, AND HUMAN RIGHTS PRACTICES

Posner and Chilton's argument is interesting, important, and compelling—the notion that long-term historical variables can explain to some significant degree today's human rights abuses has broad implications for both the academic study of human rights and for policymaking, as Posner and Chilton note.⁹ In addition, their working hypothesis seems entirely plausible; indeed, it would seem *implausible* to suggest that long-term historical variables have no effect on today's human rights practices.

To evaluate their working hypothesis, I begin with three observations regarding Posner and Chilton's argument. First, their claim is primarily *empirical*. They speculate that “the temporally remote factors (or fixed geographic conditions) that may explain why some countries grow faster than others may also explain why some countries respect human rights more than others,” but they do not offer a new theoretical argument as to why this might be the case.¹⁰ Second, their claim is *probabilistic*. They do not claim that historical variables determine contemporary human rights practices, but rather that these variables affect the probability that contemporary governments violate human rights.¹¹ Third, their claim is (at least implicitly) *relative*. That is, their working hypothesis is that historical variables may be more important than contemporary variables in explaining human rights practices.¹²

Because Posner and Chilton's claim is empirical, probabilistic, and relative, I will evaluate it by using a series of statistical models designed to test the predictive power of the historical variables they identify in their work. To guide the data analysis, it may be useful first to consider possible ways of modeling the relationships between historical variables, contemporary variables, and human rights. Most existing analyses of human rights abuses exclude the historical variables; Posner and Chilton's key contribution is to note that the omission of historical variables from such analyses may be a problem.¹³ How and why might this be the case?

There are at least four ways of thinking about how one could incorporate historical variables into both theoretical and empirical models of human rights practices. One possibility is that historical variables affect contemporary variables, which in turn affect human rights practices (Model

9. *Id.* at 234.

10. *Id.* at 218. (Doing so, of course, would not be feasible within the framework of a single article.)

11. *Id.*

12. For example, they note that “our results provide evidence suggesting that the failure by academics to find an impact for most human rights provisions may be a consequence of the dominance of historical factors, rather than coding problems or other methodological problems.” *Id.* at 263.

13. *Id.* at 219.

A in Figure 1 below). For example, it is likely the case that economic conditions long ago affect today's economic conditions, which in turn impact governments' human rights practices. In this simple model, contemporary variables do not have independent effects on human rights practices, which are fully explained by historical factors. In addition, in this model, historical variables affect human rights practices only through their impact on other contemporary factors.

Making the model a bit more complex, we might relax some of the above assumptions and consider how historical variables affect contemporary human rights practices directly (Model B below). It might be the case, for example, that structural conditions long ago affect governments' propensity to abuse human rights in ways not fully captured by contemporary factors. That this pathway may exist is, at least implicitly, part of Posner and Chilton's argument.¹⁴

We can also make the model slightly more complex (Model C below) by conceiving of two types of historical variables: one type that affects contemporary human rights practices directly (Type B), and another type that affects contemporary human rights practices solely through its effects on contemporary variables (Type A). The distinction is important. Historical variables of Type B may be especially important to identify in order to improve our understanding of human rights practices. The analysis in Section III-C, below, is intended to begin the process of identifying such variables.

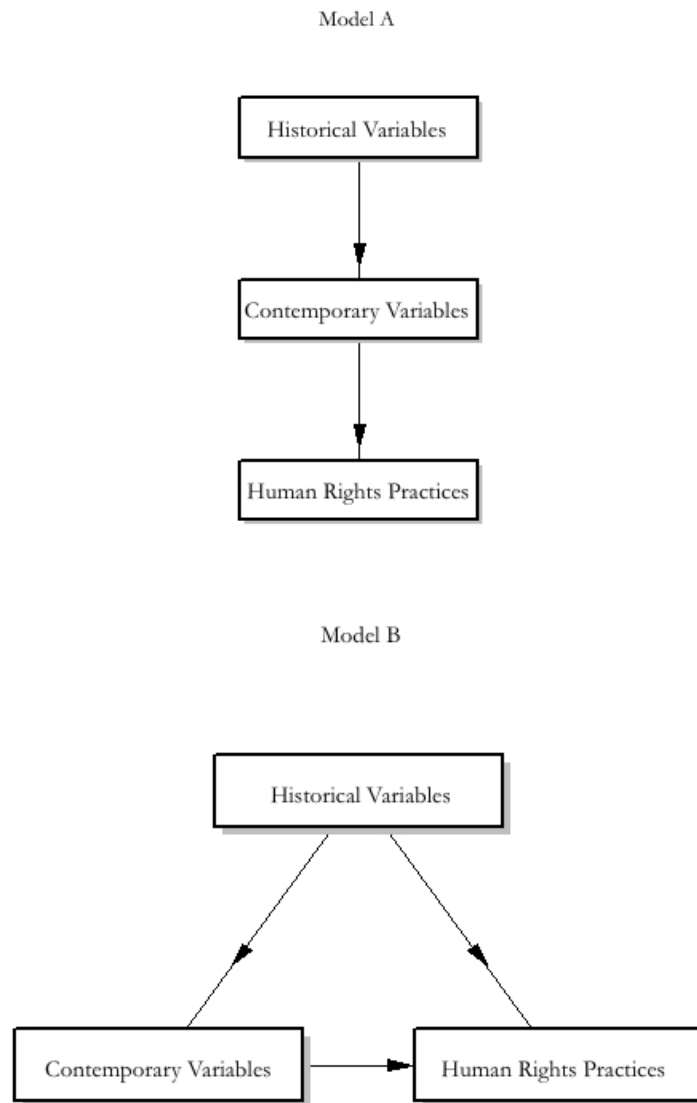
Finally, an even more complex model (Model D below) includes two types of contemporary variables. Type A contemporary variables are those that are strongly predicted by historical variables, and thus may not have significant direct effects on human rights practices. In contrast, Type B are not well predicted by historical variables, and thus any effect they have on human rights practices is a direct effect and not the indirect effect of historical variables.

Reality is likely closer to Model D than to the other models. Posner and Chilton certainly do not claim that contemporary variables do not have direct effects on human rights practices. The existing literature on human rights abuses has identified the key contemporary variables, and Posner and Chilton have begun to identify the key historical variables. Part of our task in trying to understand the relationship between these two sets of variables is identifying which contemporary variables may exert direct effects on human rights practices (Type B) and which variables are largely secondary phenomena in the relationship between historical variables and human rights practices (Type A). Likewise, it may be beneficial to analyze which historical variables have largely direct effects on human rights practices

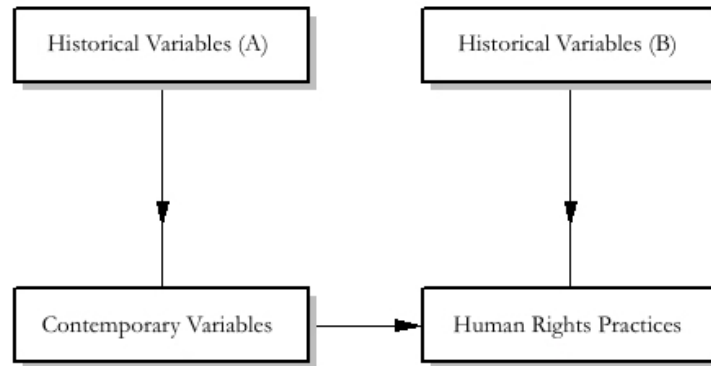
14. *Id.* at 217–18.

(Type B) and which have indirect effects via their impact on contemporary variables (Type A). The analyses below are intended to begin both of these tasks.

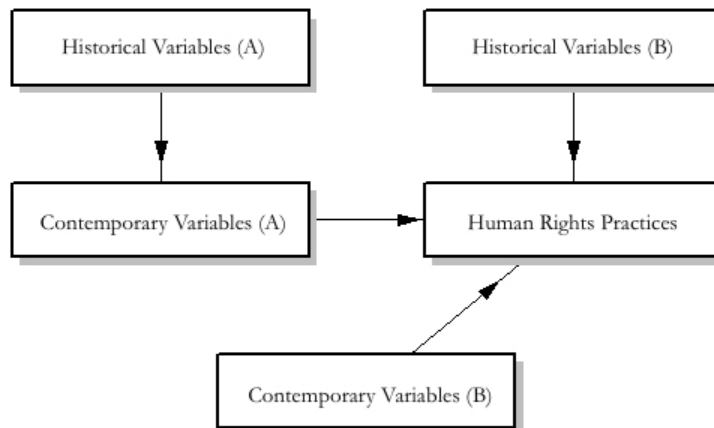
Figure 1: Models of the Relationships Between Historical Variables, Contemporary Factors, and Human Rights Practices



Model C



Model D



III. EMPIRICAL ANALYSIS

A. How Well Do Historical Factors Predict Human Rights Abuses?

I begin the analysis by focusing on the statistical explanatory (i.e., predictive) power of the historical variables. Posner and Chilton perform a

series of bivariate tests to determine the extent to which historical variables are correlated with human rights abuses. Extending their analyses, I run a series of regression models that test the extent to which these historical variables, collectively, predict human rights abuses.

Ideally, I would include all of the historical variables in a single model to assess their collective explanatory power, but unfortunately the geographic and temporal coverage for many of these variables is limited. For example, for the year 2010, there are only thirty-two countries for which data are available for all of the variables.¹⁵ An analysis of the explanatory power of the historical variables with respect to these thirty-two countries is of limited utility: the data likely are not missing at random, and as a result, the thirty-two countries are not a random sample of countries. Thus, if and to the extent the variables perform well at predicting human rights abuses in these countries, we may not be able to infer that they perform equally well in all countries.

To address this problem, I create three sets of historical variables. The “Full Model” includes the following historical variables used by Posner and Chilton:¹⁶ Latitude (Absolute Value), Mean Distance to Coast or River, Percentage of Land within 100 Kilometers of Coast or River, British Legal Origin, French Legal Origin, Population Density in 1000 CE, Population Density in 1500 CE, Ancestry Adjusted Agriculture Years, Ancestry Adjusted State History, Genetic Distance to U.S. in 1500 CE, Genetic Distance to U.S. (Current), Settler Mortality (Logged), Technology Adoption in Year 0, Technology Adoption in 1500 CE, and European Share of Population during Colonization. The “Medium Model” drops the variables Technology Adoption in Year 0, Technology Adoption in 1500 CE, and European Share of Population during Colonization, thus increasing the sample size to sixty-seven countries (as of 2010). Finally, in addition to the variables dropped in the Medium Model, the “Light Model” also excludes the variables Ancestry Adjusted Agriculture Years, Ancestry Adjusted State History, Genetic Distance to U.S. in 1500 CE, Genetic Distance to U.S. (Current), and Settler Mortality (logged), raising the sample size to 144 (as of 2010).

The dependent variable in all of these models is the Human Rights Score developed by Fariss (2014) and Schnakenberg and Fariss (2014).¹⁷

15. This number decreases with respect to some prior years, reaching a minimum value of twenty-one countries in 1949.

16. Professors Posner and Chilton have graciously shared their data with me. They have asked that I not conduct an analysis of the women’s suffrage, literacy, and slavery variables, which they collected themselves and are currently using for other work. These variables are therefore excluded from my analysis.

17. Christopher J. Fariss, *Respect for Human Rights Has Improved Over Time: Modeling the Changing Standard of Accountability*, 108 AM. POL. SCI. REV. 297 (2014) [hereinafter Fariss, *Respect*]; Keith E. Schnakenberg & Christopher J. Fariss, *Dynamic Patterns of Human Rights Practices*, 2 POL. SCI. RES. & METHODS 1 (2014).

This variable is coded so that smaller values correspond to countries with more human rights violations, while larger values correspond to countries with fewer human rights violations. I estimate these models using ordinary least squares (OLS) for the year 2010. Many analyses of such models focus on the parameter estimates (or coefficients), but this type of statistical model also produces a predicted value of the dependent variable for each observation. That is, these models generate predicted levels of human rights abuses for each country in 2010.

To better understand the explanatory power of the historical variables, I compare the predicted values of human rights abuses in 2010 generated by these models to the actual (i.e., observed) levels of human rights abuses in 2010. For each model, Figure 2 shows plots of the predicted versus actual values. Each dot represents a country that is included in the model. The x-axis depicts the actual level of human rights abuses in the country, while the y-axis shows the level of human rights abuses predicted by the historical variables. The closer a dot is to the $x=y$ line crossing the plot, the more accurate the prediction. Dots below the line indicate countries for which the historical variables predict more human rights violations than actually occurred, whereas dots above the line are those for which the historical variables predict fewer human rights violations than actually occurred.

One pattern emerges clearly from these plots: the extent to which the historical variables accurately predict the level of human rights abuses appears to correlate with the actual level of human rights abuses. Most of the data points in Figure 2 that are below the $x=y$ line are toward the right side of the plot, whereas most of the data points above the line are toward the left side of the plot. This pattern indicates that historical variables tend to 1) under-predict human rights abuses in countries with larger levels of human rights abuses; and 2) over-predict human rights abuses in countries with fewer such abuses.

We can better understand these results by analyzing the residuals from the statistical models summarized above. A residual is simply the difference, for each country, between the actual and the predicted level of human rights abuses. In Figure 2, data points closer to the $x=y$ line represent countries with smaller residuals.

Figure 3 shows all of the countries included in the Light Model in 2010, sorted by the residual. On the left are countries that violated human rights in 2010 at levels greater than the historical variables predict. The most extreme case is North Korea. On the right are countries that violated human rights to a lesser extent than the historical variables predict, with Luxembourg being the biggest outlier. Figure 3 demonstrates a similar result to that indicated by Figure 2: the countries for which the historical variables tend to over-predict repression tend to have good human rights records (e.g., Luxembourg, Norway, Iceland), whereas the countries for which the

historical variables tend to under-predict repression tend to have poor human rights records (e.g., North Korea, Iran, Russia). In summary, it appears that the historical variables tend to perform well for countries with

Figure 2: Human Rights Scores and the Accuracy of the Historical Models

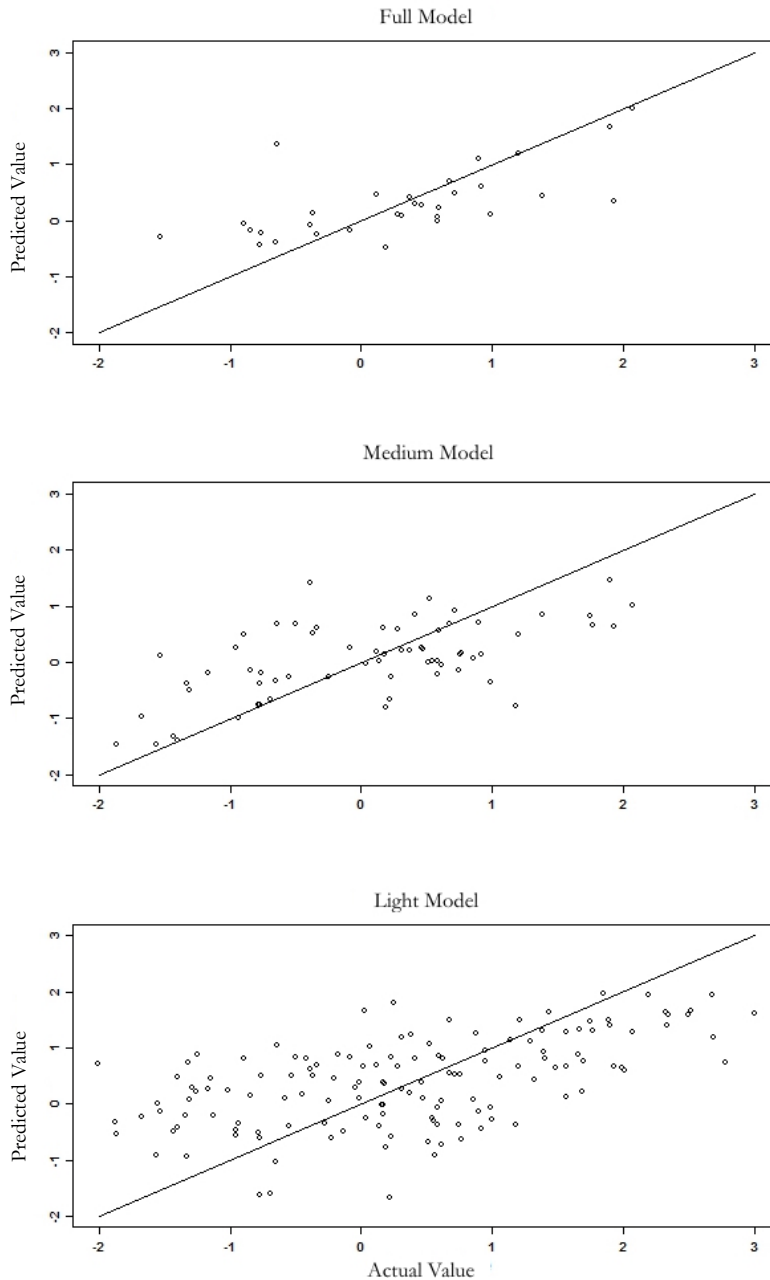
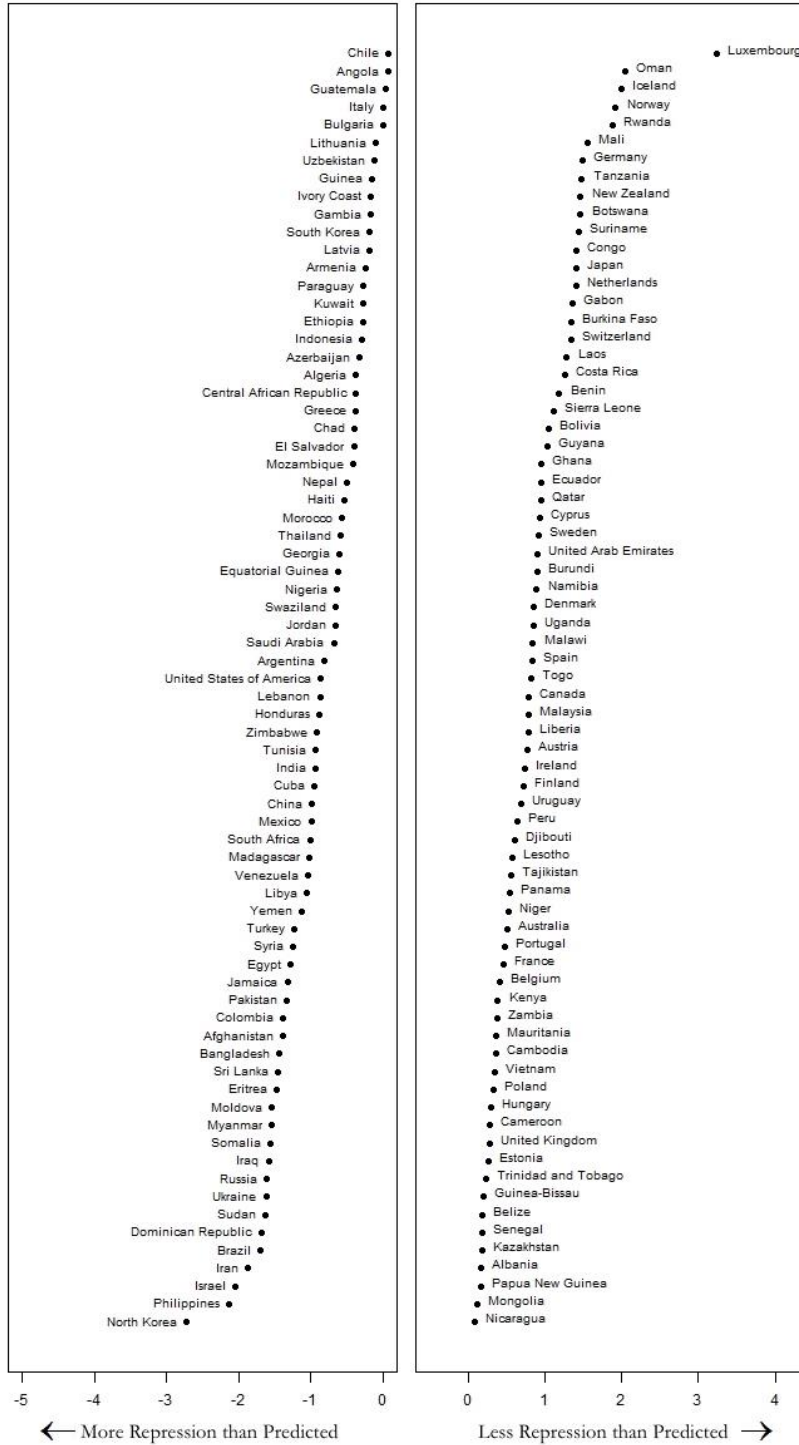


Figure 3: Residuals in 2010 - Light Model



middling human rights records, but less well for countries with relatively good or relatively abusive practices.

The analysis above suggests there may be patterns in terms of how well the historical variables predict contemporary human rights practices. I examine these patterns systematically by estimating a series of additional statistical models that analyze the relationship between several contemporary variables and the residuals from the Full, Medium, and Light Models of historical variables. If a particular contemporary variable significantly correlates to larger residuals, then the historical variables perform relatively less well at predicting human rights abuses in countries with higher values of that contemporary variable.

In terms of contemporary variables, the literature suggests a wealth of factors that may affect the likelihood that a government violates human rights.¹⁸ In a recent study, Hill and Jones performed the most thorough and rigorous analysis of these variables to date, and their results clearly delineate which contemporary variables are the best predictors of repression.¹⁹ Rather than include all possible contemporary variables in my analysis, I include the variables Hill and Jones found to be the best contemporary predictors of repression: whether or not a country is engaged in an ongoing civil war, the extent to which there is a youth bulge in the country's population, the extent to which the domestic courts of the country are independent, the country's regime type, the ratio of national trade to GDP (logged), per capita GDP (logged), and the country's population (logged).²⁰ For these variables, I use the replication data provided by Hill and Jones, which cover the years 1981–1999. I also include the Fariss measure of human rights practices for the applicable country-year.²¹ Because Figure 2 suggests that the historical variables may not explain both types of extreme cases, I use the absolute value of the Fariss measure.

I estimate the models using OLS. The dependent variables are the absolute values of the residuals generated by the three models of historical variables summarized in Figure 2 above. The results are reported in Table 1 below. Positive coefficients imply that the historical values generate larger residuals as the applicable contemporary variable increases in value, while negative coefficients indicate the historical variable models are more accurate when that contemporary variable increases.

Several of the results are substantively interesting. First, as suggested by Figure 2, the further a country's Human Rights Score is from the mean

18. *See, e.g.*, sources cited *supra* notes 1–3.

19. Hill, Jr., & Jones, *supra* note 3, at 676–79.

20. *Id.* at 675. These variables were chosen based on Figure 7 of Hill and Jones. Hill and Jones included per capita GDP and population in their baseline models because of their strong predictive power and do not report results with respect to these variables in Figure 7.

21. Fariss, *Respect*, *supra* note 17.

Human Rights Score, the less accurately the Light Model of historical variables predicts such practices. This variable is not significant in the Medium and Full Models, leading to two possible interpretations. It may be the case that the additional historical variables included in these models improve predictive power. Alternatively, it may be the case that the result is driven by the smaller sample of countries included in those models.

Population—and, in some models, youth bulges and income—is significantly associated with smaller residuals. This means that the historical variables perform better in terms of predicting today's human rights practices in larger, richer countries with relatively small youth bulges.²² In turn, this suggests that either or both: (1) the human rights practices of relatively small countries may be more sensitive to changes in contemporary factors; and (2) the historical variables often generate inaccurate predictions with respect to a country's contemporary size. In the language of Model D, these variables may be Type B contemporary variables, i.e., those that affect human rights practices independently of historical variables.

Likewise, during periods of civil war, the historical variables perform poorly at predicting contemporary human rights practices. This is not entirely surprising because civil wars often are short-term events during which human rights practices tend to worsen.²³ Of course, if the historical variables were predictive of civil wars, the residuals would not be so large during such conflicts. It is likely that the historical variables are predictive of a country's general propensity to experience civil war, but because these variables are time-invariant, they cannot predict *when* a country might experience a civil war. For this reason, these variables do not perform well at predicting human rights practices during civil war. The incidence of civil war appears to be a contemporary variable that affects human rights abuses in ways not captured by historical variables.

Finally, it is interesting to note that the coefficient of judicial independence is significant and positive in all three models. This means that historical variables tend to predict human rights practices poorly in countries with more independent judiciaries. Many scholars have argued that independent judiciaries can improve a country's human rights practices, and many empirical studies show an association between these two variables.²⁴ Yet this alone would not explain the results in Table 1. If the

22. However, youth bulges are significant and positive in the Full Model.

23. See generally STATHIS N. KALYVAS, *THE LOGIC OF VIOLENCE IN CIVIL WAR* (2006); Benjamin Valentino, Paul Huth & Dylan Balch-Lindsay, "Draining the Sea": Mass Killing and Guerrilla Warfare, 58 INT'L ORG. 375 (2004); Kristine Eck & Lisa Hultman, *One-Sided Violence Against Civilians in War: Insights from New Fatality Data*, 44 J. PEACE RES. 233 (2007); ALEXANDER B. DOWNES, *TARGETING CIVILIANS IN WAR* (2008).

24. See, e.g., Frank B. Cross, *The Relevance of Law in Human Rights Protection*, 19 INT'L REV. L. & ECON. 87 (1999); Linda Camp Keith, *Judicial Independence and Human Rights Protection Around the World*,

models of historical variables were able to strongly predict contemporary judicial independence, the latter variable would not correlate so highly with the residuals from those models. Thus, the result implies that the historical variables are not good predictors of the extent to which a county's contemporary courts are independent. This is an especially interesting finding because the notion that historical variables predict contemporary institutions is prevalent in the economic development literature upon which Posner and Chilton build.

Table 1: Models of Historical Variable Residuals (1981-1999)

VARIABLES	(1) Light	(2) Medium	(3) Full
Human Rights Score (absolute value)	0.375*** (0.0265)	0.0273 (0.0374)	-0.0182 (0.0343)
Population (logged)	-0.192*** (0.0142)	-0.124*** (0.0161)	-0.166*** (0.0219)
GDP per capita (logged)	-0.212*** (0.0245)	-0.0519 (0.0329)	-0.0149 (0.0378)
Youth Bulge	-0.0152*** (0.00389)	-0.0373*** (0.00623)	0.0149** (0.00630)
Judicial Independence	0.272*** (0.0287)	0.162*** (0.0343)	0.202*** (0.0355)
Trade/GDP (logged)	-0.000914 (0.000582)	-0.00121 (0.000736)	-0.00448*** (0.000746)
Regime Type	0.00127 (0.00311)	0.00317 (0.00392)	0.00705** (0.00351)
Civil War	-1.383*** (0.0536)	-1.100*** (0.0647)	-0.807*** (0.0654)
Constant	3.560*** (0.312)	2.893*** (0.434)	1.348*** (0.447)
Observations	2,203	1,193	599
R-squared	0.402	0.358	0.355
RMSE	0.798	0.721	0.494

Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

85 JUDICATURE 195 (2002); Clair Apodaca, *The Rule of Law and Human Rights*, 87 JUDICATURE 292 (2004); Linda Camp Keith, C. Neal Tate & Steven C. Poe, *Is The Law A Mere Parchment Barrier To Human Rights Abuse?*, 71 J. POL. 644, 649–50 (2009); Emilia Justyna Powell & Jeffrey K. Staton, *Domestic Judicial Institutions and Human Rights Treaty Violation*, 53 INT'L STUD. Q. 149 (2009); Lupu, *Best Evidence*, *supra* note 1; LINDA CAMP KEITH, *POLITICAL REPRESSION: COURTS AND THE LAW* 113–91 (2011).

B. Comparing the Historical and Contemporary Variables

Whereas Part A of my analysis focused on how well the historical variables predict contemporary human rights practices, this section compares how well the contemporary and historical variables predict human rights abuses. I estimate a series of regression models that test the extent to which these historical variables, collectively, predict human rights abuses. I then compare this predictive power that of contemporary variables. I use the same set of contemporary variables as above, except that I replace regime type with a narrower measure of the competitiveness of political participation in the country, as broader measures of regime type may conceptually incorporate some forms of human rights abuses.

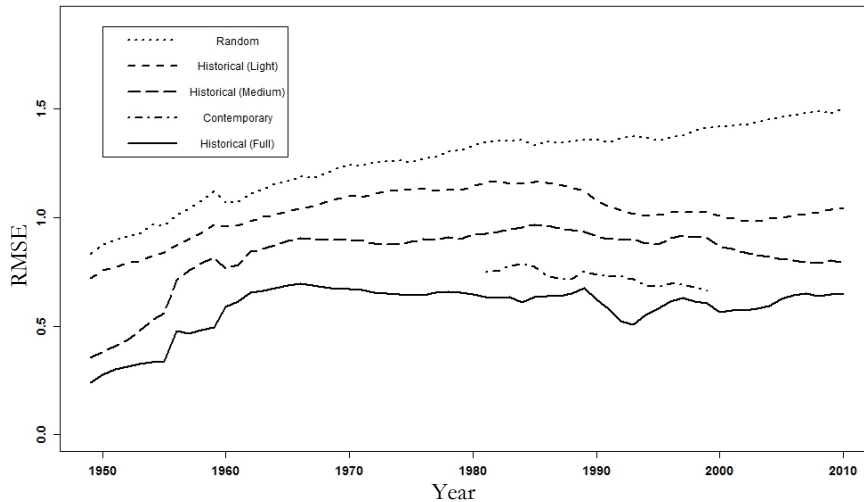
To compare the performance of these models, I use the root mean squared error (RMSE) statistic, which measures the average similarity of the predicted and actual levels of human rights abuses. Smaller values of the RMSE indicate stronger model performance, i.e., that the variables included in the model are, on the whole, better predictors of human rights violations. The dependent variable in all of these models is the Fariss (2014) human rights score. I estimate the models separately for each year using OLS.

Figure 4 shows the RMSE of the various models for each year. To establish a baseline, Figure 4 also shows the RMSE of a random model of human rights abuses, i.e., how well a model performs that attempts to predict human rights abuses based on pure guesswork. Not surprisingly, all of the other models perform better than the random model, but it is worth noting that the extent to which these models outperform the random model significantly increases over time. It is also worth noting that the Full Model of historical variables performs better than the Medium Model, which performs better than the Light Model. This is to be expected, of course, because the addition of non-random variables to a model is likely to improve model fit.

Perhaps the most significant result is that the Full Model of historical variables performs best at predicting contemporary human rights abuses, at least for the period 1981–1999, during which time it can be compared to the model containing contemporary variables. This result provides strong evidence in favor of Posner and Chilton's claim regarding the importance of the historical variables. One should construe this finding, however, with three caveats. First, the Full Model contains very few countries for which data are (non-randomly) available, so we cannot infer from the result that the historical variables outperform the contemporary variables in all countries. Second, the set of contemporary variables included in the analysis is a subset of the full set of such variables analyzed by Hill and Jones. It is entirely possible that a model that contains all of Hill and Jones's variables outperforms even the Full Model of historical variables. Finally, while this

analysis is suggestive, it does not help us determine whether the predictive power of the historical variables is independent of that of the contemporary variables, or vice versa. The next step in the analysis is designed to address this question.

Figure 4: Comparison of RMSEs



To analyze the independent effects of the two sets of variables, I estimate two sets of additional models. First, using only the 1999 data, I estimate a model containing the same contemporary variables analyzed above and calculate its RMSE. Then, I estimate additional models, each of which adds a different historical variable. I calculate the RMSE of each of these models. The goal of this exercise is to determine which of the historical variables improve the fit of a model that contains the contemporary variables, which can help identify the historical variables, the effects of which on human rights practices are not captured by the contemporary variables.

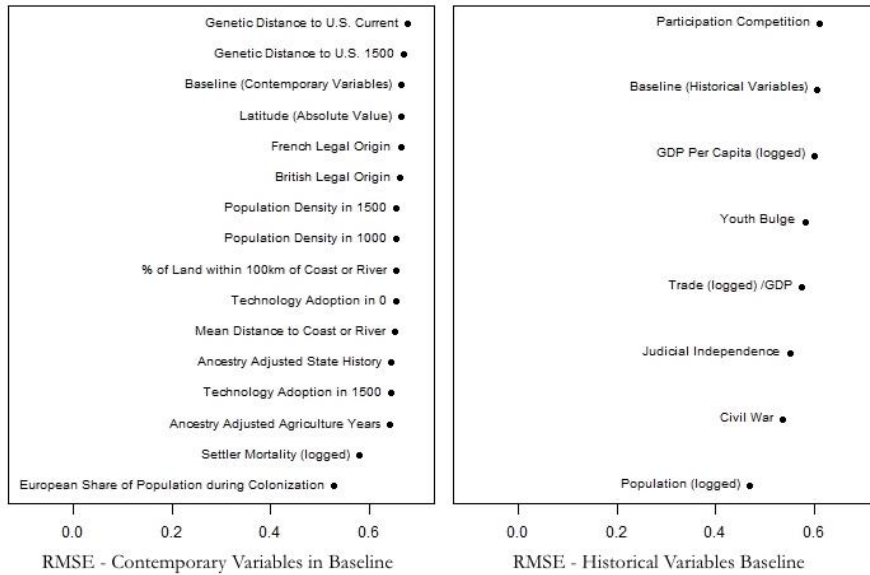
The left-hand plot in Figure 5 provides these results, sorted by RMSE. Most of the historical variables do not provide significantly more explanatory power once we account for the contemporary variables. While these factors may affect human rights practices, it appears the paths by which they do so run directly through one or more of the contemporary variables. The inclusion of either of the two genetic distance variables actually worsens the fit of the model, although not significantly. Nonetheless, two of the historical variables—settler mortality and European share of the population during colonization—do significantly improve the fit of the model. In other words, the contemporary variables included in the model do not capture a significant part of the relationship between the two historical variables and human rights practices. These are

candidates, therefore, for Type B historical variables in the terminology used in Model D of Figure 1 above.

I repeat this analysis using as a baseline the Full Model of historical variables with the 1999 data. I then estimate a series of models, each of which adds one of the contemporary variables. The RMSEs of these models are shown in the right-hand plot of Figure 5. As above, some of the variables (e.g., income) do not significantly improve the fit of the model, which suggests that these variables may be secondary phenomena on the causal path between the historical variables and human rights abuses.

Three contemporary variables, however, do significantly improve the fit of the model relative to the historical variables: judicial independence, civil war, and population. This finding is consistent with the results reported in Table 1—these three variables are significant predictors of the residuals in models that contain only historical variables, meaning they have relationships with human rights practices not captured by the historical variables. In other words, these variables may be among the Type B contemporary variables in Model D of Figure 1 above.

Figure 5: Comparison of Contemporary and Historical Variables in 1999



IV. CONCLUSION

In this article, I have conducted several statistical tests designed to analyze Posner and Chilton’s working hypothesis that historical variables significantly affect contemporary human rights practices. While the analysis

conducted here remains preliminary, it provides several tentative findings to guide future research on this question. In particular, I hope scholars will continue researching this question by conducting more comprehensive statistical tests supplemented by case study research. Case studies may be especially useful, for example, in uncovering why the historical variables generate especially accurate or inaccurate predictions in certain cases.

First, the historical variables emphasized by Posner and Chilton, collectively, are fairly powerful in terms of predicting human rights abuses. As shown in Figure 4, the full set of historical variables outperforms a set of several contemporary variables with respect to predictive power for the years 1981 through 1999. As noted above, however, what we can learn from this test is limited because the full set of historical variables is only available for a limited number of countries. This suggests that scholars hoping to further assess Posner and Chilton's working hypothesis may wish to collect data on historical variables for additional countries to allow for a more comprehensive analysis.

The historical variables appear to systematically predict contemporary repression more or less accurately in certain types of countries. The explanatory power of the historical variables is relatively weak in less populous countries (and stronger in more populous countries). Why might this be? At the most basic level, it is because the historical variables are not strongly predictive of today's population levels. This is not entirely surprising because the historical variables account only for historical population density, rather than overall size, and because national borders have changed over the last several hundred years in complex and often unpredictable ways. In turn, this finding suggests that researchers hoping to build on Posner and Chilton's working hypothesis may wish to examine in more detail the divergence of population size from the predictions generated by the historical variables and, in turn, the additive effects of population on human rights abuses.

Judicial independence also appears to affect human rights practices in ways not captured by the historical variables. In part, this is striking due to a common thread in the economic development literature upon which Posner and Chilton draw—that one way historical development variables explain current economic conditions is by strongly predicting current political and legal institutions. If this were the case with respect to independent judiciaries, then the addition of this variable to a model containing historical variables would not significantly improve the model's explanatory power, but the data indicates that it does. Future work on these questions can examine this phenomenon in more detail.

The historical variables seem to perform especially poorly in predicting human rights abuses during civil wars, when the abuses often are at their worst. The historical variables also tend to concentrate predictions toward

the middle of the spectrum of human rights practices; they under-predict repression in the most repressive regimes and over-predict repression in the least repressive regimes. In part, this may be the case because extreme abuses of human rights tend to occur during civil wars, which, in turn, these variables cannot predict.

These findings suggest a broader limitation to Posner and Chilton's working hypothesis. Long-term historical factors may affect the general propensity of countries to exhibit some of the long-term structural conditions that affect human rights practices, such as economic development and regime type. Yet the historical factors clearly cannot help us predict specifically when dramatic events, such as civil wars, are likely to occur—they can only point toward a long-term probability that a country experiences such events. In turn, this means that historical variables cannot help us explain the relationship between these relatively short-term events and their effects on human rights practices. This is analogous to the relationship between historical variables and economic development: while conditions many centuries ago appear to affect countries' general propensities to be rich or poor, they cannot explain the timing of fluctuations in national economies caused by economic boom-and-bust cycles.

Finally, most of the individual historical variables do not add significant explanatory power relative to the contemporary variables. This does not mean that they do not affect human rights practices; rather the effects of the contemporary variables subsume any effect of individual historical variables. Two historical variables, however, appear to explain human rights practices, even when one accounts for contemporary variables: settler mortality and European share of the population during colonization. Unlike other historical variables, which capture aspects of geography, genetics, technology, population, and legal institutions, these two pertain to colonization. This suggests, therefore, that further research regarding the long-term impacts of colonization on human rights practices may be especially fruitful in understanding the effects of historical variables.

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