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DEMOCRATIZATION, ETHNICITY, AND WAR

LINDSAY BAXTER

The democratic peace theory has received considerable attention in the international relations literature during recent years. Critics have tempered the initial enthusiasm for the democratic peace theory by demonstrating that the road to democracy is often a rocky and treacherous one. This research seeks to reproduce the work of two prominent authors in the democratization literature and then expand upon their research. Here, I investigate how the ethnic composition of a democratizing state affects that state’s likelihood of being involved in an internal war rather than an external war during the process of democratization. The statistical results indicate that ethnicity does indeed influence a democratizing state’s tendency to become embroiled in civil conflict rather than external conflict. A discussion of two case studies at the conclusion of the paper further illustrates my statistical conclusions.

The democratic peace theory stands at the center of an important debate in international relations. How does a state’s regime type influence whether that state will go to war with other nations? Given fairly narrow definitions of war and democracy, the democratic peace theory maintains that democracies do not fight among themselves (Mansfield and Snyder 1995, 5). Although democracies are not necessarily less likely to go to war with non-democracies, historical evidence seems to indicate that war between democratic nations is rare if not nonexistent. As a result of this phenomenon, politicians and scholars alike often maintain that the spread of democracy should be a high national security priority in order to hasten the end of violent interstate conflict.

Special Thanks
I would like to thank Professors Ray Christensen, Scott Cooper, and Darren Hawkins for their comments and advice on my research and paper.
Edward Mansfield and Jack Snyder seek to temper this enthusiasm with a reminder that “countries do not become mature democracies overnight” (1995, 5). The transition to democratic government can be lengthy and is often a rocky process fraught with political upheavals and violent clashes. Indeed, during the “transitional phase of democratization, countries become more aggressive and war-prone, not less, and they do fight wars with democratic states” (5).

Mansfield and Snyder maintain that democratizing states are more bellicose than mature democracies for several reasons. First, during the process of democratization, a greater number of groups participate in the political process and compete for political power (2002, 299). Second, competing groups vie for the support of the masses by appealing to nationalist sentiments without fully submitting to democratic accountability. Elites often justify excluding their opponents from democratic processes by labeling rivals as national enemies (289, 301). Third, in democratizing nations, public “pressures for [political] participation are strong but institutions for effective participation are weak” (1995, 23). Institutions that foster peaceful and effective political participation in mature democracies are only partially developed in the early stages of democratization and therefore cannot “effectively regulate...mass political competition” (2002, 299). Fourth, old elites, who stand to lose the most from a transition to democracy, typically have strong connections to the military (1995, 26). Fifth, aspiring political leaders often employ nationalist appeals that exaggerate accounts of foreign threats in order to solidify domestic support. As a result, hard-pressed regimes may seek to increase domestic support by launching military campaigns abroad (2002, 299; 1995, 33). Finally, rival elites may cooperate and form incoherent ruling coalitions that are both unable to send clear signals of commitment to other states and that are particularly prone to internal political logrolling (2002, 302, 304; 1995, 32).

These conditions indicate that a period of democratization will likely be a particularly volatile time in a state’s political history. Mansfield and Snyder employ statistical analyses to demonstrate that, as a result of these factors, democratizing nations are especially vulnerable to external conflict.

Two points of Mansfield and Snyder’s argument offer a clear explanation of why democratization causes external wars. First, elites who launch military ventures abroad in hopes of improving their standing at home provoke external enemies and plunge democratizing states into war. Second, when rival elites accommodate each other through political logrolling strategies, they create coalitions that pursue incompatible interests and inconsistent foreign policies. Clashes with other states occur when these coalitions become “overcommitted, provoking too many enemies at the same time” (1995, 32).

Other aspects of their argument, particularly that democratization increases the number of groups competing for political power and that the mechanisms of political participation in democratizing states are weak, seem to indicate that democratization could also lead to intrastate conflict. Moreover,
historical experience demonstrates that civil war often stains states' transitions to democracy.

Although Mansfield and Snyder control for the effects of civil wars in their statistical analysis (2002), they fail to investigate the connection between democratization and internal warfare that is implied in their theoretical argument. This omission sets the stage for an interesting question: Under what conditions would a democratizing nation engage in civil warfare rather than external warfare?

In this project, I seek to replicate and expand upon Mansfield and Snyder's research effort. In addition to investigating the relationship between democratization and interstate conflict, I also seek to understand what factors precipitate democratizing states' entry into civil wars. I examine the relationship between the ethnic composition of a state's population and the likelihood that that state will engage in civil war rather than external war during a period of democratization.

My statistical results demonstrate that the interaction between ethnic heterogeneity and democratizing regime changes is an important factor in the outbreak of civil war. Indeed, when ethnicity is included in the analysis, this interaction is a more significant predictor of civil war in democratizing nations than regime change alone. Mansfield and Snyder present strong statistical support for their explanation of why external war accompanies states' transitions to democracy. However, their model fails to provide such a robust explanation of civil war. My analysis incorporates ethnicity into Mansfield and Snyder's research design in a way that both enhances its predictive power and extends its explanatory reach. The results that follow, therefore, offer an interesting addition to Mansfield and Snyder's research effort.

Two case studies at the conclusion of this paper offer a detailed description of the theoretical reasoning that undergirds my argument. They present a nuanced illustration of the factors that cause rival groups to mobilize. Tracing the historical processes involved in each case supplies a vivid account of how ethnic composition can influence a democratizing nation's entrance into civil or external war.

Theoretical Framework, Research Expectations, and Definitions

Several scholars concur with Mansfield and Snyder's assessment of the inherent dangers that attend the process of democratization. For example, Michael Ward and Kristian Gleditsch note that "a smooth transition from low to high levels of democratic governance is the exception, not the rule," because democratic norms and institutions typically require time to become established enough to inhibit conflict (1998, 53). Errol Henderson also acknowledges the risks associated with democratization. He notes that "since 1945 most wars have taken place within rather than between states," and that most of these civil wars have occurred in postcolonial areas of the world. Henderson maintains that the former colonies of the imperial powers are especially susceptible to civil
war due to their "institutional underdevelopment... as well as the failure of postindependence political leadership to effectively integrate their societies into cohesive national entities" (2002, 103). Weak political institutions in these democratizing countries do not provide effective mechanisms for the nonviolent resolution of domestic conflicts, nor do they ensure that popular constraints will make political leaders responsive to dissidents' demands. As a result, such countries are ill-prepared to prevent domestic insurgencies (105–6).

It appears that Mansfield and Snyder anticipated this theoretical link between states' transitions to democracy and internal conflict. Although they contend that institutional weaknesses, intense political competition, and power fragmentation and decentralization make democratizing states likely to engage in war with other states, their argument also offers an implicit explanation of why democratization might cause a state to engage in civil war. Mansfield and Snyder make a persuasive case that competing elites exploit the political environment in democratizing states, an environment that indeed might make a state prone to civil war, in ways that ultimately turn a country towards war with other nations. However, it is clear from the theoretical argument that the unique characteristics of democratizing politics could push a state toward civil war just as they might push it toward international war.

Several schools of thought seek to explain why states become embroiled in internal conflicts. One promising approach highlights the importance of ethnic divisions within a state's population. The extensiveness of the scholarship on ethnic conflict suggests that ethnicity often plays a significant role in violent clashes both within and between states. I will discuss the principal theoretical arguments in the ethnic conflict literature in conjunction with my case studies in a subsequent section. Here, I merely offer a brief justification for incorporating a state's ethnic composition into my analysis of when and why democratizing nations become embroiled in civil war.

I expect that democratizing states will fight internally rather than externally when significant lines of tension already exist in the national population. Internal ethnic divisions promise to be the greatest cause of civil conflict during democratization because ethnic cleavages aggravate the political difficulties that states face on the road to democracy. Ethnicity is an intrinsic part of individual identity, and as a result, group rivalries based on ethnic differences present a fundamental threat to state loyalties. In democratizing nations, competing elites resort to ethno-nationalist appeals to amass popular support and mobilize the public in politically advantageous ways. Mansfield and Snyder briefly note in their article that during democratization, divisive nationalism is particularly problematic in ethnically stratified states because it exacerbates the weakness and decentralization of democratizing political institutions (2002, 301). Ethnic rivalries often spill into violent conflict because immature democratic institutions are too weak to permit opposing groups to resolve their differences peacefully.
Thus, I expect the institutional and political weakness of democratizing regimes to be a necessary condition for internal violent conflict, and I expect ethnic cleavages to be a sufficient condition to ignite such conflict. Ethnic divisions alone do not necessarily predispose a nation to internal strife. Rather, in combination, the difficulties of democratization and ethnic fault lines put a state at significant risk for civil war.

On the other hand, I expect ethnically homogenous states to be drawn into external conflict much as Mansfield and Snyder postulate. Competing groups will mobilize the masses by appealing to nationalist sentiments, and political logrolling, compromise, and military expeditions abroad will propel these nations into war with other countries. Because the internal divisions in ethnically homogenous countries do not challenge basic state loyalties in the fundamental way that ethnic rivalries do, the frictions particular to democratization are not likely to cause violent ruptures along internal lines in ethnically uniform states.

Two main hypotheses follow from the foregoing argument:

Hypothesis 1: If a democratizing state has an ethnically heterogeneous population, then that state will be more prone to internal conflict than external conflict during a period of democratization.

Hypothesis 2: If a democratizing state has an ethnically homogenous population, then that state will be more prone to external conflict than internal conflict during a period of democratization.

I rely on Mansfield and Snyder’s dataset from their article “Democratic Transitions, Institutional Strength, and War” to determine regime type and regime transitions in a given year; they in turn draw their data from Jagger and Gurr’s Polity III dataset, a source widely used in the democratization literature.

Taylor and Hudson provide my measure of ethnic fractionalization in their World Handbook of Political and Social Indicators II. They report ethnic fractionalization as an index measure calculated from ethnic and linguistic characteristics of 136 countries from approximately 1960 to 1965. This dataset lists only one value of ethnic fractionalization for each country. Consequently, it is clear that there are significant limitations to this measure of states’ ethnic fractionalization.

1 In this project I employ the dataset that Mansfield and Snyder generated for their article “Democratic Transitions, Institutional Strength, and War” that appeared in International Organization in spring 2002.

2 Their dataset includes an index of ethnic fractionalization (Ethfrac) that accounts for cultural, ethnic, and linguistic differences between ethnic groups in 136 countries according to the following formula:

\[ F = 1 - \Sigma \left( \frac{n_i}{N} \right) \left( \frac{n_{i-1}}{N-1} \right) \]

Where \( n_i \) = number of people in the i\textsuperscript{th} group and

\( N \) = Total population.
diversity. Although I do not expect a nation's ethnic composition to vary excessively over time, it is reasonable to anticipate some changes due to population shifts, war, acculturation, etc. In addition, it appears that Taylor and Hudson make little distinction between countries that have a few large ethnic groups and those that have a plethora of small ethnic groups. Despite these weaknesses, this appears to be the best measure available, and it ultimately yields some interesting statistical results.

Research Design and Statistical Tests

In this project, I seek to replicate and expand upon Mansfield and Snyder's research effort. In addition to investigating the relationship between democratization and interstate conflict, I also seek to determine whether ethnicity affects democratizing states' entry into civil war rather than external war. Therefore, my design differs from Mansfield and Snyder in a few important ways.

I begin by employing Mansfield and Snyder's dataset from their recent research effort and then add seven new variables to this dataset to include ethnic fractionalization in the statistical analysis. The first variable, ethnic fractionalization, or ethfrac, is an index measure reporting one value for each of the 136 countries included in the World Handbook of Political and Social Indicators. The next five variables represent interactions between ethnic fractionalization and each of Mansfield and Snyder's regime change variables. Finally, I include a variable for all civil wars in year $t$ (in contrast to Mansfield and Snyder's civil war control variable that reports all civil wars in year $t-1$).

Because civil war and external war are both dichotomous, I use binary logistic regression to assess the relationships between my variables. I calculate this regression analysis several different ways. First, I replicate Mansfield and Snyder's regression using the composite index of regime type that they generated in their dataset. Next, I insert civil war as the dependent variable in Mansfield and Snyder's regression using the composite index of regime type that they generated in their dataset. Next, I insert civil war as the dependent variable in Mansfield and Snyder's regression using the composite index of regime type that they generated in their dataset. Finally, I include a variable for all civil wars in year $t$ (in contrast to Mansfield and Snyder's civil war control variable that reports all civil wars in year $t-1$).

For example, Taylor and Hudson report an ethnic fractionalization value of 0.88 for South Africa where, according to the CIA World Factbook, 75.2 percent of the population is black, 13.6 percent is white, 8.6 percent is colored, and 2.6 percent is Indian (CIA 2002). They also give Tanzania a high ethnic fractionalization value (0.93) even though 95 percent of its population comes from 130 different tribes (2002).

See my full paper for the codebook of my additions to Mansfield and Snyder's dataset.

This variable, civilwar, reports civil wars as listed in the Correlates of War project. However, note that it does not include states' interventions into other nations' civil wars although COW includes these data.

Refer to "Democratic Transitions, Institutional Strength, and War" pages 319-320 (Mansfield and Snyder 2002).

I remove two control variables from this regression, civil war in year $t-1$ and major power status, because they appear to apply specifically to regressions examining the causes of external wars.
rather than external wars (see Tables 1a and 1b). Third, I alter the civil war regression to include ethnic fractionalization and the five ethnic fractionalization interaction terms as independent variables (see Tables 2a and 2b). Finally, I run a series of robustness checks on the civil war regression that includes the ethnic fractionalization variables.

**Results and Analysis**

Although I employ a slightly less-sophisticated regression than Mansfield and Snyder, I replicate their model for external wars with remarkably little deviation. This is much as I would expect as I use their dataset and definitions. As Mansfield and Snyder contend, these results strongly support their argument about the dangers of democratization and external war.

In the second regression (Tables 1a and 1b), however, their model performs less-brilliantly as a predictor of civil war. The results of this regression are considerably weaker than Mansfield and Snyder's analysis of external war. Moreover, complete democratic transition replaces incomplete democratic transition as the statistically significant regime change variable. Therefore, these results are a noteworthy departure from Mansfield and Snyder's findings.

**Table 1a**

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Civil wars in time t 0.00</td>
<td>8805</td>
</tr>
<tr>
<td>Step 1 Civil wars in time t 1.00</td>
<td>424</td>
<td>0</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td>95.4</td>
</tr>
</tbody>
</table>

a. The cut value is .500

---

Incomplete democratic transition, the interaction between incomplete democratic transition and domestic concentration of authority in central government, major power status, and concentration of capabilities are statistically significant in my work just as they are in Mansfield and Snyder's.

The Nagelkerke R square value decreases from 0.125 to 0.045 when civil war replaces external war as the dependent variable.
Table 1b

Logistic Regression for Civil War

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPDTRS</td>
<td>2.889</td>
<td>.668</td>
<td>18.698</td>
<td>1</td>
<td>.000</td>
<td>17.968</td>
</tr>
<tr>
<td>INCDDTRS</td>
<td>-.256</td>
<td>.810</td>
<td>.100</td>
<td>1</td>
<td>.752</td>
<td>.774</td>
</tr>
<tr>
<td>COMPATRS</td>
<td>.549</td>
<td>1.047</td>
<td>.275</td>
<td>1</td>
<td>.600</td>
<td>1.732</td>
</tr>
<tr>
<td>INCATRS</td>
<td>-4.780</td>
<td>16.259</td>
<td>.086</td>
<td>1</td>
<td>.769</td>
<td>.008</td>
</tr>
<tr>
<td>DOMCON</td>
<td>-.123</td>
<td>.032</td>
<td>15.275</td>
<td>1</td>
<td>.000</td>
<td>.884</td>
</tr>
<tr>
<td>CDTRSDC</td>
<td>-.460</td>
<td>.169</td>
<td>8.079</td>
<td>1</td>
<td>.005</td>
<td>.619</td>
</tr>
<tr>
<td>INCDDROCC</td>
<td>.159</td>
<td>.149</td>
<td>1.139</td>
<td>1</td>
<td>.286</td>
<td>1.173</td>
</tr>
<tr>
<td>CATRSDC</td>
<td>-.031</td>
<td>.162</td>
<td>.036</td>
<td>1</td>
<td>.849</td>
<td>.970</td>
</tr>
<tr>
<td>CONCAP</td>
<td>6.926</td>
<td>1.014</td>
<td>46.637</td>
<td>1</td>
<td>.000</td>
<td>1018.496</td>
</tr>
<tr>
<td>INCATRDC</td>
<td>.090</td>
<td>3.211</td>
<td>.001</td>
<td>1</td>
<td>978</td>
<td>1.094</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.090</td>
<td>.338</td>
<td>146.354</td>
<td>1</td>
<td>.000</td>
<td>.017</td>
</tr>
</tbody>
</table>

Notes: Following Mansfield and Snyder, this model is calculated after including a natural spline function with three knots. For Bold values $p \leq .01$.

It is interesting that Mansfield and Snyder focus on the direction of a regime change rather than its scope to explain why democratizing nations enter external wars. It would be interesting to investigate why complete democratic transitions replace incomplete democratic transitions when civil war replaces external war as the dependent variable. This is an aspect of their argument that Mansfield and Snyder do not develop, suggesting an area for further research.

Table 2a

Classification Table for Civil War (Including Ethnic Fractionalization Variables)

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Civil wars in time t</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>Civil wars in time t</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.00</td>
<td>7795</td>
</tr>
<tr>
<td></td>
<td>1.00</td>
<td>393</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. The cut value is .500
Table 2b

Logistic Regression for Civil War (Including Ethnic Fractionalization Variables)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPDTRS</td>
<td>.783</td>
<td>.996</td>
<td>.616</td>
<td>1</td>
<td>.432</td>
<td>2.188</td>
</tr>
<tr>
<td>INCDTRS</td>
<td>-.778</td>
<td>1.001</td>
<td>.604</td>
<td>1</td>
<td>.437</td>
<td>.459</td>
</tr>
<tr>
<td>COMPaTRS</td>
<td>-1.565</td>
<td>1.292</td>
<td>1.467</td>
<td>1</td>
<td>.226</td>
<td>.209</td>
</tr>
<tr>
<td>INCAcRS</td>
<td>-4.541</td>
<td>19.624</td>
<td>.054</td>
<td>1</td>
<td>.817</td>
<td>.011</td>
</tr>
<tr>
<td>DOMCon</td>
<td>-.115</td>
<td>.033</td>
<td>11.890</td>
<td>1</td>
<td>.001</td>
<td>.891</td>
</tr>
<tr>
<td>CDTRSDC</td>
<td>-1.565</td>
<td>1.292</td>
<td>1.467</td>
<td>1</td>
<td>.226</td>
<td>.209</td>
</tr>
<tr>
<td>INCDCRDC</td>
<td>.127</td>
<td>.161</td>
<td>.615</td>
<td>1</td>
<td>.433</td>
<td>1.135</td>
</tr>
<tr>
<td>CATRSDC</td>
<td>1.200</td>
<td>1.161</td>
<td>.384</td>
<td>1</td>
<td>.536</td>
<td>1.105</td>
</tr>
<tr>
<td>INCATRDC</td>
<td>.067</td>
<td>3.758</td>
<td>.000</td>
<td>1</td>
<td>.986</td>
<td>1.070</td>
</tr>
<tr>
<td>CONCAP</td>
<td>4.553</td>
<td>1.076</td>
<td>17.914</td>
<td>1</td>
<td>.000</td>
<td>94.963</td>
</tr>
<tr>
<td>EXCD</td>
<td>3.205</td>
<td>1.040</td>
<td>9.503</td>
<td>1</td>
<td>.002</td>
<td>24.654</td>
</tr>
<tr>
<td>EXINCD</td>
<td>1.481</td>
<td>.864</td>
<td>2.942</td>
<td>1</td>
<td>.066</td>
<td>4.400</td>
</tr>
<tr>
<td>EXCA</td>
<td>2.432</td>
<td>.929</td>
<td>6.854</td>
<td>1</td>
<td>.009</td>
<td>11.377</td>
</tr>
<tr>
<td>EXINCA</td>
<td>-3.555</td>
<td>22.924</td>
<td>.000</td>
<td>1</td>
<td>.984</td>
<td>.635</td>
</tr>
<tr>
<td>ETHFRAC</td>
<td>.238</td>
<td>.214</td>
<td>1.236</td>
<td>1</td>
<td>.266</td>
<td>1.269</td>
</tr>
<tr>
<td>Constant</td>
<td>-.349</td>
<td>.348</td>
<td>100.779</td>
<td>1</td>
<td>.000</td>
<td>.030</td>
</tr>
</tbody>
</table>

Notes: Following Mansfield and Snyder, this model is calculated after including a natural spline function with three knots. For bold values p ≤ .01, for italicized values p ≤ .10.

Despite the significant limitations of my ethnic fractionalization variables, they still lead to some interesting results when I include them in my analysis. Table 2b demonstrates that the ethnic composition of a democratizing nation’s population is an important factor in the outbreak of civil war. When ethnic fractionalization is included in the regression, each of Mansfield and Snyder’s regime change variables becomes insignificant. The interaction between ethnic fractionalization and complete democratic transition, and, to a lesser degree, the interaction between ethnic fractionalization and incomplete democratic transition turn out to be better predictors of civil war than democratizing regime changes alone. Moreover, these results persist when subjected to several robustness checks.

These findings provide substantial support for my contention that the interaction between ethnic fractionalization and democratization pushes states toward civil war. Importantly, ethnic fractionalization by itself is not a significant predictor of civil war. As I expect, these results show that ethnic

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10 Primarily as a result of the weaknesses of Taylor and Hudson’s measure.
11 My results are robust (1) when ethnic fractionalization (ethfrac) is excluded from the analysis, (2) when major power status and ethnic fractionalization are included, and (3) when ethnic fractionalization is excluded and major power status is included.
heterogeneity exacerbates the institutional and political difficulties that democratizing countries face and make it more likely that these nations will experience internal war.

How Ethnicity Leads a Democratizing State to Civil War

Statistical analyses often paint only a rough sketch of the actual mechanisms that shape political outcomes. Accordingly, I turn my attention to a theoretical discussion of the causes of intrastate ethnic conflict. The ethnic conflict literature typically employs arguments from two principal perspectives, the “primordialist” approach and the “mobilizationist” approach, to explain violent inter-group conflict.

The primordialist perspective views ethnicity as a stable ‘given’ that does not depend on time or social context (Mousseau 2001, 548–9). As one scholar summarized, “Primordialists explain strong ethnic attachments with psychological or biological factors that... have primary significance in the formation of a sense of belonging, in-group identity, and solidarity among the members of an ethnic group” (549). According to this standpoint, ‘primordial qualities,’ such as “attachments to kin, territory, and religion,” define group members’ identity and self-esteem (McKay 1982, 396). Because man is “a leopard who cannot change his ethnic spots,” ethnic conflict results from inevitable clashes over intrinsic group differences (398).

On the other hand, mobilizationists offer a more compelling analysis of ethnically-motivated conflict. According to this perspective, ethnicity is often a tool for group mobilization during times of political transition (Cordell 1999, 5) because people with shared descent, cultural characteristics, and history are likely to “define their interests in ethnocultural terms [, making it] easier...for leaders to mobilize them for collective action” (Gurr 2000, 66). Conflict results when leaders mobilize competing groups along ethnic lines in order to secure access to material, social, and political resources by force (McKay 1982, 399).

David Lake and Donald Rothchild present a persuasive mobilizationist argument that cites collective fears and insecurity as the cause of ethnic conflict (1996). In the context of a weak state, such as during democratization, faction leaders mobilize the populace along ethnic lines because “ethnic identities are almost always the most effective organizing principle...[and as a result,] politics
usually take the form of a struggle to secure group interests” (Carroll and Carroll 2000, 121). During the unpredictable period of democratization, states are unable to arbitrate between ethnic rivals or to offer these groups credible assurances of protection. Collective fears that their physical or cultural survival is threatened cause ethnic groups to cooperate less and compete more rigorously. Ethnic violence erupts when rival factions face three strategic dilemmas: information failures, problems of credible commitment, and the security dilemma (Lake and Rothchild 1996, 43-4).

Case Selection

If Lake and Rothchild’s argument is correct, we should see competing ethnicities in democratizing states struggle with information failures, problems of credible commitment, and the security dilemma. Collective fears for group survival should induce ethnic rivals to cooperate less and ultimately engage in violent conflict. Russia’s difficulties in Chechnya present a vivid application of Lake and Rothchild’s argument. This case clearly depicts the internal struggles common to ethnically diverse countries as they move toward democratic government. On the other hand, Japan under the “Taisho Democracy” is a good example of an ethnically homogenous state that engaged in external warfare during its period of democratization. Here, Mansfield and Snyder’s theoretical argument provides the best explanation of why Japan’s early liberalization concluded in a violent incursion into Manchuria. An examination of these two cases casts greater light on the different facets of my theoretical argument and carefully details how democratization and ethnic heterogeneity can lead to civil war.

Japan: Democratization and External War

Most political historians agree that the period following World War I and preceding the 1930s was a remarkable time in Japanese history. It was a time of considerable economic reform and institutional liberalization. The Taisho Democracy marked Japan’s early experience with democratic values and mass politics. However, Japan’s progress toward mature democracy was interrupted by the multiple shocks of the depression and growing military activism. By the mid-1930s, Japan’s fledgling democracy had entirely collapsed, and the imperialistic, military rule that would haunt the Pacific during World War II solidified its power. These brief years of Japanese democratization clearly illustrate how an ethnically homogenous nation’s experiment with democracy ended in external warfare.

The roots of Japanese liberalism reach back to Japan’s nineteenth-century revolution. As a central feature of that revolution, the Meiji oligarchs created a constitutional order in 1890 and promoted the industrialization and capitalization of Japan’s economy (Gordon 1991, 14-5). Their emperor-centered constitutional order, which lasted from 1890 to 1945, set the stage for new institutions and new types of political activity. The industrial growth Japan experienced during WW I also initiated important changes in Japan’s political and social composition. Japan’s industrial expansion “led to a concentration of
the population in urban areas, creating not only a large number of factory workers, but also [a] new middle class: civil servants, white collar workers, [and] professional people" (Silberman and Harootunian 1974, 219). This population concentration contributed to the creation of an urban mass society. In addition, relatively high levels of education and a quickly developing system of communication media heralded the dawn of an era of mass politics (229).

Most of the leaders and participants in the democratic movement that flowered around the turn of the century were "men of means and education . . . landlords, capitalists, and an emerging class of urban professionals, in particular journalists and lawyers" (Gordon 1991, 16). In contrast to the former ruling structure of a narrow class of bureaucrats and military officers, the imperial democracy eventually incorporated a much broader elite, granting the middle class expanded influence under the new system (126). The formation of the Seiyukai party in 1918 marked an important transition in the democratic movement. This event signaled the end of imperial democracy as a movement and the beginning of the Taisho Democracy as a structure of rule (14).

Although "universal manhood suffrage was adopted in 1925" (Gordon 1991, 2), in reality relatively few Japanese citizens could participate in the political process. During Japan's period of democratization, methods for effective political participation were remarkably weak. Political party membership was extremely limited and the parties themselves enjoyed only circumscribed authority (Silberman and Harootunian 1974, 229). The urban masses were excluded from political participation altogether, and with no peaceful alternative, the poor often resorted to revolt and rioting as a way to influence policy makers. Such was the case in the 1918 "Rice Riots," when the masses responded violently to an increase in the price of rice (230).

The democratic reforms of early twentieth-century Japan were certainly felt across the Japanese political spectrum, but one organization was left largely untouched by the pressures of democratization: Japan's military. The armed forces had a great deal of independence from the new democratic structures and could appeal directly to the emperor without so much as consulting the rest of the administration (Silberman and Harootunian 1974, 225). Early military ventures onto the Asian mainland drew criticism from democratic liberals, despite pressure from military elites (221). Japan's armed intervention in Siberia from 1919 to 1922 and its incursion into the Shantung Peninsula from 1927 to 1928 foreshadowed the virulent militarism that would emerge only a few years later.

During the 1930s, military officers and elements of the extreme right sought to topple the imperial democracy through repeated coups d'état. Although each coup attempt failed, the military did succeed in intimidating the established institutions. The largest of the coup attempts "occurred on February 25, 1936, when young extremist officers, commanding some 1,400 soldiers, assassinated several cabinet ministers, occupied the governmental quarter of
Tokyo, and demanded a military government presided over by the emperor” (Silberman and Harootunian 1974, 233). The military’s repeated coup attempts sufficiently frightened civil and bureaucratic leaders into adjusting government policy to more fully accommodate the military’s demands. As a result, policy making generally shifted in the direction the military desired: toward a military garrison state (233). With greater political influence, the military found it no hard task to subsequently mobilize public sentiment in favor of its fifteen-year campaign into Manchuria. The Japanese public was “easily manipulated” by being offered the exciting illusion of participating in a great imperial power (231). The external conflicts that followed, especially WW II, destroyed Japan’s emerging democratic institutions and the painstaking work of previous decades.

Japan’s rocky experience with democratization provides an excellent example of how conflict is likely to result during the difficult period of regime change. The Japanese experience parallels my expectation for a democratizing state with an ethnically homogenous population in several ways. First, the constitutional order imposed by the Meiji oligarchs widened the political spectrum and new groups emerged as political players. Second, emerging democratic institutions, especially political parties, could not accommodate all demands for political participation. Urban masses were largely excluded from the political process. Third, the ruling class that the new democratic system supplanted had strong ties to the military. Indeed, the old elites were Japanese generals and admirals, all former samurai warriors (Gordon 1991, 126). Fourth, appeals to the masses were centered on imperialistic ideals and Japanese nationalism. Elites exploited popular support for honoring the nation and the emperor and for pursuing hegemony in Asia (52). External war was the specific result of compromises between the primary rival factions in the Japanese government: the emerging democratic bureaucracy and the military elite. The democratic bureaucracy sought to accommodate military demands and avert future coups d’état by moving policy decisions in a direction that the military favored. These conciliatory actions merely facilitated the military’s imperialistic ventures abroad and eventually thrust Japan into external war in Manchuria.

Chechnya: Russia’s Democratization and Internal War

The bloody conflict in Chechnya vividly illustrates the internal violence that often accompanies an ethnically diverse state’s transition to democracy. Since the dissolution of the Soviet Union, Russia’s physical and political composition has changed dramatically. Today Russia encompasses only a fraction of the territory once united under the USSR. Ethnic nationalists in Chechnya would reduce this territory still further. These disaffected Chechens seek self-determination and the freedom to create an independent Chechen state. The Russian government vigorously opposes such secessionist demands and has matched every Chechen action with a brutal military response of its own.
Ethnically, the Chechens are a non-Slavic people that have lived in Chechnya for thousands of years. They have a unique language that is distinct from the surrounding Slavic and Turkish dialects. Chechen social structure is distinctly clan-oriented and this kinship-based society is reinforced by a “very deep sense of economic community, and an instinctive will to fight ‘infidels’ inspired by Islamic culture” (Arquilla and Karasik 1999, 209-10). In sum, Chechen culture, traditions, and religions share little with Russian society (Commission on Security and Cooperation in Europe 1995, 9).

According to 1989 USSR Census data, Chechnya had quite a diverse ethnic population under Soviet rule. About 58 percent of the populace was Chechen, 23 percent was Russian, and 19 percent represented other minorities (Aklaev 1999, 228, 126). The collapse of communism unleashed ethnic nationalism in the Caucasus region, and on October 27, 1990, Chechnya unilaterally declared its independence. Two years later, Chechnya refused to be a cosigner when the Russian Federation was formed on March 31, 1992 (Commission on Security and Cooperation in Europe 1995, 10). Since that time, Russia has treated Chechnya as an autonomous republic, albeit a rebellious one, not an independent nation and therefore refuses to extend independent status. The Russian perception that most angers Chechens is that Russia constitutes “first and foremost ethnic Russians, and . . . the territory of ethnic autonomies inside the Russian Federation [can] be claimed as Russian, but their inhabitants [are not] considered Russian citizens” (Tishkov 1997, 428).

The first Chechen war erupted in 1994 and dragged on for two violent years. By some estimates, more than three hundred thousand individuals, mostly civilians, lost their lives in the conflict (Banerjee 1999, A10). In August 1996, Chechen forces launched a surprise offensive on the Russian troops holding Grozny, the capital city. Russian tanks and heavy artillery, ill-suited for an urban battlefield, were soon overwhelmed by small bands of Chechen guerillas. The war came to a halt when President Yeltsin sent Alexander Lebed to negotiate a cease-fire agreement with the Chechens in October 1996 (Arquilla and Karasik 1999, 211-3).

The Treaty on Peace and Principles of Relations, signed May 12, 1997, held great symbolic meaning for Chechnya. Apart from the treaty’s grandiose claims to peace and an end to ancient rivalries, Chechens saw the cease-fire agreement as an implicit recognition of Chechnya’s independent statehood (Tishkov 1997, 431). For Russia, however, the treaty merely reaffirmed the Federation’s “respect for its negotiating partners, confirming their rights, status, and privileges within the limits of a larger state structure” (431). The text of the treaty, only four short sentences, could be interpreted to conform to the agenda and prejudices of either side.

A central aspect of the cease-fire agreement was that both parties agreed to “forever repudiate the use and the threat to use military force to resolve whatever disputes may arise” (Tishkov 1997, 432). This provision was quickly
forgotten, however, when violence again broke out in October of 1999. On October 4, the Wall Street Journal reported that Russian troops had crossed into Chechnya, expanding airstrikes on Grozny to the threat of a full-scale land assault. This decisive military action came as a response to Chechen incursions into Dagestan and accusations that Chechen rebels were responsible for a string of terrorist bombings killing more than three hundred people in Moscow and other Russian cities (Whalen 1999, A30).

Russia’s protracted civil war produced as many as three hundred thousand refugees and obliterated the Chechen capital of Grozny, once home to four hundred thousand people (Wines 2000, sec.4 p.1; Anonymous 2000, A26). This bloody conflict illustrates the dangers of ethnic violence during a state’s transition to democratic rule in several important ways. Primarily, it is evident that both the Russians and the Chechens were motivated by collective fears about the future. Chechnya wanted to safeguard its ethnic identity and secure its nation’s interests through self-determination and political independence. Russia, on the other hand, was concerned about losing influence and access to resources. Specifically, the Russians feared that granting Chechen independence would initiate a destabilizing cascade of secessionist demands throughout the Russian Federation (Arquilla and Karasik 1999, 209). The effects of these collective fears have been compounded by three strategic dilemmas. First, both sides have had significant incentives to misrepresent information about their capabilities and their intentions. Indeed, both parties have engaged extensively in information warfare. For example, during the 1994–1996 conflict, Chechen rebels used radio-jamming systems to interrupt Russian mass media broadcasts and sent fake radio transmissions intended to be intercepted by Russian intelligence officers (Arquilla and Karasik 1999, 217). Second, the Russians and Chechens failed to credibly commit to a cooperative solution to the conflict. In October 1999, the warring factions demonstrated they were all too willing to ignore the 1997 ceasefire agreement and their sweeping commitments to peace. Finally, information failures and problems with credible commitment pushed the competing factions into the security dilemma (Lake and Rothchild 1996, 52). Incentives for cooperation were not sufficient to overcome collective fears, and as a result, each side was motivated to cheat on cooperative agreements and use preemptive force. For example, Russia’s brutal ‘liberation’ of Grozny in February 2000 was a preemptive move against future demands for Chechen independence.

This violent internal struggle has exacted a high price in human suffering. Competing ethnic identities and the problems of credible commitment and information failure fueled this protracted struggle. Clearly democratization is not an entirely rosy proposition. Indeed, Russia’s transition to democratic rule has been anything but smooth.

**Conclusion**

Clearly, this research would benefit from further investigation of quantitative measures and cases within this problem area. In particular, it would be very
interesting to see how a more precise measure of states' ethnic composition would influence the present research. I anticipate that a more valid measure of ethnic heterogeneity would strengthen my statistical results, further justifying my research expectations. It is telling of the importance of the relationship between ethnic fractionalization, democratization, and civil war, however, that despite the weaknesses of this project, my analysis still generates statistically significant results.

Even at this point, the implications of this discussion are plain, and I echo the caution initially offered by Mansfield and Snyder. Although increasing the number of democratic nations across the world may indeed be in our long-term interests, national leaders must be aware that the transition to democracy is laced with significant hazards. Policy makers should couple their pro-democracy agenda with consistent "efforts to mold strong, centralized institutions that can withstand the intense demands...[of] high-energy mass politics. . . . If mass politics arrives before the institutions that are needed to regulate it, hollow or failed democracy is likely to result" (Mansfield and Snyder 2002, 334). Popular crusades for democratization, therefore, should be tempered with caution and with an understanding that this type of political change has the potential to provoke interstate aggressions as well as to push nations into civil war.

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Lindsay Leininger, photographer
NONDEMOCRATIC CONSOLIDATION IN SINGAPORE

CHRISTOPHER REES

Democratization scholars often assume that most nations will eventually democratize; the evidence of persistent nondemocratic regimes contradicts such assumptions. Theoretically it is possible to consolidate a nondemocratic regime. I examine the case of Singapore and conclude that Singapore has institutionalized many nondemocratic features, thereby establishing a consolidated nondemocratic regime.

Singapore's authoritarian government has endured for over half a century whereas other developed Asian nations like Taiwan and South Korea have made significant strides toward consolidated democracy. Despite international pressure to democratize, the present regime has solidified its power to a degree that transition appears impossible in the short term and unlikely in the long run. The success of authoritarianism in Singapore has defied the conventional explanations of democratization scholars, forcing many to stipulate exceptions to their paradigms. However, Singapore is not merely an exception to models of democratic consolidation. Instead, it maintains authoritarian rule because it has achieved nondemocratic consolidation through the effective institutionalization of six requisites for nondemocratic consolidation. Authoritarian rule persists in Singapore because the present regime has legitimized its rule based on individual preferences. Residents of Singapore have no motivation to call for democratic transition because the expected benefits of the present

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regime outstrip the expected costs and the uncertainty associated with lobbying for regime transition.

Democratization has not occurred in Singapore because the current authoritarian government has established a consolidated nondemocratic regime by the paradigm of nondemocratic consolidation laid forth herein. The first section of this paper will address the present status of government in Singapore to ascertain the reality of nondemocratic rule in Singapore. The second section will outline competing explanations for nontransition in Singapore and demonstrate the inadequacy of these positions. The third section will proffer a definition of nondemocratic consolidation and establish the possibility of achieving such a status. The fourth section will analyze whether or not the present conditions of government in Singapore satisfy the conditions of nondemocratic consolidation. The final section will discuss the implications of nondemocratic consolidation for the future of democracy in Singapore.

Is Singapore truly nondemocratic?

Linz and Stepan provide an initial foundation for the study of modern nondemocratic regimes (1996). They characterize five general regime types: democracy, authoritarian, sultanism, totalitarian, and post-totalitarian. However, regimes vary in the degree to which they exhibit the traits ascribed by Linz and Stepan, and thus many regimes find themselves classified somewhere between two similar regime types. Singapore's regime possesses some democratic and some authoritarian traits that make classification problematic in the Linz and Stepan framework. For example, Singapore allows some democratic institutions such as regular elections, but the freedom and fairness of these elections is disputable.

Hybrid regimes like Singapore's have received much attention in the last few years. Larry Diamond notes that many regimes have superficially installed some democratic institutions but substantively remain authoritarian, and he classifies Singapore as a hegemonic electoral authoritarian regime (2002). Others have attached a wide array of descriptive terms to Singapore's governance, such as soft authoritarian, illiberal democracy, communitarian democracy, and semidemocratic (Mauzy and Milne 2002, 128). Only a few liberal definitions of democracy, like that of Francis Fukuyama, would classify Singapore as a democratic state (1992). Although Singapore has installed some democratic institutions, the present regime remains substantively authoritarian because of "the extra-parliamentary constraint on challenges to the ruling People's Action Party (PAP)" (Rodan 1993, 77). Regardless of limited democratic features, few scholars would term Singapore democratic. Thus, it reasonably qualifies as a nondemocratic regime.

Contemporary explanations for Singapore's nontransition

Intense debate surrounds the question of how Singapore remains nondemocratic when many surrounding nations of similar economic and cultural conditions have democratized. Some treat Singapore as a mere anomaly to
modernization theory (Huntington 1991, 302). Proponents of modernization theory argue that nations transition toward democracy after reaching certain thresholds of per capita GDP. Singapore has far exceeded any of the proposed thresholds and yet remains nondemocratic. Therefore, some purport that Singapore is anomalous and have introduced a caveat to modernization theory. This caveat suggests that nondemocratic regimes that remain in power after surpassing the threshold for democratization become less likely to transition in the future.

Others assert that Singapore's present regime maintains power primarily because of its ability to foster sustained economic growth. They argue that the People's Action Party retains control because it governs well, and to the PAP and Singaporeans, “governing well means first and foremost the government’s capability in bringing economic progress and material well-being” (Leong 2000, 76). The continued growth of the Singaporean economy enables the government to convince the people that they should continue to rule. However, this theory is both simplistic and problematic. Although the government certainly derives some of its legitimacy from economic success, this cannot wholly account for the PAP’s continuity. The theory requires some mechanism to explain why individuals would concede political liberties for mere economic growth. Furthermore, it fails to explain the continued dominance of Singapore’s government through several recessions, notably in the mid-1980s (Chee 1986, 164-5).

The explanatory approach of some scholars focuses on the pragmatism of the People’s Action Party. They observe declining electoral superiority in the 1980s and suggest that the maintenance of the present regime is conditional upon its ability to change policy through functional concessions. These functional scholars argue that the Singaporean state constantly shifts policies in manners that are “intended above all else to preserve the essence of the authoritarian regime” (Rodan 1993, 78). The clever manipulation of policy, and even the introduction of token democratic institutions, allows the present regime to avoid serious dissension (Case 1996, 444-5). Theories again lack a mechanism to account for individual acquiescence to PAP rule. Theoretically, if the people want democracy, then why have they accepted the piecemeal concessions of the PAP over the last few decades? If some other theoretical constraint does not exist, then the people would have supplanted PAP power to a greater extent during key elections like those in 1985 and 1993 (Mauzy 1993). In addition, the level of democracy in Singapore has declined at many times during the PAP’s forty years of control, and the nation even started as a democracy when the PAP took power in the 1960s. It appears unlikely that the mere introduction of a few democratic practices can explicate the nondemocratic tradition in Singapore.

The consistent weakness in these alternative explanations is the lack of individual-level mechanisms to account for nondemocratic continuity. The structural criteria that they advance are important, but they cannot by themselves fully explain nondemocratic consolidation. Furthermore, these theories fail to offer a systematic means of forecasting the future of nondemocratic rule.
in Singapore. Predictions for the future of Singapore’s nondemocratic tradition require a model of nondemocratic consolidation. This model should include strong mechanisms to explain individual submission to the dominant People’s Action Party and should not be dependent on transient structural mechanisms. The next section will advance the model and demonstrate the means for applying this model to test the status of nondemocratic consolidation in Singapore.

What is nondemocratic consolidation?

Scholars have failed to adequately address the theoretical possibility of a nondemocratic regime becoming consolidated. Some are beginning to study nondemocratic regimes more frequently, but the possibility of achieving nondemocratic consolidation and the means whereby it might occur have not been systematically studied. Many scholars seem to tacitly accept the notion that only the ideal form of government, democracy, could obtain the broad-based legitimacy necessary for consolidation. However, it is easy to imagine a utopian situation in which a benevolent dictator could gain the overwhelming support of his people. In such conditions it seems likely that nondemocratic consolidation could occur. Although nondemocratic consolidation would almost certainly result in this ideal scenario, it is also possible to consolidate nondemocratic authority in less than ideal circumstances.

Nondemocratic consolidation is theoretically similar to democratic consolidation. It implies a state in which a nondemocratic regime type has become “the only game in town” (Guiseppi Di Palma, as quoted in Linz and Stepan 1996, 5). A regime becomes “the only game in town” as it achieves broad legitimacy based on stable conditions. The structural elements emphasized in alternative explanations for Singapore’s regime continuity are transient factors that cannot sustain legitimacy. Legitimacy is a condition for consolidated government, and legitimacy is derived from the people and their willingness to support the government. No regime can achieve consolidation based primarily on regime performance and structural conditions, because any such regime would collapse as soon as conditions became unfavorable. In order for a regime to achieve nondemocratic consolidation, it must create legitimacy based on individuals’ preferences.

Since legitimacy is based on individual assessments of the validity of a given regime, it should be implicitly understood that individuals make regime assessments periodically. When they assess the viability of a given regime, they are faced with two alternatives: to accept or reject the regime in power. Thus as individuals make these periodic assessments to support or undermine a regime, they are, in effect, making consumption choices of regime type. These consumption choices reveal the nature of individual preferences regarding regime type. It is assumed that individuals make rational assessments of regime value according to their desires to maximize the utility derived from a regime.

Individual utility from a given regime is conditional upon the quality of life that individuals enjoy when ruled by a particular regime. In essence,
individuals have a utility function based on the benefits that they expect their government to provide. The basis of the social contract between man and government involves the "surrender of individual sovereignty for the protection of life, liberty, and property" (Pangle 1988, 28-39). Thus a common evaluation of a regime's success involves an assessment of its ability to provide for political and economic needs and wants. A simple model of an individual utility function derived from a regime would therefore resemble the function, \( U(R) = f(EB, PB) \), where \( U(R) \) is the utility derived from a given regime and \( f(EB, PB) \) represents a function composed of economic and political quality of life.

The optimal level of \( U(R) \) would be the choice of all rational individuals under ideal circumstances. Although one might expect the highest levels of economic and political benefits to yield the maximization of \( U(R) \), in reality this may not be the case. There are costs associated with regime transition that may inhibit optimization of utility. The uncertain results of any transition for both regime type and individual welfare make optimization of \( U(R) \) problematic. Since most individuals exhibit tendencies toward risk aversion, they generally opt to remain at less than ideal circumstances when risk is involved (Friedman and Savage 1948). Consequently, in order to avoid the uncertainty of transition, individuals will accept fewer political and economic benefits than they might achieve under a democratic regime.

This propensity for risk aversion in populations allows nondemocratic consolidation to occur. The functional implications of risk aversion in regime choice imply that individuals might choose to sacrifice some benefits in exchange for stability. These also suggest that regimes might induce individuals to inaction by altering citizens' abilities to accurately assess the risk and benefits associated with initiating transition. As a consequence of these functional implications, there exist six characteristics that nondemocratic regimes can pursue to consolidate nondemocratic rule.

For individuals to initiate a transition, they must perceive that the transition's chance of producing democracy is greater than the risk of a worse regime type. Accordingly, the first factor to consider is the probability of successful democratization after the initiation of a transition. The second factor for nondemocratic consolidation is the current level of political and economic benefits. If the current expectation of benefits is sufficiently low, then the expected benefit of a transition may be high enough to warrant revolt. The next factor to consider is the expected outcome for an individual that initiates transition toward an alternative regime. The costs of rebellion must remain fairly significant in order to effectively discourage dissent in a consolidated nondemocratic system. Another characteristic of a consolidated nondemocratic regime is greater emphasis assigned to the importance of economic benefits relative to political benefits. Since a nondemocratic regime necessarily limits political benefits, the regime should attempt to convince its citizenry to base legitimacy more on economic benefits. In addition, successfully consolidated nondemocratic
governments would control the activities of elites and civil society to diminish
the emergence of a viable opposition. Finally, nondemocratic consolidation
requires the establishment of and adherence to viable institutional paradigms
for leadership succession. The assessment of nondemocratic consolidation in
Singapore will focus on these six characteristics of nondemocratic consolidation.

Has Singapore achieved nondemocratic consolidation?

Previous studies of nondemocratic continuity in Singapore focus primarily
on structural factors that affect regime stability and fail to fully consider the
importance of individual behavior. Although structural factors are important,
they only affect nondemocratic consolidation insofar as they affect individuals’
choices. Unless the citizenry chooses to accept nondemocratic rule, consolidation
cannot occur even under ideal structural conditions. Therefore, to determine
whether Singapore has achieved nondemocratic consolidation, conditions in
Singapore must be examined to determine the disparity between individual costs
and benefits of regime transition. If the six areas mentioned in the previous sec­
tion reflect the high expected costs of revolt relative to low expected benefits,
then Singapore should be considered a consolidated nondemocratic regime.

Probability of democratic transition

This characteristic of nondemocratic consolidation is somewhat speculative
because there is no means of measuring actual probabilities of transition
outcomes. Nevertheless, the measure focuses on the expected outcomes,
and residents of Singapore seem to view continued authoritarianism as the
most probable outcome of any transition. In addition to this, the government
has nursed fears of the possibility of a substantially worse outcome than the current
levels of authoritarianism. Government propaganda and cultural tendencies
toward risk aversion augment the expectation of a remarkably similar or even
worse outcome as a result of transition.

The government developed this aspect of nondemocratic consolidation early
during the rule of the People’s Action Party. It cultivated fears of communism and
aggression from neighboring states during the 1960s and 1970s to serve as a
“rationalization for the authoritarian regime” (Rodan 1993, 104). The people and
government perceived an imminent threat, and thus “the ‘survival’ motif became
a prominent part of Lee Kuan Yew’s rhetoric and dominated political discourse”
(Barr 2000, 32). During the early years of PAP authority, citizens chose not to
oppose the PAP because they feared the turmoil and vulnerability of a transition
that would allow outside forces to capitalize on Singapore’s weakness.

As the threat of communism or invasion has diminished, the government
has replaced the old propaganda to renew the popular perception of the prob­
able failure of transition. The new wave of propaganda focuses on economic
factors, insinuating that any transition will disrupt economic development and
lead to worse economic benefits without improving political benefits. The early
campaign built PAP legitimacy, and the latter campaign maintains that legitimacy
by creating a fear of probable reduction in benefits due to transition.
This fear is magnified by the Singaporean's comparatively high tendency toward risk aversion. Singapore has cultivated a culture of risk aversion partly because of the extended period of one-party, authoritarian domination. Furthermore, Singapore's society is achievement-oriented and based largely on meritocracy. This has strengthened individual fear of failure. These aspects of Singaporean culture have bred a “culture of insecurity [that] has ensured that ordinary Singaporeans have earned a reputation for risk-aversion, circumspection, and indecision” (Barr 2000, 229). The intolerance of failure has exacerbated tendencies of risk aversion in a culture that possessed “risk aversity and cautiousness from the very start” (Yuan and Low 1990, 191). The Singaporean culture of risk aversion allows the governmental propaganda to achieve maximum effectiveness, and the people in Singapore consequently would be unlikely to believe in the feasibility of successfully opposing the dominance of the People's Action Party.

Expected political and economic benefits

Potential dissidents in Singapore face the reality that initiating a transition would yield few substantive changes in Singaporean politics. Singapore already enjoys fairly high levels of political and economic benefits, so a transition would afford only marginal increases in these two components of utility. Through current provision of high benefits, stable patterns of long-term growth, and government responsiveness, Singapore maintains relatively high levels of expected benefits.

The levels of political and economic benefits in Singapore are currently high. Freedom House ranks Singapore as a partly free democratic state with scores of 5 in 2000 for both civil and political liberties (Freedom House). Polity IV also ranks Singapore as a moderate authoritarian regime, giving it scores of 2 for democracy and 4 for autocracy in 2000 (Polity IV 2003). These scorings suggest that Singapore does not grant significant democratic freedoms to its citizens, but neither is it overly oppressive in its autocratic policies. As a consequence, individuals do not generally have strong motivations to rebel because the government does not oppressively deny their rights.

Economically, Singapore enjoys relatively high levels of benefits that support nondemocratic consolidation. For 2000, Singapore reported per capita GDP as $39,796 (Singapore Department of Statistics 2003). In 1998, it ranked as third in the world behind only Luxembourg and the United States when adjusted for purchasing power parity (Global Geografia 2003). This measurement of economic benefits, though simplistic, accurately portrays the excellent performance of the Singaporean economy. Citizens perceive that their stable political regime is largely responsible for this performance, and as a result, the government is legitimized based on current economic benefits. Certainly the consistent economic success inhibits any outcry for regime change in Singapore.

Another cause for these bland sentiments toward the government is that the levels of benefits have not changed significantly in Singapore. In both the
Freedom House and Polity IV data, the rankings for Singapore have remained consistent since the PAP gained power in 1965. Polity IV has ranked Singapore with scores of 2 for democracy and 4 for autocracy in every year without exception. Freedom House has given scores of either 4 or 5 in both political rights and civil liberty in every year as well. In terms of economic benefits, Singapore has averaged nearly 10 percent growth in per capita GDP per annum with little variation each year, rising from roughly $10,000 in 1980 to $20,000 in 1990 and roughly $40,000 at present. This predictable growth and prosperity lends itself to regime stability. Combined, these steady levels of political and economic benefits allow Singaporeans to establish clear expectations of moderate political benefits and high economic benefits. Compared with the uncertain expectations of transition, these predictably moderate levels of benefits satisfy Singaporeans.

In addition to these consistent and fairly high benefits, Singaporeans have reasonable hope for future improvements in benefits because of the responsiveness of the present regime. Although the People’s Action Party has only minimal democratic accountability, it voluntarily solicits public opinion and adheres to many requests of its citizenry. Singapore established the Feedback Unit in 1985 “to elicit responses from the public in writing and in open meetings on specific issues” (Leong 2000, 197). The government still maintains autonomy from transitory public opinion, but does not completely ignore it either. This consideration and concern for public opinion helps stifle potential opposition. For example, the controversial Graduate Mothers Scheme of 1984 produced significant public opposition, and the legislature eventually retracted the legislation. In addition, the PAP uses intricate economic surveys to assess the needs and wants of its people, and shapes policy accordingly (Chee 1986, 160-1). The responsiveness to public opinion curtails extreme opposition, yet Singapore remains nondemocratic because the government maintains its prerogative to adhere to these mechanisms of accountability.

*Costs of dissent*

For the average Singaporean citizen, the costs of provoking a revolutionary movement are extremely prohibitive. The PAP utilizes the ambiguity of the Internal Security Act (ISA) to imprison suspected dissenters without trial. For instance, officials imprisoned twenty-two people in 1987 without trial because they were allegedly involved in a communist conspiracy to overthrow the government (Rodan 1993, 92). The ISA also allows the regime to expel foreigners for any perceived criticism of the government, as occurred with a group of Christian missionaries in 1987. The strict enforcement of the ISA discourages Singaporeans and foreigners from expressing dissatisfaction with the People’s Action Party.

Singapore employs various means to inhibit dissenters from expressing their voices. The government levies heavy fines or punishments against any disruption of social order. The caning of the American Michael Fay for graffiti
is just one notable example of the severe punishments available to Singaporean officials. Protest is allowed but is subject to numerous regulations that make organizing protests costly. It takes significant time to gain approval for any group gathering, and thus in most cases the cost of gaining a permit outweighs the desire to protest. Furthermore, opposition elements are constrained by Singapore’s defamation laws. The PAP has sued numerous opposition leaders and citizens for engaging in criticism of its regime. In most cases, the PAP succeeds in its suits and the courts impose substantial fines on the opposition leaders. For example, in 1997 the courts awarded S$8 million in damages when the PAP sued Tang Liang Hong for defamation, and the PAP achieved similar results in its 1988 suit against J.B. Jeyaretnam (Mauzy and Milne 2002, 135). These threats of financial penalties or physical punishment and imprisonment effectively sustain the high costs of dissent in Singapore and limit opposition voice. Those who would rebel often leave because of these high costs of dissent. Singapore currently experiences extremely high rates of emigration as those that have means to leave the country do so. The cost of leaving Singapore is significantly lower than the individual cost of reforming the nation, especially because many Singaporeans feel few patriotic ties to their nation (Bell 1997, 9). This decline in patriotism has occurred largely since the rise of authoritarian government in the late 1960s. Thus the high costs of dissent are even more effective because those most likely to initiate rebellion have little incentive to promote reform if they possess the capacity to abandon their country.

Emphasis on economic benefits

Although Singapore claims some legitimacy because of preserving political order and a fair amount of benefits, the government tries to focus the periodic assessments of its citizenry toward economic issues. While these issues alone do not legitimize the People’s Action Party, their emphasis can deflect some attention from inadequacies in political benefits and freedoms. Through propaganda and the natural cultural values of its people, Singapore has managed to direct citizens’ assessments of governmental performance from political benefits toward the provision of economic benefits.

The current focus on economic benefits did not exist before the ascension of the People’s Action Party. During the period of political independence in the 1950s and early 1960s, these “economy-based values were not extant on the island” (Chua 1995, 105). The regime emphasized meritocracy and consumption as it strove for economic development, and these values have strengthened a cultural emphasis on economics. Discipline in the work place and in society and a desire to achieve consumption advantages have engineered a culture where “economy-dictated values are the predominant defining characters of the high-growth city-state, over and above all other cultural sentiments” (Chua 1995, 105). The cultural emphasis on economic benefits has superseded concerns for improved political benefits in many cases, and as a result, the PAP manages to continue its authoritarian control of political and civil liberties in Singapore.
Control of elites and civil society

The People’s Action Party places tight controls on the activities of opposition leaders and civil organizations. Without a strong core of opposition leaders or a vibrant civil society, nondemocratic rule will continue unimpeded in Singapore. Although Singapore imposes significant and direct constraints on opposition leaders and civil society, they rely primarily on other means. In addition to regulation, Singapore effectively limits the voice of potential opposition leaders and groups through co-optation.

Many groups and individuals are severely limited by regulations governing the actions of potential opposition. The government directly controls much of the media in Singapore, limiting its capacity to supply alternative information that might question the legitimacy of PAP rule. The government imposes fines and circulation restrictions on private and foreign media sources (Means 1996, 109-110). Opposition candidates generally face legal action if they win an election, and in many cases they are driven to bankruptcy and are subsequently stripped of their office (Mauzy and Milne 2002, 134-5). The government uses the Societies Act to control civil society, requiring that all organizations of more than ten people register with the government. The PAP keeps a close eye on all of these groups, and frequently retracts registration for groups that exhibit characteristics of significant opposition or social disorder (Mauzy and Milne 2002, 131-2). All of these mechanisms maintain a tight leash on the groups in Singapore that might have the greatest capacity of successfully motivating regime transition.

Besides limitations resulting from these direct controls, many potential opposition elements in Singapore are stifled because the government incorporates their dissenting voice into official government programs. For instance, the role of labor and trade unions has been “restrained by successive legislation in 1968, 1982, and 1984” (Chua 1995, 109). These legislations merged private trade organizations into the National Trade Union Congress that would advocate labor concerns subject to the interests of the government. In this manner, Singapore has avoided much of the labor opposition that has undermined nondemocratic rule in other nations. Singapore has also co-opted the activities of non-labor groups. Through financial incentives and the incorporation of many registered groups into national organizations, Singapore has managed to limit the voice of a once vibrant civil society (Mauzy and Milne 2002, 158-9).

In other cases, potential opposition stagnates because individuals allow the government to buy their silence. For example, opposition constituencies are discouraged because the government gives priority in public housing improvements and maintenance to pro-PAP constituencies. The pragmatic views on politics in Singapore allow this “carrot and stick” approach to function (Hill and Fee 1995, 191). Another example illustrating the government’s acquisition of the opposition’s silence comes from the activities of opposition candidates in Singapore. Singaporean politics emphasize meritocracy and elitism. Opposition elements “give every
appearance of having embraced elitism as unquestioningly as the West has embraced democracy" (Barr 2000, 234). Instead of continuing to oppose the People's Action Party, many opposition candidates simply join ranks with the meritocratic structure of Singaporean politics, hoping to change the PAP from within. However, most of these former opposition leaders merely succumb to PAP ideology or fight for change only on periphery elements of the PAP platform.

Institutional paradigm for succession

The downfall of many nondemocratic regimes occurs because of the instability associated with leadership transition, usually due to the death of a popular leader. During the time of leadership transition, policy implementation may be less effective and performance less than optimal. Political opponents may focus on this time of weakness as a desirable situation in which to initiate regime transition. However, if viable political institutions exist to ensure smooth transition, then nondemocratic regimes may avoid this time of weakness. Singapore potentially faces this problem when the popular PAP leader Lee Kuan Yew dies, but they have already made several institutional provisions to avoid the uncertainty associated with leadership transition.

Lee Kuan Yew dominated the activities of the PAP during its first twenty years of rule. However, in the 1980s he began grooming several possible successors, among them prominent figures such as Goh Chok Tong. In 1985 he moved Goh into a ministerial position, and in 1990, Lee surrendered even more power, allowing Goh to become president. Nevertheless, Lee retained much of his party control (Kim 1991, 172). During this transition, the PAP lost some of its electoral dominance as it gained only 61 percent of the popular vote in 1991. Their share of the vote returned to normal by 1993 with 73 percent of the vote, sparked in part by Lee Kuan Yew's campaign to support Goh Chok Tong (Mauzy 1993). The People's Action Party has successfully implemented the transition from one enormously popular leader to the next, and with this mechanism established, the party should avoid the future instability associated with leadership transition.

The future of democracy in Singapore

Singapore currently exhibits all of the major components of a consolidated nondemocratic regime. The future for democracy in Singapore appears fairly bleak in the near future. However, a significant structural change could lead to some democratization in Singapore, although the strength of Singapore's currently consolidated nondemocratic rule seems to preclude this possibility. The only possible event that seems capable of inducing transition in Singapore is a severe and prolonged recession. Short of this occurrence, there is no rationale to support the likelihood of transition in the near future. There exist long-term prospects for transition in Singapore, especially given the electoral framework already extant in the nation. However, even this is unlikely barring dramatic shift in the next generation of political leaders, because even the opposition elements in Singapore do not support the complete removal of some authoritarian policies.
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WORKS CITED


Lindsay Leininger, photographer
There is a growing literature about the relationship between democracy and human rights. This article extends that research by specifically examining the relationship between democracy and religious tolerance. In this article, I also improve upon existing literature by using an OLS regression on a cross-section of 70 countries to identify a new important relationship between regime durability (i.e. how long a regime has remained in power) and the level of religious tolerance. I find that, in democracies, regime length does not determine the level of repression, but, in non-democracies, regime length does affect the level of religious tolerance. I find that after holding the level of democracy/autocracy constant, authoritarian regimes become more repressive the longer they survive.

With the recent regime change in Afghanistan and the current situation in Iraq, many have wondered about the prospects for democracy in Islamic countries. Can the Islamic culture support democracy? The discussion of the chances for Islamic democracy is reminiscent of debates about the prospect of democracy in Asia (Kim 1994; Culture is Destiny 1994). My purpose in this paper is not to determine the likelihood of democracy under various religious traditions; instead, I will take the debate one step further by exploring what form democracy will take under differing religious circumstances. To examine that question, I will proceed on the premise that

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democracy is possible in any culture. Certainly Japan, South Korea, and other Asian countries have developed strong democracies, and even among Islamic countries there is evidence that democracy can survive. Mali is an Islamic country that enjoys a consolidated democracy, and other countries such as Turkey and Jordan have become more democratic. While these examples certainly do not provide firm evidence that Islamic countries can support long-term democracy, they do justify making the assumption that democracy is possible.

This assumption allows us to ask the more intriguing questions: what form will democracy take under different cultures? Is democracy so uniform that in every culture it has the same characteristics? Or does the quality of democracy depend upon a country’s political culture?

In the present study, I measure the quality of democracy by measuring a country’s level of religious freedom. When I examine the relationship between a country’s dominant religious culture (a measure of political culture) and its level of religious freedom, I find that religious culture does determine the level of freedom. A country’s religious tradition does affect the quality of its democracy. This finding has important implications for policy makers. It shows that democracy does not necessarily come in a one-size fits all package.

In this study, I consider another understudied relationship: the effect of regime durability (the length a regime has survived) on the level of freedom (in this case religious freedom) in that country. I find that, after controlling for the level of democracy, regime durability has no impact on religious freedom in democracies, but it has a negative impact in non-democracies. In other words, holding the level of democracy/autocracy constant, authoritarian regimes will become more repressive of religious freedom the longer they survive, while democratic regimes do not change over time.

Some reading this paper will wonder why I have chosen to discuss these two relationships together when each deserves its own separate consideration. While these two considerations are clearly different topics, they are both trying to determine what affects the same phenomenon: the level of religious freedom. Does religious tradition affect a country’s level of religious freedom? What about regime length? Or is it a combination of both? Examining these relationships together allows us to control for the effects of the other causal factor.

Why Study Religious Tradition/Culture as a Crucial Causal Factor?

As I stated above, there is an ongoing debate about the relationship between culture and democracy. The difficulty in measuring political culture makes testing the relationship between political culture and democracy difficult. The advantage of using a country’s dominant religion as a measure of its culture is that religion is a measure that is valid, parsimonious, and easy to collect.

The measure is valid because a country’s dominant religion reflects its population’s major values (i.e. its culture). It is parsimonious because it captures so
many aspects of culture at the same time. In reality, political culture includes a
variety of attitudes and motivations. When trying to capture all of these aspects
separately, the explanation gets laborious. Looking at religion simplifies the
situation without losing descriptive accuracy by capturing many of these
concepts in a single measure. Finally, it is a useful measure because identifying
a country’s dominant religion is relatively easy to do.

Certainly others have used religion as an important explanatory variable.
The hypothesis that democratic performance is associated with the prevailing
religious order in a society has played a major role in democratic theory (Eck­
stein et al. 1998, 365). Starting with studies on the effect of the Protestant work
ethic, religion has been recognized as playing a role in shaping a nation’s political
culture. While religion is recognized as an important causal factor, Eckstein
states that not enough research has been done to examine its relationships to
democracy (1998, 365). This study uses this important (but often overlooked)
factor to study the level of religious freedom that exists in a given country.

Why Study Regime Type and Durability?
Poe and Tate (1994) found that the level of government repression
decreased with increasing levels of democracy. Since then many authors have
confirmed those findings in their own research on related topics (Keith 1999;
Blanton 2000). I also find that decreased levels of repression of religious free­
dom are associated with increasing levels of democracy.

One causal factor that these authors have not considered is the relationship
between repression and regime durability (the length the regime survives). When a regime is first established, its weak bureaucracy may limit its ability to
act. As a result, even if the government has popular support, it may not be able
to implement and enforce policies. As time goes by, the regime will develop a
better and more effective bureaucratic infrastructure and will accordingly
become more or less oppressive.

There are reasons to believe that various regime types use their increased
bureaucratic strength differently. In authoritarian states, organized religion,
unless it is state sponsored and controlled, is most typically a threat to the
regime. First, it raises citizens’ expectations. Having enjoyed religious freedom,
citizens want more freedom in other areas. Second, religion competes with the
state for citizens’ loyalty. To survive, authoritarian governments must command
complete loyalty of the people. Third, organized religion provides a mechanism
and vehicle for organized resistance. For example the local Catholic clergy
played an important role in the downfall of many of the authoritarian regimes
in Latin America.

Organized religion clearly poses a threat to the authoritarian regime. How­
ever, a newly established authoritarian regime may not be secure enough to
repress religion and religious freedom. However, as time goes by and governments
develop stronger bureaucracies, they will employ that strength to repress
threatening opposition, in this case, organized religion.
In democracies, governments typically do not use their bureaucracies as tools for systematic religious repression because organized religion plays a constructive role; religion is an important aspect of civil society that strengthens the state. Alexis de Tocqueville commented on the place of religion in democracies and authoritarian regimes. He argued, "despotism may govern without faith, but liberty cannot. Religion...is more needed in democratic republics than in any other" (qtd. in Kessler 1997, 123). The point is not that democratic governments use their bureaucratic strength to promote religious freedom, but rather that they have no reason to use their bureaucratic arm to repress religious freedom. Thus, when controlling for the level of democracy, a regime's durability has no effect on the level of religious freedom in democracies. In summary, in authoritarian states we would expect regime durability to lead to decreased levels of religious freedom, but in democratic states there should be no relationship between regime durability and the level of religious freedom.

Why Study Religious Freedom?

In reference to his own career, A.M. Rosenthal, the former executive of the New York Times, said:

Early this year I realized that in decades of reporting, writing, or assigning stories on human rights, I rarely touched on one of the most important. Political human rights, legal, civil, and press rights, emphatically often; but the right to worship where and how God or conscience leads, almost never. (qtd. Marshall 2000. 9)

One reason to study the determinants of religious tolerance is simply because this topic has not received adequate attention. While there is a growing body of literature on the determinants of human rights (see for example Poe and Tate, 1994; Booth and Richard 1996; Davenport 1999), researchers have ignored the determinants of religious freedom.

More particularly, using religious freedom as the dependent variable has two important benefits in this case. First, one purpose of this study is to see if authoritarian regimes are more likely to use their repressive arm to consolidate. For the reasons I articulated above, an authoritarian regime is likely to be particularly aggressive against organized religious groups. Using the level of religious freedom allows us to determine if authoritarian regimes are more repressive of religion the longer they have survived.

Second, religious freedom is a good measure of what I have referred to as the "quality" of a regime type; it indicates what freedoms are enjoyed under a given government. One goal of this research is to determine if democracy manifests itself differently depending on the religious culture. Since I am using democracy as one of the control variables, it is important to measure the quality of democracy in a way that is not already captured in the definition of democracy but at the same time gives some indication of the manifestation of the quality of democracy. This approach is admittedly problematic and its validity depends upon how one defines democracy. While I do not know of any definition that explicitly incorporates religious freedom into its definition, there
are others that incorporate the concepts of freedom of thought and belief. In the present study, I use the Polity IV measure of democracy, which focuses on political competition and executive constraints. I also verify my results using Freedom House scores.

**Defining Religious Freedom**

Unfortunately, a uniform measurement for the level of religious freedom across all states does not exist. One potential source for these rankings is the U.S. State Department's annual *International Religious Freedom Report*. The State Department identifies five levels of religious intolerance (U.S. Department of State Executive Report 2001). It also lists some of the nations that are the worst offenders in each category. Unfortunately, it only lists 25 countries. Further, it only lists the worst offenders. The sample does not include any nations that are religiously tolerant, limiting the variation in the sample and introducing potential bias.

Outside of the State Department's annual report, the best and most comprehensive measurement comes from the Center for Religious Freedom: A Division of Freedom House. As part of a recent report, the Center for Religious Freedom assigned a score between 1 and 7 to a list of 75 countries that represent all the major religions and regions in the world. A score of 1.0 to 3.0 indicates that a nation is free, a score of 3.5 to 5.0 indicates that a nation is partly free, and a score of 5.5 to 7.0 indicates that a nation is not free. As with Freedom House's annual survey, the religious freedom scores are based on consistent survey criteria. The survey criteria employed were based on four sources: the International Covenant on Civil and Political Rights, the United Nations Declaration on the Elimination of All Forms of Intolerance and of Discrimination Based on Religion or Belief, the European Convention on Human Rights, and from a list of criteria developed by Willy Fautre (Marshall 2000, 334-335)

The criteria used do not measure all forms of religious persecution, but rather only violations that are specifically directed against (at least in a major way) an individual's or group's religion. The report explains:

By religious freedom or persecution, I do not mean human rights violations against "religious" persons. After all, since most people in the world claim some sort of religious identity, then most human rights violations of any kind are presumably against religious believers. Rather, we are concerned not with all forms of persecution of religious people but with persecution where the focus or the grounds are themselves religious—where a person's religion is a component of the persecution or discrimination they suffer. Hence, we do not cover situations such as, for example, Rwanda where, even though most of those who were killed (and who killed) were relatively religious, the genocide was itself ethnically based. (Marshall 2000, 9)

Finally it is important to note that the report points out that the religious tolerance measurements do not necessarily reflect a nation's governmental policy, but "the situation in countries. . . . In some cases, such as in civil war, there may be little religious freedom, but a government may be able to do little about it."
While this point is well taken, I believe that generally a government may do a lot about it. The exception of civil war is well noted, but it is just that — an exception. In general, religious freedom means that a government not only provides laws of religious freedom, but actively strives to enforce them. Such government actions go a long way in protecting religious minorities. For the purpose of this study, I consider governments that do not enforce laws protecting religious freedom to be compromising religious freedom.

In order to verify that the Freedom House measure captures the level of religious freedom, I tested the correlation between the U.S. State Department’s ranking and the Freedom House scores, since the State Department scores explicitly measure the level of religious freedom laws. The high correlation between these variables justifies the use of the Freedom House measures to capture the level of religious freedom.

To facilitate interpretation, I kept the scale ranging from 1 to 7, but I inverted the scale. Therefore a score of 7 indicates that a country is free, while a score of 1 indicates that it is not free. In the results, a positive coefficient signifies an improvement in religious freedom.

Modeling the Level of Religious Freedom

Having identified the dependent variable and its operational definition, I will now focus on the independent variables that I include in the analysis. I chose most of the control variables based on the work of Poe and Tate (1994). It was natural to follow Poe and Tate because they also examine the determinants of one aspect of human rights.

Democracy

As I explained above, Poe and Tate found a strong relationship between democracy and the level of human rights repression. I include it here as a control variable. Measuring democracy is very difficult and there is widespread disagreement on how it should be defined. For the reasons I stated above, I choose to use measures from the Polity IV data set (Polity IV project 2000). In that data set, 161 countries are rated on the autocratic and democratic aspects of their regimes. Both measures are given on an 11-point scale (0-10). An increasing democracy rating indicated greater general political openness. In contrast, an increasing autocracy score indicates greater political closedness. Both ratings are based upon each nation’s ratings in nine different areas that focus on political competition and executive constraints. In my analysis I used the combined scores of these two ratings, a measure I refer to as democratic strength. Democratic strength is calculated by subtracting each nation’s autocracy rating from its democracy rating. Measured on a scale from -10 to 10, an increasing score of democratic strength effectively captures the move away from authoritarianism and towards democratic consolidation.

To verify my results, I used Freedom House’s democracy ratings to run a regression of the same model. The Freedom House ratings are based on each country’s performance in granting electoral rights and civil liberties to its citi-
zens. Each of these scores is given on an ascending scale of 1 to 7 where one is the highest score. I calculated the democracy rating by adding the two scores together and dividing by two. I then inverted the scale so that it ranged from 1 (being the least democratic) to 7 (being the most democratic). Using a different measure of democracy did affect some of my results. In the discussion of the regression results that follows, I offer some potential reasons for those observed differences.

Population
The rationale for including population size is that as nation becomes larger, its leaders use more repressive means to keep control (Poe and Tate 1994, 857). Further, other researchers have noted the high incidence of democratic consolidation among small nations (Dahl and Tufte 1973; Diamond 1999, 117-160). It may be that smaller nations are less likely to use oppressive means. I used the United State's Central Intelligence Agency's World Factbook 2000 to find the population of each nation.

GNP
Poe and Tate's rationale for testing the effects of economic factors on democratic strength is that increasing development relieves repression (1994, 857-858). The expectation is that as the wealth of a country increases so does its middle class. The middle class has more time and resources to devote to politics. In both pseudo-democracies and non-democracies, the middle class pushes for political reforms that will benefit it politically and economically. I measured economic strength of a country by using its Gross National Income (GNI) per capita in the year 2000. I took this information from the World Bank group (2002).

Religious Dummy Variables
The first key independent variable comes from the study by the Center for Religious Freedom. It placed nations into nine categories: Catholic, Protestant, Orthodox, Mixed Christian, Mixed Muslim and Christian, Islam, Jewish, Hindu, and Buddhism and related religions. In the following sections, I include a table that catalogues in which group each nation was placed.

As I stated in the introductory part of the paper, religion should capture the essence of a nation's culture. However, it is also possible that geography affects a nation's culture more than religious persuasion. Nations that are near to each other are likely to have increased trade and intertwined histories. To test that theory, I ran a regression that included dummy variables for both religious persuasion and geographic location. While geography proved insignificant, almost all of the religious identification variables were quite significant. Therefore, in the analysis presented here, I only include the variables for religious persuasion.

Regime Durability
The other key independent variable is regime durability by regime type. To create the variables necessary to capture this variable, I first used the democratic strength rating to place each nation into one of three categories: non-democratic,
CULTURE
AND TIME

quasi-democratic, and democratic. I labeled each nation with a democratic strength score less than -5 as non-democratic; I labeled nations with a democratic strength score between -5 and 5 as quasi-democratic; and I labeled each nation with a democratic strength score greater than 5 as democratic. Using these designations, 45 nations were labeled as democracies, 11 as quasi-democracies, and 14 as non-democracies.

After creating dummy variables for each of these three categories, I interacted these dummy variables with the durability variable from the Polity IV data set. The durability measure simply measures how long the current regime has been in power. The durability scores start at the year 1900, so any regime that has lasted more than 100 years still only gets a score of 100. This is not a concern because only a few of the regimes have even lasted that long (the United Kingdom, the United States). The democratic durability, quasi-democratic durability, and non-democratic durability variables capture the effect of time passage on the level of religious toleration in each type of regime.

As I said above, I also used Freedom House's measure of democracy as a check on my results. In the regression that included the Freedom House ratings, I divided the nations by regime types using Freedom House's three categories: free, partly free, and not free. I label these three categories as democratic, quasi-democratic, and non-democratic respectively. I again created dummy variables for these values and then interacted them with the durability score, giving me a measure of the effects over time for each regime.

Description of Sample

The data set includes 71 of the 76 countries rated in Marshall's book. I excluded five cases because of insufficient data in the other sources from which I gathered information. Those nations did not include information for various reasons. Tibet could not be included because it is under the rule of China and is not a sovereign nation. Lebanon, East Timor, Mauritania, and Eritrea were excluded because the Polity IV data set did not give these countries democratic and autocratic ratings for the year 2000.

Using only half of the countries in the world introduces the possibility of bias. It should be noted that when choosing which nations to include in the sample, the Center for Religious Freedom focused on large countries. They point out that the sample of countries includes over 90 percent of the world population (Marshall 2000, vii). If there is a trend among small countries that is different from large ones, this sample will produce biased results. Yet as the tables below show, this group of nations includes nations from all the regions and religious persuasions of the world. Because the sample is representative of the world at large, I feel justified in extending my conclusions to all nations.

Countries by Geographic Region

Former Soviet Union and Eastern Europe: Armenia, Azerbaijan, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Turkmenistan, Ukraine, Uzbekistan
North Africa and West Asia: Egypt, Greece, Israel, Iran, Morocco, Pakistan, Saudi Arabia, Sudan, Turkey

Western Europe and North Atlantic: Austria, Belgium, Finland, France, Germany, Ireland, Netherlands, Norway, Spain, Sweden, United Kingdom, United States

Asia: Bangladesh, Burma, China, India, Indonesia, Japan, Malaysia, Mongolia, Nepal, North Korea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Vietnam

Africa: Botswana, Namibia, Nigeria, South Africa, Tanzania, Zimbabwe

Latin America: Argentina, Brazil, Chile, Colombia, Cuba, El Salvador, Guatemala, Mexico

Countries by Major Religious Persuasion

Catholic: Argentina, Austria, Belgium, Brazil, Chile, Colombia, Cuba, El Salvador, France, Guatemala, Hungary, Ireland, Lithuania, Mexico, Philippines, Poland, Spain

Protestant: Botswana, Estonia, Finland, Namibia, Netherlands, Norway, South Africa, Sweden, Tanzania, United Kingdom, United States, Zimbabwe

Orthodox: Armenia, Belarus, Bulgaria, Georgia, Greece, Macedonia, Moldova, Romania, Russia, Ukraine

Mixed Christian: Germany, Latvia

Hindu: India, Nepal

Buddhism and related religions: Japan, South Korea, Taiwan, Mongolia, Sri Lanka, Singapore, Bhutan, China, Vietnam, Burma, North Korea

Islam: Azerbaijan, Bangladesh, Egypt, Indonesia, Iran, Kazakhstan, Kyrgyzstan, Malaysia, Morocco, Pakistan, Saudi Arabia, Sudan, Turkey, Turkmenistan, Uzbekistan

Jewish: Israel

Mixed Muslim/Christian: Nigeria
### Table 1: Democracy's effect on Religious tolerance

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5.05**</td>
<td>2.77***</td>
</tr>
<tr>
<td>Democratic Strength (Polity IV)</td>
<td>0.098***</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Democratic Durability (Polity IV)</td>
<td>0.0088</td>
<td>(0.014)</td>
</tr>
<tr>
<td>Pseudo-democratic Durability (Polity IV)</td>
<td>-0.0053</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Non-democratic Durability (Polity IV)</td>
<td>-0.017*</td>
<td>(0.0093)</td>
</tr>
<tr>
<td>Democracy (Freedom House)</td>
<td></td>
<td>0.51***</td>
</tr>
<tr>
<td>Free (FH) Durability</td>
<td>0.012</td>
<td>(.011)</td>
</tr>
<tr>
<td>Partly Free (FH) Durability</td>
<td></td>
<td>0.00053</td>
</tr>
<tr>
<td>Not Free (FH) Durability</td>
<td></td>
<td>-0.010</td>
</tr>
<tr>
<td>GNI per capita in 2000 (reported in $1000)</td>
<td>0.028**</td>
<td>.0087</td>
</tr>
<tr>
<td>Population (in 1,000,000)</td>
<td>-0.43</td>
<td>-0.26</td>
</tr>
<tr>
<td>Catholic</td>
<td>-0.99***</td>
<td>-0.90***</td>
</tr>
<tr>
<td>Orthodox</td>
<td>-1.57***</td>
<td>-1.11***</td>
</tr>
<tr>
<td>Hindu</td>
<td>-2.61***</td>
<td>-2.41***</td>
</tr>
<tr>
<td>Buddhism</td>
<td>-1.28***</td>
<td>-0.96**</td>
</tr>
<tr>
<td>Islam</td>
<td>-2.14***</td>
<td>-1.58***</td>
</tr>
<tr>
<td>Jewish</td>
<td>-1.50</td>
<td>-1.16</td>
</tr>
<tr>
<td>Mixed Christian</td>
<td>-1.70**</td>
<td>-1.49*</td>
</tr>
<tr>
<td>Mixed Muslim/Christian</td>
<td>-2.40***</td>
<td>-1.91**</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Adj. R-Square</td>
<td>.7481</td>
<td>.8259</td>
</tr>
</tbody>
</table>

Standard Errors are given in parentheses

*Significant at .10  **Significant at .05  ***Significant at .01
Discussion of Results

Although Poe and Tate found population to be a significant predictor of human rights, it appears insignificant in both of the regressions I performed. This does not necessarily indicate that population is an insignificant predictor of religious freedom; more likely, it indicates something about the nature of the sample. The focus of the Freedom House survey was large nations. By limiting the sample to the largest nations, the variation is limited. If a full sample of nations was included, this measure may well appear to be significant.

The differences between the results of the two regressions, which are found in Table 1, can be attributed to the different democracy measures. The Polity IV data focuses on political competition and executive constraints. In contrast, the Freedom House measure accounts for the level of political and civil liberties. Because civil liberties encompass the idea of religious freedom to some extent, the measure for democracy in the second model may be artificially high. The potentially high correlation between these variables may be soaking up all of the variation, explaining why GNI per capita and non-democratic durability drop out as insignificant.

In contrast to the variables that drop out as insignificant, the religious identification variables remain significant and substantial in both regressions. This indicates the strength of this relationship. The values on the religious persuasion variables indicate that all things being equal, Protestant countries enjoy the most religious freedom. The large values for the coefficients added to the fact that each of the variables proved to be significant indicates the strength of this relationship. Since I controlled for the degree of democratic strength in each nation, the coefficients indicate how nations of different religious persuasions compare when democracy/autocracy is at the same level in each. For example, a Protestant nation that receives the highest democratic strength score of 10 is expected to rate 1 point higher (on a scale of 7) on its level of religious freedom than a Catholic nation with a democracy score of 10. The fact that all the religion coefficients are negative indicates that, relative to Protestant nations, the level of religious freedom is lower in all non-Protestant countries.

The strong relationship between a nation’s major religious persuasion(s) and its level of religious freedom suggests that the former affects the quality of the nation’s democracy. Religious political culture does not preclude the establishment of democracy, but a nation’s major religious persuasion(s) affects the way that democracy looks.

While the results of the regression analysis provide strong evidence for the effect of religious persuasion on the level of religious freedom, they give a mixed story about the importance of regime length. In the first regression, the results came out as we expected: non-democratic durability was the only durability variable that proved significant. Admittedly, it was only significant at the .10 level, but in a sample of only 71 observations, even this finding is not completely insignificant.
The fact that the relationship drops out as insignificant in the second regression indicates the weakness of the relationship. However, it does not mean there is no relationship. As I indicated above, the change in the second regression is most likely due to the fact that the Freedom House democracy score takes civil liberties into account. While the results of the second regression do not completely ruin my results, it does indicate that the relationship between regime durability and religious freedom is weak.

These scores indicate that, in states with democratic and quasi-democratic regimes, the level of overall democracy determines the level of religious freedom. The length of a democratic regime's existence does not affect the quality of democracy. If during that period a country improves its quality of democracy, religious freedom will improve, but passage of time alone has no effect. It only has an effect inasmuch as it affects the consolidation of democracy.

In contrast, the coefficient on the non-democratic durability indicates that, in an authoritarian state, the longer a regime endures the more repressive it becomes of religious freedom. The inclusion of the democratic strength variable precludes the possibility that this is simply a result of the level of a regime's autocratic characteristics.

To illustrate the effect of regime length on the level of religious freedom, we can theoretically compare several countries. In democracies, it is the level of democratic strength that is important in determining the level of religious freedom. If two countries receive a score of a level 8 for their democratic strength rating, but one has been around for two years and the other around for twenty years, they will have the same religious freedom score. Of course, this typically does not happen because democracies that have been around for only two years typically do not have democracy ratings as high as those that have been around for twenty years. But, when the democratic strength of a country is controlled for, regime durability has no significant effect on the level of religious freedom in democracies. The same is true of quasi-democracies.

In contrast, if two non-democracies each receive a -8 for their democratic strength rating, but one has been around for two years and the other for twenty years, the citizens under the regime that has been around for twenty years will enjoy less religious freedom. Therefore the length that a non-democratic regime is in power is related to its level of repression of religious freedom.

**Conclusion**

In this paper, I have shown that the major religious persuasion of a nation, a measure of its political culture, is a significant predictor of its level of religious freedom. In fact, it proved to be more robust than the economic factor I included, GNI. Religious persuasion needs to be considered more often as an explanatory variable.

The strength of the religious persuasion variables also indicates that when all other things are equal, the religious persuasion of the nation will affect the level of religious freedom. This suggests that the democracy we see in America
is not the exact same type of democracy we will see in other countries. I am not making a normative argument that it should or should not be that way, or even that it will always be that way; rather, I am suggesting that it is that way right now. Democracy does not look exactly the same in every nation.

The second finding about regime length is inconclusive. Certainly the relationship is weak at best. Yet the fact that the relationship appears, even as only a weak one, in the first regression, suggests that this is a topic worth more exploration. The evidence suggests that authoritarian regimes might become more repressive with time. It is possible, as I have suggested, that authoritarian regimes get more restrictive of religious freedom with time in order to consolidate power. Future researchers should examine the strength of this relationship and explore the reason behind it.

Married to Deborah Lynn Shepherd, Daniel Butler is a senior at BYU majoring in political science. Of Richard J. and Diane Butler's five sons, he is the fourth in number and the shortest in height. Despite that disadvantage, he enjoys playing basketball as well as other sports. He currently works as a Political Science 200 T.A. and as one of Dr. Sven Wilson's Research Assistants. In the fall he will begin a Ph.D. program in political science.

WORKS CITED


Angela Slauson, photographer
CROSS-NATIONAL PREDICTORS OF PRIMARY SCHOOL COMPLETION RATES

JOSH RICHEY, JAKOB CONKLING, AND JESSICA PREECE

Education is an important aspect of development, especially when considering Amartya Sen's capabilities approach to development. Primary school completion rates are especially important because it is in primary school that basic literacy and numeracy skills are learned. What factors contribute to higher primary school completion rates? Feminist theory predicts that educated mothers are more likely to place an emphasis on their children's education; Marxist theory predicts that capitalist-driven countries will have lower primary school completion rates to preserve the economic subordination of the proletariat; rational choice theory predicts that democracies are better equipped to provide the public good of education.

We run a multivariate cross-national regression (N=57) to test predictors of primary school completion rates. We find statistically significant support for the feminist and Marxist perspectives, but do not find any support for the rationalist perspective. Our models are able to explain over 50% of the variation in primary school completion rates. In addition, our control variables yield several non-obvious results: religion has no effect on primary school completion rates, but level of expenditures on public education does.

Education is important for a country's development when development is seen as a process that adopts methods, norms, and institutions that seek to expand the freedoms an individual can exercise. According to Amartya Sen's capabilities approach, education is necessary for every person to have full capabilities. Sen's approach seeks to expand "the alternative combinations

Special Thanks
Thanks to Daniel Nielson for making us write this paper in the first place, to Ray Christensen for his helpful comments, and to the Sigma staff for their patience.
of functionings that are feasible for [one] to achieve" (2000, 75). In the case of education, it expands the capability one has to make economic, social, and political decisions that would be limited for those without basic literary and mathematical skills. With this approach, education is a "powerful instrument for reducing poverty and inequality, improving health and social well-being, and laying the basis for sustained economic growth," and it allows "more effective participation in economic and political activities" (Millennium Development Goals; Sen 2000, 39). When one can effectively involve him or herself in economic and political institutions and activities, freedom is greater. Thus, education is a revelation of and contributor to freedom, which in turn creates a positive process of development.

Our goal in this paper is not to show the relationship between education and development, as this has already been successfully shown. Instead, we hope to find socio-political-economic variables that promote primary school education. What factors either encourage or provide some sort of causal connection to individuals attaining an education? Is it possible to predict a country’s primary school completion rate? We believe it is possible by looking at three main variables: educational level of the female population, level of income equality, and the level of political freedoms. We will examine and show such a connection through three main approaches in detail: feminism, Marxism, and rational choice. While some of these variables, such as social treatment of women and income disparity, may fall into realms other than the strictly political, they are ultimately connected to the political realm.

Political institutions play a major role in promotion of education and the potential freedoms associated with it. To promote such freedom, schools must first enroll all school-age children and then keep them in school for the full course of the primary stage. In many countries, schools fail to do both. Children frequently drop out of school because of their own illness or that of a family member, or because their families need their labor. Some may return, but many never finish.

For example, in Viet Nam close to ninety-five percent of all children enroll in primary school. Despite this achievement, the nation’s primary school completion rate is only sixty-six percent, meaning that millions of children are not receiving a complete primary school education (UNICEF). Overall, the “vast majority of these unschooled youngsters and illiterate adults can be found in the poorest countries on earth” (Arias 2001).

In determining what level of education to examine, it is useful to look at that level that would promote basic capabilities and a minimal level of economic sustainability for the individual. In exact terms, this level is relative to a country’s economic development. For example, in the United States one could argue that a high school education, at the very least, is necessary in order to be considered economically successful. On the other hand, for those in a country that is wholly or largely based on an agricultural economy, the education
needed to be economically successful is lower. Indeed, some argue that reading and arithmetic could be ignored in exchange for an agriculturally based education. Since this project is more concerned with developing countries and primitive educational programs than with developed countries with more established educational programs, it is useful to focus on that level of education that is helpful for the developing world.

The basic level of education then, considering the goal of promoting basic capabilities and economic independence, needs to include those skills usually associated with a primary school education. Those necessary skills are basic literacy and numeracy. While these skills may not be considered sufficient in the developed world, they do provide the student with the ability to continue formal or informal education for the remainder of his or her life. Further, these skills are associated with indicators of better health, economic circumstance, and overall well-being such as lower birthrates and infant mortality (Census of India 1983, 136; Barr 1992, 229; Sen 2000, 198). Most importantly, if the youth of the developing world are not educated, how then can they have full capabilities since they do not have the basic skills to increase their sets of choices?

**Theoretical Approaches**

**Feminism**

The first conceptual framework from which to consider factors that may promote primary school completion is the feminist approach. Typically, women are seen as afterthoughts when decisions are made regarding allocation of scarce educational resources. This may be due to cultural biases or to more convoluted arguments regarding a cost-benefit analysis, which argues that it is more useful to educate men than women because men will utilize their education in the work place while a woman's education will be not be actuated but will be stifled while she sits at home cleaning house and bearing children.

However, the overall significance of an education is reinforced in the home if a mother is educated. Mothers typically have the greatest influence on their children's values; it follows that if a mother values education, it is likely that her children will also value education. Maternal reinforcement gives children more motivation to stay in school, especially if the child is female. Educated women have learned "to treat themselves and their daughters better" and thus "create a 'critical consciousness' in women (and men) about their situation" (Tomasevski 1993, 28). This means that when women are seen valuable enough to educate in a society, then the women of that society and the society itself will be better capable of creating a fair treatment of the sexes. As education creates female role models in society and in the home, norms that halt developmental progress can eventually be eroded. A UNESCO survey of the reasons girls drop out at a primary school level reported that half the responses attributed dropping out to cultural reasons (United Nations 2000, 87). These dropout rates could be greatly reduced by the influence of educated female role models. Beyond cultural
barriers, economic barriers prevent many children from completing primary school. For example, in the UNESCO survey, some reasons for female primary school dropout given under the category of economics were “not able to pay fees,” and “help needed in the family.” In underdeveloped nations the problem of economics is not limited to hindering the education of female children; it applies to male children as well. Educated mothers are more likely to make the education of their children a financial priority in the home, one more reason one should expect a positive correlation between mother’s education and primary school completion rates.

**Marxism**

In line with a Marxist approach, we predict that income inequality will be a barrier to primary school completion rates. In a capitalist system that depends on the exploitation of the proletariat’s labor, there is little room for the equality that education brings. According to the Marxist vantage point, such a system does little to encourage those in power to provide education that can help the poor improve their situation. Those in a position to provide education, the bourgeoisie, depend on the subordination of the lower classes for their lifestyle. From the bourgeois point of view, quality education threatens the economic system. As a result, we predict that the greater the economic inequality of a country (in other words, the stronger the capitalist influence in the economy), the lower the primary school completion rate.

Even if there is no conscious systemic effort on the part of the powerful to subordinate the poor, many economic barriers prevent children from completing primary school in most capitalist societies. If a nation creates education programs and institutions with high costs (either for school materials or opportunity costs, such as medical expenses or the child not being able to participate in farm or business work), poor children are unlikely to finish school. The solution to monetary costs seems somewhat simplistic (in theory) in that education for the very poor families “must be free, including no hidden costs such as uniforms, shoes or examination fees” (Tomasevski 1993, 26). Other institutions would need to be developed in order to reverse the opportunity cost, meaning that forfeiting an education would be a bigger loss than would be not working on the farm or business.

Income inequality can also affect potential primary school graduates in another way that can directly limit their school participation. If a child is not healthy, then he or she cannot devote proper time to education; also money that could be used to pay for educational expenses must be diverted from education to health care. Richard Wilkinson shows that there is a “growing body of evidence which shows that life expectancy in different countries is dramatically improved where income differences are smaller” (1997, 1). This trend is not just one in underdeveloped countries, but “poorer people in developed countries may have annual death rates anywhere between twice and four times as high as richer people in that same society” (Wilkinson 1997, 3). While the
study looks at death rates, higher income inequality is generally associated with worse health for the poor. Thus, income inequality is correlated with greater health risks, and health factors can negatively affect the education attendance of a child.

**Rational Choice**

Education is a public good. As such, it will always be underprovided in the free market. Nevertheless, governments can partially alleviate this problem by mandating taxes and then using these taxes to provide public goods. The problem is that governments do not always use taxes to provide public goods; tax revenue often lines the pockets of politicians and gets lost in corruption and bureaucracy.

One way of combating this problem is by understanding a politician’s rationality. Rational choice theory claims that the approach to explain any phenomena is to show how individuals, given their preferences, act in response to incentives. Politicians, like other actors, seek to maximize their self-interest. Their underlying preferences are first, to stay in office, and second, to use that office to maximize their political and economic utility. If politicians are free to maximize their own utility at the expense of the public without political consequence, they are more likely to do so.

In contrast, if a body of citizens has political freedom and civil liberties, then it can threaten the politician with political consequences. Thus, a free citizenry can force politicians to act in accordance with public interests by creating incentives for politicians to provide affordable, quality public goods (Rodrik 1994). Hence, we predict that the level of political and civil liberties of a citizenry should be positively correlated to primary school completion rates.

**Normative Implications**

Though our paper is primarily focused on positive explanations of primary school completion rates, we acknowledge the potential normative implications of our research. If our results confirm the feminist explanation of primary school completion, there are serious implications for cultural norms. Traditionally, the education of male children has been more of a priority than the education of female children for reasons explained above. A positive relationship between female education and primary school completion rates, however, would suggest that society eventually gets “more bang for its buck” by educating women than by educating men. For the developing society that wants to increase primary school education, this could be a difficult result to internalize.

A confirmation of our Marxist predictions would be similarly difficult for many capitalist societies to swallow. Most of the wealthy choose to ignore that their lifestyle depends on the subjugation of others. Often, the wealthy assume that the poor are poor because they are lazy or less capable. However, if our results show a relationship between income inequality and primary school completion rates, it will provide strong support for the idea that the poor do not have a fair opportunity to improve their condition in life. Capitalist societies will have to recognize that income inequality perpetuates itself in a patently
unfair way — denying people the opportunity to improve their condition in life through education.

Finally, if our conclusions show that greater freedom leads to a system that encourages primary school completion, a strong case can be made for the need for democracy in developing countries. Beyond their intrinsic value, political and civil liberties may be instrumental in requiring states to provide the public goods necessary for development. This finding would certainly carry normative implications.

Nevertheless, we leave the normative questions to the philosophers. The remainder of our paper will discuss our research methods and results. First we will define how we operationalize our primary and control variables and give our hypothesized direction of each relationship. Then we will provide and interpret the results of our multivariate regressions. Finally, we will discuss some of the limitations with our research and draw some conclusions. Throughout the rest of the paper, our basic regression model is:

$$\text{Primary school completion rate} = B_1 \text{ relative female education} + B_2 \text{ economic inequality} + B_3 \text{ freedom} + B_4 \% \text{ urban} + B_5 \text{ money spent on education} + B_6 \text{ GDP} + B_7 \text{ Muslim} + B_8 \text{ Catholic} + B_9 \text{ Hindu}$$

**Definitions of Variables and Hypotheses**

**Theoretical Variables**

**Primary School Completion Rate (Dependent Variable):**

Definition: The primary school completion rate is the percent of children who reach grade five before quitting school. This is a statistic that is supplied by the United Nations Children's Fund (UNICEF). UNICEF obtained this data by taking measurements of specific groups of children entering their first year in school. This same group was tracked to see how many of those that entered school in the first year would reach fifth grade without quitting. Once a pattern of tracking is established, the statistic is relatively easy to obtain. Of the countries used in the possible data set, there is a variation of 3 to 100 percent who remain in school. The limitation on this data, along with many of the other variables, is that formal schooling is not a norm in all areas of the world, and because of this there is a biased response rate (UNICEF 1996).

**Relative Female Education:**

Definition: Relative female education is the average years of schooling for females as a percentage of the average of years of schooling for males. If \( F \) represents the average years of schooling for females and \( M \) that of the male population, the statistic would be obtained by creating an equation: relative female education = \( F/M \). This statistic was provided by UNICEF as part of their yearly report on the progress of nations. The data collected to explain this variable ranges from 14.3% to 148.1%. This means that if the statistic is 50%, then women (on average) complete half as much school as men. If it is 100%, then women complete the same amount of schooling as
do men. If it is 150%, then women complete 1.5 times the amount of schooling that men complete. A major limitation to the set of data is that we cannot with absolute certainty state that our set of data is complete because it is possible that many rural locations may be excluded during the collection of data. Further, as noted by the title, this statistic measures relative level of female schooling, not absolute level. One advantage is that this controls the overall education level of the country; however, interpretation is more difficult because it is a more complicated statistic (UNICEF 1996).

Hypothesis 1: We expect that the higher the level of relative female education in the country, the higher the percentage of children that will finish the fifth grade.

Level of Income Inequality (Inequality):
Definition: The measure of inequality used is the reliable Gini Index, which provides an easily interpreted way to view income disparity in a nation. This index was created as a function of another measure called the Lorenz curve. The Lorenz curve plots the percentage of the total wealth of a nation against the cumulative percentage of recipients of that wealth. The income distribution is plotted in quintiles. Perfect distribution says that 20% of the population receives 20% of the wealth. The GINI index is a calculation of how much area lies between the Lorenz curve and the line that represents perfect equality. If a country achieves a ‘0’ on the GINI index, this indicates that the nation has perfect equality of income distribution. A score of ‘100’ on the GINI represents perfect inequality of income distribution. The range represented by our data set spans from 19.5 to 62.9 (World Bank 1998).

Hypothesis 2: Our prediction is that increased income inequality will negatively affect the number of children finishing fifth grade.

Level of Freedom (Freedom):
Definition: This variable is an average of two Freedom House ratings: civil liberties and political rights. These two variables were created and measured by Freedom House in the 1997 report Freedom in the World. The scale used is a seven-point scale where 1 is the most free and 7 is the least free. These variables are created using survey data and analysis by a board of educators and professionals in the field of international politics. Unfortunately, this is a fairly subjective qualitative measure not well adapted to the quantitative realm. It is not a perfect representation of the level of freedom, but it is an acceptable measure (Freedom House 1997).

Hypothesis 3: We hypothesize that there will be a positive relationship between the level of freedom and the percent of people completing the fifth grade. When freedom is close to perfect, or close to 1 on this scale, then the number of people completing the fifth grade will be relatively large.

Control Variables
Percent Urban (Urban %):
Definition: This is the percent of people who lived in an urban area of the country as opposed to those who lived in rural farmlands in 1995. This
Cross-National Predictors of Primary School Completion Rates

Indicator is estimated through a census performed in every country. Our data has a range of 6% to 100%. Isolated rural populations may be left out of the statistic which somewhat limits the power of this variable (United Nations 1998 A).

Hypothesis 4: We use the percent of the population living in urban areas as a control variable. It is our position that the introduction of this variable to the set will allow us to control for the possibility that it is easier to educate children in concentrated urban areas than in dispersed and isolated rural areas. We predict that, as the percentage of the population living in urban areas increases, the number of people receiving a formal education, at least through the fifth grade, will also increase.

Money Spent on Education ($ Education):

Definition: This variable was created by dividing the total amount of government spending on education by the Gross Domestic Product (GDP) of a given nation. The data associated with this variable was collected from the Human Development Report, which is created by the United Nations annually. This particular set of statistics is from the year 1995, but was taken from the report dated 1998. The data ranges from 0 to 10.6%. This states that at the top end, 10.6% of the GDP is being spent on public education, and at the bottom end, 0% of the GDP is being spent on public education. A major limitation of this data is that it only includes governmental expenditures (or loans to the government for educational purposes). However, in many countries (especially in Africa), a large number of people are receiving their education by means other than those subsidized by the government. Religious organizations and INGOs often provide such services (Schafer 1999). Still, the percentage of people who benefit from government-subsidized programs as opposed to those who receive an education by other means is very large. We therefore feel justified in our selection of this variable (United Nations 1998 B).

Hypothesis 5: We hypothesize that an increase in governmental spending on education will increase the total number of people who finish fifth grade. This increase in spending would be associated with higher teacher salaries, curriculum improvements, more schools, technological improvements, etc., all of which may contribute to a system that fosters higher primary completion rates.

Gross Domestic Product Per Capita (Square root GDP/ Cap):

Definition: This variable has been standardized into U.S. Dollars and represents the total wages, rents, profits, and interest produced within a nation divided by the number of citizens living in that nation. Information on GDP was taken from the 1997 World Fact Book published by the Central Intelligence Agency (CIA). The data in this set ranges from $400 to $28,600. Of course, not all of the resources represented by this figure directly benefit the people of the nation, especially in nations with high levels of corruption. The GDP data is highly skewed, so we attempted a logarithmic transformation of that data which, unfortunately, proved unsuccessful. The next best approach
was to take the square root of each GDP statistic. The square root method was successful in normalizing the data; however, the results are more difficult to interpret as a result of the transformation (Central Intelligence Agency 1997).

Hypothesis 6: We predict that the higher the GDP per capita, the better the primary school completion rates of the nation will be. This is slightly obvious when comparing developed to developing nations, but when looking at developing nations alone, small increases in GDP will not always translate into better things for the people. However, we hold that increases in GDP will produce increases in the number of people finishing the fifth grade.

\textit{Ln Percent Muslim (Muslim):}

Definition: This data is part of our effort to control for the cultural differences in the world. It is a measure of the percent of people professing to be of the Islamic faith in the specific country. This is a simple percentage of the whole. The range of the data is 0 to 100%. This information was collected from the World Christian Encyclopedia from the year 1982. The year collected promotes an obvious limitation, but the fact that the number of people in any given religion does not tend to change very drastically over the 20-year time lag calms our concerns. Other irregularities with the data consist of a very skewed data set. In order to alleviate this problem a logarithmic transformation was applied for normalizing purposes (World Christian Encyclopedia 1982 A).

Hypothesis 7: Though we recognize that Islam values education, many Islamic nations limit educational opportunities, especially for women. In keeping with common perceptions, we hypothesize that a higher percentage of Muslims in a country will result in a decrease in the completion rate for primary education.

\textit{Ln Percent Catholic (Catholic):}

Definition: The percentage of the population that is Catholic in any given country is the information that this particular data measures for us. Also gathered in 1982 by the World Christian Encyclopedia, the same time lag problem exists here that existed for our Muslim variable. However, once again, we feel that the percentages have been fairly static through the years and, as such, do not create a very large problem. The range in the data for this statistic is from 0 to 97.3%. Again, the data was highly skewed. In order to alleviate this problem, a logarithmic transformation was applied for normalizing purposes (World Christian Encyclopedia 1982 C).

Hypothesis 8: We predict that the nations with a stronger Catholic influence will have an increased level of education for their people. The Catholic religion has a tradition of providing educational opportunities for those who seek them in many areas of the world. This can be witnessed throughout the Western world with the construction and use of the historic Catholic missions.

\textit{Ln Percent Hindu (Hindu):}

Definition: This statistic measures the percentage of people in each nation that profess Hinduism as their religion. This statistic was taken from the
1982 World Christian Encyclopedia, and has the aforementioned time lag deficiency. The range that we see with this statistic is 0 to 89.6%. Due to the relatively small number of nations with a significant Hindu population, we created a dichotomous variable to correct the skewed nature of the distribution. A ‘0’ was assigned to the nations with less than 10% of the population belonging to the specific religion, and a ‘1’ assigned to the rest. The 10% partition was somewhat arbitrary, but we felt that it was an adequate level for the religion to have influence in the nation (World Christian Encyclopedia 1982 B).

Hypothesis 9: We predict that a higher percentage of Hindu people will result in a lower completion rate at the primary school level. This relationship is expected primarily because of the cultural tradition of castes that exists in the Hindu society. Although not formally recognized by the government or other entities, this system is still prevalent in practice. The caste system creates a lack of mobility from one class level to another, and thus also limits the amount of educational opportunities for those without prestige or money (which represents a large portion of society).

Statistical Results

To test our hypotheses, we ran a cross-national multivariate ordinary least squares regression. Our initial results were disappointing. Table 1 shows that our main independent variables, relative female education (p-value=.287), level of inequality (p-value=.098), and level of freedom (p-value=.461), are not significant at the .05 level. Percent urban (p-value=.233) and the religious control variables (Muslim: p-value=.540, Catholic: p-value=.889, and Hindu: p-value=.342) are not significant either. The significant variables are proportion of money spent on education (p-value=.044), and square root of GDP/capita (p-value=.035). The adjusted R-squared for the equation is .5306, suggesting that 53.06% of the variation in the primary school completion rates can be explained by the independent variables. This shows fairly strong substantive significance for the overall regression.

However, to get a more accurate picture of the relationship between the significant independent variables and primary school completion rates, we reran the regression using a backward elimination stepwise regression to remove the insignificant independent variables one at a time. Table 2 shows the results after seven steps (alpha to remove=.20). Again, we see that proportion of money spent on education (p-value=.036) and square root of GDP/capita (p-value=.000) are significant. In contrast to the original regression, level of inequality (p-value=.036) becomes significant when the insignificant independent variables are removed. Adjusted R-squared changes marginally to .5584.

Looking at the coefficients of the independent variables, we see that, as we hypothesized, proportion of money spent on education and square root GDP/capita have a positive effect on primary school completion rates. In fact, proportion of money spent on education shows very strong substantive significance: increasing proportion of money spent on education by one unit yields a
### TABLE 1

**Dependent Variable: Primary School Completion Rates**

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<tr>
<th>Independent Variables</th>
<th>Coefficient</th>
<th>P-Value</th>
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<td>Relative female education</td>
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<td>.287</td>
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<td>Inequality</td>
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<td>.098</td>
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<td>Freedom</td>
<td>-1.4</td>
<td>.461</td>
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<tr>
<td>% Urban</td>
<td>.16</td>
<td>.233</td>
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<td>$ Education</td>
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<td>.044</td>
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<td>Square root GDP/capita</td>
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<td>.035</td>
</tr>
<tr>
<td>ln % Muslim</td>
<td>.33</td>
<td>.540</td>
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<td>ln % Catholic</td>
<td>-.13</td>
<td>.889</td>
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<td>Hindu</td>
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### TABLE 2

**Dependent Variable: Primary School Completion Rates**

<table>
<thead>
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<th>Independent Variable</th>
<th>Coefficient</th>
<th>P-Value</th>
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<td>Constant</td>
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<tr>
<td>Adjusted R2</td>
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SIGMA 63
## TABLE 3

**Dependent Variable: Primary School Completion Rates (without Lesotho)**

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<th>Independent Variables</th>
<th>Coefficient</th>
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<td>ln % Catholic</td>
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<tr>
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## TABLE 4

**Dependent Variable: Primary School Completion Rates (without Lesotho)**

<table>
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<tr>
<td>Adj. $R^2$</td>
<td>.5584</td>
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2.02% increase in primary school completion rates on average. Increasing the square root of GDP/capita by one unit results in a .213% increase in primary school completion rates on average. However, interpreting the substantive significance of the coefficient for the GDP measure is more difficult because of the square root transformation. Also as hypothesized, level of inequality has a negative effect on primary school completion rates: a one unit increase of inequality on the GINI scale decreases primary school completion rates by .35% on average. This shows a significant but fairly weak relationship between inequality and primary school completion rates.

Our results suggest several conclusions. First, one can see that the proportion of money spent on education seems to have the biggest effect on primary school completion rates. Though this may seem like an obvious result, given the level of bureaucratic inefficiency and corruption in many developing countries, it is a surprisingly encouraging result for the developing world. Second, it is unsurprising that the GDP measure is significant. One would expect that wealthier countries would have a more educated population, though the direction of the relationship between wealth and education could be endogenous. Third, the level of inequality in a country is important. It appears that an unequal system perpetuates itself by reducing the educational opportunities for the poor.

Though these results are interesting, there are several problems with the data that suggest some necessary modifications to the model. One country, Lesotho, had a particularly high standardized residual and showed moderate influence on the overall regression line. Upon closer inspection, we found that Lesotho has the highest relative female education score in the data set: 148. (This means that the average number of years of schooling a woman completes in Lesotho is 148% of the average number of years a man completes.) Though we did not have a pre-existing theoretical reason to suggest that Lesotho should be removed from the data set, we decided to rerun the regression without Lesotho to see what the results were.

Table 3 shows the initial regression results without Lesotho in the data set. The results are markedly different from the first set of regressions. Level of freedom (p-value=.203) remains insignificant, as do the religious variables (Muslim: p-value=.526, Catholic: p-value=.668, and Hindu: p-value=.271) and the urban measure (p-value=.531). However, level of inequality (p-value=.078) and square root GDP/capita (p-value=.081) lose significance at the .05 level, and relative female education level becomes very significant (p-value=.013). Proportion of money spent on education maintains significance (p-value=.004). The adjusted R-squared is .5888, which suggests that 58.88% of the variation in primary school completion rates can be explained by the independent variables. As with the first set of regressions, this shows fairly strong substantive significance for the overall regression.

As we did previously, we reran the regression using a backward elimination stepwise method (alpha to remove=.20). The results are in Table 4. Relative
female education (p-value = .026), level of inequality (p-value = .011), square root GDP/capita (p-value = .034), and proportion of money spent on education (p-value = .003) are significant at the .05 level. Freedom remains in the equation because its p-value is less than the .20 necessary to be removed, but it is not significant at the .05 level. Adjusted R-squared is .5584, which suggests that nearly 56% of the variation in primary school completion rates can be explained by this simplified equation.

Examining the coefficients yields satisfying results. Most interestingly, removing Lesotho from the data set makes the level of relative female education solidly significant. A one unit increase in the average number of years of education a female completes as a proportion of the average number of years of education a male completes results in a .225% increase in primary school completion rates on average. Level of inequality still has a negative effect on primary school completion rates in this model: a one unit increase in the GINI scale yields a .44% decrease in primary school completion rates. Conversely, increasing square root of GDP/capita by one unit yields a .146% increase in the dependent variable. As in the previous model, proportion of money spent on education plays a very important role in predicting primary school completion rates: a one unit increase in the proportion of GDP spent on education results in a 3.00% increase in the dependent variable.

The biggest difference in the results of this data set from the previous one is that relative level of female education becomes very significant when Lesotho is removed. Some may question our removal of Lesotho from the data set. However, removing Lesotho from the data set does not mean that our results are invalid; it simply means that our model cannot predict the effect of relative female education on primary school completion rates when level of female education is much, much higher than the level of male education. To further alleviate any concern about data manipulation, we included the regression results of both data sets.

We did face one fairly serious problem with all of the equations. A plot of our residuals versus predicted values showed significant heteroskedasticity. Countries with low levels of primary school completion rates had larger residuals than countries with higher levels of primary school completion. Logarithmic transformations did not solve this problem. Ideally, we should run a weighted least squares regression to alleviate this problem. However, this is currently beyond our statistical ability. Instead, we suggest some caution when interpreting standard error/p-values and note that our model has more predictive power for countries with higher levels of primary school completion rates than those with lower levels. Given our normative motives, this is somewhat disappointing. Nevertheless, these are our results.

Conclusions

Our regression results support some of our main hypotheses. In summary:

Hypothesis 1: That increased relative female education has an effect on primary school completion rates is at least partially supported. Relative female
education is not significant in the model with Lesotho, but is significant when Lesotho is removed from the data set. Since Lesotho has an unusually high rate of relative female education, we conclude that our theoretically feminist hypothesis holds within reason.

Hypothesis 2: Increased levels of income inequality negatively affect primary school completion rates in both our data sets. This supports the Marxist view that unequal societies perpetuate themselves by denying opportunities to improve one's condition.

Hypothesis 3: These data offer no support for the hypothesis that increased levels of freedom promote better provision of public goods through incentives for politicians. Further research may be necessary to determine if these results are consistent upon replication.

We also found some interesting results with our control variables. First, the urban/rural split of a nation has no significant effect on primary school completion. Second, our results show that the proportion of money spent on education has an indisputable effect on primary school completion rates. When considering developing countries, this is a non-obvious, encouraging statistic. It suggests that governments can increase education levels if they are willing to devote resources to education.

What is perhaps most interesting is our discovery that religion seems to play no role in determining primary school completion rates when other factors are controlled. Hence, the severe criticism of religion, and of Islam in particular, may not be warranted. Perhaps the results would differ when measuring female completion rates in particular. Nevertheless, we find no support for condemnation of religion in these results.

Education has intrinsic value as well as extrinsic value when considering development as freedom. The basic literacy and numeracy skills taught in primary school are especially important. Our study suggests several predictors for primary school completion rates. Further, we acknowledge that these results have normative implications. We encourage concerned countries to consider our results.

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Jessica Preece is from Laie, Hawaii. She is majoring in political science with a minor in chemistry. She is interested in strategy and norms, women's political participation, and Appalachian basket-weaving. After graduation this August, Jessica will pursue a Ph.D. in political science with the hope of eventually joining the academy.
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Katie A. Rees, photographer
POLITICAL PERCEPTIONS AMONG A PECULIAR PEOPLE: CONSERVATISM IN COMMITTED VS. LESS COMMITTED LATTER-DAY SAINTS

JACOB ROBERTSON AND STEPHANIE CARDON

As religion becomes more entangled with politics, scholars of political behavior must understand religion’s impact. Drawing on Wald, Owen, and Hill’s theory of political cohesion in churches, we hypothesized that as religious commitment increased among members of the LDS Church, so would adherence to the conservative ideology most members share. Measures of ideology, party identification, and vote for the House of Representatives taken from the 2002 Utah Colleges Exit Poll confirm this hypothesis. The pattern was most apparent in the vote for the House of Representatives. These findings raise important questions about the possibility of political diversity in churches that require high levels of commitment.

With the emergence of the Christian Right over the past twenty years, it has become apparent that the nature of religion’s effect on politics is changing in the United States. Religion is becoming more politicized. Religion played a prominent role in the 2000 presidential campaign as George W. Bush and Al Gore both spoke openly and often about their faith. Since the election, George W. Bush has devoted substantial resources to “faith-based initiatives,” which the White House calls a “bold new

Special Thanks
We would like to thank everyone who made this paper possible. We appreciate the diligent political science and statistics students who organized and carried out the exit poll under the direction of Kelly Patterson and Greg Snow. We would also like to thank Monica Francisco for her contributions to the methodology section. We are also grateful to Dr. Kelly Patterson and the editorial staff of Sigma for their patience and feedback on earlier drafts of the paper.
approach to government’s role in helping those in need” (White House 2003). Olson and Jelen note the explosion of literature about politics and religion since Jerry Falwell promised to alter the political landscape when he founded the Moral Majority in 1979 (1998). As religion and politics become more intertwined in the United States, it is increasingly important to study religion’s influence on political behavior.

Defining religion proves more difficult than other demographic variables such as income, education, gender, or race. Generally, scholars of politics and religion include three religious dimensions that affect people’s political orientations: belonging, belief, and behavior (Kohut et al. 2000, 12-14). Belonging refers to a person’s religious tradition or denomination. In the past, this was political scientists’ primary measure of religious influence. However, there is a growing sense that denominational associations are becoming less important because of the diversity of belief and practice within different denominations (Welch and Legee 1991). Additionally, defining religious affiliation is somewhat problematic because churches range from autonomous congregations to large hierarchical organizations. Kohut et al. (2000) have found a useful compromise by dividing churches into religious traditions which include Evangelical Protestant, mainline Protestant, black Protestant, Catholic, non-traditional conservative Christian (Mormons, Eastern Orthodox), and non-Christian (Jews, Muslims).

In order to explain the variation inside the different religious traditions, we look at various levels of commitment. Commitment includes the belief and behavior dimensions (Kohut et al. 2000). Belief refers to a person’s religious orthodoxy. The two most common survey questions used to measure orthodoxy are whether respondents believe the Bible is the “literal word of God” and whether they have been “born again.” Christians who are more orthodox in their beliefs answer that they believe the Bible is the “literal word of God” and that they have been “born again.” The most common measures of behavior include questions about church attendance and private religious practices such as prayer. Of course, respondents who attend church meetings frequently and pray daily are highly committed.

The focus of this paper is to measure how commitment levels affect political behavior and attitudes. Instead of examining how different traditions or denominations influence adherents’ attitudes and behavior, we will study the effect of different levels of commitment within a denomination.

Religious Commitment and Political Cohesion within a Denomination

Before asking whether or not religious commitment affects a person’s politics, we must ask why it would. After all, the main purpose of most churches is not to influence politics but to find God. In spite of this, Wald, Owen, and Hill found that there were high levels of political cohesion in “strong churches” (1990). As a theoretical basis for measuring the political cohesion of churches, they surveyed existing theories of social cohesion in small
ROBERTSON AND CARDON

groups and created a model incorporating such factors as "social cohesion, social identity, cognitive style, and social similarity" (1990, 199–202). The most important part of their model incorporates Kelley's definition of "strong churches" (Wald, Owen, and Hill 1990, 207; Kelley 1977). Although Kelley's study seeks to explain the characteristics of growing churches, his model is helpful in understanding uniform political behavior in church groups. Both growing churches and politically cohesive churches exhibit high degrees of social solidarity.

Wald, Owen, and Hill identify five important qualities of churches with high solidarity. First, they are certain they have the truth. This promotes unity within the church because it reduces the number of possible positions a person can take down to two—right and wrong. Second, cohesive churches emphasize that they are different from other churches. This idea draws on Turner's analysis that cohesive groups emphasize their social marginality (1987). Third, unified churches adhere to an orthodox theology. They tend to score high on questions that ask if they believe the Bible is the literal word of God. This creates unity because there is less room for a variety of interpretations of church doctrine. Fourth, strong churches encourage members to pray frequently. Fifth, there are high rates of public worship. Public worship creates cohesion because church attendance increases interaction, and prayer reinforces the church's influence in daily behavior.

Wald, Owen, and Hill conclude that churches that exhibit the qualities of a strong church will be politically cohesive because, although churches are a secondary political organization, strong churches seek to become important in all aspects of their members' lives. Not only will committed members of the congregations share a similar religious perspective, but they will share similar social and political views. Based on this theory of political cohesiveness of churches, we hypothesize that as members become less committed to their church (if it is a strong church), their political views will become more diverse.

Political Solidarity in the LDS Church

To test our hypothesis of religious commitment and political cohesion, we chose to examine The Church of Jesus Christ of Latter-day Saints because it meets Wald, Owen, and Hill's conditions for a politically cohesive church. First, the LDS church is a unique religion. Previously, many religious surveys grouped Mormons with Protestants. However, because "belonging provides a social context for behavior and belief," Mormons and Protestants should be classified separately (Kohut et al. 2000). In other words, a person could not move comfortably between the two traditions without significantly altering behavior and belief. By looking at a religion that so strongly distinguishes itself from other religions, we have a good example of a church with the first two characteristics of a strong church. The LDS Church distinguishes itself by claiming authority on matters of ultimate truth, and the LDS Church makes an effort to distinguish itself from other churches and religious movements.
In addition, The Church of Jesus Christ of Latter-day Saints is a good organization with which to test our hypothesis because it adheres to an orthodox doctrine. As previously mentioned, political scientists generally measure orthodoxy by asking respondents whether they believe the Bible to be the literal word of God and whether they have been born again. However, because the LDS Church distinguishes itself from other religious movements, including the born-again movement, it may score lower on a traditional orthodoxy scale. Results of questions about the Bible may also be misleading because members believe that there were errors in the Bible’s translation; nevertheless, they may be shown to hold more orthodox views when the Bible is combined with other LDS scriptures. Most important for the purposes of this paper is that the LDS Church maintains an authoritative interpretation on most of the key doctrines.

A conservative in Massachusetts is not the same as a conservative in Utah.

The high rates of private prayer and public worship also make the Mormon Church a good church for testing our hypothesis. Church members are strongly encouraged to attend their church meetings every week and to pray frequently. Data from the Utah Colleges Exit Poll suggests that for the most part, members of the LDS Church comply. Among Utah voters, the majority of which are Mormons, 68% attend a church meeting at least once a week, and 72% of Utah voters claim they pray more than once a day.

Another reason The Church of Jesus Christ of Latter-day Saints will provide a good test for our hypothesis is its relative political unity. The LDS Church and Evangelical Protestants occupy the most conservative end of the liberal-conservative continuum (Kohut et al. 2000, 36-7). Unsurprisingly, 63% of Mormons are Republican or lean toward Republican (Kohut et al. 2000, 152; Wald 1992, 79–81). Mormons’ conservative identification could be a result of the combination of the church’s conservative stand on social issues such as abortion and gay marriage, its patriarchal structure, and its largely homogenous population within the United States. Thus, we know that the LDS tradition is largely conservative, which means that we have a good reference point to measure any divergence in political views among its members. Finally, since Wald, Owen, and Hill base their model on Kelley’s description of strong churches, it is important to note that Kelley uses The Church of Jesus Christ of Latter-day Saints as a key example of a strong church (Kelley 1977).

Measuring commitment and political attitudes and behavior

We operationalize our hypothesis that political cohesion will decrease as religious commitment decreases by asking voters, as part of the Utah Colleges Exit Poll, to rate themselves on a church activity scale of very active, somewhat
active, not very active and not active. We then separate the LDS voters and cross-tabulate the results with three different measures of political attitudes and behavior including placement on a liberal-conservative ideology scale, party identification, and vote in the race for the U.S. House of Representatives in three different congressional districts.

Scholars of religion and politics have discussed strategies for measuring religious commitment at length,1 but for the purposes of this paper, we use the level of activity question. While this may not be appropriate as a general measure of commitment for all religions, among Latter-day Saints “activity” is a broad term which denotes a member’s participation in church worship services and activities. Members can “go inactive” for a variety of reasons, most of which account for traditional measures of religious commitment, namely orthodoxy, attendance, and personal worship practices. Thus, these three measures are essentially combined under the term “religious commitment.” Patterns in answers to questions about church attendance and private prayer are similar to levels of activity (Appendix).

We choose three measures of political attitudes and behavior from the Exit Poll questionnaire to account for weaknesses in each of the individual measures. While the liberal-conservative scale provides a good sense of how a voter feels about certain issues, it is not precise. A conservative in Massachusetts is not the same as a conservative in Utah. Also, a person may be liberal on social issues but conservative on fiscal issues. Party identification is a more specific measure of political attitudes because the parties have specific platforms. However, people often say they do not identify with either party although their ideology and voting behavior show definite political beliefs. The vote is the most specific measure because it represents how voters translate their beliefs into actions. They may claim a certain party affiliation but regularly vote for candidates of another party. This sort of behavior is rare, however, because party identification and the vote are highly correlated. Thus, using these three measures of political behavior provides a more complete account of political belief.

Methodology

The data for the Utah Colleges Exit Poll were obtained through a stratified, multi-staged cluster sample with a small margin of error. Stratification was used to ensure that the sample provided a good representation of all Utah voters and minimized the margin of error. Some counties, which we termed “certainty counties,” were automatically included in the sample for various reasons. Sanpete, Cache, Weber, Salt Lake, Utah, Washington, and Iron counties were all chosen because schools participating in the exit poll were located in each, and Davis County was chosen because of its large population.

The first stratum was designated by congressional district boundary so that all three districts would be represented. Because Utah is mostly Republican, and to ensure both parties were represented in the sample, each strata were created based on percent of Democratic vote. The percent Democratic vote (in one district, the percent non-Republican vote) was calculated by the votes from the 1998 House election. This was then used to stratify the non-certainty counties within each district. Neyman allocation was then used to select the non-certainty counties which would be polled and then used again to select which polling places from the certainty and non-certainty counties where interviewers would be sent.

Findings

A voter's self-placement on the liberal-conservative scale was the first survey question we cross-tabulated with the activity scale. We expected active members to rate themselves as conservative and less active members to be more likely to rate

Figure 1

On Most Political Matters do You Consider Yourself . . .

---

Figure 1

On Most Political Matters do You Consider Yourself . . .

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2Neyman allocation uses the population in each strata to influence the likelihood of a polling place in that strata being chosen so that the larger the population of the strata, the higher the probability of a specific polling place being chosen. It should be noted that Uintah County was selected to be one of the non-certainty counties polled, but because of the difficulties of sending interviewers out to that county, Duchesne County was substituted. Polling places in San Juan, Uinta, and Grand counties were given a zero probability of being chosen for the sample because of the inconvenience of reaching these locations. Because of the small populations of these counties, the effects of this decision were insignificant.
themselves as liberals. We found that people who consider themselves very active are most likely to consider themselves moderately conservative. The percentage of those who consider themselves moderately conservative is significantly different from those who placed themselves in the other categories. The same pattern holds for those who consider themselves somewhat active. As we move down the scale of religious activity, we see this pattern diminish. We do not see any significant differences in adjacent categories for those who consider themselves not very active and not active because the confidence levels overlap; however, the respondents do seem to be moving away from the conservative end of the continuum as their activity decreases. The lack of statistical significance is most likely due to the smaller number of cases as activity levels decrease.5

The results were even clearer when considering party affiliation and activity levels and vote choice and activity levels. This most likely occurs because of the high number of conservative Democrats in Utah. Thus, people will rate themselves as moderately conservative but still claim the Democratic party. As activity levels decrease, we see a striking shift in the ratio of Democrats and Republicans. Among very active members, there is a much higher percentage

![Figure 2](image_url)

Generally Speaking, do You Consider Yourself to be a(n) . . .

5 The small number of cases at the less active end of the continuum probably occurs because many in the "not active" or "not very active" categories do not consider themselves members of The Church of Jesus Christ of Latter-day Saints. Also, respondents may also exaggerate their activity levels. For example, in the "very active" levels of our results there are around 2,200 cases, but the "not actives" only amount to around 115 cases.

4 This probably occurs because the statistical means are close to each other. This is because as the percentage of Republicans decreases, the percentage of Democrats rises, thus somewhere within these categories is the point when the percent of Democrats nears and possibly exceeds the percent of Republicans.
of Republicans than Democrats. Seventy-eight percent of very active members identify themselves as Republicans, whereas only 9.6% say they are Democrats. Somewhat active members are still highly likely to be Republicans, but at 62.4% to 17.8% the difference is not as pronounced. As with the ideological continuum, because there are fewer Mormons who identify themselves as less active, the number of cases decreases as we move to lower levels of activity. This widens our confidence intervals, making our results a little less certain. However, with not active members, there appears to be a higher percentage of Democrats than Republicans.

As expected, the findings for vote choice and religious activity were similar to our findings for party identification. Of very active members, 75.9% voted for the Republican candidate in the Utah House races, and 21.8% of very active members voted for the Democrat, which is higher than those who identify themselves as Democrats. Of somewhat active members, 66.2% voted for the Republican and 30.5% voted for the Democrat. Again, voters move toward the Democratic side as we move to lower levels of activity. With vote in the House of Representatives, the not very active and not active groups are the only categories where the confidence levels overlap, which gives us the clearest results.

Figure 3

In the Race for U.S. House of Representatives, Who did You Just Vote For?

Conclusion

The results from this study confirm our hypothesis that as activity in the LDS Church decreases, so does political cohesion. In fact, not only does the cohesion decrease, but an inverse pattern emerges. Wald, Owen, and Hill's framework for political cohesion in churches was especially appropriate to use with The Church of Jesus Christ of Latter-day Saints because it meets their criteria for a "strong church." In a religious group that maintains such close social ties and demands high levels of conformity from its members, we see that as
members participate and identify less with the LDS Church, they think about politics in a new way.

These findings have interesting implications for scholars of politics and religion as well as for members within The Church of Jesus Christ of Latter-day Saints. In an effort to dissuade members from propagating the popular notion within the LDS Church that “good Mormons must be Republicans,” over the past few years church leaders such as Marlin Jensen have said that the LDS Church encourages political diversity (Washington Post 1998). However, would The Church of Jesus Christ of Latter-day Saints have to back away from one or more of Wald, Owen, and Hill’s criteria for a strong church in order to actually achieve political diversity? In addition, studies have shown that members of congregations often take their political cues from their leaders (Welch et al. 1993). Although The Church of Jesus Christ of Latter-day Saints claims to maintain political neutrality with respect to parties, candidates, and most issues, are members of the LDS Church perceiving political cues from the pulpit? An interesting question worth investigating is whether members of the LDS Church really believe that they will be better members if they are Republicans. If people associate The Church of Jesus Christ of Latter-day Saints with the Republican party, perhaps as they distance themselves from the church, they distance themselves from the Republican party as well.

Another interesting question worth pursuing is whether the same principles of political cohesion apply in more liberal religious traditions. This would help scholars determine whether religious cohesion is more social or doctrinal. Wald, Owen, and Hill concluded that the nature of liberal religious traditions causes less rigid adherence to orthodox doctrine causes (1990). However, their study was conducted among different Protestant congregations. If researchers found that members of a liberal religious tradition, Jews for example, became more liberal as commitment increased, then we could conclude that the effects were more social as opposed to doctrinal.

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Stephanie Cardon is a senior from Carson City, Nevada. She is majoring in statistics (business emphasis) with minors in mathematics and management.

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APPENDIX

Apart from the occasional wedding, baptism, or funeral, how often do you attend religious services?

- Strong Conservative
- Moderately Conservative
- Middle of the Road
- Moderately Liberal
- Strong Liberal
- Don't Know

60% 50% 40% 30% 20% 10% 0%

More than Once a Week Once a Week 1-2 Times per Month Few Times per Year Seldom Never
Outside of attending religious services, how often do you pray?

- Strong Conservative
- Moderately Conservative
- Middle of the Road
- Moderately Liberal
- Strong Liberal
- Don't Know

How important would you say religion is in your life?

- Strong Conservative
- Moderately Conservative
- Middle of the Road
- Moderately Liberal
- Strong Liberal
- Don't Know
THE REALITY OF UTAH’S ENVIRONMENTAL MOVEMENT: AN ANALYSIS OF UTAH VOTERS’ LEVEL OF EDUCATION AND THEIR CONCERN FOR THE ENVIRONMENT

JEFFREY R. MAKIN AND JARED D. HARRISON

We test the explanatory power of materialist and post-materialist theories in explaining the relationship between Utah voters’ level of education and their concern for environmental issues. On the basis of these theories, our analysis predicts that voters with more education are more inclined to be post-materialists and, therefore, more concerned about environmental issues. In contrast, voters with less education are more likely to be materialists and less concerned about environmental issues. We test these two predictions using data gathered through the Utah Colleges Exit Poll. Our analysis shows that there is a positive relationship between Utah voters’ level of education and their concern for the environment, and the relationship between the two variables is statistically significant. Upon finding this relationship, we argue that, based on our findings, there is evidence for the predictive power of materialist and post-materialist theories. We conclude our analysis by addressing other factors that may be influencing Utah voters’ concern for the environment, and we suggest future research possibilities in this area.

During the late 1960s and early 1970s, the current environmental movement began to organize a loose coalition of groups concerned with preserving natural resources and controlling pollution (Lake 1983, 215). This loose coalition was organized largely because more people were becoming concerned about environmental issues. Researchers have attempted to account for this increase in concern for the environment. Specifically,

Special Thanks
We would like to acknowledge the help we received from Professors Kelly Patterson and Greg Snow; this research would not have been possible without their help and guidance. We also acknowledge that the Utah Colleges Exit Poll and this research would have been impossible without the help of university and college students from across the state of Utah.
Ronald Inglehart developed a theory of post-materialism that explains this phenomenon. In this paper, we test the explanatory power of Inglehart's theory using data collected through the 2002 Utah Colleges Exit Poll. We predict that a positive correlation exists between Utah voters' level of education and their concern for environmental issues. Thus, if the theory has predictive power, Utahns with higher levels of education will be more concerned about the environment than will be those with less education.

Theoretical Foundation

The theories of materialism and post-materialism explain our predicted relationship between level of education and concern for the environment. These theories focus on the values individuals associate with certain material commodities (Rohrschneider 1990, 6). Materialist theory stems from the idea that individuals are concerned about their own economic stability, and consequently, they assign economic values to the objects around them (Inglehart and Flanagan 1987, 1289). For example, an individual with less education may see a tree and think "I will need to burn that tree to stay warm." Furthermore, because money is essential to survival and because materialists are very concerned about their ability to survive, they assign monetary values to the things around them. A materialist may look at a stone and think it is worth five dollars because it could be used to make a brick worth five dollars. In contrast to materialists, post-materialists do not assign economic values to the objects around them; the values they assign to material objects are more aesthetic (Inglehart and Flanagan 1987, 1297). This means that individuals with more education are not as concerned about their survival because they know they will survive. Thus, a post-materialist may look at a tree and think "I can't wait for the leaves to change colors. It makes the horizon look beautiful." Value assignments and an individual's perception of their ability to survive become an "important determinant of issue opinions" (Rohrschneider 1990, 6).

We use this theory to show that individuals with less education are more likely to be materialists and that individuals with more education are more likely to be post-materialists. Figure 1 shows a continuum between materialism and post-materialism and the assignment of levels of education to either materialist or post-materialist values.

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Materialism</th>
<th>Post-Materialism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Eighth Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some High School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Graduate</td>
<td></td>
<td></td>
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<tr>
<td>Post-Graduate</td>
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</tbody>
</table>

According to Figure 1, individuals with less than an eighth grade education are more likely to be materialists because their lack of education makes them feel like they must pursue materialistic approaches to survive. In contrast, people who have attained a college or post-graduate education are more inclined to be
post-materialists because they feel more secure about their ability to survive. Therefore, they can devote more time to post-materialist activities, such as admiring the leaves on the trees. Those people who have some high school education, are high school graduates, or have some college education are more likely to be located in the middle of the continuum, either leaning toward materialism or post-materialism. It is important to note that this theory predicts that individuals with less education tend to assign monetary values to the material objects around them and individuals with more education tend to assign aesthetic values to the same material objects. This theoretical explanation can, therefore, explain why Utah voters with more education are more concerned about environmental issues than Utah voters with less education.

**Background and Literature Review**

Concern about environmental issues is relatively new to the political scene. President Franklin D. Roosevelt was the first president who was significantly concerned about the environment (Soden 1999, 116). However, public policies such as environmental policy often experience momentary success and popularity and then return to the “political backburners” (Lake 1983, 215). In 1972, Anthony Downs predicted that support for environmental movements would begin to wane because people would become less concerned about the environment, and the issue would no longer be politically relevant (38-50).

Downs' prediction was never realized. In 1973 and 1974, the energy crisis only briefly replaced environmental concerns on opinion polls (Kirsch 1978, 812).

In 1978 and 1980, Robert C. Mitchell argued that change in public opinion polls' priority lists did not indicate a decline in public support for environmental issues in 1973 and 1974. “[When] asked ... whether they consider themselves active environmentalists, sympathetic to the environmental movement, or unsympathetic to the movement ... 62 percent said that they are active or sympathetic, a level of support that is almost identical to that found in 1978 ...” (Mitchell 1980, 41). Thus, Mitchell believed that concern for environmental issues was at least remaining constant; it was not declining.

Following Mitchell's lead, other scholars began to argue that people were becoming more concerned about environmental issues. In 1986, James D. Gill, Lawrence A. Crosby, and James R. Taylor argued:

Behavioral scientists have shown considerable interest in public attitudes toward issues of environmental quality. This interest coincides with the continuing development of an environmental movement pressing for ecologically responsible production and consumption as the means for controlling environmental problems (537).

Most scholars who write about the popularity of environmental issues agree with this assessment. Largely, social scientists believe that concern for the environment has at least remained constant, and some scholars argue that concern is actually increasing (Dunlap and Scarce 1991, 651).
Despite widespread consensus that concern for potential environmental problems is remaining constant or increasing, scholars disagree about what causes people to be concerned about the environment. Some scholars, such as Frederick Buttel and William Flinn, argue that as individuals' incomes increase, their support for environmental issues also increases (1978, 17-36). Matthew Crenson argues that individuals' concern for the environment changes according to their age (1971, 15). Jones et al. found that ethnicity influences the concern an individual may have for an environmental issue or at least one's likelihood to express environmental concerns to authorities (1977, 158). Thus, we can conclude that a number of different factors can influence an individual's concern for environmental issues.

Laura M. Lake conducted a study in California that found that income, party identification, religion, ethnicity, age, and level of education each seemed to have a significant effect on an individual's concern for the environment. Upon studying data from California bond issues from 1970 to 1980, Lake found that "Median years of school completed . . . and percent voting 'yes' for the propositions . . . yields, with few exceptions, positive, moderately strong, and significant relationships" (1983, 231). Thus, Californians' support for environmental protection had a positive correlation with education during the 1980s. We expect to see similar results to those of Lake regarding education and concern for the environment among Utah voters. However, despite the possible persuasiveness that our analysis may have, we recognize that this research only provides a brief glimpse of what may actually be occurring with regard to Utah voters and their concern for the environment. Consequently, we proceed with caution, attempting to avoid the possibility of making our findings seem stronger than they are. We realize that a number of confounding causal variables are most likely influencing Utah voters' concern for environmental issues. However, we assert that Utah voters' level of education is one of the variables influencing their concern for the environment.

Methodology
Gathering the Data

The data used in this research were gathered by university students as part of the 2002 Utah Colleges Exit Poll, conducted on November 5, 2002. We designed a multistage stratified sample that would be representative of the entire voting population of Utah. Because Utah is primarily a Republican state, it was very important to ensure that Democrats were also represented in the survey and had an equal chance of being selected to participate. Therefore, we included particular polling places that were known to be highly Democrat.

The initial process of designing the multistage stratified sample consisted of three basic steps. First, we divided Utah along the lines of its three congressional districts. Second, we divided each district according to the county lines. Third, we chose the counties from which to sample.
Despite widespread consensus that concern for potential environmental problems is remaining constant or increasing, scholars disagree about what causes people to be concerned about the environment.

Before selecting the counties, eight counties in the state were determined to be certainty counties. Counties were selected as certainty counties for two primary reasons. First, we selected counties because of the location of the other colleges and universities that would be participating in the polling process. The counties where these schools are located were automatically selected to facilitate the participation of students from these schools. Second, we selected counties based on the political impact they have in the state. For example, Salt Lake County was a certainty county because it has a large number of Democratic voters. Using this method, we determined that Salt Lake, Weber, Davis, Utah, Cache, Washington, Iron, and Sanpete counties were certainty counties. The remaining counties, which we called uncertainty counties, were weighted according to their number of inhabitants. Counties with more residents had a greater chance of being selected. Using this method, six more counties were selected for the sample. Thus, we conducted our exit poll in 14 of Utah’s 29 counties.

Once we had chosen counties in which we would be polling, we determined exactly which precincts would be included in the sample. Each precinct was weighted similarly to the above process, with their probability of selection proportionate to the number of registered voters within the precinct. After the sites had been chosen, the final step was to determine the interval that the pollsters would use to select respondents. We desired to have 100 completed surveys from each locality. We used predictions of how many would be voting at the polling location and predictions of the non-response rate to determine the interval. This systematic manner of sampling is approximately equivalent to a simple random sample of all Utahns that voted at each polling location.

The multistage stratified sample design was very effective in allowing us to make inferences about the entire voting population of the state of Utah. The surveys used to gather data were very detailed and comprehensive. Respondents could receive a white, blue, pink, yellow, or green questionnaire to fill out. Each questionnaire included various questions regarding topics ranging from concern for the environment to satisfaction with the Utah State Legislature. Thus, we were able to gather important and useful data concerning a wide variety of issues. Our research uses questions found on the green questionnaire.

Variables

An individual’s level of education is the independent variable for our research question. We define this variable as the highest level of education an
individual has attained. This definition is operationalized using the 2002 Utah Colleges Exit Poll. Question 36 on the green form of the poll asks the following question: “What was the last year of school you completed?” Respondents could pick one of six possible options: (1) Eighth grade or less; (2) Some high school; (3) High school graduate; (4) Some college; (5) College graduate; or (6) Post-graduate. This method of operationalizing level of education provides an effective means for measuring the variable. This measurement instrument is also valid and does not require a significant amount of abstraction from the concept of education.

Concern for the environment is the dependent variable. Concern for environmental issues is defined as support for not disrupting natural habitats, destroying vegetation, allowing activities that could destroy the environment, etc. We use two questions from the 2002 Utah Colleges Exit Poll to operationalize this variable. First, question 8 on the green form of the poll reads: “Please rate the following possible environmental problems in Utah as Very Serious, Somewhat Serious, or Not at all Serious.” The response section also contained a ‘Don’t Know’ option. The “possible environmental problems” listed were: (a) Water pollution in Utah; (b) Hazardous waste sites in Utah; (c) Insufficient wilderness protection; (d) Overdevelopment of local canyons; and (e) Air pollution along the Wasatch Front. Our research focuses on options (c) and (d). We do this because we do not want to measure voters’ possible latent opinions. The state government recently began a major water conservation campaign and a campaign to reduce air pollution, and there was an initiative regarding hazardous waste on the 2002 ballot. These campaigns could have produced latent opinions. We believe that if we do not use options (a), (b), and (e) in our measurement instrument, we will reduce the possibility of measuring opinions that have possibly been biased because of the intense campaigns concerning these options.

In an effort to effectively measure environmental concern, we also use question 9 on the Green form of the exit poll to operationalize this variable. Question 9 asks: “How serious do you think the following environmental problems are?” Respondents were asked to rate (a) Depletion of the ozone layer; (b) Loss of endangered species; (c) Elimination of rain forests; and (d) Global warming as “Very Serious,” “Somewhat Serious,” “Not at all Serious,” or “Don’t Know.” Thus, we use the two options from question 8 along with the four options from question 9 to measure environmental concern. This method of measuring environmental concern is valid. There is more abstraction involved with this measure than with the measure of level of education, but this method of measurement still provides accurate data about voters’ concern for the environment.

**Hypothesis**

At this stage of the analysis, it is important to mention the null hypothesis we will be testing with these variables. First, H1 states that there is a positive
correlation between Utah voters' level of education and their concern for environmental issues. Consequently, the null hypothesis, \( H_0 \), states that there is \textit{not} a positive correlation between Utah voters' level of education and their concern for environmental issues. If we find that the null hypothesis is not the case, then we can feel confident in claiming that there is a positive correlation between Utah voters' level of education and their concern for environmental issues. After determining whether we can reject the null hypothesis, we can assess the predictive power of materialist and post-materialist theories.

\textbf{Summary of the Data}

\textit{Cross-tabulations}

We analyzed the data from questions 8, 9, and 36 through the use of cross-tabulations. Because the number of respondents who marked “Don’t Know” as their response for questions 8 and 9 was very small, we did not include them in our analysis.

\textit{Question 36 and Question 8c}

The first cross-tabulation dealt with question 36 (level of education) and question 8c (rating the possible environmental problem of “Insufficient wilderness protection”). Figure 2 illustrates the results.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{Insufficient Wilderness Protection}
\end{figure}

This figure shows that as education increases, the proportion of voters who thought this issue was somewhat serious also increases. Furthermore, this same type of pattern holds for those individuals who said that “Insufficient wilderness protection” was very serious. The “Not Serious” category also had similar results to the “Somewhat Serious” and “Very Serious” categories. Without taking statistical significance into account, this figure seems to show that as education increases concern for the environment also increases.
Question 36 and Question 8d

After completing the first cross-tabulation, we moved on to analyzing the next environmental question against level of education. This question asked individuals to rank “Overdevelopment of local canyons.” Figure 3 illustrates our results from the cross-tabulation. Upon cross-tabulating this question with level of education, it appears that more education indicates more concern for environmental issues.

**Figure 3**

**Overdevelopment of local canyons**

<table>
<thead>
<tr>
<th>Seriousness</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Serious</td>
<td></td>
</tr>
<tr>
<td>Somewhat</td>
<td></td>
</tr>
<tr>
<td>Very Serious</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>8th</th>
<th>Some HS</th>
<th>HS Grad</th>
<th>Some Col</th>
<th>Col Grad</th>
<th>Post Grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Serious</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat</td>
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<td></td>
<td></td>
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<tr>
<td>Very Serious</td>
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</tbody>
</table>

Question 36 and Questions 9a, b, c, and d

We also created cross-tabulations for question 36 with questions 9 a, b, c, and d; Figures 4, 5, 6, and 7 illustrate the relationships we found.

**Figure 4**

**Depletion of the Ozone Layer**

<table>
<thead>
<tr>
<th>Seriousness</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Serious</td>
<td></td>
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<tr>
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<tr>
<td>Very Serious</td>
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</tr>
</tbody>
</table>
Figure 5
Loss of Endangered Species

Figure 6
Elimination of Rain Forests

Figure 7
Global Warming
THE REALITY OF UTAH'S ENVIRONMENTAL MOVEMENT

It is interesting to note that, as concern for the environment moves from not serious to very serious, the proportion of college graduates usually increases where the proportion of high school graduates usually decreases. Furthermore, it seems that post-graduates’ concern for the environment can change drastically from issue to issue. We discuss possible explanations for this relationship later on in the paper.

Statistical Significance

Because the design of our survey included clustering, we could not use the Chi Square test to evaluate the statistical significance of the relationship between level of education and concern for the environment. Consequently, we compared the confidence intervals for each relationship discussed in this paper. When confidence intervals overlap significantly, the relationship between the variables is not statistically significant. However, if there is little or no overlap in the confidence intervals, then the relationship is statistically significant. We performed tests to determine statistical significance at the .05 level. Upon comparing the confidence intervals, we found that there was not a statistically significant relationship between level of education and concern for the environment for those individuals who said the environmental issues were very serious. Furthermore, in the “Not at all Serious” category, the only statistically significant relationships are those between the high school and some college or the high school and college graduate categories. Lastly, statistical significance exists for every level of education in the “Somewhat Serious” category. Figure 8 graphically depicts the statistical significance of these relationships.
Analyzing the Findings

Our findings indicate that we can reject the null hypothesis in the category of "Somewhat Serious." The relationship between level of education and concern for the environment was statistically significant for every level of education. Furthermore, the findings in this category suggest that high school graduates are less concerned about the environment than are college graduates. This finding begins to substantiate our prediction and demonstrate the predictive power of Inglehart's theory.

The relationship between level of education and concern for the environment in the "Not at all Serious" category is also statistically significant. Once again, there is an apparent difference in the concern for the environment high school graduates have compared to that of college graduates. However, postgraduates do not have more concern for the environment than college graduates. Thus, we can only reject the null hypothesis when evaluating high school graduates and college graduates.

Despite the statistically significant relationships in the "Somewhat Serious" and "Not at all Serious" categories, there is not a statistically significant relationship between level of education and concern for the environment in the "Very Serious" category. All of the confidence intervals in this category overlap. Thus, we cannot reject the null hypothesis when referring to this level of concern. Consequently, according to the data, we must conclude that there is not a relationship between level of education and concern for the environment in the "Very Serious" category.

We can conclude that several of the relationships we observe in the data are in the direction our theory predicts. As we mentioned, the theory predicts that as an individual's level of education increases, his or her concern for the environment also increases. Our data show that this is the case in several instances. Furthermore, most of these instances are indeed statistically significant. Therefore, we can confidently say that materialist and post-materialist theories have some predictive power regarding Utah voters' level of education and their concern for environmental issues.

Only Somewhat Accurate Predictions

As mentioned, the predictions of our theory are only somewhat accurate at best. It is true that Utah voters possessing only high school degrees are less likely to be concerned about the environment than those who have college degrees. However, this same pattern does not exist between Utah voters who are only college graduates and Utah voters who have post-graduate degrees. The theories of materialism and post-materialism seem to predict that post graduates will be more concerned about the environment than college graduates. Why is it that this prediction did not come true?

One possible explanation for the theories' failure to predict the relationship is that there were few post-graduates in our sample. In total, there were almost twice as many college graduates as post-graduates. Thus, the difference in
numbers could account for the reason why more college graduates are located in each of the categories. Following this line of reasoning, we could argue that because the number of post graduates is low, we can focus our attention on the difference between college graduates and high school graduates. However, despite the apparent strength of this argument, we must note that our theories would predict that more post-graduates would be in the “Very Serious” category than the other two. This was not the case, so it seems something besides the small number of post-graduates is causing this result in the data.

An alternate, and somewhat stronger, explanation is the idea that there is a lurking variable influencing post-graduates’ concern for the environment. Under this idea, another factor, such as party identification, is influencing post-graduates. Laura M. Lake’s study of education level and concern for the environment substantiates the lurking variable explanation. Lake states that after controlling for all other possible independent variables, such as party identification, religion, ethnicity, and socioeconomic status, the relationship between level of education and concern for the environment became more significant (Lake 1983, 231). Thus, the possibility of a lurking variable influencing the relationship between level of education and concern for the environment is a viable explanation for our findings concerning post-graduates.

**Conclusion**

Our data analysis seems to show that materialist and post-materialist theories have some predictive power. The findings of this analysis provide evidence for a positive correlation between Utah voters’ level of education and their concern for the environment. This relationship is apparent and statistically significant when comparing high school graduates to college graduates. College graduates tend to be more concerned about environmental issues than high school graduates. Materialist and post-materialist theories predict and explain this relationship. High school graduates most likely assign economic values to environmental resources while college graduates most likely assign aesthetic values to environmental resources. Although our predictions did not hold true for post-graduates, we feel confident that there could still be a statistically significant relationship if we were able to control for possible lurking variables. Thus, we can conclude that materialist and post-materialist theories are valuable for explaining the relationship between Utah voters’ level of education and their concern for environmental issues.

We must emphasize that our findings are not conclusive. Our findings do not completely substantiate materialist and post-materialist theories. To the contrary, our findings suggest that more testing of these theories is essential. We believe that it would be beneficial to study the relationship between Utah voters’ level of education and their concern for environmental issues while controlling for such variables as academic discipline or occupation. Controlling for these factors may help illustrate why post-graduates did not fit into the predictions of the theory. Consequently, using these control variables may show that materialist
and post-materialist theories actually have more predictive power. Our means did not allow us to control for the variables we have mentioned. Therefore, we believe that this type of analysis would be valuable to this subject area. Regardless, we have provided a brief glimpse into the predictive power of materialist and post-materialist theories concerning Utah voters' level of education and their concern for environmental issues.

Jeffrey R. Makin is from Pleasant Grove, Utah and is a senior majoring in political science. He plans on either attending law school or pursuing a PhD in political science.

Jared D. Harrison is from Riverton, Wyoming. He is a statistics major with a biostatistics emphasis. Jared plans on pursuing a masters program in statistics.

Works Cited


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Rachel Turley is a senior studying English and political science. She is interested in Latin America and Europe, and plans on completing graduate work in law or international relations.

Staci Wheeler is a senior in international politics. This is her second year working on the Sigma staff. She is from Englewood, Colorado and is planning on attending law school in the fall.
"With malice toward none, with charity for all, with firmness in the right as God gives us to see the right, let us strive on to finish the work we are in . . . to do all which may achieve and cherish a just and lasting peace, among ourselves, and with all nations."

-Abraham Lincoln