Authority, scope and force:
An analysis of five Central American countries

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This paper presents a model on the relationships between the authority of government, the scope of government, and the level of force employed by government to implement its decisions.

Authority is the right to be obeyed. Such a right must be grounded in some source, such as a moral principle, an ideology, or a metaphysical entity such as God. Government officials justify their authority by invoking 'the state,' 'the nation,' 'the community' or some related notion of a collectivity. In order to exercise authority, however, it is not enough for government officials to claim it. People have to respect the right of the rulers to govern. To the extent that people believe that the authority of government officials is legitimate, to that extent they will lend them their consent and obey their instructions.1

Force is the amount of physical coercion employed in human relationships. It takes the form of threats and/or the actual delivery of physical violence to people. Physical blows need not be administered for violence to be present in a relationship. The very existence of armed forces capable of delivering physical blows to antagonists constitutes a violent threat. Open warfare is the implementation of violence, not its manifestation. Peace by itself does not constitute an absence of violence. There can be violent as well as nonviolent peace.

The use of force by government is inversely proportional to its authority. That is, the greater the authority of government officials, the less force they need employ to implement a given level of instructions or commands. If people recognize the legitimacy of the rulers they will obey their decisions voluntarily. But, if the authority claimed by the rulers is rejected by the people, then, in order to implement their commands, the rulers have to employ force.

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Figure 1 presents this relationship graphically. On the horizontal axis we measure authority \( A \) and on the vertical axis force \( F \). As we move to the right along \( A \) government officials gain legitimacy and thus the level of force required to implement any level of commands drops. In other words, there is a "trade-off" between authority and force for any level of scope.

Scope \( (S) \) is the extent of government activity in society. Scope has to do with the relative size of government. The more government attempts to do — the more it taxes, spends, and regulates — the greater scope becomes. In Figure 2, the farther any one scope curve is from the origin, the greater scope. Thus, in Figure 2, \( S_3 > S_2 > S_1 \).

Government grows by invading the private spheres of other social institutions such as markets, religious societies, the family, trade associations, tribes and other groupings characteristic of various cultures. As scope increases, government intrudes into the preserves of other institutions and attempts to become one if not the dominant decision-maker in social contexts heretofore regulated by rules and decisions not of its own making. This intrusion is naturally resisted by the social groups which had exercised hegemony over the human relationships which government now seeks to regulate. Force will have to be employed over the recalcitrant groups unless government officials acquire greater authority to set the rules of organ-
ized social life. If government attempts to expand scope with insufficient authority, the result is war. A government victory will result in a violent peace held together by official coercion.

Figure 3 illustrates this phenomenon. Take some country, called X, in which the initial level of authority is $A_1$ and scope $S_1$. With that much authority and scope, the force which government officials have to use to implement their commands is $F_1$. Now assume that government expands scope to $S_2$ while authority remains constant at $A_1$. The force required to implement this higher level of scope is $F_2$, which is greater than $F_1$.

In drawing the $S$ curves, it is assumed that the less authority the rulers have, the greater the change in force brought about by any expansion in scope. Conversely, the greater the authority of the rulers, the smaller the change in force produced by any additions to scope. This can also be observed in Figure 3. Another country, $Y$, starts out with the same level of scope as $X$ but the rulers in $Y$ have less authority than the rulers of $X$. Now look what happens when scope increases in $Y$ to $S_2$. As in $X$, more force is required to implement the new, higher level of scope. But the
change in $F$ is considerably greater in $Y$ than in $X$.

Of course, in real life authority seldom remains constant when scope expands or contracts. In fact, the political trick, especially in democratic countries, is how to expand scope while simultaneously increasing authority so that force remains constant or even drops. One could cite several historical cases where a new group of rulers assumes power in the wake of a genuine uprising, a revolution, or an overwhelming electoral victory. Endowed with much greater authority than their predecessors, the new ruling group proceeds to expand scope safely while force actually declines. The widening of scope which was implemented during the initial months of the Cuban revolution or in the aftermath of the Costa Rican 1948 revolution could be so interpreted. On the other hand, the contractions in scope enforced by the military regimes of Argentina, Chile and Uruguay in recent years may have been carried out in such a vacuum of legitimacy that the force required to implement this less authoritative, lower level of scope is greater than the higher scope managed by deposed officials who had greater authority. Again, the political trick is to reduce scope without simultaneously incurring a loss of authority. The reduction in government controls brought about by the first newly elected post-war German leadership could serve as an example.
Another problem has to do with the retention of authority under high levels of scope. It could be argued that once scope crosses a certain threshold a loss of authority is inevitable in the long run. This is predicated upon errors in resource allocation made in the absence of markets, bureaucratic rigidity and corruption. The erosion of authority which inexorably undermined the governance of Uruguay during half a century of increasing interventionism and welfarism probably paved the way for terrorism, militarism, and the eventual fall of democracy in a country once hailed by naive observers as 'the Switzerland of South America.'

An empirical application

We now apply the model to five Central American countries in a cross-sectional comparison to determine whether the values of authority, scope and force behave in the hypothesized manner. The countries are Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua. Table 1 presents measures for each of the three variables in all five countries. Scope is measured by the proportion of Gross Domestic Product consumed by government. Force is measured by the percentage of central government expenditures devoted to police and defense. Finally, authority is measured on a scale of 0 to 10 according to the subjective judgment of the author in consultation with a colleague. Note that for scope and force the countries are assigned an ordinal ranking as well. It is these ordinal values which are plotted on Figure 4. This is done because of the conceptual difficulties inherent in any interval scaling of such multi-dimensional social variables as force and scope.

Table 1. Authority, force and scope in five Central American countries 1974

<table>
<thead>
<tr>
<th></th>
<th>Scope</th>
<th>Authority</th>
<th>Force</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Percentage</td>
<td>Rank</td>
<td>Number</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>14</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>El Salvador</td>
<td>11</td>
<td>2.5</td>
<td>1</td>
</tr>
<tr>
<td>Guatemala</td>
<td>7</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Honduras</td>
<td>11</td>
<td>2.5</td>
<td>2</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>9</td>
<td>4</td>
<td>1.5</td>
</tr>
</tbody>
</table>

a. Scope is measured as the percentage of GDP consumed by government.
b. Authority is measured on a scale from 0 to 10.
c. Force is measured as the percentage of the national budget which is spent on defense and police.

Figure 4 shows the position of each of the countries on all three variables.

Note that ordinal rankings on force are roughly what one would expect given the values of authority and scope in each of the countries. In all but one case, our model predicts the level of force accurately.

The odd case is Honduras, which the data show second on force, while our model ranks it fourth. The discrepancy is probably due to the measure of force employed. My impression is that Honduras indeed employs less violence than any of its neighbors except Costa Rica, its proportionately larger defense budget notwithstanding. This points to the need for better measures not only of force but of authority and scope as well. Hopefully, this paper will stimulate specialists in methodology to develop them.
Summary and conclusion

In this paper a model has been presented on the relationships between authority, scope and force. The model predicts the 1974 level of force in five Central American countries accurately.

What needs to be done next is to inquire into the determinants of authority, scope and force. These are among the questions that need to be answered: What are the sources of authority? How is authority gained and how is it lost? What forces lead to the expansion of scope and what forces lead to its contraction? What determines the ability of the rulers to use force? Once we know the answers to these questions it would be relatively easy to monitor the 'political health' of a country and predict with some anticipation the likely direction of force. This could be of great aid to public policy, both domestic and foreign.

NOTES

2. The colleague is Steve Ropp of New Mexico State University. James Busey, in letter to the author, September 22, 1978, also agreed with the authority rankings. However, the draft Professor Busey saw included Panama but not Guatemala.
4. It is suggestive that two countries where violent outbreaks of a significant magnitude have recently taken place, Iran and Nicaragua, experienced relatively high rates of government growth during 1970-1976. Public consumption of GNP grew at an average annual rate of 12.8% in Nicaragua and 21.3% in Iran while GDP grew at a rate of 5.7% and 8.9%, respectively. See World Development Report 1978, Washington, D.C.: The World Bank, 1978.