

POLITICAL INSTABILITY IN LATIN AMERICA: THE CROSS-CULTURAL TEST OF A CAUSAL MODEL

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I. THE PRECONDITIONS OF POLITICAL INSTABILITY: TOWARD A SYNTHESIS OF THEORY AND RESEARCH ON SYSTEMIC DISSATISFACTION, LEGITIMACY, AND RETRIBUTION

Psycho-Social Dissatisfaction and Political Instability

ALTHOUGH AT TIMES QUITE THIN, THERE DOES APPEAR TO BE A COMMON thread of agreement running through most of the classic and contemporary literature on theories of revolution—this being the simple proposition that the majority of the participants engaging in such activity are dissatisfied, discontented, and often disaffected individuals. If we can think of “revolution” for the moment in its most general terms—to subsume under such a conceptual label both the simplest manifestation of civil disorder to the most grandiose occurrence of what might be called basic social change—then, it seems, we are in a position to illustrate the emergence of this basic proposition throughout the literature.

After culling the more recent publications, for example, James Geschwender notes that several basic types of hypotheses attempting to explain revolution have appeared—in one way or another, all of these deal with the causal element of dissatisfaction. The first of these, which is drawn primarily from the notions of Karl Marx, can be stated: “As a group experiences a worsening of its conditions of life, it will become increasingly *dissatisfied* until it eventually rebels.”¹ It was the “law of transformation of quantity to quality” which allowed Marx to frame the progressive degradation suffered by the proletariat into what has now become the classic positive linear relationship between dissatisfaction and revolution. Incremental mutations occur within Marx’s work-

* Acknowledgments are due to the National Science Foundation, which partially supported (GS-789) the research for the paper. Special thanks are also due to Professors R. J. Rummel and Raymond Tanter for the use of their (1955–64) conflict data; to Professor Russell Fitzgibbon for the use of his “democratic attainment” ratings across the 20 Latin American republics for 5 time periods since 1945; to Professor Phillips Cutright for making available his individual data (1940–61) from which he composed the “Political Representativeness Index;” and to Professor George Blanksten for guidance and encouragement.

ing man until ultimately he can take no more; the “nodal” point is reached, and the qualitative birth of socialist society begins.

Geschwender notes the existence of a variant of this Marxian proposition, which states that: “As a group experiences an improvement in its conditions of life and simultaneously observes a second group experiencing a more rapid rate of improvement, it will become *dissatisfied* with its rate of improvement and *rebel*.” Lyford P. Edwards, however, presented what has come to be the classic statement of the proposition which specifies rising expectations as driving causes of revolution—a notion which was formulated earlier, and less precisely, by deTocqueville: “As a group experiences an improvement in its conditions of life, it will also experience a rise in its level of desires. The latter will rise more rapidly than the former, leading to *dissatisfaction* and *rebellion*.”² DeTocqueville concluded, “. . . so it would appear that the French found their condition the more unsupportable in proportion to its improvement.” And, consistently among the variables Crane Brinton finds are common to the French, English, American, and Russian revolutions, is the notion that these “. . . societies were on the upgrade economically before the revolution.” Eric Wolf, perhaps, has couched this relationship in its most dramatic form when he said that “revolt occurs not when men’s faces are ground into the dust; rather, it explodes during a period of rising hope, at the point of sudden realization that only the traditional controls of the social order stand between men and the achievement of still greater hopes.”³ James Davies finds that both Marx and deTocqueville’s notions have explanatory and possible predictive value, if they are but juxtaposed and put into the proper time sequence, which he does, stating: “Revolutions are most likely to occur when a prolonged period of objective economic and social development is followed by a short period of sharp reversal.”⁴

Among the preconditions to revolutions in Latin America which are most widely discussed in the literature, Blasier notes: “inequitable and inefficient systems of land tenure, stagnating and unproductive economies, fiscal crises, social discontent arising from low living standards, political repression and brutality, and foreign ‘domination’”—again, in some way or another, all measuring dissatisfaction. Blasier, furthermore, notes that an underlying and fundamental cause of basic social revolution in Mexico, Bolivia, and Cuba, was what he refers to as a “bedrock of discontent.”⁵ Speaking also of the Latin American phenomenon, Merle Kling points to similar causal agents of dissatisfaction inherent in: the foreign exploitation of mineral resources, the rudimentary development of industry, and the generally closed nature of the socio-economic system—in short, the extreme concentration of economic bases of power. According to Kling, however, it is political office which provides a uniquely dynamic opportunity for the upwardly-mobile minded to acquire an economic base of power on their way to psycho-social gratifications. As this

becomes more so, he predicts that “. . . sufficiently large segments of the population are prepared to take the ultimate risk, the risk of life, in a revolt, in a *coup d'état*, to perpetuate a characteristic feature of Latin American politics—chronic political instability.”⁸

Blasier elaborates on Kling's thesis, when he notes that “agrarian issues are central to understanding the social revolutions occurring in Mexico, Bolivia, and Cuba.” He cites Tannenbaum, for example, as maintaining that “the chief cause of the Revolution of 1910 was the uneven distribution of land,”⁷ and Simpson as holding that the social disequilibrium preceding the revolution was “at bottom, due to inequalities in the distribution of land and to the evil effects of the hacienda system.”⁸ Blasier also notes that “concentration of land in large haciendas, frequently at the expense of Indian communities, took place in the years preceding the 1952 Revolution in Bolivia as it had in Mexico. Here he cites Alexander,⁹ for example, as pointing out that nearly 3 million of the 3.5 million Bolivians could not properly have been considered part of the national market economy.

Two tests of the relationship between structural inequality and “instability” (what we have been rather loosely referring to as revolution) have appeared in the recent literature. Bruce Russett, in “Inequality and Instability: The Relation of Land Tenure to Politics,”¹⁰ operationalized instability by aggregating across nation units the number of violent political deaths occurring between 1950–1962. The degree of the inequitable distribution of land for each of these nation-units was assessed by a summary measure of the total inequality of a distribution known as the Gini Index. The Gini Index calculates over the whole population, the difference between an “ideal” cumulative distribution of land (where all farms are the same size) and the actual distribution. The higher the Gini Index, the greater the inequality. Through correlational analysis, Russett demonstrated the strength of the association between inequality and instability (among the 47 nation-units for which data was available) to be +.46. As inequality increased, instability (or the number of people killed in domestic group violence) also increased.¹¹

In “A Theory of Revolution,” Raymond Tanter and Manus Midlarsky also test the relationship between land inequality and the occurrence of successful or unsuccessful revolution. According to the authors, “a *revolution* may be said to exist when a group of insurgents illegally and/or forcefully challenges the governmental elite for the occupancy of roles in the structure of political authority. A *successful revolution* occurs when as a result of that challenge to the governmental elite, the roles in the structure of the political authority are eventually occupied by the insurgents.”¹² A t-test assessing the significance of the difference of inequitable land distribution between the two groups—one of successful revolutions, the other of aborted attempts—re-

vealed (a value of 2.585) that the two groups did differ beyond chance expectations. Successful revolutions occurred in those societies with a higher degree of land inequality.

While we may not be able to say that "dissatisfaction," then, is a sufficient condition for political instability, the available theoretical and empirical evidence presented thus far does strongly suggest that it comes close to being a necessary condition. What does appear to complicate the matter is the *direction* of the relationship between these two variables—that is: Do "revolutions" come in periods of upswing or downswing? To illustrate the point of contention, some basic viewpoints on the matter will be juxtaposed. S. M. Lipset in his widely known study, "Some Social Requisites of Democracy," confirms that democracy is positively related to the state of economic development among the 20 republics of Latin America (and a number of European and English-speaking nations). "Concretely," says Lipset, "this means that the more well-to-do a nation, the greater the chances that it will sustain democracy."¹³ But before we can grant the notion that the obverse of Lipset's "democracy" might at times mean "instability" (a position we would very much like to take here), the conceptual linkage between the two must be made. Economic development in Latin America is assumed by Lipset to be a cluster of essentially four variables: wealth, industrialization, urbanization, and education. Although he treats each of these separately, as they have an effect on "democracy," the theory Lipset puts forward is that it is the "systemic" or "coordinated" changes in each of these, which ultimately have implications for democracy, or the lack of it. Daniel Lerner made a similar point when he provided a test of the correlates of "participation" (operationalized in terms of the per cent of the population voting in the last five elections within 54 countries).¹⁴ This, he argued, was a function of (i) urbanization, (ii) literacy, and (iii) media participation. As evidence of their functional interdependence, Lerner reported the multiple correlation (between each of these three independent variables interacting with each other and on the dependent variable of political participation) to be +.82. Since the linear combination of the independent variables was greater than any one of them taken separately in its effect on political participation, Lerner's data certainly do argue in favor of some sort of systemic combination. A striking corroboration of this finding is offered by Phillips Cutright, who reports for similar data a multiple correlation coefficient of +.85. In his study, 76 nations were dimensionalized on totally independent criteria across the variables of urbanization, education, and communication,¹⁵ as they predicted to "political development" (measured by the degree of opposition in legislative bodies and the open election of central decision-makers). While these statistical tests definitely do establish a systemic relationship among the correlates of "modernization," they do not say anything

about the form of such a relationship. To Lerner, the secular evolution of a participant society involves a regular sequence of three phases. "Urbanization comes first," he argues, "for cities alone have developed the complex of skills and resources which characterize the modern industrial economy. Within this urban matrix develop both of the attributes which distinguish the next two phases—literacy and media growth." Out of the interaction of these attributes develop "those institutions of participation (e.g., voting) which we find in all advanced modern societies."¹⁶ It is at this point that the terminology of "imbalance," "disequilibrium," "upheaval," "social disorganization"¹⁷ if you will, instability—provides the linkages we search. For both Lipset and Lerner conclude that when the proper mix between the several indices of modernization are not present, the potential for political instability is quite high.

We can now return to Lipset's hypothesis, which, in light of the present evidence, might be interpreted thusly: As economic development increases, democracy increases (or, the lack of democracy, as we have said, which *may* manifest itself in political instability, decreases); or simply in revised form, as economic development decreases, instability increases. This version comes close to the Marxian hypothesis introduced earlier; namely, "as a group experiences a worsening of its conditions of life, it will become increasingly dissatisfied until it eventually rebels."

While, for the moment, it must be admitted we are oversimplifying the relation between democracy and instability, there is some empirical evidence to support our revised proposition. Alker and Russett found, for example, that among the 74 nations in their sample, the correlation between Gross National Product per capita (what could stand for an indirect measure of the economic development) and the variable "deaths from domestic group violence per million population" (their indicator of political instability) was $-.43$ ¹⁸ Or, in our terms, as economic development increased, political instability decreased.

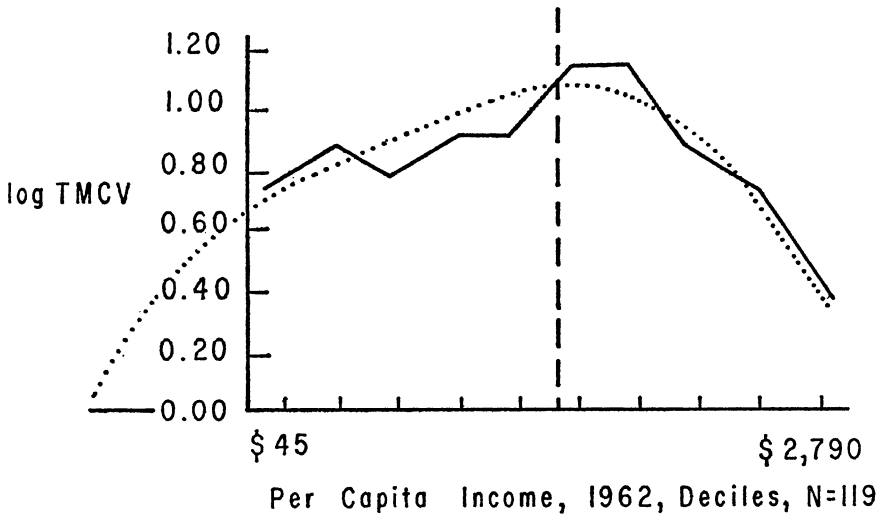
As reasonable as this argument seems, in both theory and empirical findings, it runs oblique, if not counter, to the proposition discussed by deTocqueville, Edwards, and Brinton; namely, that revolutions are not born in societies that are economically retrograde, but in those which are economically progressive. In its most contradictory form, then, this proposition would claim that: political instability increases as economic development increases. By adding the notion of "reversal" to this linear model, James Davies concluded, as was previously noted, that "revolutions are most likely to occur when a prolonged period of objective economic and social development is followed by a short period of sharp reversal."

Davies systematically applied his J-curve of rising expectations (followed by their effective frustration) to the Russian Revolution of 1917, Dorr's Rebellion of 1842, and the Egyptian Revolution of 1952. But it was Tanter and

Midlarsky who subjected the general proposition to a systematic analysis across as large a universe of revolutions as was possible. They hypothesized: "the higher the rate of increase of GNP per capita preceding the revolution, and the sharper the reversal *immediately prior* to the revolution, the greater the duration and violence of the revolution."¹⁹ Their data on *successful* revolutions were based on the entire population of such occurrences between the years 1955–1960. For each of these instances of revolution they gathered information on (i) the number of deaths from domestic violence and (ii) the time rate of change of GNP per capita. While the analysis does not take Davies' notion of "reversal" into consideration, it still offers a test of the basic proposition that revolutions (or, in this case, the intensity of revolutions) takes place when societies are on the upswing. The Product Moment Correlation between the two sets of data, established the association between change in GNP per capita and domestic violence to be +.22; *i.e.*, there tended to be a slight positive association between the two. When regions were controlled for, however, the picture changed drastically. For the same sets of data, the coefficient for Asia was +.94, for Middle Eastern data +.96, and for the Latin American data −.12. Upward changes in GNP per capita in Middle Eastern and Asian countries did indeed seem to correlate with an increase in the intensity of domestic violence; the greater the upswing the society experienced prior to the revolution the more intense the domestic violence. This was not the case with respect to revolutions occurring in Latin America, and here increases in the wealth level of the nations involved tended to have a reverse effect on the amount of domestic violence suffered during the revolutionary experience. In the cases of countries within Asia and the Middle East, the proposition that revolutions tend to occur in periods of rising economic development receives strong support; the cases of Latin America, however, run counter to this proposition, and seem rather to be mild supporters of the earlier notion, that as the economic situation deteriorates, the revolutionary situation flowers. How can these apparently contradictory findings be explained?

Ted Gurr has offered some evidence which may reconcile the two points of contention—that is, do revolutions occur when societies are on the upswing, or on the downswing? In presenting the results of a causal model predicting civil violence, Gurr plotted the two variables which appear in the scatter diagram below. In an attempt to measure what he called the "performance capabilities" of a society, Gurr reasoned that "men's economic satisfactions ought to depend at least in part on their society's total output of economic goods and on the rate at which output is increasing."²⁰ The independent or "causal" variable slotted in Figure I, is the absolute level of economic development as measured by per capita income, and reported in deciles. The units on this horizontal axis, therefore, represent the number of cases, and not the proportional

FIGURE I



increases in the per capita income. One might interpret the diagram thusly: In the top 10 percent of the nations where the per capita income is up to \$2,790, TMCV is .40. The dependent or "effect" variable in the plot is the logarithmic transformation of what Gurr refers to as the Total Magnitude of Civil Violence (TMCV).

"Civil Violence" was defined by Gurr as "all collective, non-governmental attacks on persons or property, resulting in intentional damage to them, that occur within the boundaries of an autonomous or colonial political unit."²¹ In operationalized form, it is a composite of: (i) the number of participants, (ii) the extent of the polity affected by the most widespread strife event of the year, (iii) the number of casualties, (iv) the amount of property damage, and (v) the duration of the event.

One of the assumptions underlying the use of the Pearson Product Moment Correlation coefficient, of which we have made liberal use up to now, is the linearity or straight-line relationship between the two variables held in association with one another. The coefficients reported thus far were for *linear*, or straight-line associations, where it is assumed that the relation between one variable and another remains essentially constant throughout the range of both variables. The lines summarizing slopes, in other words, retain the same angle at all points. This is obviously not the case with respect to the plot in Figure I, however, where the relationship between per capita income and the total magnitude of civil violence is obviously curvilinear. The series of broken lines

(which are defined more clearly over the entire configuration by the dotted line) represent the mean or “least squares” summary of each of the data points for each nation on these two variables. If Gurr had included the data points for each of the nations in the analysis, 119 dots would have appeared in the graph. For each decile (or 10 percent) of such dots, the “least squares” line (that line which minimizes the total value of the squared distances between the individual data points and the line) would summarize the distribution of dots. The broken line, in essence, is a summary of each of these separate “least squares” configurations, and has been extended to encompass what would be the truly “traditional” societies (those with extremely low per capita incomes), were data available to include these in the analysis. Now with these basics in mind, what does the plot tell us in terms of the contradictory notions of the causes of revolution discussed earlier?

To Nesvold, a data distribution along the horizontal axis similar to that presented in Figure I, would probably represent a “modernity continuum.” In a study done in collaboration with the Feierabends, a similar curvilinear relationship was propositionalized so that, “the highest and lowest points of the modernity continuum in any given society will tend to produce maximum stability in the political order, while a medium position on the continuum will produce maximum instability.”²² Alker and Russett found that their original (linear) correlation coefficient between the similar operationalizations of “deaths from domestic group violence” and “per capita GNP,” increased from $-.43$ to $-.47$, when a curvilinear statistical model was applied to their data.²³ And, likewise, a similar increase was introduced to Nesvold’s data when the curvilinear correlation between “modernity” and “stability” boosted the linear coefficient from $.62$ to $.67$.

There is, then, other additional (although not completely persuasive) evidence testifying to the stability of Gurr’s findings, as presented in Figure I. Bruce Russett reacts to a similar scatter plot he has generated, and while he is referring to the form of the relationship between “domestic violence” and per capita GNP, its correspondence to the problem at hand seems precise enough to use his remarks extensively. “This [curvilinear] picture suggests,” says Russett, “that underdeveloped nations must expect a fairly high level of civil unrest for some time, and that very poor states should probably expect an increase, not a decrease, in domestic violence during the next few decades.”²⁴ This, it appears, is tantamount to saying that domestic violence is positively associated with economic development—that “revolutions” (at least for polities in transition) occur when societies are on the upswing. Glancing at the left-hand portion of Figure I, for the moment, it does indeed appear that increases in per capita income are *linearly* related to the total magnitude of civil violence. As societies move along the continuum, from traditional, through transitional, to

modern entities, what Millikan and Blackmer have referred to as “the point of maximum danger for a developing society”²⁵ is reached at about the mean of the distribution. “The mass media, bringing news and views of the world to illiterates in their urban slums and remote villages, introduce a new element into the process of modernization. People learn for the first time about the world outside their immediate environs, and their sense of life’s possibilities begins to expand.” And, if a society fails, for one reason or another, to provide opportunities—to satisfy the demands posed by rising expectations—then, in the words of Millikan and Blackmer, “it must face a ‘revolution of rising frustrations.’”²⁶ But why should things be so peaceful in traditional societies? It is here, notes Russett, that “knowledge is limited, aspirations are limited, and expectations as to the proper activities of government are limited—the state is not expected, for instance, to support agricultural prices, or to prevent unemployment, or to promote economic growth.”²⁷ In the words of Almond and Verba, “the parochial expects nothing from the political system.”²⁸

Although on the wane, true parochials, we would imagine, would be represented today by some African tribal and Latin American Amerindian societies. This being the case, such truly traditional societies do not report data, and hence have no way of getting into Gurr’s analysis. By extending the “least squares” line to a point approximating zero income, we can visually approximate their occurrence under the model. Traditional nation-states do, however, report data, and most samples of the world’s polities would find that the African republics and the newly-emergent nations in Southeast Asia closest resemble the traditional orientation, and would enter Gurr’s model (in Figure I) at the lowest point of per capita income (\$45). In addition, they would probably distribute themselves in a positive, approximately linear pattern of increasing domestic violence until they phase into the “transitional” countries in the plot. The establishment of this fact, however, rests on our ability to identify the data points in the lefthand side of the plot as those belonging to these “traditional” societies, and there are indeed certain indirect means of assessing whether or not we are correct. For example, Gurr does give the zero-order (or two variable) correlations between what he calls “socio-cultural regions,” and the total magnitude of civil violence. To distribute his 119 polities into socio-cultural regions, Gurr followed closely the recent work of Banks and Gregg, who performed a Q-factor analysis across 68 variables (from *A Cross-Polity Survey* and the Dimensionality of Nations Project) for 115 of the world’s polities.²⁹ They extracted five basic clusterings of nations: (i) a Polyarchic group, composed primarily of the economically developed western nations, (ii) a Modernizing Elitist group, which was largely African in composition, (iii) a Centrist grouping, consisting of the eastern-European nations, along with Spain, Portugal, Cuba, the UAR, and so on, (iv) a Traditional

grouping composed of the four participating nations of Yemen, Nigeria, Laos, and Iran. In addition to the Traditional group, the Modernizing Elitist nations seem to best fit our criteria of "traditional-transitional" societies. If our assumption about their occurrence in the plot under the model is correct, then the zero-order correlation among these Modernizing Elitist nations (between per capita income and the total magnitude of civil violence) should be reasonably high and *positive*. It is. Gurr reports³⁰ the correlation to be $+0.51$. Although he does not present the coefficient to test the alternative association (*i.e.*, the negative relationship among the same variables for the Polyarchic, or advanced Western, group), he does present the additional correlation between TMCV and income for the African grouping, which is $+0.57$ —again a confirmation of our assumptions.

After the threshold, or peak point, in Figure I is reached, however, the reverse relationship emerges, and the linear association proposed by Lipset and others appears to come into play. As Russett notes, ". . . at the higher levels of development (*i.e.*, the right-hand side of Figure I) one of three things seems to happen (probably a little of each, actually): the economic sources of discontent diminish, the ordinary nonviolent processes of government become more accessible and effective in satisfying demands, and the government itself becomes better able to control its citizens and to prevent them from resorting to violence with any hope of success."³¹ Whatever the mechanism, the relationship between the total magnitude of civil violence and per capita income—after the threshold point has been reached—is clearly negative and linear; *i.e.*, as nation-units go up on income, they noticeably decrease on domestic violence. As we have already observed, there is no immediate way of identifying the data points falling on the right-hand side of the scatter diagram in Figure I. However, if we are to be entirely consistent with the evidence we have cited previously in support of this relationship—namely, that political instability is positively related to dissatisfaction (*i.e.*, negatively related to satisfaction)—then we should expect to find that most, if not all, of the data units in the earlier Russett research have come from polities beyond the transitional point on the development continuum. The Russett data pool, in other words, should contain few, if any, of the newly emergent African, Asian, or Middle Eastern polities. Russett found, it will be recalled, that the inequitable distribution of land (to us, an index of dissatisfaction) was positively and linearly associated with political instability. This is another way of saying that dissatisfaction is positively related to instability, or in terms of the right-hand side of the scatter plot in Figure I, that satisfaction (in terms of increasing personal income) is negatively related to instability (in terms of the total magnitude of civil violence). This relationship, we noted from the curvilinear model in Figure I, holds only for those units well beyond the threshold point. Therefore, to

remain consistent, we should find that Russett's study has not included any traditional (or Modernizing Elitist, as we have called them) societies. A check on the 47 country-units in his survey shows that he has not.³²

We should also be able to adequately assess the significance of Lipset's as well as Cutright's findings, in terms of their perspective on theories of revolution, if we find that they too have not included any "traditional-transitional" nation units among their data. Our interpretation of what both Cutright and Lipset found, it will be recalled, was that political stability was positively correlated with economic development (*i.e.*, modernity). That is, that modernity (*i.e.*, satisfaction) negatively correlates with political instability. We noted the evidence of such a linear, negative association in the second half of the scatter plot in Figure I. To also use the Lipset and Cutright research in support of such a relationship, however, we must be able to say that their samples did not include what we have been referring to as Modernizing Elitist nations—essentially the newly-emergent, primarily African, polities. An inspection of Cutright's data reveals that no African polities were used in his analysis; a similar check of the Lipset data pool reveals, likewise, none of the African (nor Asian or Middle Eastern) polities were used.

These findings also bear implications for the relationship among the data in this study to be found between per capita income, or per capita GNP figures, and political instability. If most Latin American republics are considered as lying beyond the mid-point on any modernity continuum, then we can look forward to discovering a negative, linear relationship between economic development and political instability.

As we have noted, the curvilinear model in Figure I is composed of two *linear*, or straight-line, segments. Each segment corresponds to what appeared as two contradictory sets of propositions about political instability—one predicting that revolutions occur when societies are progressing (in terms of modernization, for example); the other, that such a progression is associated with a decrease in revolutionary experience. Both, however, seem to make sense under the curvilinear model, where the often confused domain of political instability appears to take on some semblance of order.

While we have made extensive use of a series of structural variables, such as the character of socio-economic development (operationalized in Figure I through income per capita), it should be emphasized that it is the *perceptions* of structure which ultimately may lead to discontent and perhaps to political unrest. It is important to recognize, as Stone has when reacting to models which relate changes in economic trends to societal dysfunctions, that "psychological responses to changes in wealth and power . . . are politically more significant than the material changes themselves."³³ If it is true, as has been suggested, that "It is the dissatisfied state of mind rather than the tangible provision of

'adequate' or 'inadequate' supplies of food, equality, or liberty which produces the revolution,"³⁴ then the ultimate test of systemic dissatisfactions must eventually come from direct measurement.³⁵

It has been argued—and this seems the ideal moment to introduce it—that "if social researchers questioned the legitimacy of substituting available indices for inaccessible concepts, they would soon be forced to close shop."³⁶ Therefore, while the more direct survey research methods would undoubtedly enhance the sensitive measurement of psychosocial satisfactions, a number of static indicators are readily available which tap indirectly economic satisfaction (and probably go a long way toward tapping a host of other gratifications as well). Probably the most comprehensive of these are: GNP Per Capita,³⁷ and the Percent of Central Government Expenditures on Health and Welfare (WELFARE).³⁸ One index measuring a variety of dissatisfaction peculiar to the Latin American republics, would be the GINI Index of the Inequality of Land Distribution.³⁹ In addition, an approximation of the favorable or unfavorable movement through time of these variables can be had by creating *change* estimates, arrived at from the difference between the measurements taken at two points in time.

In summary, then, what can we say about the causes of political instability? If the foregoing research is any relevant testimony, obviously *dissatisfaction* is a key explanatory variable. Judging by the standards of social science, many of the correlations reported up to this point were fairly high. In spite of this, however, these coefficients indicate more importantly that much remains *unexplained*. Even one of the highest multiple correlations of $+ .71$ —that between inequality and instability computed by Russett—when squared, illustrates that only slightly over half of the total variance about instability can be explained by a series of measures of inequality. It appears, therefore, that the causes of political instability are numerous, and that the relationship is indeed complex. We will want, therefore, to take a look at another predictor variable—legitimacy—which may help to account for some of this unexplained variance.

Legitimacy and Political Instability

Perhaps the most often quoted definition of legitimacy, or political allegiance, has been that offered by S. M. Lipset, who noted that it involved the capacity of a political system to engender and maintain the belief that existing political institutions were the most appropriate or proper ones for the society. The strength of this variable in predicting instability is emphasized by Lipset, who claims that the political stability of any given nation depends more on this factor than on its effectiveness in satisfying wants (the first variable we considered).⁴⁰

As we have seen, the effectiveness of a political system at providing satisfactions is primarily an instrumental dimension; legitimacy is more affective and evaluative. According to Lipset: "Groups will regard a political system as legitimate or illegitimate according to the way in which its values fit in with their primary values."⁴¹ Such positions on legitimacy have moved other researchers to think of it in terms of political culture, that is, a set of attitudinal and personality characteristics that enables the members of the political system to both accept the privileges and to bear the responsibilities of a political process.⁴²

Political allegiance, or what David Easton would call "supports," or "orientations of the mind," or what Almond and Verba would see as "positive affect" on the part of the member of the political system, can be ascribed to various levels of authority. According to Easton, for example, support can be fed into the political system at essentially three levels: (i) the political community, (ii) the regime, and (iii) the government.⁴³ With respect to the "political community," Easton appears to be using it synonymously with "society" or "social system," with the additional qualification that integration, or a sense of belonging ("we group" feeling) also characterizes a community. Thus, the American Civil War is a concrete illustration of the cessation of inputs of support at the community level. Support for the "regime" Easton sees as support for the "rules of the game," or "the constitutional principles" as they are called in Western society. And lastly, Easton sees as necessary to keep the system running smoothly, support for the "government," or that constellation of office-holders who carry out the authoritative allocation of values. The Third and Fourth French Republics are classic examples of the input of support at the community level (that is, to a Frenchman, the French community is loaded with positive affect), but the withdrawal of it at either the regime (the rules of the game) or governmental level. The militant black nationalist in the United States today may very well want to rip the system out by its roots, and in this sense is an advocate of violent social revolution, and is withdrawing his support at the community level. The participant in spontaneous and sporadic rioting, looting, and firebombing, on the other hand, may be out to get a more equitable piece of the national pie in terms of a human (dignity) and financial (wealth) share, or to change the rules of the game, or to "throw the rascals out" occupying the immediate roles of government, or all of these—but he probably retains his support of the system at the community level.

Despite their separate treatment here, certainly the model's first two variables—*discontent* and *political legitimacy*—cannot be considered independent. Actually, psychosocial satisfactions and notions of positive affect are closely interrelated sub-systems of phenomena, which can only be separated for analytic purposes. For example, when explaining how political systems manage to

maintain a steady flow of support (legitimacy), Easton not only concluded (i) through a process of "politicization" (by which attachments to the political system are built into the maturing member), but (ii) through *outputs* that meet the demands of the members of the society, as well.⁴⁴ In addition, there is a good deal of corroborating evidence which points to the fact that systems outputting satisfactions over the long run, are felt to be more legitimate than systems which do not. To be sure, according to Lewis Coser, it is relative dissatisfactions (with both outputs as well as access) which drive a populace to question the legitimacy of the system.⁴⁵ Effectiveness, or demonstrated achievement, on the part of governments, as the *sole* foundation for legitimacy, however, is at best a tenuous assumption. "Any system of government," according to Lipset, "is likely to become involved in crises; major groupings will become alienated because of opposition to specific policies. Consequently, any government which persists for a reasonable length of time must have or develop ascriptive grounds for support, that is, a sense of traditional legitimacy."⁴⁶

Legitimacy, or allegiance, however, is not the exclusive province of western democracies, or what have been referred to as "participant" political cultures. Many closed, or hierarchically organized systems, or "subject" political cultures as Almond and Verba would call them (that is, those in which cognitions are exclusively oriented toward *output* structures and the system as a general object) enjoy positive affect, or high feelings of legitimacy. And likewise, many traditional or "parochial" systems (those in which the orientations or cognitions to: input objects, output objects, system as a general object, and self as active and participant, all approach zero), also enjoy allegiance or legitimacy. For example, many Amerindian political communities or African tribal communities are traditionally-oriented, and more often than not, hierarchically-organized and authoritarian; but nevertheless, contain populations who feel that the systemic arrangements are morally right and proper. The simple fact of the matter is, that the members of any type of political system may or may not take pride in it, or like it; in short, may or may not ascribe legitimacy to it. It appears clear, however, that the members of a political system will ascribe legitimacy to the system if the political structure is congruent with the political culture. According to Almond and Verba, when the political structure (regardless of whether traditional, centralized-authoritarian, or democratic) is cognized, and when the frequency of affective (or positive feeling) and evaluative orientations are high, a congruence between culture and structure takes place and is accompanied by high amounts of *allegiance* or legitimacy. The congruence between culture and structure is weak when the political structure is cognized, but the frequency of positive feeling and evaluation approaches indifference or zero. Here, in place of allegiance, one finds *apathy* or *anomie*. Incongruence between political culture and structure begins when the indif-

ference point is passed, and negative affect and evaluation grow in frequency. The end product of this mechanism is *alienation*. Almond and Verba suggest further, that such a continuum can also be thought of as one of stability/instability. As political systems move toward allegiant or legitimate orientations, they also tend to become more stable; while moving away from legitimacy, toward apathy and alienation, is often associated with instability. And furthermore, if forced to choose, as correlates of political instability, either low system output (what we have roughly equated as indexing dissatisfaction) or low system legitimacy, Almond and Verba suggest that "long-run political stability may be more dependent on a more diffuse sense of attachment or loyalty to the political system—a loyalty not based specifically on system performance."⁴⁷

Up to now, we have concluded that attachments to a political system (legitimacy) are not entirely independent of the system's ability and efficiency at satisfying the demands of its members; that is, legitimacy itself may be a product of increasing output-satisfaction over time. It is also equally clear, however, the attachments or supports for any political system are also products of socialization, or what Easton calls "politicization." Individuals only oriented (politicized) to the output (or decisions) side of the political process in hierarchically-organized systems, may possibly, and often do, ascribe high legitimacy to such structural arrangements. It is when culture and structure are not congruent that indifference to the system (apathy) and withdrawal of legitimacy (alienation) may take place. The clearest example of such a discrepancy might be a population with participant orientations (culture) which is faced with subject structures, that is, a centralized and hierarchically-organized government. Much of eastern Europe after the second world war witnessed such incongruencies, and the concomitants of apathy and alienation were readily observable. Over time, however, the mechanisms of output (system satisfactions) and politicization (new generations now oriented to hierarchical structures) appear to be building less apathy and alienation into the systems.

The operationalization of the concept of legitimacy, then, is expected to be an extremely difficult task. And it appears it would be asking the impossible for us to arrive at a selection of possible indirect indicators which would remain completely independent from the variables measuring psycho-social satisfactions. However, when Lipset suggests that "crises of legitimacy" occur if ". . . all major groups do not secure access to the political system . . ." it can be hypothesized that such access is certainly helped along by competitive and open institutions, and a measure of such a system characteristic over time may very well be the best possible indirect indicator of legitimacy. Indeed, if the linkage can be empirically established between the ability to participate (access), and the building of positive affect or attachment to the political system (legitimacy),

then what appears as an ethnocentric bias in the foregoing statements might be somewhat reduced. Such a linkage appears to have been made by Almond and Verba, who after systematically testing the relationship between participation and legitimacy in Mexico, Italy, West Germany, Great Britain, and the United States, note that “. . . the opportunity to participate in political decisions is associated with greater satisfaction with that system and with greater general loyalty to the system. . . . Everything being equal, the sense of ability to participate in politics appears to increase the legitimacy of a system and to lead to political stability.”⁴⁸

A number of indirect indicators of legitimacy, therefore, are available. One such measure is that constructed by Phillips Cutright,⁴⁹ in which he used what was termed a “Political Representativeness Index” (PRI). Cutright rated 76 nations over the years 1940 to 1961 according to criteria of: (i) representativeness of the legislative function of government, (ii) quality of the opposition within this legislative function, and (iii) open and competitive election of the central decision-maker. He summed these yearly ratings (thereby obtaining a cumulative, continuous measure for the 22-year period) and T-scored (standardized) the distribution. Since a measure for the 22-year period was not desired for the present paper, Cutright’s data were obtained and 5-year raw scores calculated.

Another measure of legitimacy, and one that is also tapping such notions as national cohesion, affective feelings of political dignity, and to some extent even governmental outputs (especially in terms of social welfare legislation), is the “democratic attainment index” constructed by Russell Fitzgibbon. Every five years, since 1945, Fitzgibbon has been sampling the opinions of Latin American experts on 15 criteria⁵⁰ he hypothesized were measuring democratic attainment. These specialists fitted the criteria to a series of Likert-type scales, which were then summed for each nation. Since Fitzgibbon also “weighted” these scores in terms of importance (*e.g.*, “open and competitive elections” (access) was weighted twice that of most of the other indices), the adjusted (or weighted) scores were used in the present study.

Following the Almond and Verba premise that feelings of legitimacy are indeed formed during periods of rising participation, a *change* measure was calculated between each of the Fitzgibbon 5-year measures. The same type of transformation was done to the PRI indices. In one test of the model, then, the legitimacy index which measures changes in the “openness” of the regime in the five years (1950–55) just prior to the time period during which the instability data will be recorded (1958–60), shall be used as an indicator of the formation of legitimacy.

Retribution: The Correlates of Force

While the distinctions between psycho-social satisfactions and positive

affect or political legitimacy were difficult to maintain when discussing the first two variables in the political instability model, this does not appear to be a problem associated with the third variable: perceptions of force or punishment for "extra-legal" behavior. Some notions freely translated from Psychology, and particularly those of Arnold Buss, indicate the relationship between force (punishment) and aggression (extra-legal, usually violent, behavior) to be curvilinear. Therefore, very little instability is hypothesized to be found at the two extremes of a permissive-coercive continuum, but great quantities of instability should be found in the center. Buss notes, for example, that low levels of punishment do not serve as inhibitors; it is only high levels which are likely to result in anxiety or flight. Punishment in the mid-levels of intensity acts as a frustrator and elicits further aggression, maintaining an aggression-punishment-aggression sequence.⁵¹

Jenifer Walton investigated this relationship, in which she operationalized aggression in terms of socially aggressive acts by a populace against a government, and operationalized punishment in terms of the coerciveness or permissiveness of political systems. In a study of over 80 nations, Walton found that the curvilinear notions generally do hold up.⁵² And, Robert LeVine, in his study of African violence against colonial regimes, came to similar conclusions. He found that if colonial policy is consistently repressive toward African self-rule (as was supported by cases such as the Union of South Africa, Portugal's Mozambique, and Angola), or if it is consistently permissive toward self-rule (as seemed to be the case in Nigeria, Ghana, Sudan, and Uganda), then violence against Europeans was relatively low. Only if colonial policy toward self-rule was ambivalent, therefore arousing conflicting expectations of political autonomy (as was the case in Nyasaland and Kenya), did LeVine find violence to be greater.⁵³

Theoretically, at least, the study of force in Latin America offers a particularly complex mixture of: (i) the force factor itself, that is, the military and police (which can usually be analytically segregated from other social instruments⁵⁴), and (ii) what might be considered as the loyalty-to-the-regime of these forces. The most significant thing about tools of repression available for possible use by the regime is, of course, their commitment. Such commitment at any one point in time within any republic, is a tenuous assumption, at best. It has been noted that the fact the president is himself commander-in-chief of these forces, is not necessarily a factor in his maintaining their support.⁵⁵

The role of the armed forces within the republics has often been said to be that of serving as a deterrent to aggression from the outside, but most observers, including Johnson, note that ". . . it seems apparent that their primary goal, as in the past, is to maintain internal order as a second-line police force."⁵⁶ The range of military involvement, of course, begins with a caricature of the process in Paraguay, where there exists almost a cultural "willingness to submit to au-

thority," goes through what has been termed the "responsible militarism" of Peru,⁵⁷ and ends in Costa Rica, where the army as a political institution is proscribed. Problems of militarism in Latin America—generally defined as the tendency for the armed forces to dominate politics⁵⁸—tend to enter into the model, both on the independent side of the equation as well as on the dependent side. Certainly, the combination of force plus the loyalty of this force acts as an inhibiting factor in suppressing and preventing uprisings. When the armed forces, on the other hand, are not loyal, and when they exhibit such a lack of allegiance in overt ways, such as threatening to take over or actually taking over the government (for whatever the reasons), then we enter the realm of "militarism." At this point, such actions as *golpes militares* enter into the dependent side of the equation, along with other instances of aggressive action against government, such as civilian-directed *coups*, riots, and so on.

The ability of the central decision-making components of the government to apply force, then, is clearly tempered by the intervening variable of the loyalty-to-the-government of such force contingents. And thus, in measuring force, one cannot be content with just the ratio measures of, say, the number of troops and equipment deployed within the units of analysis over a measure of the population of those units, but must ultimately take into consideration a measure of the loyalty of such forces. A systematic way to approach the problem would be to attempt to ascertain at least an indirect measure of loyalty, and to then take this into consideration when assessing more overt indices of force.⁵⁹

From the foregoing discussion, then, it is not surprising to conclude that a realistic calibration of force within Latin America can become quite complex. Two aggregate measures were selected to assess the notion of force. Although on the face of it, neither one seems to satisfy the measurement problems with respect to (i) independence among variables, and (ii) the loyalty of the force, these considerations shall be discussed in the following section. Military Personnel as a Percentage of the Total Population (1959),⁶⁰ was the first aggregate measure. Since this variable has been reported to correlate .99 with what were originally thought to be more sophisticated measures,⁶¹ it was selected, so that it might be more readily comparable to change measures (which take total population into consideration). A second set of data comes from sources searched by the statistical team of the Yale Data Library,⁶² and from sources searched by John Powell:⁶³ and is the Budget Expenditure Allocated to Defense as a Percentage of GNP. The sensitivity of this statistic can be appreciated when one looks at Venezuela (with the highest GNP per capita of all of the republics in 1957, \$648) which in 1959 allots only 2.2% of its national budget to defense. On the other hand, nations such as Haiti or Paraguay, with the lowest GNP per capita's in 1957 (Haiti = \$105; Paraguay = \$114), allotted for defense considerably more than Venezuela: Haiti's defense allocation was 3.0% of its GNP, and Paraguay's was 2.8%.

II. POLITICAL INSTABILITY: DEFINING THE DOMAIN AND SYSTEMATICALLY MEASURING IT

Political instability has meant many things to many researchers, as should be clear from the opening section. And, although no precise definition was sought there, the primary purpose of this section will not only be to define the concept, but to indicate how political instability might best be systematically measured among the twenty republics of Latin America.

Merle Kling seems to have summarized at least three of its distinguishing features, when he noted that (i) it is chronic, (ii) that it frequently is accompanied by *limited* violence, and (iii) that it generally produces no basic shifts in economic, social, or political policies.⁶⁴ William Stokes notes further, that "violence seems to be institutionalized in the organization, maintenance, and changing of governments in Latin America."⁶⁵ And Kalman Silvert comments that indeed "... some types of revolutionary disturbances do not indicate instability."⁶⁶ "To treat violence and the military coup as aberrations," concludes James Payne, "places one in the awkward position of insisting that practically all significant political events in the past half century are deviations."⁶⁷ That these deviations do not represent basic alterations in the ongoing systems, is a point driven home by George Blankston, when he observes that "if the term is used precisely, true revolution—a basic change in the political system, a recasting of the social order—is surprisingly infrequent in Latin America. Indeed, revolutions are at least as rare there as anywhere else in the world."⁶⁸ Phillips Cutright seems to offer some empirical validation of Blankton's observations, when he calculates the residuals for a multiple regression equation which predicts to what he terms "political development." Concludes Cutright: "Our common stereotype of Latin American political instability is subject to some re-evaluation when seen from the world perspective. Far from being unstable, the prediction equation suggests that they are not only relatively stable but relatively more developed than comparable nations around the world."⁶⁹

The word "revolution," it has been noted, is generally employed loosely and imprecisely, and this especially so in Latin America.⁷⁰ This one word, according to Blanksten, has been used to refer to a number of different types of social and political phenomena. The phenomena, of course, range from the Chilean "revolution" of 1924—when, in the throes of a continuous cycle of cabinet instability (16 fell within a period of 4 years), Arturo Alessandri resigned leaving Chile with no government—to the rather violent removal of Porfirio Díaz, or Jorge Ubico, or Enrique Peñaranda, and the installation of the kinds of socio-economic uprooting which took place in Mexico during 1911 and after, in Guatemala during 1945 and after, and in Bolivia in 1943 and in 1952. "Revolutions" have taken place after the central decision-maker has

spent as little as 28 hours in office—as was the case when the Perón revolution, led by a clique of GOU officers, “installed” General Arturo Rawson as president—or as many as 44 years, as in the case of Mexico’s Porfirio Díaz, or 28 years in the case of Venezuela’s Juan Vicente Gómez. They have been as brutal and bloody as that recently taking place in Cuba, and as peaceful as the kind of “musical chairs” game which is played out year after year in Paraguay. Revolutions have been pulled off by men in support of the governments they overthrew. Venezuelan Colonel Corlos Delgado Chalbaud, for example, was very much in favor of Medina Angarita’s policies; the “revolution,” however, was called to prevent the apparent “succession” to the presidency of López Contreras, with whom Chalbaud most stoutly disagreed. And, they have even been directed by, of all things, political parties, as when a coalition of parties overthrew Chile’s Carlos Ibañez in 1931.

Imposición, *candidato único*, and *continuismo*, have also been at times referred to as “revolutions.” To be sure, these are outwardly-peaceful methods of obtaining and maintaining power. But, according to Stokes “. . . they rest upon a foundation of force.”⁷¹ Merle Kling further notes that “. . . obscured by data of these kinds, is the presence of ‘concealed instability.’ ”⁷² Revolutions by *continuismo* have a history in many Latin American republics, but perhaps the most consistent is Haiti. The classic example of the practice seems to have been offered by Dr. Francois Duvalier, Haiti’s self-proclaimed president-for-life. An excellent example of *candidato único* (single candidate), according to Stokes⁷³ was that of General Manuel Odría of Peru, who obtained power by *cuartelazo* (barracks revolt) in October 1948, and then developed his position so strongly that he was able to run for the presidency on July 2, 1950, without opposition. Paraguay, which in a 32-year period, went through 22 presidents—21 of them coming to office by an “election” which featured only one candidate, seems to offer the best illustration of a country in which this form of office acquisition has indeed become insitutionalized. *Imposición* (in which the candidate is “imposed” on the electorate in a rigged election) was very much of a problem in the latter years of the Mexican Revolution, when a type of “succession crises” accompanied by revolts ensued in Mexio in 1923, 1927, and 1929—since “the candidate of the incumbent regime always wins.” But perhaps the clearest illustration of it was when Colonel Carlos Castillo Armas was “elected” by *imposicion* in October 1954, following his June revolutionary invasion from Honduras, to rid Guatemala of what he saw as Arbenz’s communist-run government.

On occasion, the populace itself acts as an autonomous agent of the “revolution.” The few instances in which this exists seem to be, as well, empirical illustrations of the “general will.” Describing the capitulation of General Maximiliano Hernández Martínez, who ruled El Salvador from 1931 to 1944,

Alberto de Mestas notes that "the people carried out a general shutdown, private and public offices closed, railroads and busses stopped running. Everything stopped. The government searched for the leaders to capture them and end the revolution. But there were no leaders. The University started it; but, after that, it was all the people spontaneously."⁷⁴ More often, however, revolutions are events designated by limited involvement, heavy elite participation, and things of precision and planning. The recent *golpe militar* in Argentina, which saw Arturo Illia's government fall prey to the militarism of General Juan Carlos Onganía, seems to be more the mode of "revolutionary" action. Fulgencio Batista's April 1952 *cuartelazo*, also known as the "*golpe de Madruga*," and the civilian-military *coup d'etat* which shanghaied Argentina's Arturo Frondizi March 29, 1962, also offer clear examples of this modal pattern.

A resurgence of a very old variety of "revolution" in Latin America appears to be that of guerrilla, or unconventional, warfare. The most dramatic of the recent occurrences, of course, is Fidel Castro's 26th of July Movement against the Batista regime from 1956 to 1959. Examples of guerrilla activities go back to the nineteenth century, and before. An early illustration would be Antonio Conselheiro's guerrilla rebellion against the Brazilian government in the northeastern sectors of the country at the end of the nineteenth century. More recent examples, though on a less grandiose scale, are the guerrilla activities in Bolivia, Guatemala, and Venezuela.

Perhaps the one clear revelation which emerges from the foregoing discussion, is a picture of the rather eclectic nature of governmental instability in Latin America. How, then, is one to pick from such a myriad of possible measures of "extra-legal" aggression, the most meaningful and valid measure? One approach would be to consider the variants of the expression of social conflict one at a time, as they relate separately to different independent or "causal" agents. A rather simple notion would be the proposition hypothesizing a causal relationship to exist between (i) modal psycho-social dissatisfaction, a people's concomitant popular expression of such dissatisfaction in a civil revolt, and a resulting abrupt change in government. No such necessary connection need exist between (ii) modal psycho-social dissatisfaction and other abrupt changes in governments, such as a resignation, assassination, or a *coup d'etat*. There exists, no doubt, a causal connection in the first instance in the full-scale Venezuelan uprising on January 22, 1958, which brought Pérez Jiménez's tearful capitulation; or the now famous *huelga de los brazos caídos* (the strike of the fallen arms) which brought down the Guatemalan dictator-president Jorge Ubico; or Colombia's *bogotazo*—the 1948 explosive "social vomiting" which cost the lives of over 5,000 Bogotá residents within less than a week. On the other hand, one would be hard put to argue a necessary connection between popular social dissatisfaction with Brazil's Jânio Quadros (who was swept into

office with a large electoral plurality), and his abrupt resignation in August 1961. Equally difficult to argue would be Argentina's "Children's Revolution" of September 6, 1930, in which the commandant of a military secondary school, José Uriburo, led his cadets, with dummy drill rifles in hand, down the avenida to the *Casa Rosada*, taking it by force.

But, treating the various manifestations of violence separately places one in the burdensome position of creating classification schemes of impossible proportions. The question becomes, how then, to bring some order to this area, while at the same time developing inclusive classifications in a reasonable human-free manner. Of the number of techniques available for isolating clusters of empirically-correlated characteristics, Factor Analysis seems to offer the most advantages. The developer of this statistical technique, L. L. Thurstone, encouragingly notes that "a factor problem starts with the hope or conviction that a certain domain is not so chaotic as it looks."⁷⁵ Basically the analysis takes a large number of *operational indices* (such as demonstrations, riots, *machetismos*, golpes militares, coup d'états, cuartelazos, and so on) and reduces these to a smaller number of *conceptual variables*, or common factors. Underlying the use of factor analysis is the notion that if we have a number of indices which are intercorrelated, these interrelationships may be due to the presence of one or more underlying factors. By various operations (consisting essentially of matrix inversion) on a matrix of correlation coefficients, one may identify a set of factors which account for practically all of the intercorrelations, with a number often substantially smaller than the original set of variables.⁷⁶ Regardless of what computation methods are used, the first set of factors have the property of being statistically independent of each other.⁷⁷ Perhaps the most commonly used technique for determining clusters of underlying relationships from a matrix of correlation coefficients, is the "principal-axes," or "principal-components" method. It was chosen here because it provides a solution in which each factor has extracted the maximum amount of variance⁷⁸ and leaves the smallest possible residual variance. In short, the correlation matrix is condensed into the smallest number of orthogonal, or independent, factors by this method.⁷⁹

A second stage in the factor analysis may be selected, which consists of "rotating" or transforming the set of orthogonal factors into another set (not necessarily independent of each other) which in Thurstone's terms meet the criteria of "simple structure." Its aim is to establish a set of factors which has the property that any given factor will be fairly highly correlated with some of the original indices but uncorrelated with the rest. Each factor can then be identified with one of these clusters of original indices. Once these linear weighted sums (or rotated factors) of the original indices have been obtained, they can be identified and interpreted through the use of factor loadings (that

POLITICAL INSTABILITY IN LATIN AMERICA

TABLE I

Correlation Coefficients for Nine Indices of Domestic Violence (1958-60)

	1	2	3	4	5	6	7	8	9
1. Assassinations	1.000	....	....	....	....	....	....	....	....
2. Strikes	-.053	1.000	....	....	....	....	....	....	....
3. Guerrilla War	.218	.225	1.000	....	....	....	....	....	....
4. Gov't Crises	.226	.399	.602	1.000	....	....	....	....	....
5. Purges	.213	.159	.522	.619	1.000	....	....	....	....
6. Riots	.181	.275	.154	.070	.299	1.000	....	....	....
7. Demonstrations	.354	.401	.097	.189	.310	.582	1.000	....	....
8. Revolutions	-.133	.366	.611	.559	.430	.364	.211	1.000	....
9. Domestic Killed	.167	.141	.417	.567	.928	.122	.209	.330	1.000

¹ Any politically-motivated murder or attempted murder of a high government official or politician.

² Any strike of 1,000 or more industrial or service workers that involves more than one employer and that is aimed at national government policies or authority.

³ Any armed activity, sabotage, or bombings carried on by independent bands or citizens or regular forces aimed at the overthrow of the present regime.

⁴ All rapidly-developing situations that threaten to bring the downfall of the present regime, excluding situations of revolt aimed at such overthrow.

⁵ Systematic elimination by jailing or execution of political opposition within the ranks of the regime or the opposition.

⁶ Any violent demonstration or clash of more than 100 citizens, involving the use of physical force.

⁷ All peaceful, public gatherings of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding those demonstrations of a distinctly anti-foreign nature.

⁸ Any illegal or forced change in the top government elite; any attempt at such change; or any successful armed rebellion whose aim is independence from the central government.

⁹ Deaths resulting directly from violence of an inter-group nature, thus excluding deaths by murder and execution.

is, by observing the highest correlations between an index and a given factor). In addition, the usefulness and strength of any factor will be determined by the percent of total variance which it explains.

Nine indices were selected⁸⁰ to measure different types of domestic aggressive actions against Latin American governments. The definitions of these indicators, and the results from correlating them with each other, appear in Table I, below. Note that although one can begin to get a notion of the clustering effect among these nine indices, the pattern is not entirely obvious. The higher coefficients (those at the .50 and above level) seem to show that guerrilla activity is moderately associated with governmental crises (.60), purges (.52), and revolutions (.61). Governmental crises, as well, seem to be correlated with

revolutions (.59) and with the number of persons killed in domestic violence (.56). On the other hand, events of a more sporadic nature, such as demonstrations and riots, seem to correlate among themselves more highly than among the other indices (.58).

In order to determine whether or not the clustering effect among these indices would warrant the use of a smaller set of conceptual variables, the matrix of correlation coefficients in Table I was factor analyzed.⁸¹ To obtain that set of factors maximizing high and low loadings, the extracted factors were then rotated and a new set of factors obtained, which are presented in Table II, below.

TABLE II
Rotated Factor Matrix

	Factor			h ²
	I	II	III	
1. Number of Assassinations	.202	.291	-.759	.702
2. Number of General Strikes	.213	.580	.476	.609
3. Presence or Absence of Guerilla Warfare	.761	.096	.160	.613
4. Number of Major Governmental Crises	.829	.130	.124	.720
5. Number of Purges	[.878]	.174	-.215	.847
6. Number of Riots	.081	.827	-.025	.691
7. Number of Anti-Government Demonstrations	.113	.865	-.225	.812
8. Number of Revolutions	.606	.321	.547	.770
9. Number of People Killed in Domestic Violence	.849	.029	-.233	.776
Percent of Common Variance	56.8	23.6	19.7	100.0

The values within the table are the correlation coefficients between the original nine indices and the three rotated factors—what were referred to as “factor loadings” previously. By looking at the highest factor loadings, the clustering effects suggested by the correlation matrix are now considerably clarified. The first of the rotated factors, then, is related to five of the indices, namely: guerrilla war, governmental crises, purges, revolutions, and deaths from domestic violence, and unrelated to the rest. The second factor is related to strikes, riots, and demonstrations, but not to the remaining indices. With the exception of two factor loadings with any weight, the third factor appears quite weak in terms of “defining” aggressive activity, and seems to be defined more by high negative loadings, and might, therefore, be interpreted as a “lack of conflict” dimension.⁸²

The communalities (h²) indicate the proportion of variation in each index explained by the three factors. The variance of each coefficient can be computed simply by squaring it, and since the factors are independent of each other, the

communality of the index represents nothing more than the sum of these squared coefficients. In terms of the fifth index, for example, the three factors explain over 84 percent of the variance about the occurrence of purges. Furthermore, the three rotated factors explain a very high percentage of the variation in all of the indices.

Before discussing the merits of these findings in terms of substantiating criteria from the conflict literature in Latin America and from other factor solutions of conflict data, a word about the factors themselves. Demonstrations and riots, and to a certain extent, strikes, represent a kind of sporadic, unorganized conflict dimension in Latin America. To Almond and Coleman, "spontaneous breakthroughs into the political system, such as riots and demonstrations"⁸³ were conceptualized as interest articulation by Anomic Groups. To use their name for such a cluster, Factor 2 reflects the degree of *Anomic violence* among the nation-units. The first factor, on the other hand, displays high loadings on guerrilla warfare, revolutions, governmental crises, and deaths from domestic violence—most of which seem to represent illustrations of aggressive actions defined more by an underlying organization and planning. This dimension, therefore, appears to be referencing an *Organized violence* factor, and will be identified as such. The last index (deaths from domestic group violence), in associating more strongly with Organized violence, indicates that this dimension (at the nation-unit level of analysis) is by far the more violent.

In comparing the results here, to other factor analytic studies of domestic conflict, one has a host of publications from which to choose. Since, however, the data from which the specific matrix of correlation coefficients was derived in Table I, came from the study conducted by Raymond Tanter, it seems more appropriate that the regional results for Latin America be contrasted to those derived from the study of the universe of independent nations for the same time period.

Upon orthogonally rotating his factors for the 1958–60 conflict data, Tanter discovered two dimensions emerged,⁸⁴ the first which he called a "turmoil" dimension, and which consisted of: demonstrations, riots, strikes, governmental crises, and assassinations. Notice that this dimension favorably compares with that extracted for the Latin American data, with the exception that in Latin America assassinations do not load heavily on any of the factors and the additional fact that governmental crises load on the first factor and not the second. The second orthogonally rotated factor which emerged from Tanter's study, clustered such activities as: revolutions, domestic killed, guerrilla war, and purges. Once again, with the exception of the appearance of governmental crises among the first rotated factor extracted for the Latin American data, the comparison between the two is most favorable.

Now that we have a better idea of the strength of the empirical determi-

nation of domestic conflict into two domains of violence—one an Organized component, and the other an Anomic component—can we find any such “validation” among the more subjective literature on typologies? Two analysts have described typologies which correspond quite closely to the factor solution presented in Table II. The first, a general comparative political scientist and long-time student of domestic conflict, Harry Eckstein, sees emerging from these schemes: “. . . a sort of composite typology, distinguishing between relatively unorganized and spontaneous riots by crowds with low capabilities for violence and modest aims, coups d’etat by members of the elite against other members of the elite, full-scale political revolutions to achieve important constitutional changes, social revolutions to achieve large-scale socio-economic as well as constitutional changes, and wars of independence to achieve sovereignty in a previously dependent territory.”⁸⁵ Without doing too much injustice to Eckstein, it seems fair to conclude that he views “internal wars” in two basic parts: (i) a disorganized, spontaneous component, and (ii) a component defined by underlying organization, with longer-term goals in mind, whether these involve insurrections aimed at socio-economic changes within the system or attempts to free oneself from foreign domination. Notice how these two phenomena emerged from the empirically-derived factors, listed in Table II. Demonstrations, riots, and strikes (in that order) define the spontaneous component. All of these appear to be, in Eckstein’s terms, measuring unorganized instabilities with low capacity for violence and with modest aims. Factor I, on the other hand, represents the empirical counterpart to Eckstein’s second basic component. At this juncture, note how the variable weightings (see footnote 91)—established on the basis of the factor solution presented in Table II—emphasize the planned nature of this continuum: guerrilla wars = .65, governmental crises = .57, revolutions = .31, and domestic killed (the variable with the least theoretical ties to planned violence) only receives an empirical weighting of .0008.

The second analyst, a political scientist and long-time student of Latin American political processes, Kalman Silvert, in discussing types of revolutions and their incidence, notes two “families” of violence. The first was categorized by: the simple and the complicated barracks revolt, the peasant revolt, the regional revolt, the civilian political revolt, and the social revolution. All appear to be phenomena defined by an underlying organization.⁸⁶ Within Silvert’s second “family” of violence (isolated under the heading of “unstructured violence”) were: the street riots or *manifestaciones* (which Silvert sees more as anti-government demonstrations⁸⁷) and *Bogotazos* (which in terms of the variables used in the present analysis, would find their counterpart in the category of riots). By further denoting these occurrences to be “undirected”—a kind of “social vomiting,” as he puts it—Silvert’s classification very closely

approximates the empirical resolution of the conflict domain which emerges as Factor 2 in Table II.

In addition to the substantive discovery of the two basic dimensions of conflict in Latin America, the factors themselves may be used as criteria for the construction of indices of Organized and Anomic violence. The factor solution, therefore, goes beyond just providing an empirical assessment of the clusterings of original indices on basic underlying variables. Through factor loadings, it allows the analyst to "weight" each of the variables composing the index. The indices of Organized and Anomic conflict, therefore, can be weighted according to their loadings, or correlations, with the Organized violence factor, and then with the Anomic violence factor. In this manner, the resulting indices are in effect weighted according to the strength of their intercorrelations with the other indices, rather than arbitrarily. And since the new indices are based on orthogonal factors, they too remain independent.⁸⁸

Four of the original nine indicators of domestic conflict behavior were used to form an index of the first, or Organized violence, factor. Although the variable "the number of purges," came out on this dimension, the decision was made to exclude it from the index on the basis that such occurrences represent more a governmental activity—often, for example, a governmental response to aggressive activity on the part of the populace—and therefore, should not appear among variables ultimately destined for the dependent side of the model.⁸⁹ From the preceding review of the literature, then, it is not an unwarranted assumption that guerrilla warfare, governmental crises, revolutions, and people killed in domestic group violence, are best measuring in combination Organized violence. And likewise, that strikes, riots, and demonstrations are measuring Anomic violence best in combination. In discussing the construction of indices of this type, Hagood and Price noted that it has been demonstrated that if we wish to use these items to form an index of each factor, we should weight the items (in standard score form) in proportion to their correlations with each factor.⁹⁰ The items, then, most highly correlated with Organized violence should receive the higher weights on this index, and those more highly correlated with Anomic violence should receive the higher weights on this index. With these criteria in mind, a formula for computation of the two basic indices to be used in this study was followed, and is footnoted below. It appears first in basic form, using the Anomic Violence Index as an example, and then in converted form for both the Organized as well as the Anomic Violence Index.⁹¹

Indices were calculated for the 20 Latin American republics for the three time periods for which data were available: 1955–57 (3 years),⁹² 1958–60 (3 years),⁹³ and 1962–64 (2 years).⁹⁴ Since these indices, as computed, did not allow comparisons across the three time periods (the last period resulting

from a coding of conflict only for a two-year period), and since the value for any one country on any index told nothing about its position in relation to the other Latin American republics, the indices were standardized. These standard, or z-scores, appear in Table III, below.

TABLE III
Z-Scores of Organized and Anomic Violence Across Three Time Periods

	1955-57		1958-60		1962-64	
	Organized	Anomic	Organized	Anomic	Organized	Anomic
Argentina	+3.832	+2.664	+ .934	+1.455	+1.585	+ .212
Bolivia	- .167	- .472	+ .542	- .405	- .119	+ .309
Brazil	+ .539	- .381	-1.027	- .405	+ .884	+2.713
Chile	- .021	- .218	- .919	- .538	- .711	+ .021
Colombia	+ .140	+ .582	+ .251	- .672	+2.192	+1.236
Costa Rica	- .113	- .716	- .886	-1.072	- .998	- .874
Cuba	+ .708	+2.559	+2.994	+ .731	+2.046	- .139
Dominican Republic	- .685	- .716	+ .320	- .525	- .034	+1.745
Ecuador	- .500	- .333	- .904	+ .262	- .197	+1.171
El Salvador	- .685	- .716	- .784	- .605	- .998	- .874
Guatemala	+ .357	+ .705	- .122	+ .022	- .404	- .874
Haiti	+ .741	+1.065	+ .419	- .378	+ .453	- .874
Honduras	- .115	- .520	- .053	- .912	- .328	- .874
Mexico	- .672	- .569	-1.158	+2.533	- .990	- .139
Nicaragua	- .685	- .528	+ .482	- .725	- .996	- .683
Panama	- .685	- .618	- .477	+ .277	- .998	- .683
Paraguay	- .128	- .667	+ .457	+ .170	- .415	- .874
Peru	- .501	- .308	- .292	- .525	+ .629	+ .468
Uruguay	- .685	- .716	-1.167	- .965	- .998	- .874
Venezuela	- .675	- .096	+1.391	+2.278	+ .395	- .109

Both the Organized and Anomic violence indices appear to be accurate reflections of historical developments, which can be briefly illustrated by the 1958-60 data. The rather high *negative* z-score of $-.525$ for the Dominican Republic, for example, seems to correspond to theoretical notions which point to the tight association between a central decision-maker's total control, and the occurrence of Anomic violence. Through one of the grandest schemes of kinship and elite patronage, Trujillo managed to sustain his reign over his half of Hispaniola for thirty years, the second longest dictatorship in the history of the Americas since independence. Terry Rambo notes, for example, that "an understanding of the magnitude of official terrorism under Trujillo is necessary to the understanding of the political apathy [what the Anomic Violence Index would be picking up as a lack of strikes, demonstrations, or riots] exhibited

by most Dominicans.”⁹⁵ In short, for this period we would expect (as the Index reflects) very little in the way of anomic breakthroughs; while quite the contrary might be predicted with the demise of such a system, as is reflected by the Index of the following time period (Trujillo was assassinated in 1961), which jumps to +1.745.

Certainly in terms of the country whose z-score remains close to that for the Dominican Republic, and which can likewise be “explained” in terms of high penalties for the expression of Anomic-type acts, would be Haiti. Under Duvalier (1957 to the present), Haiti began to take on similar totalitarian qualities (1958–60 Anomic Violence Index: $-.378$), until today it is as much of a totalitarian state as the underdeveloped technology at Duvalier’s disposal makes possible (Anomic Index: $-.874$).

Bolivia, although sustaining low instances of Anomic violence (with a z-score value of $-.405$), probably did so during the 1958–60 time period for entirely different reasons than did Haiti or the Dominican Republic. The years following the National Revolution (April, 1952) saw the total incorporation of the Indians into full citizenship status, granting them the vote, land, and arms. The major tin mines were nationalized. Land was redistributed on a grand scale, which has since prompted observers to note that “whatever the economic results of agrarian reform, its political impact has been highly significant. It has been largely responsible for the fact that the Indians have been overwhelmingly in favor of the Revolutionary regime, and upon various occasions when it has been threatened have rallied to its defense. The result has been that Bolivia since 1952 has enjoyed the most stable government in a very long time, one of the most stable in the hemisphere.”⁹⁶ Things, of course, changed considerably since Alexander commented in this way, and the Anomic Violence Index, once again, clearly reflects the shift. Anomic Violence Indices for Bolivia during the 1955–57 time period are low ($-.472$), as they are during the 1958–60 time period ($-.405$), but take a .714 shift toward the direction of increased Anomic violence (to $+.309$) during the 1962–64 time period. In December 1964, following a series of strikes, demonstrations, and riots, Víctor Paz Estenssoro was overthrown and a military government under the direction of Air Force General René Barrientos was established. The Index reflects these qualitative changes.

Just as fear of punishment inhibits aggressive actions (Dominican Republic, Haiti), then, so also can relative systemic satisfactions. System access (as illustrated by Bolivia) may very well be a negative correlate of anomic breakthroughs. Such a mechanism points to a rather nice “explanation” for the high negative scores, and therefore the low level of Anomic violence taking place in either Costa Rica or Uruguay, which sit at the extreme ends of the scale. Three of these countries—Uruguay, Costa Rica, and Chile—have been known

to rate low on both Anomic as well as Organized violence, and their negative z-scores for these values across the three time periods (in Table III) validate these conclusions.

III. TESTING THE CAUSAL MODEL

The linkages between the three independent variables and each of the dependent variables of Anomic and Organized violence, will be tested through the use of zero-order correlational analysis. In addition, whenever the strengths of the coefficients warrant it, the scatter plots will be presented, thereby allowing us to identify the exact position of any of the twenty republics in comparison to any of the others. But high correlations between phenomena do not give conclusive evidence about causation. Such evidence is more closely approximated from the results of the systematic application of "cross-lagged panel correlations." This design model is based on the premise that the "effect" should correlate higher with a prior "cause" than with subsequent "cause," *i.e.*, $r_{C_1E_2} > r_{C_2E_1}$.⁹⁷ Campbell, and others, have used this design in an effort to discover causation by noticing the direction of the temporal lag which maximizes the correlation.⁹⁸ The coefficients calculated for a number of different operationalizations of the variable "legitimacy," and presented in Table IV, below, offer empirical evidence of the validity of the direction of the relationship postulated in the earlier theoretical discussion of the model. In illustration, the 1955 Fitzgibbon rating of system "openness" correlates $-.504$ with the occurrence of Organized violence in 1958–60. That is, as the openness (or legitimacy) of the system (in 1955) goes up, instances of Organized violence go down. Ratings of system "openness" in 1960, however, have little or no relationship (.14) to organized violence taking place four to five years earlier. Summarizing these findings according to the causal model, we have: $-.51_{C_1E_2} > .14_{C_2E_1}$.

With reasonable assurance that the correct time sequence had indeed been specified among the variables in the model, each of the explanatory variables were correlated with each of the effect variables. The first of these appears in a scatter plot (Figure II) of the relationship between Satisfaction and Organized violence, where Satisfaction is measured by the Annual Growth of GNP per capita.

The association between satisfaction and Organized violence clearly emerges as both linear and negative ($-.63$) in the scatter plot displayed in Figure II. Satisfaction doesn't, however, appear to yield the same strong inverse relationship when correlated with Anomic violence. Here the coefficient drops to $-.33$. As a check on these findings, a separate correlation was run between another index of satisfaction (the Per Cent of the Central Government's

POLITICAL INSTABILITY IN LATIN AMERICA

TABLE IV

Legitimacy	1955-57 Organized Violence (Z-scored)	1955-57 Anomic Violence (Z-scored)	1958-60 Organized Violence (Z-scored)	1958-60 Anomic Violence (Z-scored)	1962-64 Organized Violence (Z-scored)	1962-64 Anomic Violence (Z-scored)
Change in PRI (1955-1950)	-.245	-.442	-.453	-.219	-.615	-.213
Change in PRI (1960-1955)	.111	.003	.073	-.074	.385	.190
Change in FITZ (1955-1950)			-.714	-.138		
Change in FITZ (1960-1955)	.230	.176				
Fitzgibbon Index (1955)			-.504	-.065		
Fitzgibbon Index (1960)	.114	.004				
LEGITIMACY (1955) ⁹⁹			-.384	-.041		
LEGITIMACY (1960) ¹⁰⁰	.085	-.067				

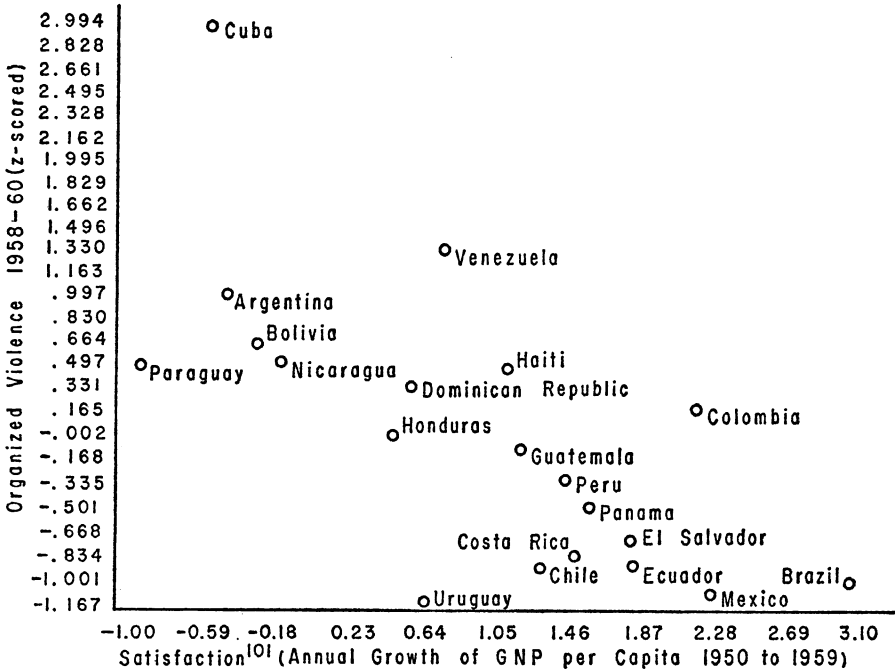
Expenditures on Public Health and Welfare in 1958) and Organized violence, which yielded a negative correlation of $-.51$. Here too, the coefficient between Anomic violence and governmental inputs into public welfare seems to be somewhat lower: $-.30$. From Figure II, note the apparent explanatory power the change concept of increase or decrease in GNP per capita has over its static counterpart. For example, although Argentina was still the country with the third highest GNP per capita in 1957, this seems of little consequence in explaining the high incidence of planned violence during this time period. Over the years, prior to the violence (recorded in Figure II), it seems particularly significant to note that Argentinians were steadily getting smaller shares than they had before, of the total goods and services produced by their economy.

It is of special significance that *both* the Organized and Anomic violence measures do yield negative relationships when correlated with the variable "change in GNP per capita." And, although satisfaction has a stronger impact on Organized than on Anomic violence, violence in general goes down as satisfaction goes up. This finding compares very favorably to Gurr's model (presented in Figure I), through which we predicted that the Latin American polities, falling to the right of the threshold line (that is, beyond the point occupied by the traditional or parochial polities), would yield a linear decrease on instability (Total Magnitude of Civil Violence) as they increased on satisfaction (Income per capita).

The form of the relationship between "force" and "aggressive acts

FIGURE II

Satisfaction and Organized Violence



against government” was specified as curvilinear. Given the continuing problem of “militarism” in Latin America, however, “force” (as measured by “expenditures on defense,” “number of military personnel as a percentage of the population,” and so on) cannot be analyzed in the role of inhibiting aggression, simply because the inhibiting agent itself may, and often does, aggress against the government. In short, no independence can be maintained between the present operationalizations at the nation-unit level. Certainly the military often contributes to “governmental crises” (rapidly-developing situations that threaten to bring the downfall of the regime) as well as to “revolutions” (extra-legal or forced change in the top government elite, or any successful armed rebellion whose aim is independence from the central government). Such contributions are being picked up by the Organized violence dimension (in Table II), and are often witnessed in the form of golpes militares, military coups, cuartelazos, and so on. To be sure, in some cases the opposition, usually being without the necessary tools for toppling a government, goads the military into performing this function. This technique was used by mid-leftist, Belaúnde, who when a three-way tie emerged in the 1962

Peruvian elections (with no one getting the necessary 33% of the vote), called fraud. He demanded a "tribunal of honor" to recount the votes, and if he didn't get it, threatened to overthrow the government. The Army stepped in and annulled the elections. As an indication of the kind of impartial role the Peruvian military plays in these circumstances, just before this they deposed conservative Manuel Prado. The point to be made, therefore, is that no adequate test of the relationship between "force" and "violence" (as generally conceived and when measured at the nation-unit level) can be made. On the other hand, this does not appear to be the case when Anomic violence is being considered. Here the population can be reasonably sure that the military force will most likely be brought to bear on anomic breakthroughs, regardless of their origin. As an illustration, the same military establishment which carried out the two golpes discussed above, is credited by Payne who notes: ". . . when *demonstrations* and *riots* reach excessive proportions, it is the Army which contains and disperses the mobs."¹⁰²

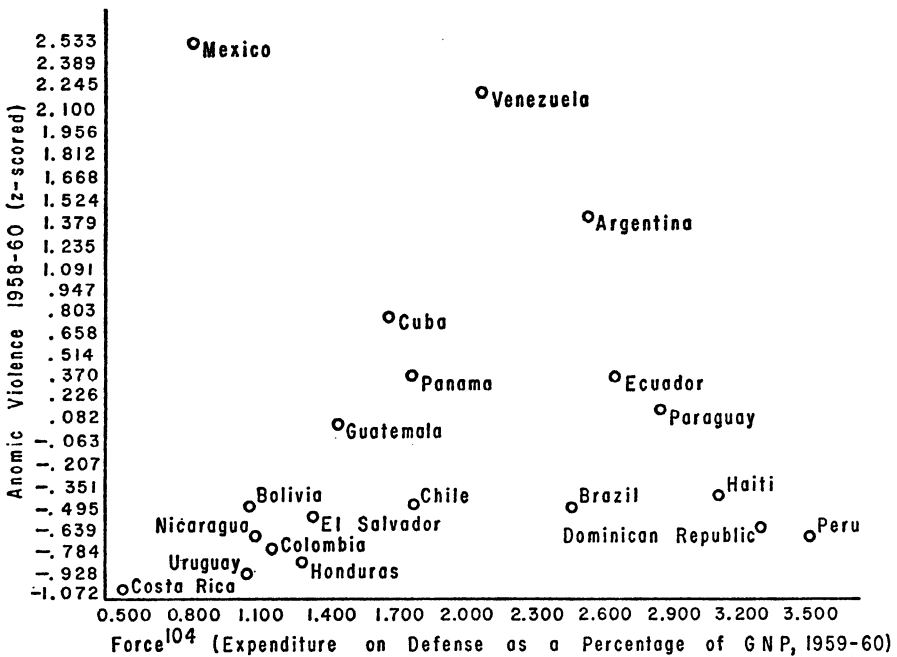
As hypothesized, the scatter diagram displayed as Figure III, below, reveals the rather strong curvilinear relationship which emerges from an association of Force with Anomic Violence. Countries which input high levels of force (and it might be added, most of those on the right side of this continuum consistently do so) are: the Dominican Republic (in this 1958–60 time period, still under the rule of Trujillo), Haiti (under Duvalier), and Paraguay (under Stroessner). These same countries maintained low levels of Anomic violence during the same time period. Peru is not normally thought of as falling within the same category as the nations just mentioned—and to be sure, if any long-term analysis were being displayed, Peru would undoubtedly move toward the middle of the Force continuum. During the years in question, however, it should be recalled that Peru was ruled by a most conservative member of the "Forty-family" elite, General Manuel Prado.¹⁰³

At the other end of the continuum, such countries as Costa Rica, Uruguay, and Chile consistently maintain open systems, and during the years in question, force inputs also continued to be minimal. The Army in Bolivia, following the 1952 National Revolution, was abolished. The period in question in Figure III saw it reorganized, but along very reduced as well as achievement-oriented lines (many Indians, for example, were recruited into its ranks). Although Nicaragua, El Salvador, and Honduras seem to be strange bedfellows for this end of the Force continuum, the "force index" is plotting them accurately in terms of defense expenditures.

It is clear from the plot, that it is the middle-range internal force countries which are the ones experiencing most of the anomic breakthroughs. Mexico, in many respects, is a very explainable deviant case. During the end of the Ruiz Cortines and beginning of the López Mateos administrations, Mexico was

FIGURE III

The Curvilinear Relationship Between Force and Anomic Violence



fraught with demonstrations, strikes, and riots, not at all typical of other periods, which tended to be more negative than not on Anomic violence (see Table III). These data are suggestive of the fact that Mexico (like Costa Rica, Uruguay, and the other "open" systems) does not counter anomic breakthroughs with only force. Venezuela, Argentina, Ecuador, Cuba, Panama, and Guatemala, however, appear to have also sustained high amounts of anomic violence; and, as hypothesized, lie toward the center of the Force continuum. The case of Cuba offers what seems to be the perfectly ambivalent situation:¹⁰⁵ with Batista's efforts at force being countered by guerrilla efforts, the perceptions of force would indeed be anything but clear. To be sure, a more sensitive interpretation of defense figures for this period, would be to assume that defense allocations were more a function of the amount of Organized violence being waged by Castro guerrillas. For the same period, the z-score for Cuba's Organized Violence Index was +2.994 (against the Anomic violence z-score of +.731 presently under consideration).

The most evident manifestations of Anomic violence, of course, are Venezuela and Argentina. As was noted in the earlier discussion of Venezuela's z-

score, the population has tended to remain relatively uninvolved and apathetic (which would appear to account for the middle-range input into defense), and that with the overthrow of Pérez Jiménez in 1958, the ensuing years were particularly volatile. Although Juan Perón was ousted from Argentina in 1955, it seems a reasonable assumption that the Frondizi government (whose position with respect to the Peronistas was at times unclear) internal force capability was not sufficient to contain the anomic breakthroughs which occurred throughout succeeding years.

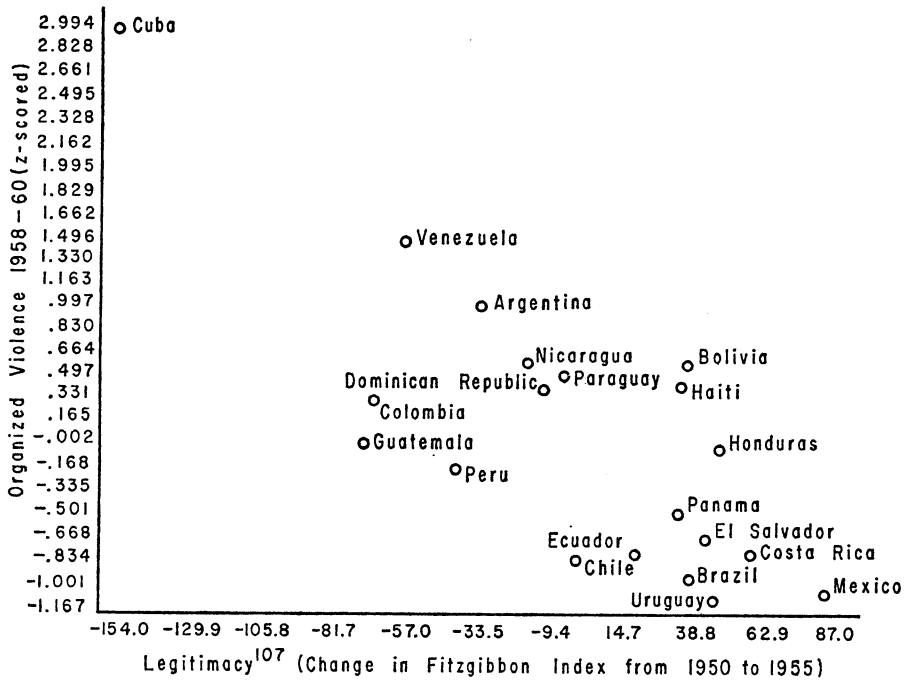
When the same Force data (Expenditure on Defense as a Percentage of GNP) was plotted against Organized violence for the same 1958–60 time period, as hypothesized, no relationship emerged, and the data points distributed themselves randomly about the plot area. Organized violence was, however, hypothesized to be both linear and positive, when related to Force in an inverted time sequence; in other words, when Organized violence was the independent variable. Simply stated, high incidences of planned violence should bring about comparable inputs of force on the part of the government. When the 1958–60 Organized violence data was correlated with a *change*-in-defense measure¹⁰⁶ from 1958 to 1963, the correlation coefficient was $+.416$; the same calculations for Anomic violence yielded a coefficient of $.005$, indicating no relationship.

Political Legitimacy was conceived in both static as well as dynamic terms. Although several measures were selected to represent this concept, the “weighted” Fitzgibbon ratings were used in the scatter plot for Figure IV, above. When a change in Legitimacy (from 1950 to 1955) was correlated with Organized violence taking place in the following three years, the form of the relationship was discovered to be linear, and the strength of the Pearson coefficient was a high, negative $-.71$. The same negative, linear relationship emerged from a cross tabulation of the static Fitzgibbon ratings for the 20 republics in 1955 with the same Organized violence data for 1958–60.¹⁰⁸

While high, negative associations emerged from the relationship between measures of Legitimacy and Organized violence, no such negative associations were discovered among these measures and Anomic Violence. Furthermore, these findings do not seem to be a function of the 1958–60 conflict data represented in the plot in Figure IV. Reference to Table IV will reveal that, with but one exception, all measures of Legitimacy (PRI as well as Fitzgibbon; static as well as dynamic) show little or no association with Anomic violence. The impact of such a finding is obvious. Aggressive activities defined more by an underlying planning and organization (such as guerrilla activities—those most heavily emphasized by the Organized Violence Index¹⁰⁹) appear to be challenging the legitimacy of the political system; whereas no such challenges exist among aggressive activities of an anomic nature (such as demonstrations,

FIGURE IV

The Negative Linear Relationship Between Legitimacy and Organized Violence



strikes, and riots). To be sure, anomic breakthroughs may be more an indication of “political development,” than not. The fact that no strong *negative* associations were found between Legitimacy and Anomic violence seems highly suggestive of Lipset’s remark that. “. . . the existence or a moderate state of conflict [and it would be reasonable to interpret his reference to “conflict” as including such things as demonstrations, strikes, and riots] is an inherent aspect of a legitimate democratic system, and is in fact another way of defining it. . . .”¹¹⁰

The same negative, linear relationship emerged when Organized violence was correlated with the static Fitzgibbon ratings for 1955. In fact, with but few exceptions, the countries which were high on Legitimacy in 1955 (Uruguay, Mexico, Costa Rica, Chile, and Brazil) tended to be the same countries increasing on Legitimacy from 1950 to 1955 (see Figure IV). In both instances, they fell at the negative end of the Organized violence axis. This finding seems to also hold for nations on the low end of the Legitimacy continuum; and it was Cuba, Venezuela, Argentina, Nicaragua, Paraguay, and Guatemala

in 1955 which also made the lowest gains in Legitimacy from 1950 to 1955. These were the countries plagued with the largest amounts of Organized violence during 1958 to 1960. With respect to Cuba, the country experiencing the highest Organized violence, the Legitimacy measure cannot be considered deviant. Ratings for the change measure took place in 1950 and 1955. As has been pointed out, Fidel Castro's revolutionary invasion didn't take place until 1956 (the attack on the Moncada barracks, however, did take place in 1953). In the case of the latter, it should be remembered that it wasn't until after the consummation of the revolution, that this "symbolic" gesture of defiance gained in stature. While one must always be wary of subjectivity in judgmental codings such as those involved in the Fitzgibbon Index, it seems clear that the high rating of "illegitimacy" fell to Batista's last regime (1952–58), rather than to Castro's.

IV. SUMMARY AND CONCLUSIONS

In pointing to the preconditions of political instability, both in Latin America and elsewhere, much of the recent theory and research on domestic conflict appears to have concentrated on three basic independent variables: (i) systemic discontent, (ii) political legitimacy, and (iii) anticipated retribution. (Section I).

But if it is generally agreed that these "causal" variables may lead to the presence or absence of political instability, there is no such agreement on the type of political instability they may bring about. Indeed, since it is quite conceivable that different styles of violent activity may each have its own set of correlates, the decision as to how political instability is conceived and operationalized becomes crucial. In Section II ("Political Instability: Defining the Domain and Systematically Measuring It"), the many individual types of domestic conflict were discussed. Treating each of these various types of political aggression separately, however, places one in the burdensome position of creating classification schemes of impossible proportions. While the Rummel-Tanter data operationally reduced the Latin American conflict domain to a series of basic indices (assassinations, strikes, guerrilla warfare, governmental crises, purges, riots, anti-government demonstrations, revolutions, and the number of people killed in domestic group violence), it still left us essentially with nine dependent variables. The statistical technique of Factor Analysis provided the means for reducing these nine operational indices to a smaller set of conceptual variables. The results of the factor analysis revealed (i) that political instability in Latin America is highly structured in terms of independent clusters of activities, and (ii) reduces to two basic dimensions of conflict behavior, (iii) a non-organized (or disorganized), spontaneous, or Anomic factor (indexed

by such things as riots, strikes, and demonstrations), which is independent of (iv) an Organized factor (indexing, among other things, guerrilla warfare, governmental crises, revolutions, armed rebellions), defined more by an underlying planning and organization.

Factor scores, the value each nation has on each of the two basic conflict dimensions, were computed by taking each country's individual conflict score (in standard score form) and weighting it by the factor loadings participating on each of the conflict dimensions (Table II). Upon standardizing these, six distributions of Anomic and Organized violence scores for the twenty Latin American republics were available across three separate time periods (Table III). By placing each of the three independent or "causal" variables (systemic discontent, political legitimacy, and anticipated retribution) in the proper time sequence, separate tests of their impact on each of the two dependent or "effect" variables (Anomic and Organized violence) were made, and the following general conclusions emerged:

1. Systemic Satisfaction (as measured by *change* in gross national product per capita) is negatively associated with political instability. Both the theoretical orientation and empirical findings discussed in the opening section of the paper suggested that societies past a "traditional-transitional threshold" should experience a decrease in domestic conflict as they experience an increase in wealth. This was decidedly the case with respect to Latin America, and the finding does not appear to be a function of the measures used. When Satisfaction was operationalized differently (*i.e.*, the per cent of the central government's expenditure on public health and welfare), the same negative, linear association emerged. When the dimensions of political instability were controlled for, however, the stronger correlate of discontent was discovered to be Organized violence activity (see Figure II).

2. The form of the relationship between the inhibition of political aggression through the use of force, was specified to be curvilinear. Under this model, the application of both extreme amounts of force (*e.g.*, restrictive systems), as well as little or no force (permissive systems), was predicted to yield similar results—low levels of political instability. Intermediate levels of force, on the other hand, neither sufficient to inhibit political aggression and in many cases acting as an additional frustration, would be accompanied by high levels of political instability. Arguing from the premise that (military) force can almost always be counted on to disperse demonstrations and riots of serious proportions (that is, support of this nature is given, often irrespective of the loyalty of such force to the regime in power), a test of the inhibitive effects of the use of Force (as measured by expenditures on defense as a percent of gross national product) on Anomic violence revealed that the curvilinear model does indeed apply to Latin America (see Figure III).

Correlating the same Force data with Organized violence, on the other hand, yielded no association. Two suggestive interpretations can be offered. The first involves two critical conditions not met by these data: (i) independence between the measures of Force (military expenditures) and the measures of Organized violence (primarily the variable "revolutions," which may involve military coups) cannot be maintained, and (ii) the allegiance of the forces (a condition of their impact as inhibitors of political aggression) has not been measured. The first conclusion, therefore, would be that no reasonable interpretation can be given to the correlation (in this case, lack of correlation) between Force and Organized violence. If it can be assumed that the contamination is negligible and that the punitive forces are generally allegiant, however, the lack of relationship between the extent of Force and Organized violence would lead to conclusions that guerrilla warfare, terrorism, and sabotage (the highest loading variables in the Organized violence factor score formula), as well as armed rebellions, occur and continue irrespective of the extent and quality of governmental force. That is, they may break out just as readily among militarily strong as militarily weak regimes; and they may continue in the face of what would appear to be overwhelmingly adverse inhibiting power. Knowing the Force level, then, doesn't appear to help in explaining the occurrence of Organized violent activity, but it is decidedly a factor in understanding the strength and form of Anomic violence.

3. Political legitimacy was conceived of as the amount of positive affect toward the political system (and the government) held by the populace. It was recognized that (i) feelings of allegiance can and are ascribed to non-competitive (unitary, hierarchically-organized) as well as competitive (polyarchic, participant) structures, (ii) that such feelings are the products of, among other things, "politicization," or socialization over time, and (iii) that while feelings of legitimacy toward a political system can be separated analytically from those feelings developed as a result of the system's ability in satisfying demands, the two are most likely closely interrelated sub-systems of phenomena. It was equally clear, however, that people like political systems (legitimacy) not only because "this is the way it has always been" (traditional legitimacy), and because of gratifications received from the system, but also because they had a hand in making it the way it is. In short, the ability to participate in a system leads directly to the building of positive affect toward it. While this mechanism is not at work in all political systems (there is evidence, for example, to indicate that it may not function at all in semi-authoritarian structures—which may lead to serious reservations about applying it to some of the Latin American nations), Almond and Verba did find that participation led to positive affect in Mexico, Great Britain, and the United States.

On the assumption that systems moving toward higher "democratic attain-

ment” over time would be providing greater opportunities to participate, legitimacy was operationalized as the amount of change from one period to the next measured by the Fitzgibbon Index (see Figure IV). In this, and the many other operationalizations of the concept (see Table IV), legitimacy proved to be the strong negative correlate of Organized violence. In all cases, as political legitimacy decreased Organized violence increased. When the effect of political legitimacy on Anomic violence was tested, however, in every case, the association was proved to be very weak or non-existent. That is, systems that were high on political legitimacy were just as likely to experience Anomic activity as those which were low on political legitimacy. Once again, by referring to the formulas for the computation of the factor scores used to distribute nations on Organized violence, one can see that activities such as guerrilla warfare, terrorism, sabotage, armed rebellion, and so on, break out in far greater proportions at times of low political legitimacy (*e.g.*, when the Fitzgibbon index of “democratic attainment” is negative—lower at t_2 than it was at t_1). In short (if we can dismiss the pitfalls of ecological correlations for the moment), the participants in Organized violent activity seem to be challenging the legitimacy of the political systems involved, while no such connection can be drawn from the roles of participants in Anomic violence.

In summary, then, what can be said of these two styles of political instability in Latin America? Anomic violence finds its strongest correlate (curvilinear) in forces of retribution. When force (punishment) is both very permissive as well as very restrictive, Anomic violence is negligible. Punishment in the mid-levels of intensity (apparently acting as a frustrator) elicits high levels of Anomic violence. Positive effect, or the amount of legitimacy ascribed to a political system, however, cannot be used in any way to determine the occurrence and intensity of riots, strikes, and demonstrations—they break out just as frequently in highly legitimate as poorly legitimate systems. Systemic discontent, on the other hand, is linearly correlated to the outbreak of Anomic violence, but at a much lower level than with Organized violence. When systemic dissatisfaction is measured in terms of negative or positive changes in per capita gross national product, one can more accurately predict the occurrence of (i) guerrilla warfare, governmental crises, and armed rebellions, than (ii) riots and demonstrations. Guerrilla insurrections and armed rebellions, on the other hand, cannot be predicted on the basis of knowing the amount of punishment (force) the government might be able to apply—that is, Organized violent activity that breaks out in Latin America at the system-level, appears to have little or nothing to do with the fear of retribution for such action. It does, however, appear to be strongly related to the open or closed nature of the system, and if systems are slipping into more closed patterns (*i.e.*, losing Fitzgibbon points on “democratic attainment”), the mechanism of participation

feeding positive affect closes off this avenue of legitimacy formations. And, as legitimacy formations decrease, Organized violent activity can be observed to increase in a strong, linear pattern.

NOTES

1. James Geschwender, "Social Structure and the Negro Revolt: An Examination of Some Hypotheses," *Social Forces*, 43 (December 1964), p. 249.
This hypothesis has received some support from Sorokin in his analysis of revolution. See: Pitirim A. Sorokin, *The Sociology of Revolution* (Philadelphia: J. B. Lippincott Company, 1925), p. 367.
2. Lyford P. Edwards, *The Natural History of Revolution* (Chicago: University of Chicago Press, 1927). Italics added.
3. Eric R. Wolf, *Sons of the Shaking Earth* (University of Chicago Press, 1959), pp. 108–109.
4. James C. Davies, "Toward a Theory of Revolution," *American Sociological Review*, 27 (February 1962), p. 6.
5. Cole Blasier, "Studies of Social Revolution: Origins in Mexico, Bolivia, and Cuba," *Latin American Research Review*, 2 (Summer 1967), p. 49.
6. Merle Kling, "Toward a Theory of Power and Political Instability in Latin America," *Western Political Quarterly*, 9 (March 1956), p. 33.
7. Blasier, *op. cit.*, p. 39. Frank Tannenbaum, *Mexico, The Struggle for Peace and Bread* (New York: Alfred A. Knopf, Inc., 1954), p. 136.
8. *Ibid.* Eyler N. Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: The University of North Carolina Press, 1937), p. 43.
9. *Ibid.* Robert J. Alexander, *The Bolivian National Revolution* (New Brunswick, N.J.: Rutgers University Press, 1958), p. 58.
10. Bruce M. Russett, "Inequality and Instability: The Relation of Land Tenure to Politics," *World Politics*, 16 (April 1964), pp. 442–454.
11. The inferential statistics reported by Russett was even more impressive—the significance level, or probability of error (in the findings) being .001. In other words, unless there really was a positive relationship between inequitable land distribution and instability, this high a correlation would not occur, purely by chance, as often as one time in a thousand.
By using multiple regression analysis, Russett was able to simultaneously "control" for a number of contributing conditions. He argued that a more complex hypothesis, but one closely related to Kling's, would be that "extreme inequality of land distribution leads to political instability only in those poor, predominantly agricultural societies where limitation to a small plot of land almost unavoidably condemns one to poverty." The correlation between inequality and instability, controlling for (i) GNP per capita (i.e., in poor nations), (ii) percentage of labor in agriculture (i.e., in poorly industrialized, primarily agrarian societies), and (iii) tenancy (i.e., in societies where farms tended to be rented as opposed to owned), jumped to $+0.71$, a considerable improvement in predictability over the earlier coefficient. The implications of these findings for the present analysis seem to be that inequality (itself undoubtedly giving rise to discontent) obviously is associated with instability. The greater the inequality—that is when inequitable land distribution takes place in poor agrarian-based nations—the greater the discontent, and ultimately the greater the instability.

12. Raymond Tanter and Manus Midlarsky, "A Theory of Revolution," *Journal of Conflict Resolution*, 11 (September 1967), p. 267.
13. Seymour Martin Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," *American Political Science Review*, 53 (March 1959), p. 74.
14. Daniel Lerner, *The Passing of Traditional Society: Modernizing the Middle East* (New York: The Free Press of Glencoe, 1958), p. 50.
15. Phillips Cutright, "National Political Development: Measurement and Analysis," *American Sociological Review*, 28 (April 1963), pp. 253–264. Cutright's variable of "communication" corresponds conceptually and in its operationalization to Lerner's "media participation."
16. Lerner, *op. cit.*, p. 60.
17. Lipset, *op. cit.*, pp. 81, 82, 83.
18. Hayward Alker and Bruce Russett, "Correlations Among Political and Social Indices," in: Russett, *et al. World Handbook of Political and Social Indicators* (New Haven: Yale University Press, 1964), p. 272.

Alker and Russett ran another test, the results of which also bear considerably on the present argument. In an attempt to "explain" deaths from domestic group violence (or, in our terms, political instability), they inputted a number of independent variables into a multiple regression analysis. They used GNP per capita, for example, to correspond with the common hypothesis that, all other things being equal, economic development promotes political stability. They also included the annual rate of change in GNP per capita in the analysis to see which, if either, of two contradictory causal hypotheses might be correct: One being that a rapid rate of growth may serve to channel energies, relieve dissatisfaction and promote stability. The opposite idea is that a rapid growth rate implies a rapid rate of social change, dislocation, and potential instability. Alker and Russett found that both an increase in the *level* of GNP per capita and a rise in its *growth* rate were associated with domestic tranquility; that is, they were negatively associated with violence. In propositional terms: political instability increases as economic development (in static as well as dynamic terms) decreases.
19. Tanter and Midlarsky, *op. cit.*, p. 272.
20. Ted Gurr, with Charles Ruttenberg, *The Conditions of Civil Violence: First Tests of a Causal Model*. Research Monograph No. 28, Center of International Studies, Princeton University, April 1967, p. 62.
21. *Ibid.*, p. 28.
22. Ivo K. and Rosalind L. Feierabend, "Aggressive Behaviors Within Polities, 1948–62: A Cross-National Study," *Journal of Conflict Resolution*, 10 (September 1966), pp. 256–257.

See also: Betty A. Nesvold, *Modernity, Social Frustration, and the Stability of Political Systems: A Cross-National Study*. Master's thesis, San Diego State College, June 1964.
23. Alker and Russett, *op. cit.*, p. 306.
24. Bruce M. Russett, *Trends in World Politics* (New York: The Macmillan Company, 1965), p. 136.
25. Max F. Millikan and Donald L. M. Blackmer (eds.), *The Emerging Nations* (Boston: Little, Brown and Company, 1961), p. 40.
26. *Ibid.*, p. 41.

27. Russett, *Trends in World Politics*, *op. cit.*, p. 137.
28. Gabriel A. Almond and Sidney Verba, *The Civic Culture: Political Attitudes and Democracy in Five Nations* (Princeton: Princeton University Press, 1963), p. 18.
29. Arthur S. Banks and Phillip M. Gregg, "Grouping Political Systems: Q-Factor Analysis of *A Cross-Polity Survey*," *American Behavioral Scientist*, 9 (November 1965), p. 4.
30. Gurr, *op. cit.*, p. 46.
31. Russett, *Trends in World Politics*, *op. cit.*, p. 137.
32. Russett, "Inequality and Instability," *op. cit.*, pp. 450–451.
33. Lawrence Stone, "Theories of Revolution," *World Politics*, 18 (January 1966), p. 173.
34. Davies, *op. cit.*, p. 6.
35. One survey research instrument which appears to be assessing psycho-social dissatisfactions, and which has been applied to four Latin American populations, is the "self-anchoring striving scale" developed by Hadley Cantril and F. P. Kilpatrick. The primary significance of this technique for cross-cultural work, is that it allows the respondent to be measured and evaluated in terms of his own perspective—or as the designers of the instrument say, in terms of his "own unique reality world." If discontent, as we have suggested, is a key variable in "explaining" political instability, then one might measure the amount of discontent as the discrepancy between what one wants (aspirations) and what one gets (gratifications). The scale is "self-anchoring" in the sense that the respondent emotes (in an open-ended fashion) on his own version of the best (which represents the 10th rung of a hypothetical ladder) and worst (which represents the bottom rung) possible life. The respondent, then, anchors himself when he is asked to identify where he falls on such a continuum: (i) at the present time, (ii) approximately 5 years in the past, and (iii) 5 years into the future. By avoiding the problem of structure, and talking in terms of each respondent's own perceptions of reality, one has arrived at a remarkably comparable cross-cultural tool for measuring similar phenomena (namely, frustrations or dissatisfactions) across often divergent research populations.
 For a detailed description of the instrument itself, see: F. P. Kilpatrick and Hadley Cantril, "Self-Anchoring Scaling: A Measure of Individuals' Unique Reality Worlds," *Journal of Individual Psychology*, 16 (November 1960), pp. 158–173.
 For a report on the results of the use of the instrument is over 14 national samples, see Hadley Cantril, *The Pattern of Human Concerns* (New Brunswick, N.J.: Rutgers University Press, 1965), 427 pp.
36. L. P. Kendall and K. M. Wolf, "The Two Purposes of Deviant Case Analysis," in: Paul Lazarsfeld and M. Rosenberg, *The Language of Social Research* (Glencoe: The Free Press, 1955), p. 169.
37. Gross National Product per Capita, U.S. \$, 1957, *World Handbook of Political and Social Indicators*, pp. 155–157.
38. Percentage of Expenditures of the Central Government on Public Health and Welfare, 1958–59, *1960 Statistical Abstract of Latin America* (Latin American Center: University of California, Los Angeles, published: 1956–58, 1961–67), p. 32. *1961 Statistical Abstract*, p. 35.
39. GINI Index of Inequality, *World Handbook of Political and Social Indicators*, pp. 239–240.
40. Lipset, *op. cit.*, pp. 90–91.

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41. *Ibid.*, pp. 86–87.
42. Robert Packenham, "Approaches to the Study of Political Development," *World Politics*, 18 (October 1964), p. 117.
43. David Easton, "An Approach to the Analysis of Political Systems," *World Politics*, 9 (April 1957), pp. 383–400.
44. These outputs, to Easton, constitute specific inducements which may be either positive (a reward) or negative (a punishment).
45. Lewis A. Coser, "Social Conflict and the Theory of Social Change," *British Journal of Sociology*, 8 (September 1957), p. 203.

"Mere frustration," notes Coser, "will not lead to a questioning of the legitimacy of the position of the vested interests, and hence to conflict. Levels of aspiration as well as feelings of deprivation are relative to institutionalized expectation and are established through comparison."
46. S. M. Lipset, "Democracy and the Social System," in: Harry Eckstein (ed.), *Internal War: Problems and Approaches* (New York: The Free Press of Glencoe, 1964), p. 302.
47. Gabriel Almond and Sidney Verba, *The Civic Culture*, *op. cit.*, p. 246.
48. *Ibid.*, p. 253. There are obviously some qualifications to this conclusion; for one, the relationship doesn't appear to hold for Germany and Italy. Almond and Verba conclude, however, that "in the United States, Britain, and Mexico those who consider themselves competent to participate in governmental decisions are more likely than those who do not feel this way to express pride [positive affect] in the political aspects of their nation." *Ibid.*, p. 247.
49. Cutright, "National Political Development . . .," *op. cit.* The PRI index was also in: "Urbanization and Change in National Political Structures: 1928–1961," paper prepared for the Carnegie IDRC Joint Study Group on Measurement Problems, Indiana University, October 1964.
50. For the most recent publication of the results of these surveys, see: Russell H. Fitzgibbon, "Measuring Democratic Change in Latin America," *The Journal of Politics*, 29 (February 1967), pp. 129–166.

The 15 criteria were: (1) An educational level sufficient to give the political process some substance and vitality. (2) A fairly adequate standard of living. (3) A sense of internal unity and national cohesion. (4) Belief by the people in their individual political dignity and maturity. (5) Absence of foreign domination. (6) Freedom of the press, speech, assembly, radio, etc. (7) Free and competitive elections—honestly counted votes. (8) Freedom of party organization; genuine and effective party opposition in the legislature; legislative scrutiny of the executive branch. (9) An independent judiciary—respect for its decisions. (10) Public awareness of accountability for the collection and expenditure of public funds. (11) Intelligent attitude toward social legislation—the vitality of such legislation as applied. (12) Civilian supremacy over the military. (13) Reasonable freedom of political life from the impact of ecclesiastical controls. (14) Attitude toward and development of technical, scientific and honest governmental administration. (15) Intelligent and sympathetic administration of whatever local self-government prevails.

As Charles Wolf of RAND has observed, "there are many shortcomings in the Fitzgibbon method and data, including the ambiguity and heterogeneity of the criteria, the weights applied to the criteria . . . , and the qualifications and prejudices of the respondents (nearly all of the respondents were from the United States)." See: Wolf, "The Political

Effects of Military Programs: Some Indications from Latin America," *Orbis*, 8 (Winter 1965), pp. 878-879.

Wolf suggests, however, that some of these difficulties could be overcome by independent work with the original data. Among other things, he mentions: (i) the use of only responses to the more distinctly relevant and unambiguous criteria, (ii) the separation of the responses of the more qualified respondents, and (iii) reliability tests, comparing the subjective estimates of the respondents with objective data relating to education, press circulation, the frequency and character of elections, and so on. Fitzgibbon has attempted some of these tests, and the results are reported in the February 1967 issue of the *Journal of Politics*, cited above.

51. Arnold H. Buss, *The Psychology of Aggression* (New York: John Wiley & Sons, 1961), p. 58.
52. Jenifer Walton, *Correlates of Coerciveness and Permissiveness of National Political Systems: A Cross-National Study*, M.A. thesis, Department of Political Science, San Diego State College, June 1965.
53. Robert A. LeVine, "Anti-European Violence in Africa: A Comparative Analysis," *Journal of Conflict Resolution*, 3 (1959), pp. 420-429.
54. The budget for ordinary police forces is usually included in the total military outlay.
55. R. A. Gomez, "Revolution, Violence, Political Morality," in: Gomez, *Government and Politics in Latin America* (New York: Random House, 1963), p. 59.
56. John J. Johnson, *The Military and Society in Latin America* (Stanford: Stanford University Press, 1964), pp. 101-102.
57. James Payne, "Peru: The Politics of Structured Violence," *Journal of Politics*, 27 (May 1965), p. 369.
58. Edwin Lieuwen, "The Changing Role of the Military in Latin America," *Journals of Inter-American Studies*, 3 (October 1961), p. 564.
59. Wyckoff has presented a systematic scheme for analyzing the quality of loyalty. He notes that in states in which the military always intervenes, that the greater the proportion of junior officers to middle and senior officers, the greater the loyalty of the armed forces. In states where the military occasionally intervenes, loyalty is best gauged by the greater proportion of junior plus middle rank officers, as opposed to senior officers. See: Theodore Wyckoff, "The Role of the Military in Latin American Politics," *Western Political Quarterly*, 13 (September 1960), pp. 749-760.
60. John Powell searched the following source for what he considered to be dependable comparative data: Sandberg, Bengt, and others, *Comparative Data on Latin American Countries*, International Bank for Reconstruction and Development (Washington, D.C., January, 1962). See: John D. Powell, "Military Assistance and Militarism in Latin America," *Western Political Quarterly*, 18 (June 1965), pp. 382-392.
61. For a discussion of these measures, see: Bruce M. Russett, "Measures of Military Effort," *American Behavioral Scientist*, 7 (February 1964), pp. 26-29.
62. *World Handbook of Political and Social Indicators*, *op. cit.*, pp. 79-80.
63. Powell, *op. cit.*, p. 384.
64. Kling, *op. cit.*, p. 21.

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65. William Stokes, "Violence as a Power Factor in Latin American Politics," *Western Political Quarterly* (September 1952), p. 445.
66. "If the normal way of life of rotating the executive in a given country is by revolution," continues Silvert, "and if there have been a hundred such changes in a century, then it is not being facetious to remark that revolutions are a sign of stability—that events are marching along as they always have." See: Kalman Silvert, *The Conflict Society: Reaction and Revolution in Latin America* (New Orleans: The Hauser Press, 1961), p. 20.
67. Payne, *op. cit.*, p. 363.
68. George I. Blanksten, "The Politics of Latin America," in: Gabriel Almond and James Coleman (eds.), *The Politics of the Developing Areas* (Princeton: Princeton University Press, 1960), p. 497.
69. Cutright, 1963, *op. cit.*, pp. 260–261. The basis for Cutright's jump from notions of political development to those of instability are not precisely clear. This is especially true, when one realizes that his measure of political development consists of a rating across all countries in terms of the quality of (i) minority party representation within the legislative body, and (ii) nations ruled by chief executives elected in open and competitive election. While such things *may be* the negative correlate of "political instability"—as we have suggested in the section "Psycho-Social Dissatisfaction," which *re-interprets* both the Cutright and Lipset work—such interpretations can only be made after the linkages between "competition for equal power sharing" ("democracy") and political stability or instability are "established," and then only with extreme caution.
70. George I. Blanksten, "Revolutions," in: Harold E. Davis (ed.), *Government and Politics in Latin America* (New York: Ronald Press Company, 1958), p. 119.
71. Stokes, *op. cit.*, p. 445.
72. Kling, *op. cit.*, p. 22.
73. Stokes, *op. cit.*, p. 464.
74. Alberto de Mestas, *El Salvador: País de Lagos y Volcanos* (Madrid: Editorial Cultura Hispánica, 1950).
75. L. L. Thurston, *Multiple Factor Analysis: A Development and Expansion of the Vectors of the Mind* (Chicago: University of Chicago Press, 1960), pp. 55–56. Thurston further notes that "the exploratory nature of factor analysis is often not understood. Factor analysis has its principal usefulness at the border line of science. It is naturally superseded by rational formulations in terms of the science involved. Factor analysis is useful, especially in those domains where basic and fruitful concepts are essentially lacking and where crucial experiments have been difficult to conceive."
76. The underlying assumptions involved in the use of factor analysis are (i) the variables used in the analysis are linear, (ii) the data for each observation are assumed to be of equal importance and are thus given equal weight (in terms of the present study, therefore, the number of demonstrations in the Dominican Republic are considered equally important as those occurring in Argentina), and (iii) the assumption that the data are distributed normally. Since the Pearson Product Moment Correlation Coefficient is used as input into the factor analysis, the data will have to meet the assumptions underlying this statistic (two of which appear above) as well.
77. This property of independence becomes quite useful when delimiting domain of numerous variables into a manageable one with few, uncorrelated, or independent, variables. Inde-

pendence, or orthogonality, between factors will be of prime importance in the analysis section of this paper, when we try to establish the variants of inter-group aggression against government into separate dimensions.

78. That is, the sum of squares (the sum of the squared deviations from the mean) of factor loadings is maximized on each factor.
79. The method also has the advantage of providing a mathematically unique, or least squares, solution for the matrix of correlation coefficients.
80. The nine basic variables used in this part of the analysis were those selected and used in a study of conflict behavior within and between nations, conducted by R. J. Rummel in 1963, and published in the *General Systems Yearbook*, 8 (1963), pp. 1–50. See also: Rummel, *Dimensions of Conflict Behavior Within and Between Nations*, paper prepared in connection with research supported by the National Science Foundation, under Contract G24827. June 1963, 108 pp.
- The Rummel data (gathered for the years 1955–57, for 78 nations) were richly supplemented by Raymond Tanter, when he replicated the Rummel study after gathering similar data for the following three-year period (1958–60) across 83 nations. It is the Tanter data which were factor analyzed, and are presented in Tables I and II.
- See: Raymond Tanter, *Dimensions of Conflict Behavior Within and Between Nations, 1958–60*, monograph prepared in connection with research supported by the National Science Foundation, Contract GS224. See also: *Journal of Conflict Resolution*, 10 (March 1966), pp. 41–64.
81. The computer program which monitored these calculations was MESA 1, a 95×95 Factor Analytic Program with Varimax Rotation. Special thanks are due Northwestern University's Vogelback Computing Center for their generous allowance of computing time.
- The lower limit for eigenvalues (i.e., a proportion of variance which may vary from near zero to n , where n is the number of variables entering a factor matrix) to be included in rotation was 1.00. Rotation is carried out in order to obtain a solution which is not entirely dependent upon each particular variable in the analysis. Orthogonal rotation is the fitting of factors to clusters of variables with the restriction that the correlation between factors is zero. The *varimax* criterion is used to rotate orthogonally to "simple structure," that is, the maximization of high and low loadings. Thus, this form of rotation continues to maintain independence among the factors.
82. One possible way to test this assumption, would be to compute the factor scores for each of the 20 republics on this third dimension. If the assumption is accurate, nations experiencing *low* levels of conflict (e.g., Uruguay and Costa Rica) should come out *high* on such a distribution.
83. Almond and Coleman, *op. cit.*, p. 34.
84. One less dimension, than emerged for similar data gathered over the 1955–57 time period by Rudolph Rummel. For a detailed discussion of these dimensions, and a comparison of them to both the earlier Rummel study, as well as to the basic dimensions extracted from an analysis of conflict data (1946–59) gathered by Eckstein, see: R. J. Rummel, "Dimensions of Conflict Behavior Within Nations, 1946–59," *Journal of Conflict Resolution*, 10 (March 1966), pp. 65–73.
85. Harry Eckstein, "Internal War: The Problem of Anticipation," in: Ithiel de Sola Pool, *et al*, *Social Science Research and National Security: A Report Submitted to the Research Group in Psychology and the Social Sciences* (Washington, D.C.: Smithsonian Institution, 1962), p. 104.

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86. With the possible exception of "peasant revolt," which is generally referred to as *machetismo* (a sporadic outbreak, generally in rural areas, by peasants or peons, primarily involved in agriculture economies), and which is probably measuring violence more of an anomic nature.
87. Of street riots, Silvert says ". . . they usually take place to protest governmental actions, such as a rise in bus fares or the arrest of political or labor leaders. University students are very prone to this kind of violence." See: Silvert, *op. cit.*, pp. 20-23.
88. A common term for indices which take all loadings into account is "factor scores," which represent the country's overall score (in standard score form) weighted by the factor loadings for each of the indices in the analysis. Such scores are automatically computed for both unrotated and rotated factor solutions by Mesal, but were not used here because a more discriminating index was desired. For a description of some formulas for calculating these "factor" or "component" scores, see the following sources: Benjamin Fruchter and Earl Jennings, "Factor Analysis," in: Harold Borko (ed.), *Computer Applications in the Behavioral Sciences* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962), pp. 260-262. Henry Kaiser, "Formulas for Component Scores," *Psychometrika*, 27 (1962), pp. 83-88.
89. Purges, for example, might be one of the component parts of a factor which allows a population to perceive a government as repressive, and therefore, should appear as an intervening variable (perhaps helping "cause" potential aggressors to temper feelings of hostility with notions of possible reprisal for "deviant" behavior).
90. S. S. Wilks, "Weighting Systems for Linear Functions of Correlated Variables When There is No Independent Variable," *Psychometrika*, 3 (March 1938), pp. 24-43. Harold Hotelling, "Analysis of a Complex of Statistical Variables into Principal Components," *Journal of Educational Psychology*, 24, pp. 417-441, 498-520.

91. The computation formulas for both the Organized and Anomic Violence Indices are:

$$\text{Anomic Index} = .508 \left[\frac{X_1 - \bar{X}_1}{s_1} \right] + .827 \left[\frac{X_2 - \bar{X}_2}{s_2} \right] + .865 \left[\frac{X_3 - \bar{X}_3}{s_3} \right]$$

$$\begin{aligned} \text{Anomic Index} \\ \text{Computation Formula} &= \frac{.508}{s_1} X_1 + \frac{.827}{s_2} X_2 + \frac{.865}{s_3} X_3 - \left[\frac{.508}{s_1} \bar{X}_1 + \frac{.827}{s_2} \bar{X}_2 + \frac{.865}{s_3} \bar{X}_3 \right] \\ &= \frac{.761 \text{ (GU-WAR)}}{1.164} + \frac{.829 \text{ (GVTGRS)}}{1.446} + \frac{.606 \text{ (REVOLU)}}{1.905} + \frac{.849 \text{ (D-KILL)}}{995.901} - \\ &\quad \left[\frac{.761}{1.164} (1.250) + \frac{.829}{1.446} (1.750) + \frac{.606}{1.905} (2.050) + \frac{.849}{995.901} (311.400) \right] \end{aligned}$$

$$\text{Organized Violence} = \frac{\text{GU-WAR}}{.6537 X_1} + \frac{\text{GVTGRS}}{.5733 X_2} + \frac{\text{REVOLU}}{.3181 X_3} + \frac{\text{D-KILL}}{.0008 X_4} - 2.7216$$

$$\begin{aligned} &\frac{.508 \text{ (STRIKE)}}{2.762} + \frac{.827 \text{ (RIOTS)}}{6.018} + \frac{.865 \text{ (DEMONS)}}{1.638} - \left[\frac{.508}{2.762} (1.450) + \frac{.827}{6.018} (5.700) + \right. \\ &\quad \left. \frac{.865}{1.638} (1.500) \right] \end{aligned}$$

$$\text{Anomic Violence} = \frac{\text{STRIKE}}{.1839 Y_1} + \frac{\text{RIOTS}}{.1374 Y_2} + \frac{\text{DEMONS}}{.5280 Y_3} - 1.8419$$

92. Rummel, *Dimensions of Conflict Behavior . . .*, 1963, *op. cit.*, Appendix II: Raw and Transformed Data, pp. 77-80.

93. Tanter, *Dimensions of Conflict Behavior . . .*, 1964, *op. cit.*, Appendix II: Raw Data and List of Nations, pp. 71–74.
94. Rummel, "A Field Theory of Social Action . . .," *op. cit.*, Appendix II: Data Tables and Definitions," pp. iii–viii.
95. A. Terry Rambo, "The Dominican Republic," in: Martin C. Needler (ed.), *Political Systems of Latin America* (New York: D. Van Nostrand Company, Inc., 1964), p. 175.
96. Robert J. Alexander, "Bolivia: The National Revolution," in Needler, *op. cit.*, p. 329.
97. See: Donald T. Campbell and Julian C. Stanley, "Experimental and Quasi-Experimental Designs for Research on Teaching," in: N. L. Gage, *Handbook of Research on Teaching* (New York: Rand McNally & Company, 1963), p. 239.
98. Donald T. Campbell, "From description to Experimentation: Interpreting Trends as Quasi-Experiments," in: C. W. Harris (ed.), *Problems in Measuring Change* (Madison: University of Wisconsin Press, 1963), pp. 212–242.
- The *panel* correlation, originally designed for use with survey research data, where the same respondent was interviewed at more than one point in time, seems directly applicable here, where data for the same nation is analyzed, also at more than one point in time.
99. 1950 + 1955 Fitzgibbon ratings.
100. 1960 + 1965 Fitzgibbon ratings.
- Note: Although coefficients were available for all of the data points within the matrix (as, for example, those appearing in all the cells of the first variable, "Change in PRI"), correlations only appear which test the causal model: $r_{0_1E_2} > r_{0_2E_1}$
101. Satisfaction: "Annual Growth of G.N.P. per Capita," data for 13 of the Latin American republics from the *World Handbook of Political and Social Indicators*, pp. 160–161; data for the remaining (including the corrected calculation for Venezuela) were computed from GNP per capita statistics from the following sources: 1952 GNP per capita: Harold Davis, *Government and Politics in Latin America*, p. 64 (most of these figures came from the 1955 *Statistical Abstract of Latin America*). 1957(58) GNP per capita: figures here came from two sources: *The World Handbook of Political and Social Indicators*, pp. 155–157, and the 1960 *Statistical Abstract of Latin America*, p. 30; the difference between the 1952 and 1957(58) figures was taken, and divided by the number of years involved, to obtain the annual growth figure.
- Pearson Product Moment Correlation = $-.63$.
102. Payne, *op. cit.*, p. 369. Italics added.
103. The high value of 3.5% of GNP allocated to defense expenditures during 1959–60, does not appear to be a data-quality error. When checked against similar data gathered by Bruce Russett for the 1959 period, the Peruvian statistics is placed at 3.0%.
104. Force: data directly from John D. Powell, "Military Assistance and Militarism in Latin America," *Western Political Quarterly*, 18 (June 1965), p. 384. Supplemental data for Uruguay and Cuba taken from: Bruce M. Russett, "Measures of Military Effort," *American Behavioral Scientist*, 7 (February 1964), pp. 26, 28.
- Data presented in raw form; when Y variable transformed to \log_{10} , the curve is smoother and more accentuated; kept in raw score form, here, for comparative purposes.
105. It should be recalled that it was ambivalence, in terms of a permissive and then a coercive colonial policy, which LeVine postulated gave rise to anti-European conflict in Africa.

106. The resulting coefficient, while in the same direction as hypothesized, can only be considered a suggestive test of the relationship. For various reasons, it was felt that the strength of the coefficient would be considerably boosted with more sensitive data. For example, if the change-in-defense data were available between 1960 to 1963, the period immediately following the 1958–60 Organized violence data.
- Data for the calculation of the change measure was gathered from the following sources: "1958–59 per cent of central government expenditure on defense," 1960 *Statistical Abstract of Latin America*, p. 32; 1961 *Statistical Abstract of Latin America*, p. 35. "1962–63 per cent of central government expenditure on defense," 1962 *Statistical Abstract of Latin America*, p. 66; 1963 *Statistical Abstract*, p. 76; 1964 *Statistical Abstract*, p. 104.
107. Legitimacy: Change scores calculated from data published by Russell Fitzgibbon and Kenneth Johnson, "Measurement of Latin American Political Change," *American Political Science Review*, 55 (September 1961), p. 518.
- Data presented in raw form; when Y variable is transformed to \log_{10} , the negative correlation coefficient of $-.71$ (for the relationship in Figure III) is strengthened.
108. The \log_{10} transformation was used, which increased the $-.50$ relationship found among the raw data to $-.67$.
109. It will be recalled that the Organized Violence Index, constructed on the basis of the empirical evidence from the factor analysis of conflict activity, weights guerrilla activities .65, governmental crisis .57, and revolutions .31. It is not surprising, therefore, that Cuba and Venezuela, which have experienced considerable guerrilla-type activity during the period 1958–60, should come out highest on Organized violence in the scatter plot in Figures II and IV.
110. Lipset, "Some Social Requisites of Democracy . . .," *op. cit.*, p. 92.

This article was sent for critical commentary to 10 scholars in the fields of political science, sociology, and anthropology. Replies received in time to go to press are included on the following pages in the order in which they arrived. The author's rebuttal will be printed in the forthcoming issue of the *Review*.