Swarthmore College

Works

Political Science Faculty Works

Political Science

Aggregate Data And Study Of Political Development

Raymond F. Hopkins
Swarthmore College, rhopkin1@swarthmore.edu

Follow this and additional works at: https://works.swarthmore.edu/fac-poli-sci

Part of the Political Science Commons

Let us know how access to these works benefits you

AGGREGATE DATA AND THE STUDY
OF POLITICAL DEVELOPMENT*

RAYMOND F. HOPKINS

Swarthmore College

I N THE LAST DECADE, the rapid emergence of new less devel-
oped states has precipitated interest among political scientists in
problems of "political development." Going beyond mere historical
accounts of the emergence of new governing institutions, various
scholars have attempted to spell out the basic processes involved
in political change and the creation of government.[1] Largely ignor-
ing traditional indicators such as constitutions, scholars have recent-
ly suggested variables such as capacity for responsiveness, division
of political tasks, participation in decision-making and provision
of welfare as key indicators of political growth and the formation
of healthy and viable polities. A few researchers, influenced by
these new formulations, have collected cross-national data on traits
which seem related to political development. Their efforts have
been aimed at refining, specifying, or testing relationships among
suggested indicators and causal variables. Although an important
focus of all types of studies has been on new dimensions of
political development, it is not clear to what extent their ideas
about political development are valid, useful, or in agreement.

My purpose in this paper is to compare the results of some
recent theorizing about political development with efforts to collect
data on the subject. A basic problem in advancing our understand-

[1]See for example, the difference between a purely historical account of
political development as in J. Clagett Taylor, *The Political Development of
Tanganyika* (Stanford: Stanford University Press, 1963), and attempts to
understand the processes and problems of development, as in David E. Apter,
Ghana in Transition (New York: Atheneum, 1963), Gabriel A. Almond and
James S. Coleman, *The Politics of Developing Areas* (Princeton: Princeton
University Press, 1960), and Lucian W. Pye, *Politics, Personality and Nation
Building* (New Haven: Yale University Press, 1962).

ing of politics is the gap between theory and empirical evidence. I
hope to contribute to the closing of this gap by suggesting some
inadequacies in both recent theory and data collections relevant to
political development. My discussion of neither subject is exhaus-
tive, but by analyzing comparatively both theory and data, I hope
some of the problems in the current literature will be highlighted.

I began my analysis by selecting four major data studies:
The Cross-Polity Survey by Arthur S. Banks and Robert B. Tex-
tor; *World Handbook of Political and Social Indicators* by the
Yale Political Data Program (Bruce M. Russett, Hayward R. Al-
ker, Jr., Karl W. Deutsch, and Harold D. Lasswell); the *Dimen-
sionality of Nations Project* by Rudolph J. Rummel, and studies
of political development by Phillips Cutright.[2] Variables with ex-
plicitly political denotations were selected from these studies for
analysis. These data were then subjected to a series of statistical
refinements and a factor analysis was performed on the resulting
data. Schemata from three sources were then selected for exam-
ination: Gabriel Almond, the Comparative Politics Committee of
the SSRC, and Samuel Huntington.[3]

[2]See Arthur S. Banks and Robert B. Textor, *The Cross-Polity Survey*
(Cambridge: MIT Press, 1963), hereafter referred to as B & T; Bruce M.
Russett, Hayward R. Alker, Jr., *et al.*, *World Handbook of Political and Social
Indicators* (New Haven: Yale University Press, 1964), hereafter referred to as
YPDP, for the Yale Political Data Program; Rudolph J. Rummel, Harold
Guetzkow, Jack Sawyer, and Raymond Tanter, *Dimensionality of Nations*
(forthcoming), hereafter referred to as DON; and Phillips Cutright, "National
Political Development: Measurement and Analysis," *American Sociological
Review* (April, 1963), pp. 253-264, and Phillips Cutright, "Political Structure,
Economic Development, and National Social Security Programs," *American
Journal of Sociology* (March, 1965), pp. 537-550, hereafter referred to as Cut-
right.

[3]See Gabriel A. Almond, "Political Systems and Political Change," *Ameri-
can Behavioral Scientist,* June, 1963; Gabriel A. Almond, "A Developmental
Approach to Political Systems," *World Politics,* January, 1965; and Gabriel
A. Almond and G. Bingham Powell, Jr., *Comparative Politics: A Developmental
Approach* (Boston: Little, Brown and Co., 1966). The Social Science Research
Committee's Comparative Politics Committee ideas are summarized in Lucian
W. Pye, *Aspects of Political Development* (Boston: Little, Brown and Co.,
1966), pp. 45-48 and 62-65. The themes of political development which Pye
notes reflect, according to him, "the work of several members of the Com-
parative Politics Committee of the Social Science Research Council, including
in particular, Leonard Binder, James S. Coleman, Joseph LaPalombara and
Myron Weiner." These themes run sporadically through the earlier volumes
in the Studies in Political Development series. This series, published by Prince-
ton University Press, includes the following six volumes: 1.*Communications*

Before discussing the results of the factor analysis, I shall briefly review the analytical views on political development proposed by these authors. This review will then form a basis upon which to compare and contrast these theoretical dimensions of development with the results of the factor analysis.

I

Gabriel Almond asserts that all political systems may be compared at three levels of functional analysis. These are: capabilities, conversion functions, and system maintenance and adaptive functions. Each of these levels can subsequently be broken into several distinct categories or aspects. He suggests, for example, that capabilities analysis can be broken into five functional types: regulative, extractive, distributive, symbolic, and responsive.[4] This complex framework, however, only serves to embrace, and perhaps confuse but not to describe the basic dimensions of development. In his book with Powell, Almond concludes that political functions at all levels can be measured according to three criteria of development; these are *autonomy, differentiation,* and *secularization.*[5] Autonomy is linked to pluralism which is linked to democracy in Almond's schema. The notion put forth is that "subsystem autonomy" is a characteristic of development, and hence in societies where political, economic or religious subsystems are capable of dominating

---

and Political Development, edited by Lucian W. Pye, 1963; 2. *Bureaucracy and Political Development,* edited by Joseph LaPalombara, 1963; 3. *Political Modernization in Japan and Turkey,* edited by Robert E. Ward and Dankwart A. Rustow, 1964; 4. *Education and Political Development,* edited by James S. Coleman, 1965; 5. *Political Culture and Political Development,* edited by Lucian W. Pye and Sidney Verba, 1965; 6. *Political Parties and Political Development,* edited by Joseph LaPalombara and Myron Weiner, 1966. The third theoretical discussion selected for review is Samuel P. Huntington, "Political Development and Political Decay," *World Politics* (April, 1965), pp. 386-430.

[4]Similarly, conversion functions fall into six categories: 1) interest articulation, 2) interest aggregation, 3) rule making, 4) rule application, 5) rule adjudication, and 6) communication. System maintenance and adaptive functions involve two functional processes: socialization and recruitment.

[5]In their words, "classification of political systems is a developmental one in which the variables of structural differentiation, autonomy and secularization are related to other aspects of the functioning of particular classes of political systems—their conversion characteristics, capabilities, and system maintenance patterns," Almond and Powell, *op. cit.,* p. 300.

all social life, as for example occurs in totalitarian societies, development is retarded. Differentiation, Almond's second dimension of development, refers to the specialization of role functions. In more developed political systems, different roles, such as sheriff, judge, and tax collector, replace the single role, such as headman or chief, in performing such basic functions as apprehending criminals, meting out justice, and raising revenues. The third criterion of development, secularization, is an index based on the instrumentalism or rationality of the political culture. Secular goals and ends-means calculations increasingly predominate in the reflections of policy makers. The development of bureaucracies with an accompanying increase in record keeping, codification of laws, and formal procedures for evaluation of policies are indicators of the spread of rational choice, calculation, and control. Almond's functionalist approach, therefore, has identified three dimensions of political development: autonomy (pluralism), differentiation (role specialization), and secularization (bureaucratization), which are distinct if not uncorrelated measures.[6]

A second list of dimensions of development has been drawn up by the Social Science Research Council's Comparative Politics Committee and is summarized by Lucian Pye.[7] The dimensions they suggest are: first, *equality,* which includes widespread participation and suffrage, equality and universality of law, and political role recruitment based on achievement; second, *capacity,* which includes wider scope of political performance, effectiveness in executing public policy, rational administration and secular policy orientation; and third, *differentiation,* which occurs when political offices and agencies have distinct and limited functions, roles are assigned to specific functions, and complex structures and parts of the political system are integrated. There are obvious similarities with Almond's typology. To begin with, differentiation is suggested by both as a dimension of development. Capacity (SSRC), a broader rubric than secularization, subsumes Almond's secularization criteria along with the notion of scope or magnitude

[6]Almond and Powell apparently believe that differentiation and secularization are highly correlated, as indicated by their combination of them into a single scale for categorization of some country examples. *Op. cit.,* p. 308. The parenthetical descriptions of each of the dimensions above are suggested as possible synonyms for Almond's terms.

[7]Pye, *Aspects,* pp. 45-48.

of political performance. Finally, the SSRC dimension of equality generally parallels Almond's autonomy, but measures individual rather than system differences. While both these remaining dimensions seem to have liberal democracy as their touchstone, the SSRC committee emphasizes the sharing of power through broader participation, widespread suffrage, and the elimination of privilege, while Almond stresses the independence of societal subsystems (the traditionally "liberal" value).

Samuel Huntington begins his discussion of political development with the argument that a distinction should be made between modernization and political development. The latter, he suggests, is often falsely equated with the introduction of modern technology and social processes, for example, mass communications and urbanization. Huntington classifies under four categories—rationalization, national integration, democratization, and mobilization—those characteristics often erroneously associated with development. Huntington argues that political development should be conceived of as a process independent of modernization, and defines it as "institutionalization of political organization and procedures."[8] While admitting that the strength of political organizations and procedures depends upon both a) their "scope of support" *and* b) their "level of institutionalization," Huntington discusses only the level of institutionalization as the core of political development. He thus ignores the development characteristics suggested by "scope of support," an omission which I will mention again later. He views institutionalization as movement along four continua: 1) *adaptability-rigidity*, 2) *complexity-simplicity*, 3) *autonomy-subordination*, and 4) *coherence-disunity*.[9]

There are two obvious similarities and one contrast in this list of four criteria compared with the two earlier lists. Both the continua of complexity-simplicity and autonomy-subordination are related to differentiation. Complexity, for example, requires "differentiation of separate types of organizational subunits" and autonomy relates to "the extent to which political organizations and procedures exist independently of other social groupings." Moreover, Huntington notes the interrelation of these two continua or dimensions: "the complexity of a political system contributes to its autonomy

[8]Huntington, *op. cit.*, p. 393.
[9]*Ibid.*, pp. 394–401.

by providing a variety of organizations and positions in which individuals are prepared for the highest offices."[10] Huntington's coherence dimension is related to the SSRC's aspect of differentiation consisting of the integration of complex structures. In contrast to these similarities, Almond and Huntington use "autonomy" with nearly opposite emphases. Almond sees greater development in societies which are not dominated by a political system, but have subsystems independent and autonomous of political control, thus capable of articulating their independent interests. Huntington, on the other hand, is concerned that the political subsystem should have greater strength, and thus be autonomous or free from the influence and control of military, economic, or international interests. Both argue for equal rather than dominant influence for the "political" sphere of a society, but they reach this agreement from opposite concerns.

Huntington, as I noted, passes over quickly, apparently excluding as a development criterion, the scope of political support, which he describes as the extent to which a "a large segment of the population is politically organized."[11] Almond, likewise, does not suggest scope, magnitude, or degree of participation as a criterion for development. However, his notion of state-building, discussed elsewhere, is related to these concepts.[12] In contrast, the SSRC Committee includes this quality under two of their three dimensions, first as participation under the equality dimension, and second, as scope of political performance under capacity.

The differences among the authors largely reflect their varying concerns. Huntington, for instance, is clearly anxious about stability. The result is that he analyzes characteristics which he believes are associated with political institutions (such as parties, bureaucracies, legislatures, and courts) that are free from coups, internal violence, and other conflicts associated with disorder, disintegration, and decay. Almond and the SSRC Committee, despite some differences we have noted, have similar teleologies. The Weber-Parsons vision of modernization (pattern variables) and various ingredients of the democratic model inform both their lists of

[10]*Ibid.*, p. 402.
[11]Huntington, *op. cit.*, p. 394.
[12]Almond and Powell, *op. cit.*, pp. 35-36.

development dimensions.[13] Criteria stressing achievement, specialization, secularization, rationality and universality of the law, clearly the influence of Weber and Parsons, are encapsulated by their dimensions of differentiation, secularization, and capacity. Almond's inclusion of autonomy or pluralism and the SSRC's elaboration of equality are clear evidence, I believe, of efforts to include at least some facet of democratic processes in lists of development criteria. Thus the goals of stability, and alternatively, of democracy and rationality, are the valued outcomes of development which shape the alternative measures of development proposed by these authors.

Certainly the exhaustiveness and, perhaps also, the consistency and mutual exclusiveness of the categories in each of these three typologies might be questioned. Moreover the concepts employed may embrace more than one empirically distinct phenomenon or it may be that two dimensions from one list are so highly correlated in the real world as to make their operational distinction misleading. In the face of such an increasing number of new and different terms, concepts and typologies, social scientists are wise to weigh carefully the usefulness of each new product of theory construction. The purpose of this summary, however, has not been to dissect or criticize these three lists of development criteria exhaustively.[14] My purpose is rather to see how well or conveniently political variables commonly associated with development cluster or group themselves in some fashion or pattern resembling dimensions proposed by these prominent theorists.

The procedure in the construction of development criteria employed by the theorists is to try intuitively to isolate and aggregate salient differences from a comparative analysis of political systems

[13]See Max Weber, *The Theory of Social and Economic Organization,* edited by Talcott Parsons (New York: The Free Press, 1964), pp. 56-77, 115ff; Talcott Parsons and Edward A. Shils, editors, *Toward a General Theory of Action* (Cambridge: Harvard University Press, 1951) and Talcott Parsons, *The Social System* (New York: The Free Press, 1951).

[14]Other lists might have been selected for review; for example, a similar list suggested by Joseph LaPalombara, *op. cit.,* pp. 39ff. which includes 1) structural differentiation, 2) magnitude, 3) achievement orientation, and 4) degree of secularization might have been discussed. Or, a very different list, urging the measurement of outputs of a political system could have been included. See, for example, J. Roland Pennock, "Political Development, Political Systems and Political Goods," *World Politics* (April, 1966) pp. 415-434, who suggests indices of 1) security, 2) welfare, 3) justice and 4) liberty.

in order to construct a typology. This enables the plotting of political systems along the typology's traits or dimensions of development. Such an analytical-deductive approach is basic to social science research and those engaged in gathering data have a bootless task without this theoretical direction.[15]

After theorists have conceived approaches, dimensions, and causes of development in this fashion, data oriented researchers informed by these theories have organized a number of relevant measures. But there is still an incomplete step in the circulation of ideas about development. The final step is to generate feedback, to see how well data collectors have been measuring traits similar to those suggested by the most recent theories, and to suggest what changes or new directions in data collection or in theoretical perspectives may be required. The next section of this paper will attempt to promote such a dialogue, employing, in contrast to the theorists, an inductive, data based approach to the construction of political development measures.

II

Factor analysis allows one to identify a set of dimensions underlying those political data which are available for the study of comparative development. The results are useful for evaluating various theories to the extent to which the variables used in the factor analysis are valid and are relevant to political development. The real merit of this technique is as an approach to simplifying, clarifying, and criticizing the present array of data being used by students of political development. Table 1 presents the results of such a factor analysis.[16] It contains the orthogonally

[15]Banks and Textor, op. cit., for instance, draw heavily upon the functional categories proposed by Gabriel Almond and James S. Coleman, op. cit. Russett, et al., op. cit., likewise are influenced by the theoretical considerations of such men as Deutsch, Lerner and Pye. Conflict data, which is of interest to Huntington, see op. cit., p. 402 and 416, is included as a major domain of Rummel's data catalogue.

[16]The calculations were done at the Yale Computer Center using the YCC factor analysis program and the IBM 7094. The principal component technique was selected and orthogonal (varimax) rotation was performed. Since the rotated factor structure was quite similar to the set of unrotated factors, and yet provided clearer indications of the constituent variables of a particular factor, it was selected for presentation. For a discussion of factor analysis see R. J. Rummel, "Understanding Factor Analysis," Journal of Conflict Resolution (December, 1967) pp. 444-480 and Harry Harman, Modern Factor Analysis (Chicago: University of Chicago Press, 1967).

rotated factor loadings on 43 development variables. These numbers, called "loadings," indicate the correlation of each variable with each underlying dimension or factor which is extracted in the analysis.[17] In order to interpret and label the factors, those variables which had "high" loadings, generally .50 or above, as indicated in Table 1, have been examined.

The 43 variables—measured across 85 countries—were selected for several reasons. The initial criterion was that each variable be distinctively political. Thus data on communication flows, economic growth, trade (as in YPDP and DON), and historical and areal variables (in B & T) were excluded. DON variables were selected from the domains of internal politics and domestic conflict and YPDP variables from the section on "government and politics." Criteria for eliminating missing data and non-normal distributions were used to complete the selection of the variables.[18] The eight factors presented in Table 1 account for 73.1 percent of the variance among the variables.[19] The communality (h^2) of all variables is above .50 with the exception of four

[17]The eight factors in Table 1 are presented in the descending order of variance explained (which is somewhat different than the order of the factors before rotation.)

[18]The second criterion for screening variables was missing data. Beginning with 133 countries and territories, the same as in the YPDP *Handbook,* the number of observations was reduced to a final 85, after dropping countries with 20 or more missing variables. Similarly, variables with less than 60 observations were dropped. The third criterion was distribution. DON variables (73 and 75), legitimacy and defense expenditure, were dropped from the analysis because their non-normal distributions could not be normalized. The 85 countries included in the analysis are U.S., U.K., Canada, Ireland, West Germany, France, Belgium, Netherlands, Italy, Switzerland, Austria, Sweden, Denmark, Norway, Finland, Iceland, Portugal, Spain, Greece, Turkey, Yugoslavia, U.S.S.R., Poland, E. Germany, Czechoslovakia, Hungary, Rumania, Bulgaria, Albania, Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Cuba, Dominican Republic, Haiti, Venezuela, Colombia, Ecuador, Brazil, Peru, Bolivia, Paraguay, Uruguay, Argentina, Chile, Israel, Ethiopia, Egypt, Saudi Arabia, Iraq, Syria, Lebanon, Jordan, Tunisia, Iran, Indonesia, Malaya, Pakistan, India, Ceylon, Burma, Thailand, Philippines, Japan, South Korea, Taiwan, China (mainland), Australia, New Zealand, South Africa, Ghana, Madagascar, Afghanistan, South Vietnam, Nepal, Cambodia, Laos, Liberia, Mongolia, Luxembourg.

[19] Factors with eigenvalues greater than 1.0 were rotated. In all, ten factors, accounting for 81.1 percent of the variance, met this test; but only eight of these ten rotated factors seemed worth discussing. The two factors not presented accounted for 4.1 percent and 3.9 percent of the variance and each had one high loading variable. These were number of assassinations and the ratio of government revenue to expenses, respectively.

TABLE 1[20]
ROTATED FACTOR MATRIX OF CROSS-NATIONAL POLITICAL CHARACTERISTICS

VARIABLE	SOURCE	TRANSFORMATION	I	II	III	IV	V	VI	VII	VIII	COMMU-NALITIES
1. Percent population voting	YPDP (24)	None	.03	-.01	.02	-.83	.04	.11	-.15	.05	.74
2. Freedom of the press	B&T (13)	None	-.94	-.04	-.03	.02	-.04	.14	-.02	.09	.92
3. Constitutional regime	B&T (26)	None	-.93	-.06	-.09	.07	.08	.14	-.09	.02	.92
4. Government stability	B&T (27)	None	-.20	-.57	-.36	.48	-.05	-.20	.29	-.05	.85
5. Representativeness of regime	B&T (28)	None	-.93	.03	-.21	.15	.02	.12	-.08	.01	.95
6. Party competition	B&T (29)	None	-.96	.13	.01	-.10	.04	.05	-.10	.08	.97
7. Freedom of group opposition	B&T (30)	None	-.95	.15	.09	-.12	-.00	.04	-.07	.01	.94
8. Political enculturation	B&T (31)	None	-.47	-.25	-.04	.62	-.12	-.02	-.06	-.25	.76
9. Sectionalism	B&T (32)	None	.06	.11	.10	-.06	.03	-.18	-.05	.03	.81
10. Articulation by assoc. groups	B&T (33)	None	-.83	-.09	-.03	.12	.03	-.15	.29	.03	.82
11. Artic. by institutional groups	B&T (34)	None	.82	.11	.17	-.24	.13	.01	-.13	.14	.83
12. Articulation by anomic groups	B&T (36)	None	.63	.29	.15	-.32	.32	.16	-.25	.18	.84
13. Aggregation by executive	B&T (39)	None	-.52	.13	-.01	.39	.05	-.14	-.10	.19	.51
14. Aggregation by legislature	B&T, (40)	None	-.84	-.13	-.05	.05	-.12	-.20	.31	-.11	.94
15. Party system—number	B&T (41)	None	.80	-.27	-.21	.20	.09	-.06	-.13	.11	.83
16. Stability of party system	B&T (43)	None	-.04	-.57	-.15	.67	-.09	-.14	.28	.08	.91
17. Elitism	B&T (45)	None	.84	-.10	-.07	-.27	.02	.09	.08	-.01	.80
18. Character of the bureaucracy	B&T (53)	None	-.58	-.12	-.02	.24	.20	-.02	.41	-.00	.62
19. Military in politics	B&T (54)	None	.59	.22	.26	-.49	.15	.02	.13	-.14	.76
20. No press censorship	DON (71)	None	.76	-.09	.07	-.02	.03	-.26	-.26	-.04	.72
21. Tenure of last 2 executives	DON (74)	Log	-.22	.76	-.15	-.08	-.04	-.03	.02	.04	.66
22. Freedom of opposition	DON (65)	None	.74	-.39	.13	.07	-.05	-.12	-.10	-.13	.77
23. Voting system	DON (66)	None	.71	-.40	.12	-.10	.08	.06	-.16	-.24	.78

24. Cutright political dev. index	DON(78a)	None	.76	.07	.07	-.09	.05	-.18	-.40	.04	.81
25. Legality of government change	DON (72)	None	.41	.03	.33	-.19	-.04	-.07	-.03	-.11	.33
26. Federalist vs. unitary govt.	DON (68)	None	-.18	-.24	.13	-.04	.21	.03	.11	.70	.66
27. Number of purges	DON(140)	Grouped	-.13	-.07	-.55	.27	-.37	.15	-.13	-.04	.58
28. Number of riots	DON(141)	Grouped	.06	-.17	-.15	.21	-.85	-.13	.13	-.11	.87
29. Number of revolutions	DON(142)	None	-.10	-.11	-.81	.15	-.21	-.01	-.02	-.05	.75
30. Demonstrations	DON(143)	Grouped	-.07	-.05	-.10	-.04	-.85	.14	.01	-.13	.78
31. No. killed in domestic violence	DON(144)	Log(data+1)	-.19	-.02	-.73	-.17	-.38	-.16	.13	-.17	.82
32. Military personnel/population	YPDP(21)	Log	-.15	.07	.27	-.17	-.04	.82	.02	.03	.80
33. Defense expenditures/GNP	YPDP(23)	Log	-.14	-.13	-.07	-.06	.04	.86	.06	-.21	.83
34. Deaths from domestic violence	YPDP(29)	Log(data+1)	-.26	-.25	-.51	.15	-.19	-.35	.41	-.01	.74
35. Years in office of executive	YPDP(30)	Log	-.09	.88	.12	-.01	.06	-.02	-.12	-.09	.81
36. Number of political parties	DON (78)	None	.28	-.44	-.34	.18	-.14	.09	-.20	-.03	.48
37. Number of assassinations	DON(136)	Log(data+1)	.05	-.14	-.21	.19	-.36	-.02	-.10	.07	.24
38. Number of general strikes	DON(137)	Log(data+1)	-.10	.12	-.37	-.00	-.70	-.08	-.04	.03	.65
39. Guerrilla warfare	DON(138)	Log(data+1)	.09	.10	-.61	-.09	.02	-.21	.17	-.17	.57
40. No. of government crises	DON(139)	Log(data+1)	.07	-.47	-.25	.08	-.40	.31	-.03	.07	.55
41. Government revenue/Expenses	DON (77)	Log	.02	.15	.12	-.11	.23	-.19	-.08	.07	.15
42. Tax revenue/total revenue	DON (69)	Log	.17	.33	.06	-.26	.15	-.09	-.54	-.22	.58
43. Political representativeness	Cutright	Log(data+3.6)	.60	-.17	.02	-.18	-.03	-.19	-.61	.07	.83
% Total Variance Explained			29.3	8.2	7.5	7.1	7.0	5.3	4.6	4.0	Σ= 73.1%
% "Common" Variance Explained[21]			40.1	11.2	10.3	9.7	9.6	7.3	6.3	5.5	Σ=100.0%

DON measures: legality of government change, number of political parties, number of assassinations, and ratio of government revenue to expenses. Otherwise, the eight factor solution accounts for a majority of the variation found in the selected variables.

The first factor, which accounts for nearly 30 percent of the variance among the variables, correlates highly with variables from all the data sources except the YPDP. Among the high loading variables are Press Freedom, Party Competition, Existence of Opposition Groups, Interest Articulation by Associational rather then Non-associational Groups, Elitism (negative loading), Multi-party systems, and Cutright's measures of democratic Political Development. The Banks and Textor variables, owing to the coding procedure, indicate the reverse condition of their variable names.[22] This dimension I label *"Power Sharing."*[23] It relates to the concern for the establishment of democratic institutions and suggests that a pluralistic society which shares decision-making among various groups is of major interest among the data collectors. It may be that this factor's predominance is largely a product of preferences for Western democratic procedures shared by both some data collectors and theory-

[20]Following each variable name is a notation as to its source and its original identification number (in parentheses). Specifically see Russett, *et al., op. cit.,* pp. 56-101; Rummel, *et al., op. cit.,* and Rummel, "Dimensionality of Nations Project: Variable Definitions, Data Sources and Year," (manuscript, July, 1964); Banks and Textor, *op. cit.,* pp. 67-114; and Cutright *op. cit.* The Cutright variable 24 is from his 1963 study and was taken from the DON data, #79a. Variable 43 was obtained from a set of raw code sheets supplied by Cutright for his 1965 study and is based on figures for 1961.

[21]The percent of variance "explained" by a factor is $100 \times \Sigma a_j{}^2/N$, where a_j is the loading of the jth variable on the factor and N is the number of variables (43 in this case). "Common" variance would generally refer to all 10 rotated factors. See Harry Harman, *op. cit.,* p. 198.

[22]Banks and Textor data are specified by alphabetical categories, A, B, etc., where A is the characteristic mentioned in the variable name. For example, variable 13, Freedom of the Press, was coded by Banks and Textor so that A= complete freedom, B=less freedom, and so on. In my coding, A's were recorded as O, B's as 1, etc., so that the signs on Banks and Textor variables indicate the reverse of the quality indicated. This explains why opposite signs are found on similar variables, for instance, in factor 1, variable 2, Freedom of the Press (B & T) loads – .94 and variable 20, No Press Censorship, (DON), has a loading of .76. These qualities are in fact positively, not negatively, related.

[23]This represents a view of development similar to one proposed by Harold D. Lasswell in "The Policy Sciences of Development," *World Politics* (January, 1965), pp. 293ff.

builders.[24] By recognizing this possible value bias, we indicate that the factor is not necessarily the most important criterion for measuring development based on empirical inter-nation differences. Moreover, not all indicators of democracy contributed fully to this dimension. Some of the high loading variables on this factor (Cutright's variables in particular) have unique secondary characteristics as will be illustrated by factor seven. It is clear, however, that this polyarchic or power sharing quality is a major dimension by which data collectors have measured politics across nations.

The second dimension is labeled *"Executive Stability."* Although it accounts for far less of the variance (8.2%) than the first factor, it is important because each of the three major data collectors (YPDP, B & T, DON) represented in this study expressed interest in similar though operationally distinct measures of executive tenure, and each of these is highly correlated with this single factor.[25] These two facts enhance the validity of the "Executive Stability" factor. Huntington's criteria of development are directly relevant to factor II. A lengthy and peaceful tenure among political executives serves to indicate both autonomy and co-

[24]A number of the variables included in this dimension are from Banks and Textor and of these several were influenced by Almond's analysis of political functions in Almond and Coleman, *op. cit.*, pp. 1-64. In another factor analysis, using only Banks and Textor data, Philip M. Gregg and Arthur S. Banks, "Dimensions of Political Systems: Factor Analysis of *A Cross-Polity Survey,*" *The American Political Science Review* (September, 1965), pp. 602-614, the first factor which emerged, labeled "Access," closely parallels the first factor reported here. There are several important differences in the way the variables from the Banks and Textor survey were employed in the Gregg and Banks factor analysis as compared with this one. The full ranges of the variables reported by Banks and Textor were employed in our factor analysis, while Gregg and Banks collapsed their variables so that each was dichotomous or trichotomous. The second largest factor emerging in the Gregg and Banks analysis (labeled "Differentiation of Political Institutions within Former Colonial Dependencies") was based largely on nominal dichotomous variables excluded from our analysis. These excluded variables include "Date of Independence," "Ex-French Dependency," "Ex-Spanish Dependency," "African Areal Grouping," "Post-colonial Bureaucracy," and "Underdeveloped Tutelary Political Modernization." In excluding these variables our view was that many cross-national variables are simply not related to the development syndrome *per se*, although they might conceivably be relevant to the comparison of polities for other purposes.

[25]See Donald T. Campbell and Donald W. Fiske, "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix," *Psychological Bulletin*, 56(1959), pp. 81-105 for a discussion of validation of a single trait using several measures or authors.

herence."[26] But, although longevity is also a positive indicator of "adaptability," this is with reference to groups *and not* individ-ual office-holders. In fact, according to Huntington, turnover of leaders, especially inter-generational changes, indicates greater adapt-ability. Hence, this factor may reflect mixed qualities of institution-alization (development) such as negative adaptability and positive autonomy and coherence. If one accepts Huntington's view of de-velopment, then, certainly more discriminating and refined measures of stability and change in leadership than underlie this factor are needed. It is difficult to see any direct relation between this factor and the development criteria of the Almond or SSRC schemata. Stability, however, may be relevant to some of their subcategories. For instance, the capacity of a political system and its ability to make effective policy changes (an SSRC dimension) might be as-sociated with stability of executive tenure as the French Fourth Republic illustrates. The second factor then, like the first, is both composed of data from several sources and relevant to at least one theoretical construct.

Factor III (variance explained, 7.5 percent) I have called *"Domestic Violence."* The high loading variables which suggest this title are from YPDP and DON. Revolutions, domestic killed, death by violence, and acts of guerrilla war combine to yield a measure of the stability and regulatory capacity of a government. Although this dimension does not specifically corre-spond to any of the qualities mentioned by Huntington, clearly the variables underlying this factor are indicators of development in Huntington's view. He states while discussing autonomy of political organizations, "a highly developed political system has pro-cedures to minimize if not eliminate the role of violence in the system."[27] He later adds that *"coups d'etat* and military inter-ventions in politics are one index of low levels of institutionaliza-tion: they occur where political institutions lack autonomy and coherence."[28] The other authors also discuss this quality in relation to development. Almond and Powell, for example, discuss state building which involves the capacity to penetrate, regulate behavior,

[26]See Huntington, *op. cit.,* pp. 405, 407. It is interesting to note, however, that legality of government change, variable 25, is not at all correlated with this factor.

[27]Huntington, *op. cit.,* pp. 401-402.

[28]*Ibid.,* p. 407.

and overcome revolutionary threats as a "challenge" of political development.[29] Similarly, the SSRC authors describe crises such as penetration and participation which relate to the control of domestic violence, and include in their criteria for the capacity dimension qualities which could certainly be measured by, among other things, the amount of internal political violence in a system.[30] Thus while not explicitly suggested as one of the broad criteria of development (in the schemata we have examined), domestic violence generally could be related to the qualities mentioned in the development syndromes of all the theory-builders, as an operational if not analytical index.[31] Since this factor is composed of variables closely linked to violent unrest, it is an indicator of the security provided by a political system, and in contrast to factor five, discussed later, provides a more distinct barometer of a polity's decay. Factors three and five are similar to the first two factors found in several other factor analyses of cross-national data on conflict.[32]

The fourth factor in the analysis (variance explained 7.1 percent) is called *"Participant Political Socialization."* The high loading variables which lead to this label are Percent of Population Voting (YPDP), Political Enculturation (B & T), and Stability of the Party System (B & T). These variables give us an indication of the degree to which members of the political system have learned to participate and to demand stable and familiar political practices. As such, they reflect both the range and coherence of political socialization. Theoretically derived dimensions to which this factor may be related are Huntington's coherence continuum and the SSRC equality criteria (which includes participation). In addition, other studies have also stressed participation as an index of development.[33] If other variables relevant to socialization were included in a future factor analysis it would be possible to con-

[29]Almond and Powell, *op. cit.*, p. 35.

[30]See Pye, *Aspects*, pp. 64-65.

[31]In addition, Pennock, *op. cit.*, p. 427, specifically includes security (assessed by domestic violence) among his criteria of development.

[32]See the first two factors reported in Tanter, *op. cit.*, p. 50; Rummel, "Dimensions of Conflict," *op. cit.*, p. 69; and Ivo K. and Rosalind L. Feirabend, "Aggressive Behaviors Within Polities, 1948-1962: A Cross-National Study." *Journal of Conflict Resolution* (September, 1966), p. 255.

[33]See Daniel Lerner, *The Passing of Traditional Society* (New York: The Free Press, 1958), pp. 43-75. Lerner uses percentage of population voting as the index of political participation. The causal model of development suggested by Lerner has been statistically analyzed by Hayward R. Alker, Jr., in "Causal Inference and Political Analysis," *Mathematical Applications in Political Science, II* (Dallas: The Arnold Foundation, 1966), pp. 19-29. Alker

firm whether socialization and participation represent an empiri-
cally unique dimension for assessing development.

Riots, anti-government demonstrations, and general strikes load
highly on the fifth factor. This dimension, consequently, is labeled
"Internal Turmoil." All three identifying variables are from the
DON project. Although Huntington is concerned with destabilizing
and disintegrative effects such as unrest and turmoil which are
measured by the variables significantly contributing to this factor,
his criteria of institutionalization do not specifically include indices
of this order. Moreover, Huntington is primarily interested in phe-
nomena like coups, revolutions and military interventions as indica-
tors of the failure of institutionalization.[34] Aside from its lack of
theoretical significance, another possible criticism is the fact that
only data from DON contributes to this factor. This suggests that
it may be an idiosyncratic index of development.

It must be noted, however, that this quality has been replicated
in a factor analysis by Raymond Tanter using similar data over
a different time period. If conflict data compiled by Tanter, Eck-
stein or the Feierabends were included in this study the criticism
of this factor as a single author product would certainly be
vitiated.[35]

The sixth factor, like the fifth, is a dimension reflecting data
from only one study. It is labeled *"Government Military Activity"*
since the two high loaders from YPDP are indicative of central
government military expenditure and resources. It is possible to
relate this dimension to what Huntington discusses as complexity,
or the other authors mean by differentiation, since high government
expenses and a large army are often associated with a complex
governmental organization having a variety of agencies and offices.

uses this factor as an index of participation for the analysis. See also Gabriel
A. Almond and Sidney Verba, *The Civic Culture* (Princeton: Princeton Uni-
versity Press, 1965), pp. 19-40, 501-505. Almond and Verba develop the ideal
type of a participant political culture which is associated with modern and
democratic polities.

[34]*Ibid.*, pp. 402, 407.

[35]See Raymond Tanter, "Dimensions of Conflict Behavior Within and Be-
tween Nations, 1958-1960," *Journal of Conflict Resolution* (March, 1966), p.
50. Eckstein and Feierabend data are reported in R. J. Rummel, "Dimen-
sions of Conflict Behavior Within Nations, 1946-59," *Journal of Conflict Res-
olution* (March, 1966), pp. 65-73, and Ivo K. and Rosalind L. Feierabend,
op. cit., pp. 249-271.

It is unlikely, however, that any of the theory builders would be satisfied with the two variables loading high on this factor as empirical indicators for these dimensions of development. More relevant and immediate operational indices of differentiation and complexity are conceivable. It remains for data collections to broaden their variable lists to include complete measures, for example, on the size and specialization of government personnel.[36]

Factor seven, although having moderate loadings (between .40 and .54) on variables 18, 34, and 42, is largely, in our view, a *Cutright Factor* (based on variables 24 and 43).[37] There are no signal loadings. Cutright, in creating his index of development, relied largely on measuring political representativeness.[38] Cutright's view of political representativeness shares some characteristics among nations with the amount of revenue coming from taxation (variable 42). This relationship may be due to the fact that in communist and less developed states, revenue from taxation tends to be low, while in the "developed" Western states, tax revenues, especially from incomes, tend to be much higher. Theoretically, the first factor, based on democratic characteristics, should have accounted for a greater share of the variance in Cutright's measures which *specifically* emphasize "democratic" political development. Perhaps the reason these variables load on a separate factor is due to some unique quality in Cutright's construction of indices, the coding of his data, or the choice of time periods for this study.[39]

The last interesting factor in the analysis I have labeled *"Territorial Integration."* The two highest loaders were Sectionalism (B & T) and Federal vs. Unitary Structure (DON). This factor seems to emphasize territorial integration, that is, "the progressive

[36]Some data collectors have gathered data of this order. In Russett, *et al., op. cit.,* p. 71, the percent of population employed by the government is included as a variable, but measures for only 21 countries were collated.

[37]In an earlier factor analysis based on 45 variables, Cutright's Political Representativeness Index (variable 43) emerged as the single high loading on a factor.

[38]In his article "Political Structure," *op. cit.,* Cutright renames his earlier index—after alterations—an index of political representativeness.

[39]Deane Neubauer has also criticized the sensitivity of Cutright's measure, noting that among the 23 nations which he discriminated among in terms of "polyarchy," "many" were tied for the highest score possible on Cutright's scale. See Deane E. Neubauer, "Some Conditions of Democracy," *American Political Science Review,* LXI, No. 4 (December, 1967), p. 1007.

reduction of cultural and regional tensions and discontinuities" as opposed to political integration which refers to "developing integrated process in a participant political community."[40] While the authors of all three of the outlined schemata recognize integration as a problem or crisis in states undergoing political development, only the SSRC specifically mention integration (as a sub-category of differentiation) and their use relates more to political than to territorial integration. It is plausible, however, to consider Huntington's coherence trait, which is based on consensus of norms, as a measure of integration. And had Huntington discussed "scope" as a criterion of development, this quality might also be linked to the reduction of territorial discontinuities. The SSRC committee's criterion of capacity (which includes the scope of "political and governmental performance") also can be related to territorial integration. Territorial integration, nevertheless, is only peripherally tied to these theoretical schemata. Moreover, it may be associated with negative development if it results in overburdening a central government, thereby reducing system effectiveness.[41] Only two variables load highly on this factor and its contribution to explaining variance among the variables is unsurprisingly low (4.0 percent).

These eight factors represent what should be, as a consequence of the factor analytic model, independent traits of political development. The fact that several of these dimensions (factors 5, 6, and 7) have high loading variables drawn from a single data source suggest these dimensions may be more or less the product of individual perspectives. In other words, these dimensions may be methods factors rather than underlying or basic traits.[42] If we leave out these three factors from our analysis, we have a list of five dimensions of political development, *Power Sharing, Executive Stability, Domestic Violence, Political Socialization* and *Territorial Integration*.

[40]For an elaboration of these concepts see James S. Coleman and Carl G. Rosberg, Jr., editors, *Political Parties and National Integration in Tropical Africa* (Berkeley: University of California Press, 1964), p. 9.

[41]See Charles E. Lindblom, *The Intelligence of Democracy* (New York: Free Press, 1965) for a discussion of the potential negative effects of centralization.

[42]See Campbell and Fiske, *op. cit.* Of course, if more authors' measures on these variables had been included in the analysis, these factors might not be subject to this criticism.

TABLE 2

COMPARISON OF POLITICAL DEVELOPMENT DIMENSIONS

FACTOR ANALYSIS RESULTS	ALMOND	COMPARATIVE POL. COMM. (SSRC)	HUNTINGTON
POWER SHARING	AUTONOMY	EQUALITY Equality of law Participation	
EXECUTIVE STABILITY			ADAPTABILITY AUTONOMY COHERENCE
DOMESTIC VIOLENCE		(CAPACITY ?) (Effective execution of policy)	AUTONOMY COHERENCE
PARTICIPANT POLITICAL SOCIALIZATION		EQUALITY Participation	COHERENCE
TERRITORIAL INTEGRITY		DIFFERENTIATION Integration of complex structures CAPACITY Wide scope of political performance	COHERENCE Consensus among member units
	DIFFERENTIATION	DIFFERENTIATION	COMPLEXITY AUTONOMY
	SECULARIZATION	CAPACITY Rational and secular policy EQUALITY Recruitment by achievement	

Table 2 summarizes the relationships among political develop-
ment dimensions. Blanks indicate complete lack of equivalence
among the lists. Where only one aspect of a theoretical dimension
is relatable, this aspect is specifically mentioned. Among the rela-
tionships which the Table does suggest, many are partial or ten-
uous, as I have indicated in the earlier discussion. Moreover,
the factor analysis dimensions are rather specific compared to
the broad rubrics employed in the theorists' schemata. This perhaps
reflects their closeness to actual data. While these factor analysis
results are certainly not free of subjective influences, they never-
theless represent structurally independent dimensions underlying
some of the data collated by empirically oriented researchers and
relatable in some fashion to dimensions of development suggested in
theoretical literature.

III

This examination by factor analysis of selected political indi-
cators underlines problems of finding commonly acceptable measures
or scales of development. Our study indicates that there is a com-
mon though not universal interest in a measure of development
related to democratic practices. The first and dominant factor
found in the data reflects this. Another characteristic suggested by
the factor analysis is a tendency for data studies to be idiosyn-
cratic, utilizing measures which are not convincingly related to
measures from other studies but which were supposed by the an-
alysis to be related (e.g. democracy). This fact, therefore, calls
into question the generalizability of research results based on these
idiosyncratic measures.[43]

Comparing the factor analysis results with the theoretical di-
mensions outlined in Table 2 reveals that the data generally do
not cluster along dimensions identifiable as similar or common
with those suggested by theory builders. Not even the individual
variables submitted to the factor analysis coincide with suggested
measures of the theory builders such as secularization or differentia-
tion. This tenuous relationship between the theoretically derived lists

[43]See, for example, Donald J. McCrone and Charles F. Cnude, "Toward a
Communications Theory of Democratic Political Development: A Causal
Model," *The American Political Science Review* (March, 1967), pp. 72-79,
which utilizes Cutright's Political Development Index (1963).

and the multiple data sources factors may be partially explained by the fact that the theoretical lists largely contain broad rubrics embracing, often with difficulty, empirically distinct phenomena. Another reason for the absence of some of the dimensions proposed by theory-builders from the factor analytic solution may be due to the deletion from our study of some variables, such as percentage employed by the central government (YPDP), because of missing data. Finally the discontinuities between theory and data based development criteria may be attributed to the concern of most data collectors for a more general comparison of nations rather than an explicit measurement of "development."

These circumstances, nevertheless, do not obviate the clear need for thorough measures which do capture variations along dimensions of structural differentiation, role specificity, and secular value processes, none of which was obtained in this factor analysis of current data. Better data for variables already measured are likewise required.[44] In addition to improved measures on these variables, we are going to need historical time series and trend data. Measures of this genre are required for calculating rates of change and making projections about probability, timing and direction of future political changes.

Also we must begin to distinguish between system level and lower level measures, such as group or individual characteristics. For example, although equality and autonomy may both be related to democracy, inequality among individuals may or may not be reflected in low autonomy at the system level (which is where Almond and Powell cast their analysis). By recognizing differences in the unit being measured some of the ambiguity we have found in comparing theoretical dimensions may be alleviated.

In establishing a scale for a particular development dimension or for any explanatory variable which might be associated with development, two strategies may prove serviceable. First, combining several similar indicators may increase the overall validity of the final variable. For example, combining measures of radio audience, newspaper reading and telephones, either by factor analysis or some other scaling technique, may yield a more comprehensive variable

[44] The original DON conflict variables for 1955-57, for example, contain up to one third tied scores for zero instances of conflictful events. More discriminating and sensitive techniques of measurement seem to be required.

for communication levels among nations.[45] For other purposes, of course, such variables may be more usefully employed separately, for example, in order to examine the additive and interesting political effects which exposure to radio, reading a newspaper, or attending a cinema may have on a traditional peasant. The second strategy would be to develop intermethod and inter-author indices. For example, factors one, two and four represent dimensions of development which are based on the procedures and results of several data collections *and* combine more than one operational technique. As data collections improve the validity, breadth, and span of their deposits, methodological advances such as these can be expected.[46]

Data collectors will be aided in these efforts if theory builders explicitly specify operational indicators of the critical dimensions and variables of development which they sketch.[47] This task may lead theoreticians to consider more carefully the phenomena which comprise both their values and the mechanisms which mediate valued outcomes. Complicated theoretical machinery may be less elegant but more useful for empirical work and policy making if operational terms in plain language are attached to it. Authors of theoretically constructed development dimensions may also wish to reconsider the meaningfulness of terms such as differentiation, secularization or rationalization which failed to find an empirical counterpart among the factors. Secularization, in particular, may either be highly correlated (perhaps forming a single empirical pattern) with other development qualities such as power-sharing (equality, autonomy) or it may be composed of empirically hetereogeneous traits which are difficult to assess with

[45]See Alker, *op. cit.*, pp. 20-23. Two other communication variables, television sets and movie exhibitions, were discarded in creating this combined measure because of missing data and their failure to cluster with the other variables.

[46]The second edition of the Yale Political Data Program's *World Handbook of Political and Social Indicators* (forthcoming), for example, moves in these directions. Some of these suggestions for improving the gathering and use of aggregate data are considered in more detail in Hayward R. Alker, Jr., "Research Possibilities Using Aggregate Political and Social Data," in Stein Rokkan, editor, *Comparative Research Across Cultures and Nations* (Paris: Mouton, 1967).

[47]Huntington, *op. cit.*, and Pennock, *op. cit.*, have made attempts to do just this. Almond, whose theoretical dimensions least correspond to the ones derived by factor analysis, is a clear example of a theorist who has so far failed in this task.

any precision. In either case some revision or further explica-
tion may be indicated by the absence of data relatable to these
rather amorphous theoretical dimensions.[48]

Perhaps the most ambiguous quality of development revealed
in this study is stability. From the discussion of factors 2, 3, and
5 it is clear that there are no clean, unambiguous relationships
between measures of stability and theoretical dimensions related
to this quality. Both data collectors and theory builders may be
blamed for the fuzziness in this quality. Huntington is the prime
theorist interested in stability, but he attempts to measure develop-
ment in terms of traits such as coherence, which explain rather
than describe stability. Ambiguity occurs because *a few* of the
operational indices for his four continua, such as coups or
civil disorders are commonly accepted as signs of instability. This
makes it difficult to operationalize distinctly his particular develop-
ment continua from more generalized notions of stability. Equally
open to criticism are data collectors who tend to count events
as equal which are quite different, for example, peaceful and vio-
lent changes of executives (as in factor 2) or who classify to-
gether as instances of conflict both demonstrations and revolutions.
Several analyses have revealed the different qualities in these
conflict events,[49] although one might have suspected that countries
which suppress strikes and demonstrations (and thus have none)
are more likely to experience serious conflict such as revolution.
In seeking to reconcile the varying concepts and data related to
instability it may be useful to conceptualize this quality in terms
of manifest and latent characteristics. Kinetic instability could
refer to observed disruptive activity, while potential instability
could be a measure of the likelihood and intensity of future kinetic
instability. Whether this suggestion proves useful or not, it is cer-
tain that theory builders and data collectors need to combine
their efforts to develop more subtle and satisfactory measures,
not only for stability, but for most all the development dimensions.

[48]Of course, although two concepts are empirically highly correlated (or load
on the same factor), it may still be profitable to maintain their theoretical
distinction, provided they are operationally distinct. Moreover, if oblique
factor rotation were employed, it might be possible to detect different, but cor-
related, factors.

[49]See Tanter, *op. cit.*, and Rummel, "Dimensions of Conflict," *op. cit.*

IV

The eight factor solution to the list of political development variables brought together by this study represents neither a finished nor a satisfactory typology for empirical exploration of political development. The different interests that influenced the various data collectors to assemble the particular variables which they chose are compounded by this study's own criteria for selecting variables. These are just two biases which operate to affect the outcome of the factor analysis approach. In addition, weaknesses in the data itself may also have had a biasing effect, for example, due to missing data, ill-informed judgments by observers, or injudicious selection of cutting points. Relativity and subjectiveness, therefore, weaken this inductive-empirical approach to establishing dimensions of political development. The results, nevertheless, are important as provisional standards for comparing and assessing theoretical dimensions. They provide insight about lacuna in both data collections and theoretical writings, and underscore clear weaknesses in present theories.

The differences between and among theory-oriented writers and data collectors which I have pointed out are partially produced by their varying concepts about the basic characteristics of development. Such differing visions and values hinder useful dialogue and cloud untested and unrefined propositions.[50] Thus Lasswell's reminder that the study of political development demands explicit statements of preference as to what constitutes developed characteristics is particularly incisive.[51] Increased candidness about value preferences will be helpful in improving standards of clarity in the study of political development. This may facilitate broader agreement on the dimensions underlying political development and on the data which are relevant to its measurement. To this end greater dialogue and idea comparisons among theorists and data collectors are needed.

[50]For example, the assumption that the diffusion of "world culture" is an inevitable process which will account for a great deal of political change may be correct in the long run, say 25 or 50 years, but is of little or no value in attempts to explain or predict short run changes.

[51]Lasswell, op. cit., pp. 290-91.