DOCUMENT RESUME

ED 236 582 CS 207 539

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TITLE The Press and Government Restriction: A 13-Year Update of a Cross-National Study.
PUB DATE Aug 83
NOTE 30p.; Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication (66th, Corvallis, OR, August 6-9, 1983). For the original cross-national study, see ED 097 679.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Comparative Analysis; *Cross Cultural Studies; Economic Progress; Foreign Countries; *Freedom of Speech; *Government Role; International Studies; *Mass Media; *Media Research; Models; *Social Influences

ABSTRACT

In 1974, David H. Weaver used path analysis with data from 137 countries during four periods between 1950 and 1966 to test relationships between government control of the press and six other societal characteristics. The present study, which extended the time period of the original analysis by adding recently available data from 1979, constructed composite measures for the original variables whenever possible and then tested them for reliability and validity. These variables included government control of the press, accountability of governors, stress on government, mass media development, level of education, urbanism, and availability of resources. Results showed, first, that mass media development since World War II has been a response not so much to urbanism and to education as to increased economic productivity. Second, it is clear that a government system accountable to its citizens contributes to the development of mass media. Third, as in the earlier study, evidence suggests that the more direct the governor's accountability to the masses, the greater the freedom of the press. But results also indicate that economic productivity and the level of media development are stronger predictors of lack of government control over the press than is government accountability. (A list of the countries studied is appended.) (HOD)

International Division

The Press and Government Restriction:

A 13-Year Update of a Cross-National Study

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Accepted for presentation to the International Communication Division at the 1983 convention of the Association for Education in Journalism and Mass Communication (AEJMC), Corvallis, Oregon.

The Press and Government Restriction: A 13-Year Update of a Cross-National Study

The importance of a free press, usually defined to mean a press free from government control, and the relationship of such a press system to the form and stability of government and to economic growth and the quality of life, has been the subject of debate for centuries, but that debate seems to have heated up in recent years.

After World War II, as the industrial nations came to realize that they could no longer control their colonies and as the East-West cold war intensified, the western nations, and particularly the United States, began searching for ways to make certain that the emerging nations, along with the already-existing ones in Africa, Asia and South America, would be stable countries friendly to the West.[1]

At the time it seemed reasonable to assume that if industrialization had led to improvements in the economic strength of the western nations, to improved living standards for their citizens, the growth of a free press system and the spread of political participation, then the same thing should happen in the rest of the world.[2]

Thus, according to Lerner, the sequence of events that would occur in developing nations was urbanization---→ literacy---→ extension of the mass media---→ wider economic participation---→ wider political participation. According to this paradigm, no area of development could or should progress much ahead of, or lag far behind, other areas of change. As all moved forward together, the nations undergoing modernization would become more like each other and more like the goal: a western, capitalist, free-enterprise

system.[3]

To achieve such a goal, establishment of a free press system would be necessary, of course, because only such a system could serve as a "watchdog" on government, a "disinterested broker among competing groups," the "channel of communication between the people and their government" (and vice versa), and the "crystallizer of public opinion."[4] Without such a free press system,

> No government bent on exercising power, however benevolently, is proof against the temptation to set limits on free expression. Countervailing pressures within society are vital in setting limits on the power of government. It follows from this that the press must be free and must try to strengthen itself so that it is capable of standing up to governments as and when this proves necessary.[5]

The ability to speak and argue freely through the channels of the press system will lead not only to political "truth," but to a stable, harmonious society, it is argued.

However, after nearly a quarter century of trying to implement development in accordance with the Lerner paradigm and of coping with western-style press freedom, many questions have begun to be raised both about the development paradigm and its assumptions, particularly the importance and value of a free press system.

This questioning of a free press system does not seem so much rooted in acceptance of totalitarian governments or in a lack of faith in democracy as an ideal. Rather, it appears to be primarily an attempt to deal realistically with conditions as they appear to be in the developing nations.[6]

Many Third World spokespersons have come to believe that a free press is a luxury that they cannot afford and can do without for the time being. Their explanation is that given the conditions of scarce resources, a colonial legacy, a poorly educated population, tribal and ethnic rivalries, and a subservient position in the world economic and information systems, a free press

can too easily lead to an inability of government to function and to internal chaos.[7] Thus, some form of press controls is seen as both necessary and desirable for national development and political stability in some less developed countries.

For the most part, this debate has been conducted at the ideological level. The sparse empirical evidence to address the contending views that press freedom is necessary for development, for the establishment of democracy and for the stability of the political and social system, or that it is, for the time being at least, counterproductive comes largely from correlational studies made at a single point in time and from more general media-effects studies.[8]

While most of the scholars involved in this debate have been wary of speaking in terms of causal relationships, their work clearly suggests that such relationships may exist, and a handful of studies have been conducted to explore this possibility. However, these studies have produced somewhat mixed results.

In 1967, political scientists McCrone and Cnudde proposed the following model of democratic political development: urbanization---→ education---→ communications---→ democratic political development. They then tested and partially confirmed this model using the Simon-Blalock technique of comparing actual and predicted correlations, and supported it fully by computing path coefficients from the original correlation coefficients.[9]

In the same year that McCrone and Cnudde tested their model using the Simon-Blalock technique on data from a single year, Schramm and Ruggels used cross-lagged correlations on data collected in 1950-51 and in 1960-61 from 23 less-developed nations to test causal relationships. They found, however, that urbanization, literacy, gross national product and mass media development

seemed to be related in different ways in different developing regions of the world.[10]

Seven years later, Weaver used path analysis over time with data collected from 137 countries during four different time periods between 1950 and 1966 to test relationships between amount of government control of the press and six other characteristics of a society.[11] (See Figure 1.)

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Figure 1 About Here

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In this study, Weaver found evidence to suggest that mass communication development plays an important role in the growth of participant forms of government in many areas of the world and evidence to support Siebert's observation that "the more direct the accountability of the governors to the masses, the greater the freedom of the press."[12]

In addition to support for links between media development, accountability of governors and government control of the press, Weaver found considerable support for a negative relationship between resources and stress on society. That is, the path analyses indicated that the greater the resources, the less stress there is likely to be on the society.

However, Weaver found that the predicted positive path from stress to government control of the press was strongly supported only in the North American, Western European and Asian countries. This raises doubts about the universality of suggestions by Siebert, Field, Stevens, Schramm and others than an increase in stress leads to an increase in government control of the press.[13]

The Weaver study also found little support for the first part of Lerner and McCrone's developmental model, which specifies that greater urbanism

leads to increased education, which in turn leads to increased mass media growth.[14]

In short, the findings of Weaver's 1974 study indicate moderate support for some of the causal relations specified in his theoretical model of government control of the press, especially for those links between increases in mass media development and increases in accountability of governors, and between increases in accountability of governors and decreases in government control of the press. The evidence also suggests that increases in resources or "economic productivity" often lead to less stress on the political system of a country which, along with greater accountability of governors, leads to less government control of the press -- at least in North America, Western Europe and Asia. The data further suggest that increased resources, as measured by gross national product and energy consumption per capita, generally lead directly to increased levels of education and media development, without urbanism, and that increased media development contributes to an increase in resources, probably because the media are industries which contribute to the economy at the same time they consume energy. Growth in urbanism and media had a substantial positive impact on levels of education for all countries of the world analyzed together between 1950 and 1966.[15]

These findings suggest that there is some merit in models relating media development and a free press system to national development and to the form and stability of government, but the relationships are much more complex than the original linear models of development anticipated, and they most likely change over time.

Since the Weaver study appeared in 1977, parts of it have been criticized by a number of scholars both for the measures employed and for its use of causal models. The portion of the study dealing with mass media and national

development, which is based on earlier writings by scholars such as Lerner, McCrone and Cnudde, and Rogers (and employs measures of urbanism, education, media growth and participation in government) has been criticized by Rogers[16] who now argues that definitions of development which center around the rate of economic growth of a country are inappropriate because they do not take into account the equality of distribution of wealth, and they reflect more concern with technology than with quality of life. Rogers writes that these measures are based on a central planning, "top down" approach to development rather than on popular participation in decentralized self-development projects, and they recognize internal causes of underdevelopment but pay insufficient attention to external factors.[17]

Golding, on the other hand, sees political participation as "a necessary constituent part of the total nexus of relationships of which the social structure is formed. Literacy, education, urban centers, and mass communications are as much the result of decision-making (dependent on 'the polity') as they are antecedent conditions for its democratic construction."[18] Therefore, Golding criticizes causal models of development based on the Lerner paradigm because they assume that modernization is a composite state of distinct developments and they employ "a kind of ecological determinism reducing the populations of developing countries to inert recipients of an immutable process." . . . Thus, they have "no explanatory value."[19]

While there is merit in what both Rogers and Golding say, their criticisms should not lead to dismissing studies such as Weaver's as having little or no value. The measures embodied in Weaver's 1977 article are admittedly ones that tap the thinking behind early efforts to implement national development, not more recent thinking about the subject. But it should be pointed out that using such measures in research in no way guarantees finding that the original paradigm is right -- or, for that matter, that it is wrong.

Shore, who echoes Golding's concerns, writes of the need "to consider communication not as a simple independent variable but as both a dependent and an independent variable in a complex set of relationships with social, economic, and political structures and processes."[20] This kind of "consideration" suggests developing some sort of causal model and then testing it, as Weaver did in the original study, by employing a technique such as path analysis over time which is designed to detect complex, reciprocal relations among numerous variables.

Therefore, we argue that the chief weakness of the original study is not the measures or the use of causal models, but rather the short time period. When using macro-level, cross-national measures of the kind used by Weaver, it is clear that these measures tend to be highly correlated with themselves over time, making it difficult to detect the influences of one variable on another unless the data are collected over periods of time long enough to permit noticeable changes in these variables.

The criticisms of other scholars suggest that resources, urbanism, education and media development are related to each other in complex ways and that these measures of development do not necessarily go hand-in-hand with democratic government and a stable society in the way predicted by the original development paradigm. In fact, this is what Weaver's earlier study found for the time period from 1950 to 1966--little support for a linear pattern of development, but important links between media development and accountability of governors, and between increases in accountability of governors and decreases in government control of the press. But these patterns were complex, and they varied somewhat by the period of time analyzed and the region of the world under study.

These patterns may change noticeably or become clearer as data covering a longer time span become available. Such patterns, analyzed over time for

groups of countries, can give us a yardstick or baseline against which to compare patterns and processes within individual countries, and such macro-level patterns can provide a more general understanding of what societal conditions are conducive to greater freedom of expression and what conditions work against it than can studies of individual countries.

Therefore, this present study extends the time period covered in the original analysis (1950 to 1966) by adding recently available data from 1979. This increases the period under study by 13 years, allowing a reanalysis of the original model based on nearly 30 years of data (1950 to 1979) from 134 countries of the world. (See Appendix for a list of these countries.)

Method

Although the experiment is the traditional and preferable approach to analyzing causal relationships among variables, sociological studies such as this one are rarely amenable to experimental analysis because of ethical and practical problems. The next best strategy is to collect data over time, using a longitudinal study design and cross-lagged correlation or path analysis to analyze the relationships among variables. The object in such an analysis is not just to find what correlates with what, but rather to get estimates of causal linkages among variables so that one can better understand how changes in one variable affect the values of the other variables in the system under consideration.

Of course, there are real problems in working with aggregate cross-national data. Such measures can only be taken as rough estimates of the conditions prevailing in any given country at any given time. However, if the purpose of using such data is to identify patterns of relationships among variables rather than to determine the precise functional relationships (in mathematical terms), then such data can be useful, since Heise has shown that

even low reliability measures are not likely to obscure general patterns of relationships.[21]

The object of such a study is not precise prediction, but detection of patterns of relationships among concepts in a system--in this case, a world-wide system of nation states. As Kaplan puts it, "we know the reason for something either when we can fit it into a known pattern, or else when we can deduce it from other known truths. . . . The pattern model may more easily fit explanations in early stages of inquiry, and the deductive model explanations in later stages."[22]

In this present study, path analysis over time is used to analyze the relationships among the key concepts. Path coefficients estimate the degree of change in a dependent variable, given a one-unit change in independent variables, whereas correlation coefficients indicate the degree of covariation between variables.[23]

When dealing with more than two variables over time, Heise points out that it is necessary to carry out a series of multiple regression analyses to obtain the estimates of the path coefficients. Each variable in the system is treated as a dependent variable, and its time 2 (later) value is regressed on the time 1 (earlier) values of the other variables, including the time 1 value of the dependent variable itself. This procedure is continued until the time 2 values of each variable in the system have been treated as dependent variables predicted by all time 1 variables. The standardized partial regression (Beta) coefficients resulting from these analyses are estimates of the path coefficients.[24]

To estimate the path coefficients between the seven variables in Weaver's model, a series of multiple regressions was carried out, taking the time 2 value of each variable as dependent across the 1950-1979 time period. Separate regressions were attempted for six different regions of the world, in keeping

with Weaver's 1974 study, but were not possible because of missing data and low numbers of cases across the 29-year time period.

The Variables

The variables included in the original study were derived from an extensive review of various studies of press freedom. On the basis of this literature review, composite measures for each concept were constructed whenever possible and then tested for reliability and validity. The actual data for each measure were drawn from the best available sources for each year.

The measures used in the 1979 portion are based on those used in the original study. Again, every effort was made to use composite measures whenever possible, but some of the necessary data was not available. No attempt was made to find new measures because this would have destroyed the comparability of the measures across time. Instead, only one or two measures for each concept were used when necessary because the high correlations among the various measures of each concept included in the original study suggested that this strategy would not seriously affect the overall findings. As in the earlier portions of the study, the data for each measure were drawn from the best available source.

Government Control of the Press. As pointed out in the original study by Weaver, this is a study of government control of the press. It does not take into account restrictions other than those initiated by the government of a country, and it does not measure the actual free flow or diversity of opinions and ideas within the mass media of a country, although an inverse correlation is assumed between the degree of government control and such diversity.

The amount of government control of the press in 1950 is measured by

Schramm and Carter's Guttman scale.[25] The items in this scale include government ownership of newspapers, economic pressures by government on mass media, political censorship, restrictions on free criticism of government policies, and government ownership of broadcasting facilities. Scores on this scale range from "0" (very little control) to "5" (very great control).

The 1979 measure for government control of the press is constructed from Gastil's table listing the print and broadcasting media of each nation as "free," "partly free" or "not free."[26] In making these assignments, Gastil takes into account government ownership of the media, government censorship, restrictions on criticism, and other forms of government pressure on the media. For this study, a rating of "free" was coded as "1," "partly free" as "2" and "not free" as "3." The scores for the print and broadcast media were then added together to produce a scale ranging from "2" (very little control) to "6" (very great control).

Accountability of Governors. This concept was defined in the original study as executive and legislative dependence on public support and voting behavior.

The indicators used to measure accountability of governors in 1950 are drawn from Banks' Cross-Polity Time-Series Data and include (1) type of selection of the effective executive (direct election, indirect election, or non-elective); (2) effectiveness of the legislature (effective, partially effective, ineffective, none); (3) competitiveness of the legislative nominating process (competitive, partially competitive, largely noncompetitive, no legislature); and (4) an aggregate competition index score based not only on the effectiveness of the legislature and the competitiveness of the nominating process, but also on the existence of competing factions within a legislature and the existence of recognized competing political parties.[27] These indicators

were selected via a principal-factor solution (with iterations) using Varimax rotation.

For the 1979 portion of the study, a measure of accountability of governors was constructed by adding together measures of political rights and civil liberties compiled by Gastil.[28] The political rights measure rates states on a seven-point scale in which those judged "most free" have a fully competitive electoral process and those elected clearly rule. Those states judged "least free" are ruled by "political despots" who "appear by their action to feel little constraint from either public opinion or popular tradition."[29] The civil liberties measure is also a seven-point scale which takes into account the degree (1) to which courts protect individual differences of religion and of political opinion; (2) to which private rights and desires in education and residence are respected; and (3) freedom of the press from pressure to serve primarily as a channel for government propaganda. In adapting Gastil's measures to this study, these measures were added together and inverted to produce a new measure ranging from "14" (very accountable) to "2" (very little accountability).

Stress on Government. This concept is defined in this study as any period of great demands on, or significantly lessened support for, the existing government, as indicated by any relatively rapid changes or disruptions to the established pattern of social interactions between the governors and the governed.

Stress in 1950 is measured by data on the number of revolutions, taken from Banks Cross-Polity Time-Series Data and by number of protest demonstrations, riots, armed attacks, deaths from domestic violence, and number of government sanctions in response to perceived threats, taken from Taylor and Hudson's World Handbook of Political and Social Indicators.[30]

In 1979 the measure of stress on government is drawn from Gastil's table reporting levels of political terror in each nation. This table provides five

levels of terror based on "the extent to which the people live under a recognizable and reasonably humane rule of law." This judgment takes into account the number of occurrences and number of people subject to political murders, torture, exiles, passport restrictions, denial of vocation, ubiquitous presence of police controls, and threats against individuals and their relatives.[31]

Mass Media Development. In this study mass media development is defined as the level of availability of mass communication products per person in any given country. This definition does not include consideration of the type or quality of information conveyed by the media, but does indicate the general availability of such information.

In 1950 two indicators from Banks were used to measure the level of media development--number of radio sets per capita and newspaper circulation per capita.[32] These same two measures were used for 1979, but the data were drawn from the 1981 UN Statistical Yearbook.[33]

Level of Education. In this study, level of education is defined as the relative effort a society is exerting toward educating its population at a given time. Therefore, school enrollment ratios are used as indicators.

For the 1950 portion of the study, the indicators from Banks include primary and secondary school enrollment per capita, and total school enrollment per capita.[34] For 1979, figures on primary and secondary enrollment per capita were taken directly from the UN Statistical Yearbook, and a measure of total enrollment per capita was constructed by adding the primary and secondary school enrollment per capita figures to data on per capita enrollment in higher (third level) education.[35]

Urbanism. Shaw's suggestion that one way of operationally defining urbanism is to employ "such available data as volume of mail or number of phone

calls, with due attention being paid to 'the necessity for contextual operational definitions'. . ."[36] is used on the assumption that those scholars who define and measure urbanism and urbanization in terms of the concentration of population are really trying to tap the amount of participation in multiple information networks, and that this participation is what chiefly distinguishes the interests, knowledge and attitudes of relatively urban from relatively rural inhabitants.

Therefore, urbanism is measured in the 1950 portion of this study by an index composed of three indicators from Banks: volume of mail per capita, number of telephones per capita, and number of highway vehicles per capita.[37]

For the 1979 portion of the study, an index was composed of number of passenger cars per capita taken from the 1981 Europa Year Book and number of telephones per capita taken from the 1981 Europa Yearbook and the Yearbook of Common Carrier Statistics.[38]

Availability of Resources. Availability of resources is defined in this study as the relative supply of material goods per person in a country, including such diverse "goods" as food, shelter, clothing, transportation and energy.

This variable is measured in 1950 with an index composed of four indicators from Banks: gross national product per capita, gross domestic product per capita, energy consumption per capita, and revenue per capita.[39] In 1979, data on the single measure, gross national product per capita, taken from figures compiled by the World Bank is used to measured availability of resources.[40]

Findings

The revised model in Figure 2 illustrates the strongest relationships

among all concepts for all countries taken together during the 1950 to 1979 time period. When compared with the original theoretical model in Figure 1 and the results of Weaver's previous study, several differences are noticeable.

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Figure 2 About Here

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In the first place, it is clear that the relationships among resources, media development, accountability of governors and government control of the press are mostly reciprocal during the 29-year time period under study, supporting the arguments of those such as Golding who view modernization and development as "a total nexus of relationships" and not an immutable process of distinct developments.[41] These reciprocal relationships conform to the original theoretical model in Figure 1 in sign, but not in direction. There are positive path coefficients between resources, media development and accountability of governors, and negative coefficients between accountability of governors and government control of the press, as predicted by the theoretical model. But these characteristics of societies reinforce one another, rather than leading to each other in a step-by-step process, casting doubt on Weaver's earlier model, which specifies that increased media development leads to increased accountability of governors, which in turn leads to less government control of the press. (See Figure 1) The findings from this present study do suggest, however, that resources, media development, accountability of governors and minimal government control of the press are all linked to each other in various countries of the world, and that they mutually reinforce each other.

Although the original theoretical model specifies that increased resources are linked to increased mass media development through increased urbanism and higher levels of education of the populace, findings from this study suggest

that resources and media development are directly related to each other and reinforce each other. Urbanism does contribute positively to educational levels, and higher educational levels do lead to increased media development from 1950 to 1979, as predicted in the original model, but it is clear that the strongest predictor of mass media growth is the economic productivity of a country, and that media growth contributes to that productivity. In addition, increased urbanism (as measured in this study) contributes to increased economic productivity (rather than the other way around, as predicted by the model).

Increased economic productivity leads to less stress on a society, as predicted by the model in Figure 1, but less stress does not lead to less government control of the press. Instead, more government control of the press is a fairly weak predictor of more stress on society during the 1950-79 time period under study. In other words, it appears that increased government control of the press leads to increased stress, rather than vice versa, during this period.

Finally, there are two direct paths not predicted in the original model. The first is from media development to government control of the press, reinforcing Weaver's earlier conclusion that mass communication development may play an important role in reduced government control of the press in many areas of the world. The second is from resources to government control of the press, underscoring the importance of economic productivity to lack of government control of the press. Another way of interpreting these findings is to point out that the stronger the media economically, the less likely for there to be government control of these media.

Conclusions

What can we conclude from the addition of 13 years to the original time period of 1950 to 1966 used to test Weaver's orginal model?

First, the time period covered by this study (nearly 30 years between 1950 and 1979) is still short, when compared to even the modern histories of the countries studied. But during this post World War II period, it is clearer than before that mass media development is not so much a response to urbanism and to education as it is to increased economic productivity. Such media development contributes strongly to increased economic productivity as well as being the result of it.

Second, although there is evidence to suggest that mass communication development plays an important role in the growth of participant forms of government, as found in Weaver's earlier study, it is clear that a government system accountable to its citizens also contributes to the development of mass media. In the post-World War II period under study, there seems to be no evidence that one leads to the other, but rather they seem to contribute equally to each other.

Third, as in the earlier study there is evidence to support Siebert's proposition that "the more direct the accountability of the governors to the masses, the greater the freedom of the press" (at least from government control).[42] But it is also evident from the path coefficients in Figure 2 that economic productivity and the level of media development are stronger predictors of lack of government control of the press than is the accountability of the government.

In short, this study highlights the interdependency between economics, media development, democratic forms of government, and lack of government

control of the press among 134 countries of the world during the 1950 to 1979 time period. It points out strongly the importance of economics to media development and lack of government control of the press, and it supports those who argue that economics and mass communication must be considered together, not in isolation from one another.

This study suggests that both those who argue that a free media system is necessary for the establishment of democracy and for the stability of the political and social system -- and those who argue that press freedom is counter-productive -- need to take into account the structure and health of a nation's economic system. In other words, the New World Information Order cannot be realistically discussed and studied apart from the New World Economic Order. The two are inextricably linked.

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[23]Such coefficients are calculated by using standard multiple regression, with the path coefficients estimated by the standardized regression coefficients (Betas), providing that one makes the assumptions of linearity, homoscedasticity, noncolinearity, and constancy and equivalence of causal relations. When using path analysis over time, it is also necessary to assume that there are no instantaneous effects in the system, that the lag periods for all relationships are about the same, that the time required to measure the variables at one point in time is less than the causal lag period, and that the time between measurements is about the same as the causal lag period. Although this is a formidable set of assumptions, Heise has shown that they need not be unduly restrictive if one is interested

in patterns of relationships rather than precise prediction. See Heise, "Causal Inference from Panel Data," pp. 10-12.

[24]Heise, "Causal Inference from Panel Data," pp. 7-8.

[25]Wilbur Schramm and Richard F. Carter, "Scales for Describing National Communication Systems," Institute for Communication Research, Stanford University, about 1960, pp. 5-7.

[26]Raymond D. Gastil, Freedom in the World: Political Rights and Civil Liberties (New York: Freedom House, 1980), pp. 70-73.

[27]Arthur S. Banks, Cross-Polity Time-Series Data (Cambridge, Mass.: M.I.T. Press, 1971), pp. 3-55 and 283-297.

[28]Gastil, Freedom in the World, pp. 15-22.

[29]Gastil, Freedom in the World, p. 16.

[30]Banks, Cross-Polity Time-Series Data, pp. 283-297; and Charles Lewis Taylor and Michael C. Hudson, World Handbook of Political and Social Indicators (New Haven and London: Yale University Press, 1972), pp. 59-123.

[31]Gastil, Freedom in the World, pp. 37-40.

[32]Banks, Cross-Polity Time-Series Data, pp. 255-282.

[33]United Nations, Statistical Yearbook (1981), Section 8.16, pp. viii-150-153 and Section 11.2, pp. xi-14-20.

[34]Banks, Cross-Polity Time-Series Data, pp. 207-236.

[35]United Nations, Statistical Yearbook, Section 3.4, pp. iii-98-115, Section 3.7, pp. iii-166-224, and Section 3.11, pp. iii-279-318.

[36]Eugene F. Shaw, "Urbanism as a Communication Variable," unpublished paper presented to the Association for Education in Journalism, August 1969, p. 22.

[37]Banks, Cross-Polity Time-Series Data, pp. 137-206 and pp. 237-256.

[38]The Europa Year Book (London: Europe Publication, 1981); International Telecommunications Union, Yearbook of Common Carrier Telecommunication Statistics (Geneva: International Telecommunications Union, 1980), 8th ed., pp. 1970-1979.

[39]Banks, Cross-Polity Time-Series Data, pp. 99-136 and pp. 255-282.

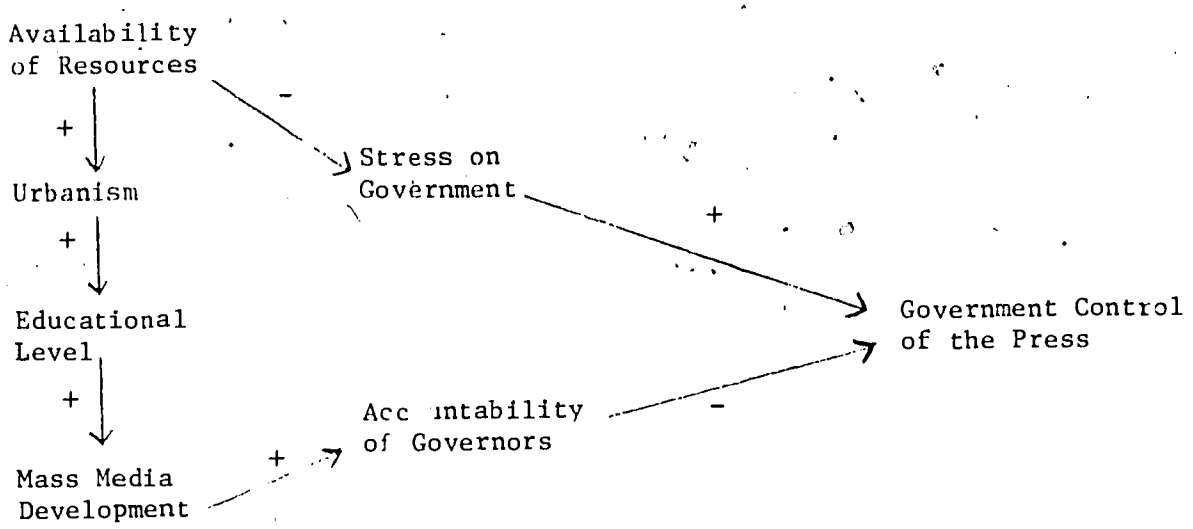
[40]World Bank Atlas: Gross National Product, Population and Growth Rates (Washington, D.C.: International Bank for Reconstruction and Development/The World Bank, 1982).

[41]Golding, "Media Role in National Development," p. 46.

[42]Siebert, Freedom of the Press in England, p. 10.

Figure 1

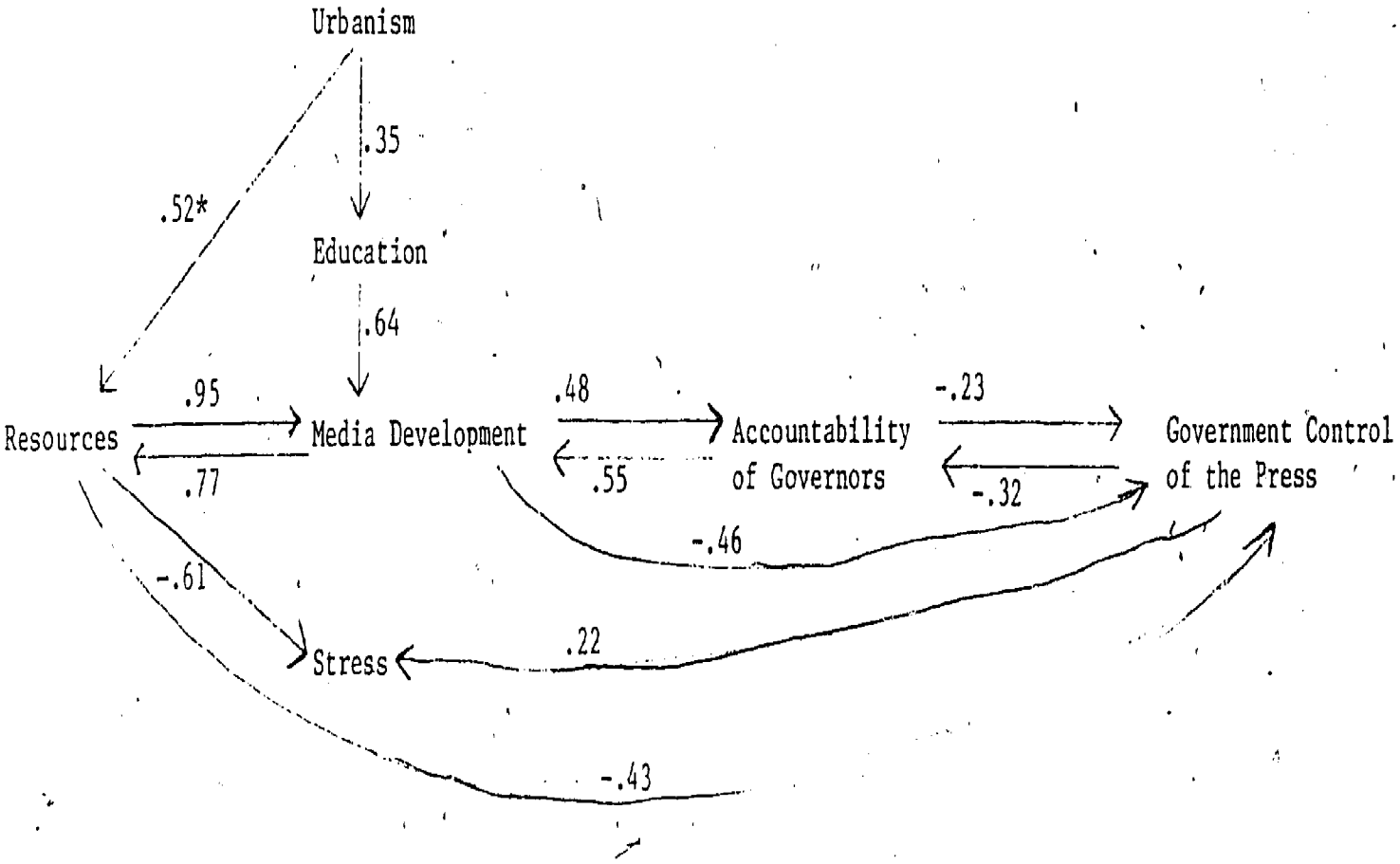
Weaver's Original Model of Predictors of Government Control of the Press*



*See David H. Weaver, "Press and Government Restriction: A Cross-National Study Over Time," Gazette, 23 (No. 3, 1977), pp. 152-170, for an explanation of the rationale behind this model.

Figure 2

Revised Model of Predictors of Government Control of the Press*
(All Countries, n = 134, 1950-1979)



*Standardized regression coefficients (Betas) for the strongest paths between variables during the 1950 - 1979 time period. Paths with Betas and/or correlations of less than .20 are not shown here.

APPENDIX

ALL COUNTRIES INCLUDED IN THE STUDY*

1. Afghanistan
2. Albania
3. Algeria
4. Argentina
5. Australia
6. Austria
7. Barbados
8. Belgium
9. Bolivia
10. Botswana
11. Brazil
12. Bulgaria
13. Burma
14. Burundi
15. Cambodia (Democratic Kampuchea)
16. Cameroon
17. Canada
18. Central African Republic
19. Ceylon (Sri Lanka)
20. Chad
21. Chile
22. China
23. Colombia
24. Congo-Brazzaville
25. Congo-Kinshasa (Zaire)
26. Costa Rica
27. Cuba
28. Cyprus
29. Czechoslovakia
30. Dahomey (Benin)
31. Denmark
32. Dominican Republic
33. Ecuador
34. El Salvador
35. Ethiopia
36. Finland
37. France
38. Gabon
39. The Gambia
40. East Germany (German Democratic Republic)
41. West Germany (Federal Republic of Germany)
42. Ghana
43. Greece
44. Guatemala
45. Guinea
46. Guyana
47. Haiti
48. Honduras
49. Hong Kong
50. Hungary
51. Iceland
52. India
53. Indonesia
54. Iran
55. Iraq
56. Ireland
57. Israel
58. Italy
59. Ivory Coast
60. Jamaica
61. Japan
62. Jordan
63. Kenya
64. North Korea
65. South Korea
66. Kuwait
67. Laos
68. Lebanon
69. Lesotho
70. Liberia
71. Libya
72. Luxembourg
73. Madagascar
74. Malawi
75. Malaysia
76. Maldive Islands
77. Mali
78. Malta
79. Mauritania
80. Mexico
81. Mongolia
82. Morocco
83. Mozambique
84. Nepal
85. Netherlands
86. New Guinea (Papua New Guinea)
87. New Zealand
88. Nicaragua
89. Niger
90. Nigeria
91. Norway
92. Pakistan
93. Panama
94. Papua (Papua New Guinea)
95. Paraguay
96. Peru
97. Philippines

APPENDIX (continued)

98. Poland
99. Portugal
100. Puerto Rico
101. Rhodesia (Zimbabwe)
102. Romania
103. Rwanda
104. Saudi Arabia
105. Senegal
106. Sierra Leone
107. Singapore
108. Somalia
109. South Africa
110. Southern Yemen (Democratic Yemen)
111. Soviet Union
112. Spain
113. Sudan
114. Sweden
115. Switzerland
116. Syria
117. Taiwan
118. Tanzania
119. Thailand
120. Togo
121. Trinidad and Tobago
122. Tunisia
123. Turkey
124. Uganda
125. United Arab Republic
126. United Kingdom
127. United States
128. Upper Volta
129. Uruguay
130. Venezuela
131. North Vietnam (Vietnam)
132. South Vietnam
133. Western Samoa (Samoa)
134. Yemen
135. Yugoslavia
136. Zambia
137. Zanzibar (Tanzania)

*Although there were 137 countries in Weaver's original study (from (1950 to 1966), there are only 134 countries in this study because Papua and New Guinea, and North and South Vietnam, are treated as one country in the 1979 data, and separate data for 1979 are not available for Zanzibar, which is now part of Tanzania.