Research Forum

Institutional Effects on Democratic Transitions: Neo-Patrimonial Regimes in Africa, 1989–1994*

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The outcomes of political transitions during the late 1980s and early 1990s varied considerably across sub-Saharan African countries. In their well-received book, Michael Bratton and Nicolas van de Walle (1997a) concluded that the differences in sub-Saharan Africa's incumbent neo-patrimonial regimes shaped contingent factors such as political protests and military interventions that were important to transition outcomes, but did not themselves directly influence the success of transitions. Shortcomings in their statistical analysis, however, cast doubt on this conclusion. This article presents an ordered logit analysis of Bratton and van de Walle's rich data set that corrects these flaws. It concludes that institutions did more than merely shape contingent events; they had powerful and independent direct effects on the outcomes of political transitions in the countries of sub-Saharan Africa.

Introduction

A s in many other regions around the world, an extraordinary number of political transitions began in the late 1980s and early 1990s in the countries of sub-Saharan Africa. The outcomes of these transitions, however, varied considerably: In some countries, at least roughly free and fair elections were held, and the losers abided by the results; in others, competitive elections were tainted by widespread fraud and misconduct as incumbents refused to cede power; in still others, rulers were unwilling even to call competitive elections. Michael Bratton and Nicolas van de Walle (1997a) supplemented explanations of these differing outcomes based on contingent factors (the focus of most works on democratic transitions) with attention to differences in political institutions. They concluded that variations in pre-transition regime type shaped important contingent factors, such as military interventions and rates of politi-

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cal protest, but did not themselves have direct effects on transition outcomes. Their book, *Democratic Experiments in Africa: Regime Transitions in Comparative Perspective*, was praised in the pages of the *American Political Science Review* as "an outstanding addition to the literature on political change in Africa and on democratization in general" and "one of the best applications of comparative analysis to the study of political behavior in Africa" (Reno 1999).

Problems with Bratton and van de Walle's operationalization of their principal independent variable and their choice of statistical methodology, however, render their analysis deeply flawed. After defining regime type as a particular *combination* of political participation and competition and then identifying the incumbent regime of each sub-Saharan country, they re-disaggregated the concept and tested only whether its two parts independently affect democratic outcomes (see Ragin 1987). Even more troubling is their choice of linear regression to test hypotheses regarding transition outcomes, an ordinal dependent variable. That linear regression produces seriously biased results in such applications has been well known in the social sciences since the early 1980s; Christopher Winship and Robert Mare (1984) provided a review of what was already then an extensive literature on this subject. Ordered logit regression is better suited for use with ordinal dependent variables. This article corrects these shortcomings and reanalyzes Bratton and van de Walle's rich data on transitions in sub-Saharan Africa, concluding that regime types directly affected transition outcomes even when contingent factors arising from the politics of the moment are taken into account.

Political Transitions in Africa

Bratton and van de Walle contended that the widely accepted arguments regarding democratic transitions were incomplete. Based on the experiences of countries in Latin America and southern Europe, these arguments emphasized choices made by important individuals in the course of the transition as explanations of outcomes (see, e.g., O'Donnell, Schmitter, and Whitehead 1986). Drawing on the works of Douglass North (1990) and Terry Lynn Karl (1990), they argued that differences in regimes, the formal and informal rules of the political game, must also be taken into account. The neo-patrimonial regimes of Africa—characterized by the individualized rule of "big men," systematic clientelism as the principal basis of political support, and blurred distinctions between public and private resources—contrasted sharply with the bureaucratic-authoritarian regimes that had ruled in Latin America and the more institutionalized authoritarian regimes of southern Europe.

Moreover, Bratton and van de Walle noted, there were significant differences among Africa's neo-patrimonial regimes. Using Robert Dahl's (1971) well-known two-dimensional schema, they identified three types of neo-patrimonial regimes. Military oligarchies, such as those of Ghana and Nigeria, had eliminated elections and banned political parties and were therefore low on measures of both participation and competition. Plebiscitary one-party regimes, although similarly intolerant of political competition, mobilized and controlled their citizens through officially sponsored rallies and demonstrations, as well

as ceremonial elections in which only the ruling party's single candidate appeared on the ballot. Zaire under Mobutu and Benin under Kérékou exemplified such regimes. Finally, competitive one-party regimes employed mechanisms of political participation like those found in plebiscitary one-party regimes, but also accepted a limited degree of competition: "Voters possessed a restricted electoral choice among candidates from a single official party with an established policy platform" (Bratton and van de Walle 1997a: 80). Competitive one-party regimes also tolerated a degree of opposition to the government at the fringe of the official party and in the press. The different political institutions and practices comprised by these three regime types, Bratton and van de Walle reasoned, should be expected to affect the dynamics of democratic transitions.

Despite their theoretical framework, the results of their statistical test forced Bratton and van de Walle to downplay the role of institutional factors in transition outcomes. Contingent factors—military interventions, political protests, and the cohesion of the pro-democratic opposition—as well as international dependence (measured by the magnitude of overseas development assistance) appeared to be important predictors of the degree of success of sub-Saharan Africa's transitions. Their linear regression analysis, however, showed that "the direct effects of institutional legacies were too feeble to be included in an overall account of the *process* of democratization"; the institutions and practices of previous regimes, they concluded, shape transitions only "*indirectly* through the actions of key political agents" (Bratton and van de Walle 1997a: 223 [emphases in original]).

Hypotheses and Data

In reanalyzing the outcomes of democratic transitions in sub-Saharan Africa, both institutional factors in the form of the type of the incumbent, neo-patrimonial regime, and contingent factors resulting from the politics of the moment are expected to affect the outcomes of democratic transitions. International factors such as relationships with international donor agencies may also play a role; Bratton and van de Walle's original analysis, in fact, found overseas development assistance to be an important predictor of transition outcomes (Bratton and van de Walle 1997a: 223). Structural factors, in particular a country's level of development, also might be expected to have an impact. Hypotheses generated by these four sets of factors may be tested using the rich data set Bratton and van de Walle (1997b) compiled and made available through the Inter-University Consortium for Political and Social Research.

Before reviewing these hypotheses and the data used to test them, I will briefly discuss the dependent variable—the outcome of democratic transitions in the early 1990s. Political transitions in the forty sub-Saharan countries with neo-patrimonial regimes, Bratton and van de Walle noted, resulted in one of three ordered outcomes. First, in the fourteen least successful cases, some degree of political liberalization may have occurred, but *no competitive elections* were held before the end of 1994. Second, in some countries political liberalization led only to *flawed elections*: Incumbent rulers "exploited the powers of

incumbency to dictate the rules of the political game by manipulating electoral laws, monopolizing campaign resources, or interfering with the polls" (Bratton and van de Walle 1997a: 121) to hold on to power. Such was the result in sixteen countries. Third, in the cases of *successful transition*, relatively free and fair elections took place, and losing candidates accepted defeat peacefully; this occurred in fourteen countries.

The importance of institutional factors to transition outcomes is the principle focus of *Democratic Experiments in Africa*. The particular institutions and practices of the three different incumbent neo-patrimonial regime types are expected to have had differing impacts on how successful democratic transitions were. Both the greater inclusiveness of the sixteen plebiscitary one-party regimes and the greater contestation accepted by the thirteen competitive one-party regimes are hypothesized to result in more successful transition outcomes than those of the eleven military oligarchies. Further, as Bratton and van de Walle noted (following Dahl), the relationship between competitive one-party regimes and more successful transition outcomes is expected to be stronger than that of plebiscitary one-party regimes.

Although Bratton and van de Walle used levels of political participation and competition to classify the incumbent regime type of each country of sub-Saharan Africa (Bratton and van de Walle 1997a: 79), they did not test their hypotheses on the effects of these regimes using these classifications, instead including their separate measures of participation and competition as proxies for regime type (Bratton and van de Walle 1997a: 222). Because regime types as Bratton and van de Walle defined them are characterized by particular *combinations* of participation and competition, estimating the effect of participation while holding competition constant (and vice versa) in a statistical analysis does not test whether different incumbent regime types have distinct effects on the prospects of a democratic transition (see Ragin 1987). To determine whether competitive one-party regimes and plebiscitary one-party regimes resulted in more successful democratic transitions than military oligarchies, two dummy variables were created. The variable "Plebiscitary One-Party Regime" is scored one for countries classified by Bratton and van de Walle as having such an incumbent regime, and zero otherwise. Similarly, "Competitive One-Party Regime" is a dummy variable scored one for countries so identified by Bratton and van de Walle, and zero for all others. There is no need for a third dummy variable for military oligarchies because this regime type serves as the baseline to which the other two types are compared.

Many of the most prominent arguments regarding regime transitions involve contingent factors—the decisions of individual actors at crucial moments. One important hypothesis is that outcomes hinge largely on whether the ruling elite can remain united in the face of pressure for democratization, with fractures within the elite greatly increasing the likelihood of more successful transitions. In military and civilian regimes alike, the army was an important pillar of the old regime (Bratton and van de Walle 1997a: 211); therefore, one measure of elite cohesion is whether the military stood fast and defended the incumbent regime against democratization or split from other ruling groups to push democratization forward. Military intervention is operationalized on

Bratton and van de Walle's three-point scale (anti-democratic intervention, no intervention, pro-democratic intervention), with higher values hypothesized to result in more successful democratic transitions.

A second argument based on contingent events in the course of the transition focuses on the cohesion of the opposition rather than the ruling elite. More successful transitions are hypothesized to result when the pro-democracy opposition unites and remains united, than when it fails to do so. Bratton and van de Walle evaluated the opposition of each country and created a dummy variable scored one for countries with a "dominant opposition leader and relatively strong and cohesive organization" and zero for countries with a "fragmented opposition, weak leadership and organization" (Bratton and van de Walle 1997b: 17). This variable was used to test the hypothesis that a united opposition had a positive effect on transition outcomes.

Bratton and van de Walle advanced a third argument regarding the politics of the moment during democratic transitions. They contended that the more frequent political protests were in the years leading up to the transition, the more successful the transition outcome was likely to be: "At best, political protest prompted a full-blown democratic transition; at minimum it allowed, through flawed elections, the installation of a liberalized form of autocracy" (Bratton and van de Walle 1997a: 221). This hypothesis is tested using Bratton and van de Walle's three-point scale of the frequency and violence of political protests from 1988 to 1992 as an independent variable. No political protests during those years are coded zero on this scale, some protests are coded one, and frequent or "particularly violent" protests are coded two (Bratton and van de Walle 1997b: 16).

International factors, particularly countries' relationships with the international donor community, can also be hypothesized to have effects on transition outcomes. In their analysis, Bratton and van de Walle used two indicators of international influence. Dependence on overseas development assistance, measured as the percentage contribution of foreign aid flows to gross national product, was expected to have a positive relationship with the outcome of democratic transitions. Conversely, greater numbers of structural adjustment programs were suggested to reduce the prospects for a successful transition. Both of these possibilities are included in the later analysis.

Finally, higher levels of economic development have a robust association with democracy and may have led to more successful democratic transitions in sub-Saharan Africa. This hypothesis is tested using data Bratton and van de Walle collected on gross national product per capita as the measure of economic development.

Method

Because the dependent variable of interest, the outcome of the democratic transitions of the early 1990s among sub-Saharan African countries with neo-patrimonial regimes, takes on three ordered values, ordered logit regression is the appropriate methodology for examining the effects of various hypothesized predictors. The method employed by Bratton and van de Walle, linear regres-

sion using the ordinary least squares estimator, attempts to fit a straight line through the data points, but when the dependent variable takes on only a few ordered values the assumptions needed for linear regression to yield efficient, unbiased parameter estimates are generally not met. In particular, because the distance between the first two categories of the dependent variable cannot be assumed to be equal to that between the second and the third, a linear solution misspecifies relationships (Winship and Mare 1984: 514). Further, because the dependent variable is nonlinear, the errors will have nonconstant variance (heteroskedasticity) and be correlated with the values of the predictors (autocorrelation) (McKelvey and Zavoina 1975). A simple example helps illustrate these problems in the error structure. For a single independent variable (X) with a positive relationship to a categorical dependent variable (Y), any attempt to fit a linear estimate through the data points will necessarily underpredict Y at low values of X (generating positive errors) and overpredict Y at high values of X (generating negative errors). In other words, the linear model fails to take into account the ceiling and floor of the values taken on by a categorical dependent variable, and errors therefore correlate with the values of the independent variable. An additional consequence is that, in this example, the variance of the errors are minimized at the extremes of X and maximized at intermediate values. As a result of these problems of heteroskedasticity and autocorrelation, the parameter estimates obtained from linear regression are neither efficient nor unbiased.

Ordered logit provides a solution to these problems. Unlike linear regression, ordered logit takes the floor and ceiling of the dependent variable's values into account and so avoids the problems of error structure described earlier (Winship and Mare 1984: 514). Ordered logit also recognizes the ordinal nature of the dependent variable without assuming that the differences between one category and the next are of uniform size across the variable's entire range, and so does not misspecify a linear relationship where none exists. Parameters estimating the effect of independent variables on the natural log of the odds of the dependent variable taking on a successively greater value are calculated using maximum likelihood techniques (see Winship and Mare 1984: 515-17; King 1989: 115-17) and are readily generated with most commercial statistical software packages. The analysis presented was performed using Stata 6.0.

Ordered logit analysis produces coefficients that represent the effect of each independent variable net of all other included independent variables, as well as standard errors associated with these coefficients that allow for hypothesis testing. Because these parameters are measured in logits, however, their magnitudes are difficult to interpret directly. The odds ratio provides one way to make sense of ordered logit coefficients: exponentiating the coefficient estimated for an independent variable yields the multiplicative factor by which a one-unit increase in that independent variable increases, on average and net of the effects of other variables, the odds of the categorical dependent variable taking on its next-greater value. Unlike other often-used means of interpreting ordered logit coefficients, such as predicted probabilities or marginal effects (see Greene 1997: 926-929), no assumptions about the values of other included independent variables are needed to calculate the odds ratio. The results of an

ordered logit analysis of the outcomes of democratic transitions of sub-Sa-
haran Africa's neo-patrimonial regimes, along with odds ratios for easier in-
terpretation of the magnitude of the estimated coefficients, are reported later.

Analysis and Discussion

The proposed hypotheses concerning contingent factors are confirmed by the
ordered logit analysis. Military intervention is a highly statistically significant
predictor of the outcome of democratic transitions ($p = .002$), and, over its full
three-point range, it has the largest effect of the variables considered. Con-
trolled by the other included variables, a one-point gain in a country's military
intervention score (the difference between an anti-democratic military inter-
vention and no intervention at all, or that between no intervention and a pro-
democratic intervention) increases the likelihood of a more successful transition
by a factor of approximately twenty-five.
    Whether the pro-democracy opposition is able to unite and remain united
also has a highly statistically significant effect on transition outcomes ($p =
.008$). A united opposition against the incumbent regime increases, net of other
variables, the likelihood of a more successful democratic transition by an aver-
age of just over eleven times. The frequency of political protests, the contin-
gent factor at the center of the explanation of transition outcomes offered by
Bratton and van de Walle, has the hypothesized positive effect on transition
outcomes, and is statistically significant at the .05 level when controlled by the
other included variables. Each one-point gain in a country's political protest
score is found to increase the likelihood of a progressively more successful
outcome by roughly 265 percent; a country with many protests in the years
before the transition is estimated to be 13.3 times as likely as a country with
few or no protests to be in a progressively more successful transition category.
    The importance of contingent factors notwithstanding, and contrary to Bratton
and van de Walle's conclusion that differences in institutions among Africa's
neo-patrimonial regimes do not have direct effects on transition outcomes, the
hypothesized institutional effects are strong and statistically significant. Plebi-
scitary one-party regimes are on average more than 6.5 times as likely as mili-
tary oligarchies to have experienced a more successful transition outcome. This
effect of plebiscitary one-party regimes is statistically significant at the .05
level. In the full model, competitive one-party regimes in Africa were *over
twenty times* as likely as military oligarchies to undergo a more successful
transition—a difference similar to that between countries that did not experi-
ence a military intervention and countries where the army stepped in to halt
the transition to democracy. The effect of competitive one-party regimes on
transition outcomes is highly statistically significant ($p = .008$).
    Conversely, neither of the international factors considered by Bratton and
van de Walle, the relative magnitude of overseas development assistance and
the number of structural adjustment programs, appear to have important ef-
fects on transition outcomes. For an additional percentage point of GNP re-
ceived in foreign aid, the likelihood of a more successful transition outcome
increases by 1.5 percent, a total increase of 141 percent over the full range of

Ordered Logit Regression Analysis of Outcomes of
Democratic Transitions in African Countries with
Incumbent Neo-patrimonial Regimes, 1989–1994 ($n = 40$)

	Model 1 Coefficient (Std. Err.)	Model 1 Odds Ratio	Model 2 Coefficient (Std. Err.)	Model 2 Odds Ratio
Institutional Factors				
Plebiscitary One-Party Regime	1.893* (1.013)	6.640	1.910* (.965)	6.753
Competitive One-Party Regime	3.110** (1.308)	22.421	3.236** (1.269)	25.432
Contingent Factors				
Military Intervention	3.232** (1.134)	25.280	3.342** (1.129)	28.276
Frequency of Protests	1.294* (.646)	3.647	1.254* (.581)	3.504
Opposition Cohesion	2.422** (1.002)	11.268	2.403** (.984)	11.056
International Factors				
Overseas Development Assistance	0.015 (.034)	1.015		
Structural Adjustment Programs	-0.002 (.112)	0.998		
Structural Factors				
GNP per capita ($100s)	0.025 (.051)	1.025		
Log Likelihood	-25.260		-25.448	

* $p < .05$ ** $p < .01$, one-tailed tests.

the variable (0% to 59.2%), but this result is not statistically significant. Additional structural adjustment programs were estimated to have only a tiny negative impact on transition outcomes when controlled by the other included variables, equivalent to a 2.57 percent decline in the likelihood of a more successful transition over the entire observed range of the variable (0 to 13). This effect cannot be distinguished from zero.

The estimate of the effect of economic development is positive, as expected, with each additional hundred dollars of gross national product per capita increasing the likelihood of a country's transition being in a progressively more successful category by an average of 2.5 percent, net of other variables, or 178.6 percent over the full observed range of the variable. This result, however, is not statistically significant, perhaps due to the relative lack of variation in development among what are some of the world's lowest-income countries—only two of the forty countries examined here, Gabon and Seychelles, had per capita GNPs greater than one thousand dollars in 1989. In any event, although the correlation between economic development and stable democracy is among the most well established relationships in political science (Rueschemeyer, Stephens, and Stephens 1992), levels of development are at best modest pre-

dictors of the outcomes of democratic transitions among sub-Saharan countries when the effects of the other included independent variables are taken into account.

Model 2, which drops the international and structural factors from the analysis, confirms the results found in the first model. The statistical significance and approximate magnitude of effects of the institutional and contingent factors are unchanged in this more parsimonious model. A likelihood ratio test of the two models yields a chi-square value of .396. With three degrees of freedom, the associated p-value is .951, and so the null hypothesis that the two models are equally predictive of transition outcomes cannot be rejected.

Conclusions

The shortcomings in the statistical analysis of the causes of differences in the outcomes of democratic transitions among sub-Saharan Africa's neo-patrimonial regimes presented in *Democratic Experiments in Africa* produced flawed results. By disaggregating their central independent variable of interest and, even more strikingly, failing to use statistical methods appropriate for their ordinal dependent variable, Bratton and van de Walle came to conclusions that are not supported by the results of more methodologically sound analysis. Contingent factors—conscious decisions made by political actors during the course of the transition—are indeed important to understanding transition outcomes. The institutions and practices of incumbent regimes, however, do more than merely shape contingent events; they have powerful and independent direct effects on the outcomes of political transitions. Bratton and van de Walle's principal insight that institutional factors must be included to gain a complete understanding of transitions and their outcomes, this analysis demonstrates, is more justified than even they believed.

Notes

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