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Author(s): J. Craig Jenkins and Augustine J. Kposowa

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# The Political Origins of African Military Coups: Ethnic Competition, Military Centrality, and the Struggle over the Postcolonial State

J. CRAIG JENKINS

*The Ohio State University*

AND

AUGUSTINE J. KPOSOWA

*Wayne State University*

Military interventions are strategic in understanding "who gets what, when, and how" in postcolonial Africa. Building on past structural explanations of African coups, we examine two waves of military interventions and different types of coup events, as well as the coup intensity index, the traditional focus of analysis. We find strong support for military centrality and theories of ethnic plurality and competition. There is little evidence of a participation "overload" or of the "social unrest" produced by economic dependency. The early independence coups were rooted in ethnic plurality and competition plus strong militaries; those in the 1970s were rooted in ethnic political competition. Plots had a strong ethnic basis, attempts were facilitated by multipartyism and mobilization levels, and successful seizures by strong militaries. Domestic conflicts played only a small role, and lagging growth, although destabilizing, could not be explained by dependency. Future work should focus on ethnic struggles inside the military as well as civilian governments, the political institutions that regulate these power struggles, and the prospects for an elite settlement that would regularize political competition, eliminating irregular means for acquiring power.

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In the past three decades, the military coup has, in effect, become the institutionalized method for changing governments in postcolonial Africa. Between 1960 and 1982, almost 90 percent of the 45 independent Black African states experienced a military coup, an attempted coup, or a plot (Johnson, Slater, and McGowan, 1984:627). During the course of some 115 regularized governmental changes,

*Authors' note:* Direct correspondence to J. Craig Jenkins, 300 Bricker Hall, 190 N. Oval Mall, The Ohio State University, Columbus, OH 43210. We have benefitted from the assistance of Pat McGowan, Robert Jackman, and Shawn McIntee with the data and from the advice of York Bradshaw, Elvis Fraser, and members of the African Studies Center Seminar at The Ohio State University. The Mershon Center and the Department of Sociology at Wayne State University provided financial assistance.

these states experienced 52 successful seizures, 56 attempts, and 102 plots.[1] By the early 1980s, the central executive of 25 of these states was in military hands, and military budgets typically consumed between 15 and 30 percent of governmental budgets (Mazrui and Tidy, 1984:xxiii–xxvii; Morrison, Mitchell, and Paden, 1989). Explaining the sources of military interventions, then, is key to answering the classic question: "Who gets what, when, and how?"

This article assesses the major structural interpretations of military coups d'état. By a military coup, we mean an irregular transfer of the state's chief executive by the regular armed forces or internal security forces through the use (or threat of the use) of force (Thompson, 1973:6). We exclude nonmilitary irregular transfers, such as cabinet reshufflings and palace coups lacking military participation. Although the motives of individual coup-makers are important in understanding military interventions, we assume that their actions are constrained by structural contexts that make their interventions more or less likely. Our key focus, then, is on structural contexts that determine the probability of military interventions. Past research has largely been guided by four explanations: (1) *political development* arguments about weak political institutions and a participation "overload" (Huntington, 1968; Barrows, 1976; Jackman, 1978); (2) the thesis of *military centrality* (Andreski, 1968; Wells, 1974; Nordlinger, 1976; Wells and Pollnac, 1988); (3) *ethnic antagonisms* as based on plurality, competition, and dominance (Jackman, 1978; Jenkins and Kposowa, 1990); and (4) *economic dependency* arguments about the persistence of colonial trading patterns and foreign capital penetration (Johnson et al., 1984; Jenkins and Kposowa, 1990). This work has generally not examined political processes that might intervene between social structures and military interventions, such as the balance of power among rival ethnic groups or ethnic instability. Building on recent cross-national analyses, especially Johnson et al. (1984), Wells and Pollnac (1988), and our own work (Jenkins and Kposowa, 1990), we evaluate the relative significance of these arguments, emphasizing the intervening role of political processes.

We also evaluate these arguments in terms of particular time periods and types of interventions. Some have argued that early independence interventions were rooted in political factionalism and ethnic conflicts (Zolberg, 1968), whereas later coups stemmed from economic stagnation (Mazrui and Tidy, 1984:263–265; Wells and Pollnac, 1988). We therefore look separately at military interventions in the 1960s and those in the 1970s. Second, some have argued that different types of interventions have distinct sources. Janowitz (1977), for example, argued that factionalized militaries are prone to plotting but lack the cohesion to seize power. Similarly, it seems plausible that underlying tensions, such as ethnic conflicts or restricted economic opportunities for the educated middle class (Thomas, 1984), should have encouraged plots; whereas the features of political institutions, such as factionalized legislatures and multipartyism (Huntington, 1968), should have been more critical for attempts or successful seizures. We therefore look at types of coup events as well as the coup intensity index.

We also correct for several methodological problems that have bedeviled past work (see the discussion in Jackman, O'Kane, Johnson, McGowan, and Slater, 1986). In a trend design, independent variables should be measured at or as near to independence as available data allow, reducing the likelihood of simultaneity bias. Comparing different panels provides an additional check. Second, we control for the *hazard* or exposure to coups resulting from different periods of independent statehood. Past work, including our own, has left exposure uncontrolled,

[1] Military coup estimates come from Johnson et al. (1984:627) and regularized governmental change from the machine-readable version of the World Handbook of Political and Social Indicators.

leaving open the possibility that coups are simply random and therefore simply the product of different exposure periods. A viable structural explanation should, at the minimum, hold independent of the years of independent statehood. Third, these arguments have typically been cast in terms of underlying social structures that can only partially be tapped in terms of single measures. We therefore use a series of vector variables constructed from a factor analysis of coup sources. Finally, we use a comparable sample of majority-controlled postcolonial states and use regression diagnostics to check for influential cases and outliers (Bollen and Jackman, 1985). We rely on the military involvement data assembled by Johnson et al. (1984; also McGowan and Johnson, 1986) because it provides the most reliable and extensive estimates of military interventions yet available.

## Structural Theories of Military Interventions

Several of the most popular explanations of African coups have derived from modernization theories of *political development.* Focusing on the political problems of the "new nations," the basic argument is that modernization processes have created rising social mobilization. Political development has lagged behind, creating a participation crisis that encourages military interventions (Deutsch, 1961; Huntington, 1968). This argument rests on two major hypotheses. First, social mobilization, as rooted in rising education, literacy, media exposure, and urban-industrial development, creates greater awareness of political events and capacities for political action. Groups are therefore more likely to participate, placing increased demands on the state. Second, these states are institutionally weak, unable to respond to these demands and to regulate social conflicts, thereby succumbing to military interventions and related instabilities. As former colonies, many inherited weak administrative structures marked by corruption and internal rivalries. Political loyalties remain sectional, tied to ethnic and regional identities. In these settings, multiparty regimes are vulnerable to factionalism and governmental stalemates, thereby provoking military interventions.

Both hypotheses have received some support. Mobilization is related to military interventions, but it is unclear whether mobilization is directly related or the result of boosting participation (Barrows, 1976; Jackman, 1978; Collier, 1983; Johnson et al., 1984). Nor is the meaning of participation clear. High turnout in the independence elections was stabilizing (Jackman, 1978; Collier, 1983), but the participation "overload" thesis includes the idea that participation spilled over into noninstitutional actions, especially communal riots, social protests, and mass insurgencies. These need to be examined, as do the links between mobilization, institutional participation, and interventions. Since all of the states we are examining were colonies, we cannot thoroughly evaluate the ideas about colonial weaknesses. We can, however, look at the thesis that multipartyism and political factionalism in the early independence legislatures led to military interventions. Several have found that multiparty regimes were more prone toward elite instability (Welfing, 1973; Jackman, 1978; Collier, 1983), and the same apparently applies to military seizures (Johnson et al., 1984; Jenkins and Kposowa, 1990).

A related set of arguments deals with the *political centrality of the military,* arguing that the greater the resources and cohesion of the military, the greater the likelihood of interventions. One argument casts Third World military leaders as modernizing elites, arguing that their professional training and exposure to the developed societies creates an awareness that national security depends on social and economic development (Janowitz, 1977; Stepan, 1978). Judging themselves and their resources by the standards of the advanced countries, military officers come to view their own societies as backward, corrupt, and inefficient, and are

therefore willing to intervene against ineffective civilian rulers. A second view emphasizes the sectoral interests of the military, treating the military as a potentially parasitic institution which, given its centrality to the state's claim on a monopoly on legitimate violence, is prone to use this to dominate politically, especially if civilian institutions are weakly developed (Andreski, 1968; Finer, 1988). In the simplest formulation, the stronger the military resources, either as a percent of state resources or relative to the national economy, the weaker the institutions of civil society and thereby the probability of military interventions. Another set of hypotheses focuses on military organization. Some have argued that a centralized chain of command, military discipline, extensive communication, and an *esprit de corps* make military officers a cohesive group, capable of organizing effective seizures (Finer, 1988). Others have argued the contrary, that the weak professionalism and internal rivalries of Third World militaries encourage interventions (Huntington, 1968; Nordlinger, 1976). Finally, it is possible that both are valid if one specifies the type of intervention; cohesion leading to successful seizures while rivalries lead to plot and attempts (Janowitz, 1977:29).

The second and third theses have received more empirical attention. Case studies have repeatedly traced coups to ethnic and sectional rivalries inside the militaries (Mazrui, 1975; Cox, 1976; Decalo, 1976; Kasfir, 1976; Enloe, 1980; Mazrui and Tidy, 1984:226–260). Johnson et al. (1984) found that military factionalism, as indexed by the number of ethnic groups multiplied by the number of troops, led to coups. This is a poor measure, however, in that it does not directly tap ethnic relations inside the military. Smaldone (1974) argued that the early and thoroughgoing Africanization of the officer corps typically heightened internal rivalries, thereby encouraging coups. The replacement of the former colonial officers by indigenous, or "native" officers removed the check of former colonial officers and encouraged interpersonal and sectional rivalries, including ethnic loyalties and ties to training schools and military units. As for the resource thesis, several studies have found that larger armies and those with greater claims to government revenues have been more coup prone (Wells, 1974; Johnson et al., 1984; Wells and Pollnac, 1988; Jenkins and Kposowa, 1990).

A third focus has been *ethnic antagonisms.* As noted, the case studies have frequently pointed to ethnic tensions. The central puzzle is what type of ethnic relations creates destabilizing ethnic rivalries? Second, is this an elite phenomenon or are mass conflicts, such as ethnic riots and secessionist movements, central? There are at least three explanations of ethnic antagonisms. Drawing on *cultural pluralism* ideas, Morrison and Stevenson (1972a, 1972b) found that the greater the number and cultural diversity of the groups, the greater the elite instability. Plurality meant a larger number of groups and potential cleavages and thereby less stable coalitions, creating a greater likelihood of interventions. Communal conflicts had similar roots, although they might not shape elite instability (McGowan, 1975). Jackman (1978) advanced an alternative *ethnic dominance* thesis that a large hegemonic group exploited others, thereby provoking challenges and preemptive interventions. In his analysis, the larger the size of the dominant group, the greater the likelihood of coups. Although in previous work (Jenkins and Kposowa, 1990) we found evidence against this, it could be that dominance creates mass conflicts and thereby interventions or that the difference in results is due to influential cases. A third *ethnic competition* thesis emphasizes the ethnic mobilization produced by independent statehood, urbanization, and economic development (Olzak, 1983; Olzak and Nagel, 1986). With independent statehood, previously separated groups held in check by colonialism suddenly become open competitors for political power; and, with migration to the cities and increased social mobility produced by economic development, competition for jobs and urban amenities intensifies. These processes also increase social mobilization. Although this approach assumes

cultural plurality, it does not center on the number and cultural differences among groups but on their competitive relationships. Drawing on Korpi's (1974) power balance theory, a key thesis is that the closer the resource parity between the largest groups, the greater the likelihood of ethnic conflicts (Horowitz, 1985:500–525). In previous work (Jenkins and Kposowa, 1990), we found that the closer the size of the two largest groups, the greater the likelihood of coups. We extend this here by looking at the balance of power inside the government as well as the intermediating role of ethnic conflicts.

Finally, a fourth focus has been the *economic dependence* of these former colonies. The persistence of colonial trading patterns, especially strong ties to the former colonial power and reliance on the export of a limited number of raw material and agricultural commodities, has been seen as intensifying the poverty and inequality in these "new nations." Export agriculture is typically based on coercive labor controls, requiring a strong military (Paige, 1975). The ex-colonials have also preserved their ownership of strategic economic resources, creating a "neo-colonial" dependency.

Foreign investments have flowed toward export industries, weakening internal diversification and multiplier effects. More recently, transnational corporations and banks have invested in industrial development, importing advanced technology and thereby creating overurbanization, tertiarization of the labor force, and growing inequality (McGowan and Smith, 1978; Evans, 1979; Bradshaw, 1985). In this economic context, the educated middle class (including military officers) turns to governmental corruption and irregular measures, such as coups, to secure upward mobility (Thomas, 1984). The resulting "social distortions" are also seen as creating social unrest, which in turn provokes military seizures (O'Donnell, 1979).

The strongest support has been for the export dependence thesis. O'Kane (1983) found that volatile export earnings led to interventions. Similarly, Johnson et al. (1984) found that persisting export concentration contributed to seizures. In previous work (Jenkins and Kposowa, 1990), however, we found that export specialization and foreign investment were irrelevant, whereas foreign debt contributed to coups. The intervening link of social unrest has remained unexplored, as has its links to different aspects of dependence. Nor has anyone demonstrated that the negative or slow economic growth presumably produced by dependence is behind the coups.

The major limitation of this past work has been its lack of attention to intervening political processes. Of critical importance is the seeming contradiction between citizen participation as a constraint on interventions and the idea that rising mass participation provokes interventions. Discussions of the political "overload" thesis, for example, have not examined noninstitutional actions (e.g., Barrows, 1976; Jackman, 1978). Nor has the dependency thesis about social unrest provoking coups received attention (e.g., O'Kane, 1983; Johnson et al., 1984; Jenkins and Kposowa, 1990). Discussions of ethnicity have looked at general ethnic distributions but have not dealt with communal conflicts or ethnic movements (e.g., Jackman, 1978; Jenkins and Kposowa, 1990). There is also the possible distinction between the coups immediately after independence and those later. Political factors may have been initially more important, with economic troubles becoming central in the 1970s. Similarly, different types of interventions may have had distinctive origins, e.g., plots stemming from military factionalism, and successful seizures being due to military resources. Because of the large number of possible coup determinants, we begin with an exploratory correlational analysis and then turn to factor analysis to construct a series of independent variables to represent the major determinants. At several points we supplement our main regression analysis to see if intermediary links in these theories, such as the political unruliness supposedly created by mobilization, are valid.

## Method and Data

We evaluate these various hypotheses using regression analysis and a trend design. To construct our independent variables, we begin with a correlational analysis of single measures to identify the strongest correlates with the Military Involvement Index (or MII). The three strongest correlates are then entered into a factor analysis to derive a set of predictor variables representing these underlying constructs which are then used in a regression analysis. Our independent measures are taken at or as near as possible to independence, with the coup measures spanning the years 1957 (the first independence in Ghana) through 1984. We also split the coup measures into two shorter periods, 1960–1969 and 1970–1982, to capture the immediate postindependence period and the economically troubled 1970s. This allows us to see if effects are period specific, as well as to cross-check problems with simultaneity bias.

We also use two longer periods, 1960–1982 and 1957–1984. The former provides comparison with past work, especially Johnson et al. (1984). The latter provides a longer exposure.

Throughout these analyses, we control for the exposure to interventions produced by different independence dates. The first country to be independent was Ghana, in 1957, followed by a wave of independences in the early 1960s culminating with Swaziland in 1968. (We exclude countries that became independent in the 1970s because of their limited exposure and because data are not available on most of the independent variables.) By dividing the MII by the years of independence for each panel (i.e., MII/years of independence within the panel), we control for effects different exposures might have on the number of coup events.

We deal with 33 majority-controlled states of sub-Saharan Africa. Past analyses have used between 26 (Collier, 1983) and 35 states (Johnson et al., 1984), creating uncertainty about whether results are due to the quirks of particular populations. We are guided by two principles. On the one hand, we should maximize the number of cases so as to ensure external validity and stable results (especially given the large number of hypotheses). On the other hand, in dealing with a regional sample, we have adopted a comparable cases strategy (Lipjhardt, 1975) of dealing with states sharing major commonalities. Our sample consists of majority-controlled postcolonial states. We include two states that were never formally colonies: Liberia and Ethiopia. The semicolonial status of Liberia is unambiguous, having been a protectorate of the U.S. and consequently dominated by a small Americo–Liberian elite. Ethiopia is a complex case, the only African state to have never been colonized. Yet the Italian occupation (1936–1941) and the subsequent Western sponsorship of the Emperor, coupled with British sponsorship of Eritrean autonomy, created a neo-patrimonial and ethnically factionalized state similar to the former colonies (Mazrui and Tidy, 1984:268–269). Further, these states have been exposed to the same geopolitical and global economic forces as the former colonies. We have also included the former British colonies of Botswana, Lesotho, and Swaziland which became independent in the late 1960s (1966, 1966, and 1968, respectively). Given our longer period and controls for exposure, there is no reason for excluding them. Because of the lack of available data on several of the independent variables, we exclude Mauritius and Madagascar. To check for influential cases and outliers, we use standard regression diagnostics (Bollen and Jackman, 1985).

The Military Involvement Index constructed by Johnson et al. (1984; also McGowan, 1985; McGowan and Johnson, 1986) is our primary measure of military coups. These data have the major virtues of dealing solely with military interventions and having been validated against earlier estimates. As an index of coup intensity, the MII differentially weights plots, attempted coups, and successful coups (1, 3, and 5) and sums these over a time period. As mentioned earlier, we examine these over different time periods, 1960–1969 and 1970–1982, to capture

possible differences between the independence and the later period; and 1960–1982 and 1957–1984 to maintain comparability and tap the longest exposure available. We also look at the sums of plots, attempts, and coups separately over the longest time period to see if these have distinctive origins. We control for exposure throughout by dividing these scores by the years of independent statehood, reporting both raw and normalized results.

Between 1957 and 1984 there were 56 coups, 65 attempts, and 109 plots, or an average of 6.97 coup events per country and 0.26 per country-year of independence. The MII is positively skewed (1.051), ranging from a low of 0 for Botswana, Lesotho, and Swaziland to a maximum of 55 for Ghana and a mean and standard deviation of 14.09 and 12.56. To control for skewness, we use the natural log for all variables with a skewness statistic of 0.8 or greater.

Our independent variables are clustered around four interpretations. The strongest political development factor has been *social mobilization*, creating political awareness and capacities for political action. We have tapped mobilization through seven measures: the percent of the labor force outside of agriculture for 1960 (World Bank, 1985); the percent urban and the percent industrial labor force for 1965 (World Bank, 1985); newspaper circulation per 1,000 population for 1960 (Taylor and Jodice, 1983); the number of radios per 1,000 population for 1960;[2] the literacy rate in 1960; and secondary school enrollment per 10,000 population in 1966. Because military coups and government repression soon restricted mass political participation, the best measure of *conventional participation* is the voting turnouts at the pre-independence elections. To capture *unconventional actions*, we use the communal instability (1960–1975) and turmoil (1960–1975) indices constructed by Morrison et al. (1989). These are normed for exposure and so resemble the exposure-controlled coup indices.

To capture weak political institutions, we have focused on *legislative fractionalization* at independence and *multipartyism*, which should have led to governmental stalemates. Legislative fractionalism is based on the index constructed by Morrison et al. (1989). Multipartyism is measured three ways: the number of legal parties between independence and 1969; the existence of multiple legal parties prior to the first coup (or 1967 if no coups had yet occurred), coded as a dummy variable (0 = no or one party; 1 = multiparty) (derived from Country Profiles, Morrison, Mitchell, and Paden, 1972); and single-party dominance based on the margin of victory for the winning party in the pre-independence elections.[3]

Whereas ethnic relations are notoriously difficult to capture in cross-national analyses, we think they can be sufficiently tapped by drawing on the demographic measures provided in the Country Profiles assembled by Morrison et al. (1972).[4] The key measures center on ratios between different groups in the general population and within the government. For most countries, data are available for both clusters (abstract groupings based on common cultural traits) and identity groups (groups based on self-identification) (see Morrison et al., 1972:15–25). Although past work has relied on clusters, we think identity groups are more likely to be politically mobilized. We therefore use identity group measures where available.

If *ethnic plurality* has a destabilizing effect, it should be evident through two dimensions: the number of groups, and the cultural differences between them. To capture the first, we have used the number of ethnic identity groups. To capture linguistic divisiveness, we have used the number of languages and the percent of nonspeakers of the dominant vernacular. Cultural plurality is gauged by the plurality indices constructed by Morrison et al. (1972:172, 174) which are essen-

[2] Unless otherwise indicated, these data come from the two editions of *The Black Africa Handbook* (Morrison et al., 1972, 1989).

[3] For Ethiopia, we substituted the mean, following Morrison et al. (1972:103).

[4] Ethnic data for Swaziland come from Hoffman (1989).

tially variances among colonial-era cultural groups in terms of their social stratification, community organization, and political authority systems. The assumption is that these cultural differences persisted through early independence and thereby led to ethnic tensions.

*Ethnic dominance* is the inverse of diversity, based on the resources of a hegemonic group. Since direct measures of ethnic economic stratification are unavailable, we have used a series of measures based on demographic ratios and political representation. We tap dominance through the percent of the population represented by the largest cluster and identity group; a threshold measure based on a cluster or identity group with 44 percent or more of the population (coded as a dummy, replicating Jackman, 1978); and language dominance as based on the ratio of first- to second-language speakers. Gauged by the threshold measure of 44 percent or more of the population, 11 of our 33 states are characterized by a dominant group. Political dominance is gauged separately from four measures: the percent of the largest group in the independence cabinet and in the cabinet immediately prior to the first coup (or 1967 if there had not been a coup); and a pair of overrepresentation ratios based on the first group's cabinet positions in the independence government and the pre-coup government (or 1967) relative to its population (percent in first group cabinet/percent first group in the population).

If *ethnic competition* theory is correct, rivalries should be created by a small number of relatively comparable groups. Since the two largest groups are generally the major contenders, we constructed measures of the competitive position of the second largest cluster and identity groups: its population percent; a threshold measure based on the second group being 20 percent or more of the population (coded as a dummy); a competition ratio based on the size of the second group relative to the largest group for clusters and identity groups; and language competition based on the percent of speakers of the second language and the ratio of second- to first-language speakers. Gauging competition from our threshold measure, there were 10 states with a second group capable of challenging the dominant group. To see if political competition was relevant, we used the percent of the second group in the independence and pre-coup (or 1967) cabinets. To see if political discrimination created hostilities, we also calculated an underrepresentation ratio for the second group based on its positions in the independence and pre-coup cabinets relative to its population.

*Military centrality* theory emphasizes the size, cohesion, and budget claims of the military and its autonomy from civilian leaders. We used the number of troops and internal security forces in 1967 and the defense budget as a percent of GNP and of government spending in 1967. In several states, early and thoroughgoing Africanization of the military officer corps tended to politicize the military and create internal factionalism, removing the check of the former colonial officers and setting off competition between rival divisions and ethnic groups (Smaldone, 1974). We therefore used the 6-point Africanization index for 1965 which gauges the extent to which former colonial officers had been removed and the officer corps Africanized (Morrison et al., 1972:120).

Almost all of the African states have been economically dependent on the export of a relatively limited number of agricultural products, minerals, and other primary products. In many cases, trading relations with ex-colonial powers have remained in force. Foreign investments in major industries and, most recently, growing foreign debt have led to economic problems and controversies over economic policies. To capture "classical," or *export dependence*, we used eight measures: the percent of export trade with the colonial or ex-colonial power in 1962; agricultural, raw material, mineral, and primary products exports as a percent of total exports in 1965–1966 (United Nations Commission on Trade and Develop-

ment, 1986);[5] exports as related to GDP in 1964 (Morrison et al., 1989); and dependence on a small number of exports as based on the top three exports and the leading export as a percent of total exports. To capture the effects of *foreign capital penetration*, we used: the stock of foreign investment relative to GDP in 1967; total foreign debt relative to GNP in 1970; and foreign debt service loads (or debt payments/exports) for 1968. In addition, to tap the effects of these on economic growth and social unrest, we look at the intermediary role of average annual growth in GNP for 1960–1969 and 1970–1981 (World Bank, 1983a, 1983b) and the domestic conflict measures cited above.

## Analysis and Findings

Because of the large number of measures and hypotheses, our first step is to explore the correlations between these measures and the coup intensity indices to identify a set of promising measures for regression analysis. Table 1 presents the Pearson correlations, with the various panels of the MII divided by the years of independence. Since these constitute a universe of countries, inferential statistics are inappropriate. We use significance tests merely as a guide to substantive significance. In the exploratory correlational analysis, we report two-tailed tests, but we use one-tailed tests in the regression analysis where we have predicted the direction of results.

*Bivariate Results.* In general, these provide consistent support for ethnic plurality and competition and the centrality of the military, partial support for political development arguments, and negative evidence on economic dependency. The strongest political development measures are tied to social mobilization as based on secondary schooling, industrialization, and urbanization. The percent of nonagricultural labor force, literacy rates, and media exposure are unrelated. The idea of a participation crisis rooted in high turnout in early independence is undercut by the negative association of turnout levels to coups. Social mobilization appears to be multidimensional, and none of the mobilization measures are significantly related to voting turnout (results not shown). Rather, supporting Collier's (1983) contention that high turnouts reflect ethnic dominance, turnout is associated with the size of the largest identity group ($r = 0.4915$) and its dominance in the independence cabinet ($r = 0.4249$). However, communal conflicts and turmoil do appear relevant, with communal conflict associated with coups in the 1970s and turmoil in the longer panel. They are not associated, however, with the mobilization measures (results not shown), suggesting that mobilization effects are not mediated through communal instability.

A crucial link in the political "overload" thesis is the destabilizing effects of multipartyism and legislative factionalism. Of the multipartyism indices, however, only the dominance of the leading party was significantly (negatively) associated with military interventions, supporting the idea that the stronger leading parties at independence typically instituted regimes that proved more resistant to military interventions. A second argument is that mobilization gave rise to unconventional mass action, which, in turn, provoked military interventions. As noted, communal conflicts and turmoil might be relevant but were not rooted in mobilization levels (results not shown).

Military centrality displays the strongest and most consistent associations with the interventions; the weakest is the size of the internal security forces. Although

[5] We had to substitute the mean on these exports for Botswana and Guinea because of missing data.

TABLE 1. Correlates of military interventions controlling for exposure (Pearson's r's) (N=33).

| | *Dependent variables* | | | |
|---|---|---|---|---|
| *Independent variables* | *LMII/Ind. (60–69)* | *LMII/Ind. (70–82)* | *LMII/Ind. (60–82)* | *LMII/Ind. (57–84)* |
| **Political Development Measures** | | | | |
| *Mobilization:* | | | | |
| Nonagriculture (60) | −.0916 | −.2473 | −.1658 | −.2168 |
| Industry (65) | .4438** | .1804 | .3206 | .3535* |
| Urban (65) | .3496* | .1869 | .3265 | .3867* |
| L News (60) | .3082 | .3015 | .3246 | .3669* |
| Radios (60) | .1561 | −.1205 | .0656 | .0247 |
| L Literacy (60) | −.0662 | −.3181 | −.1865 | −.2370 |
| L Schools (66) | .3452* | .2608 | .3338 | .4274* |
| *Political Institutions:* | | | | |
| Legis. fractionalism | −.0229 | −.0423 | −.0986 | −.0211 |
| # Parties (–69) | −.0333 | .0775 | −.0273 | −.0395 |
| Multipartyism | .2398 | .2042 | .1787 | .1200 |
| Party dominance | −.3421* | −.1820 | −.2314 | −.3091 |
| *Political Participation:* | | | | |
| Independence turnout | −.5090** | −.3382* | −.4874** | −.5217*** |
| L Communal conflict | .0777 | .4040 | .3226 | .3141 |
| Turmoil | .2740 | .3747 | .3354 | .3930* |
| **Military Centrality Measures** | | | | |
| L Military (67) | .5486*** | .4238** | .5559*** | .6390*** |
| L Security (67) | .2804 | .2664 | .3021 | .3980* |
| $ Defense GNP (67) | .4558** | .4231** | .5047** | .5770*** |
| $ Defense/Govt. (67) | .3983* | .3636* | .4225** | .5824*** |
| Africanization (65) | .6673*** | .4488** | .6004*** | .6201*** |
| **Ethnic Antagonism Measures** | | | | |
| *Plurality:* | | | | |
| # Groups | .2317 | .2584 | .3563* | .3889* |
| # Languages | .2655 | .2135 | .2531 | .3486* |
| % Non-vernacular | −.2308 | −.2927 | −.2940 | −.4314** |
| Plurality—Strat. | .3030 | .3841* | .4168** | .5138** |
| Plurality—Com. org. | .3168 | .3486* | .4613** | .4971** |
| Plurality— Pol. auth. | .2879 | .2749 | .3434* | .4302** |
| *Dominance:* | | | | |
| % 1st (I) | −.3672* | −.2108 | −.3945* | −.4733** |
| $ 1st (C) | −.2715 | −.1075 | −.2898 | −.3939* |
| 44%+ 1st (I) | −.2663 | −.0320 | −.2109 | −.2631 |
| 44%+ 1st (C) | .0176 | .1638 | .0269 | −.0355 |
| Language dominance | −.1939 | −.3338* | −.3290 | −.4544** |
| Cabinet—Ind. | −.3344 | −.1981 | −.3742* | −.4318** |
| Cabinet—Pre-coup | −.2324 | −.1970 | −.3031 | −.3730* |
| Overrep.—Ind. | −.0104 | .1430 | .0661 | .0352 |
| Overrep.—Pre-coup | .1583 | .1621 | .1949 | .1489 |
| *Competition:* | | | | |
| % 2nd (I) | .3882* | .3403 | .4126** | .4784** |
| % 2nd (C) | .3565* | .3226 | .4151** | .4537** |
| 20%+ (I) | .2979 | .1937 | .2904 | .2752 |
| 20%+ (C) | .4799** | .2319 | .4242** | .4015* |
| Competition ratio (C) | .3027 | .1403 | .3046 | .3850* |
| Competition ratio (I) | .3591* | .2070 | .3640* | .4357* |

TABLE 1. (continued)

| Independent variables | Dependent variables: LMII/Ind. (60–69) | LMII/Ind. (70–82) | LMII/Ind. (60–82) | LMII/Ind. (57–84) |
|---|---|---|---|---|
| *Competition:* | | | | |
| % 2nd language | .3354 | .3770* | .4494** | .4833** |
| Language competition | .1778 | .3157 | .2939 | .3828* |
| Cabinet—Ind. | .2488 | .3023 | .3013 | .3323* |
| L. Cabinet—Pre-coup | .3440 | .3065 | .3629* | .3936* |
| Discrim.—Ind. | −.0772 | −.1472 | −.1015 | −.1139 |
| Discrim.—Pre-coup | −.0774 | −.1066 | −.1004 | −.0686 |
| **Economic Dependency Measures** | | | | |
| Ex-colonial trade (62) | .0809 | −.0542 | .1273 | .1912 |
| Agricultural exports (66) | −.0694 | −.1297 | −.1751 | −.1387 |
| Raw materials (65) | −.0458 | .1453 | .1620 | .2117 |
| Mineral exports (66) | −.1852 | .0908 | .0292 | .0019 |
| L Primary exports (66) | −.2054 | .0198 | −.0419 | .0191 |
| Exports/GDP (64) | −.2208 | −.1530 | −.1431 | −.2229 |
| Export concentration (65) | −.2167 | .0747 | −.0059 | −.0612 |
| 1st export (66) | −.0672 | .1322 | .0550 | −.0167 |
| L Foreign invest./GDP (67) | −.1132 | −.0000 | −.0408 | −.0795 |
| L Debt/GNP (70) | .1492 | .1906 | .1546 | .1552 |
| Debt load (68) | .3080 | .1707 | .2117 | .2025 |

*p ≤ .05; **p ≤ .01; ***p ≤ .001
L = natural log.; C = cluster group; I = identity group

military size, measured after the earliest coups (1967), could have been a product of these coups, the interventions largely occurred after 1967. The relations also showed consistently for the 1970s. The most novel finding is the strong association of an Africanized officer corps with interventions, suggesting that Africanization politicized the military and created internal factionalism which spilled over into military interventions.

Ethnic plurality and competition are consistently tied to coups across a large number of measures whereas dominance is consistently negative. The strongest associations for plurality are the three diversity indices and, for competition, the size of the second group, the percent of second-language speakers, and the competition ratios. There does not appear to be a threshold for the size of the second group. We further explored the threshold idea by constructing dummy variables for the second group, ranging between 15 and 30 percent of the population, but found no evidence of a breakpoint. In general, measures based on identity groups were stronger than those based on clusters. The competitive position of the second group in the pre-coup cabinet is slightly stronger than in the independence cabinet. Conversely, the underrepresentation of the second group is negatively associated to coups, indicating that it is the competitive position of this group that is critical. As for dominance, it is consistently negatively related to coups across several measures. The threshold is negative or unrelated for the cluster and identity group measures and political overrepresentation seems to be irrelevant. We also tried varying the breakpoint, defining the threshold between 30 and 45 percent, but found little difference among these measures.

Economic dependency appears unrelated to coups across a variety of measures. Ex-colonial trade, raw material exports, and debt are positively associated with coup intensity but are not particularly strong. Export overspecialization as based on several measures—agricultural, mineral, and primary products as a percent of exports, exports as a percent of GDP, and the two export concentration measures (the leading export and the top three exports as a percent of total exports)—is negative or unrelated to coups. Similarly, foreign investment seems to be negative or irrelevant. As for the intervening role of economic growth and unconventional politics, we found significant ties between growth and coups but no ties for the other possible linkages (results not shown). This, of course, is an exploratory analysis which needs to be followed up with multivariate analysis.

*Multivariate Results.* To gauge the explanatory significance of these variables, we turned to multiple regression. So as to reduce our indicators to a manageable number and to confirm our assumption that these measures reflect a set of underlying common factors, we used factor analysis to construct a series of vectors to represent each major variable. Table 2 provides the results of the cleanest factor analysis. We used iterated principal factor analysis with an orthogonal transformation and a varimax rotation (under SAS). There were 59 possible measures, far more than the number of cases (N=33). We therefore selected 21 measures, at least two for each hypothesis, favoring those with stronger correlations with the longest panel of the intervention index. We excluded measures of the intervening political processes so as to bring these in later in subanalyses. The starting point should be the structural factors argued to put these processes in motion. The factor analysis constructed a set of uncorrelated vectors from which we could estimate the independent significance of distinct common factors. It should be reiterated that we are not so much concerned with ascertaining the existence of the factor structure behind a set of observed measures as we are with measurement and data reduction, or, as Rummel (1967:448) put it, to "reduce a mass of information to an economical description of variables" which could then be used in predicting coups.[6]

Originally we had hypothesized a 7-factor solution with common factors for social mobilization, political factionalism, military centrality, ethnic plurality, competition, dominance, and economic dependency. We found, however, that a 6-factor solution created more interpretable factors with slightly different dimensions than anticipated. Factor 1 was a general *ethnic antagonisms* factor, based on the demographic measures of plurality, competition, and dominance. These measures proved sufficiently interrelated that attempts to construct separate factors for each ethnic theory was impossible. Because of the loadings, we interpret positive effects of this vector as reflecting plurality and competition, and negative effects as dominance. Factor 2 captured *social mobilization* with strong loadings from newspaper circulation, secondary schooling rates, and industrialization. We tried urbanization in several different modifications but it consistently loaded on multiple factors and never loaded with the mobilization factor, leading us to delete it from the analysis. (We also entered it into the regression models discussed below as a separate variable, but it did not add significantly to the explanation of coups. We therefore dropped it.) Industrialization also loaded on other dimensions but primarily on this mobilization factor. Factor 3, which is characterized by defense spending relative to governmental budgets, military size, and Africanization of the officer corps, taps *military centrality.* Although we had not initially anticipated the loading of

[6] We are aware of the epistemological controversy surrounding the use of orthogonal versus oblique methods of factor analysis. We agree in principle that in the real world clusters may not be completely isolated; but we nevertheless believe that the orthogonal solution better meets one of the basic assumptions of regression, namely, that predictors are not linear combinations of each other.

TABLE 2. Variables constructed from factor analysis with varimax rotation (N=33).

| *Measures* | *1 Ethnic antagonisms* | *2 Social mobilization* | *3 Military centrality* | *4 Political factionalism* | *5 Ethnic political competition* | *6 Export dependency* |
|---|---|---|---|---|---|---|
| Plurality—Com. org. | .851 | .031 | .168 | −.076 | .078 | −.020 |
| Plurality—Pol. auth. | .817 | −.035 | .056 | .126 | .179 | −.392 |
| Plurality—Strat. | .738 | .217 | .001 | −.119 | .253 | −.097 |
| Ethnic competition | .752 | .254 | .175 | −.162 | .027 | .078 |
| Number of groups | .667 | .461 | −.017 | −.006 | −.104 | .110 |
| Language competition | .583 | .212 | .191 | −.006 | .245 | −.105 |
| Langauge dominance | −.676 | −.120 | −.379 | .110 | −.176 | −.105 |
| % First identity | −.901 | −.302 | −.122 | .043 | .082 | .015 |
| L Newspapers (60) | .276 | .802 | .025 | .121 | −.024 | −.045 |
| L Schools (66) | .377 | .748 | .282 | .294 | .049 | .100 |
| L Industry (65) | .306 | .379 | .255 | .326 | −.175 | .145 |
| $ Defense/Govt. (67) | .201 | −.070 | .708 | .130 | .037 | −.047 |
| Africanization (65) | .075 | .189 | .745 | −.151 | .300 | −.301 |
| L Military (67) | .305 | .496 | .693 | .090 | .201 | .088 |
| Legis. fractionalism | −.071 | .163 | −.043 | .831 | −.251 | −.049 |
| Regime type | −.102 | .022 | −.097 | .554 | .056 | −.138 |
| Party dominace | −.102 | −.190 | −.237 | −.822 | −.150 | .079 |
| Competition—ind. cab. | .065 | −.019 | .201 | −.039 | .853 | −.060 |
| L Competition—pre. cab. | .296 | .034 | .113 | .035 | .761 | .068 |
| L Primary exports (66) | −.019 | −.194 | .358 | −.187 | −.065 | .870 |
| Export conc. (65) | −.137 | .221 | −.088 | −.142 | .034 | .543 |

L = natural log.

Africanization, this suggests that larger militaries are also more Africanized and presumably more factionalized. Factor 4 measures *political factionalism* as based on legislative fractionalism, multiparty regimes, and (negatively) the strength of the leading party. Factor 5 captures the political power of the second groups as based on their cabinet positions in the independence and pre-coup cabinets. Contrary to our original assumption, these *ethnic political competition* measures did not load with the demographic measures, indicating the need to independently assess the balance of political power. The sixth factor is related to the overspecialization of African economies in the international market with loadings on primary products and export concentration. We tried inserting the additional dependency measures, including allowing additional factors, but they did not create interpretable factors. A correlation matrix of the dependency measures showed that these other dependency measures are unrelated to one another. We therefore extracted this *export dependency* factor and then included the other dependence measures as additional variables.

Table 3 reports the results for the regression analysis of the four panels of the natural log of the MII using these factors. We present results with and without exposure controlled. Controlling for exposure consistently reduced the standard errors, especially in the 1960s panel, supporting our contention that the hazard of independence should be controlled. This did not, however, greatly alter the results, reinforcing our assumption that coups are structurally based and not random. The strongest predictor overall was military centrality, followed by ethnicity

and ethnic political competition. Social mobilization showed in the 1960s and political competition in the 1970s whereas military centrality and ethnicity were weaker. In view of the positive loadings of plurality and competition on the ethnic vector, it is pluralistic and competitive states that were the most coup prone. In other words, contrary to past work (Jackman, 1978; Johnson et al., 1984), ethnic dominance is stabilizing. Together, the three strongest factors explained between 28 and 57 percent of the variance in coup intensity, with the weakest results for the 1970s and the strongest results for the longest panel. Political factionalism was never significant, and export dependency was actually negative in the 1960s and irrelevant in the 1970s.

Military centrality appears to have been more important at early independence, supporting the idea that large armies and Africanized officer corps played a decisive role in the early coup wave. Mobilization also facilitated these early coups but later lost significance. We also tried including a measure of urbanization but it was never significant. Export dependence seems to have been a stabilizing factor in the

TABLE 3. Regression analysis of the military involvement index (N=33).

| | *Dependent variables by time panels* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Independent variables* | *LMII (60–69)* | *LMII/Ind. (60–69)* | *LMII (70–82)* | *LMII/Ind. (70–82)* | *LMII (60–82)* | *LMII/Ind. (60–82)* | *LMII (57–84)* | *LMII/Ind. (57–84)* |
| Social mobilization | .987[a]* | .130* | .403 | .162 | .393 | .100 | .391 | .086 |
| | .287[b] | .074 | .392 | .137 | .280 | .068 | .229 | .055 |
| | .236[c] | .241 | .197 | .197 | .208 | .217 | .194 | .203 |
| Political factionalism | .139 | .035 | .037 | .015 | −.011 | −.006 | .115 | .025 |
| | .286 | .073 | .340 | .136 | .279 | .067 | .228 | .055 |
| | .070 | .066 | .018 | .018 | −.006 | −.013 | .066 | .059 |
| Military centrality | 1.040** | .268** | .519 | .208 | .773** | .191** | .860** | .211** |
| | .286 | .073 | .340 | .137 | .280 | .067 | .228 | .055 |
| | .498 | .500 | .255 | .255 | .413 | .419 | .493 | .551 |
| Ethnic antagonisms | .509* | .130* | .433 | .174 | .631** | .151* | .730** | .174** |
| | .280 | .072 | .333 | .134 | .273 | .066 | .223 | .053 |
| | .249 | .247 | .217 | .217 | .344 | .338 | .427 | .422 |
| Political competition | .377 | .101 | .684* | .274* | .512* | .128* | .461* | .114* |
| | .292 | .075 | .347 | .139 | .285 | .069 | .233 | .056 |
| | .176 | .184 | .328 | .328 | .267 | .274 | .258 | .265 |
| Export dependence | −.663* | −.170** | .165 | .066 | −.016 | −.039 | −.036 | −.009 |
| | −.271 | .069 | .322 | .129 | .264 | .064 | .216 | .052 |
| | −.336 | −.335 | .086 | .086 | −.091 | −.091 | −.022 | −.022 |
| $R^2$ | .517 | .521 | .279 | .279 | .428 | .437 | .559 | .569 |
| Adjusted $R^2$ | .410 | .411 | .112 | .112 | .296 | .308 | .457 | .469 |
| No. of observations | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

*Notes:*
LMII = natural log. of the MII
Ind. = years of independent statehood
a = coefficient; b = standard error; c = standardized coefficient
*Coefficient is significant at .05 or less
**Coefficient is significant at .01 or less

early wave, presumably because of the export boom in many primary products during the 1960s. Ethnicity was also prominent, presumably reflecting the tensions at early independence, but later faded in significance. By contrast, the second coup wave seemed to stem from the political competition between the two largest groups. In other words, competition took a period of time before it produced coups. The two longer panels (1960–1982 and 1957–1984) produced essentially identical results, the additional years reducing the standard errors and producing slightly stronger coefficients.

Several points deserve further attention. The participation "overload" thesis argues that increasing mobilization led to rising participation, which in turn provoked military interventions. In other words, mobilization had its effects through boosting participation. We therefore reestimated these equations, first substituting for the mobilization factor the turnout in the independence elections, communal conflicts, and domestic turmoil. Turnout was the only measure that had a significant effect, but it was consistently negative, and significantly so for the 1960s coups. Communal conflict was insignificant with mixed signs and turmoil was positive but not significant (results not shown). In other words, mobilization did not work through boosting participation but directly facilitated coups. We suspect this is because greater media development, education, and industrialization provided a context in which it was easier to organize coups. We also estimated a series of equations regressing the mobilization items on the participation measures. Mobilization was negatively related to turnout, significantly for secondary schooling rates ($R^2$ = .09, p = .047), negatively to communal conflicts, except for secondary schooling which was positive ($R^2$ = .12, p = .027), but was positively related to domestic turmoil, especially industrialization ($R^2$ = .136, p = .027) and secondary schooling ($R^2$ = .267, p = .007). In other words, mobilization did contribute to domestic turmoil (a summative index of riots, demonstrations, strikes, terrorist acts, and declarations of emergency), but, most important of all, turmoil was not a significant source of coups. Finally, to reconfirm this, we inserted mobilization and turmoil in the 1960s equation. Mobilization remained significant but turmoil did not, showing that the mobilization effects were direct. In sum, it seems that mobilization contributed to both coups and unconventional politics but that the latter did not play a role in provoking interventions.

We also explored another theory of mass instability, namely, that ethnicity gave rise to coup-producing communal conflicts and turmoil. Regressing the conflict measures against the ethnicity items, we found that cabinet competition gave rise to communal conflicts ($R^2$ = .19, p = .011, and .28, p = .002) and that the diversity of groups and stratification contributed to domestic turmoil ($R^2$ = .092, p = .051, and .164, p = .022). In the final analysis, however, the central point is that neither aspect of mass instability had a significant effect on coups. (We also explored types of coup events, as discussed below, and found the same pattern.)

A second puzzle is economic dependency. The main argument is that dependence created slow growth and social unrest which provoked military coups. Export dependence might also have reduced middle-class opportunities and required coercive labor controls, thereby encouraging coups. Our first step, then, was to reestimate the equations in Table 3, substituting each of the dependency measures. None of them, however, produced significant effects, and in several the signs were negative (results not shown). It is possible, however, that the dependence effects are indirect, working through slow economic growth and social unrest. We first estimated a series of equations that substituted growth in GDP per capita for the 1960s and 1970s for the export dependence factor in the equations in Table 3. Growth in both decades had a significant negative effect on the 1970s coups but was unrelated to the 1960s coups (results not shown), the most important being the lagged effects of laggard growth in the 1960s. We then regressed

economic growth against the dependency measures. The only significant effects were lowered growth in both time panels as a result of a dominant single export and dependence on mineral exports for growth in the 1970s. Supporting our earlier idea about the 1960s export boom and the changed terms of international trade in the 1970s, the signs for most of the dependence items were positive for growth in the 1960s and negative for the 1970s. This may be the result of looking at an African sample rather than at all less developed countries; still, it does represent about half the total population of LDCs. If dependence is a strong and consistent factor, it should show in this sample. Finally, we regressed the domestic conflict measures against the dependency items. Several signs were negative, and the only significant relation was a negative effect of foreign investments on communal conflicts ($R^2 = .171$, $p = .029$). In sum, slow or negative growth was a significant factor in the 1970s coups, and mineral exports and single-commodity concentration contributed to this problem. However, dependence did not have direct effects on the interventions and may have actually reduced mass instability.

A final question pertains to the evidence against Jackman's (1978) thesis about ethnic dominance. One possibility is that dominance and plurality/competition are related (i.e., large groups and plurality and/or sizable second-group challengers) and so we are looking at colinear variables. Yet the dominance and the plurality/competition measures are negatively associated (results not shown). A second possibility is the exclusion of nonmilitary coups. But Johnson et al. (1984) demonstrated that their measures were virtually identical to Jackman's (1978). In other words, African coups are essentially military coups. Third, we shifted to identity group measures whereas Jackman relied on clusters.[7] Yet we found essentially the same pattern for cluster measures, and, overall, the identity measures seem theoretically more relevant. Finally, there is a possible difference in cases. Jackman (1978) used 29 and 30 countries and we used 33. Johnson et al. (1984; also in Jackman et al., 1986) concluded that the major difference in their results was the inclusion of additional cases. We therefore checked for influential cases using the regression diagnostics available under SAS. These indicated that Ethiopia, Senegal, and Somalia might be outliers, but rerunning the models with all combinations of these excluded showed no significant change in explained variance or the significance of our factors. In other words, there is no reason to exclude the additional states.

Table 4 shows that different factors gave rise to different types of interventions. Ethnic tensions and military centrality appear to have nurtured plots; whereas mobilization, political factionalism, ethnicity, and military centrality were more important with attempts; and, for successful seizures, military centrality and political competition were key. The common factor throughout is military centrality. These results support the idea that underlying ethnic tensions encouraged plotting; whereas political circumstances (especially mobilization and political factionalism) were more important in staging attempts; and, for consolidating successful seizures, political competition between the two largest groups was critical. In other words, if we think of the coup process as a sequence of events beginning with plots, moving toward attempts, and then culminating in successful seizures, then underlying ethnic antagonisms appear to have more to do with plots, and political circumstances, including a strong and factionalized military, have more to do with attempts and successful seizures. Export dependence was insignificant again, and, when we substituted the measures for foreign debt and investments, we got the same pattern of mixed and insignificant effects (results not shown).

Past results supporting the idea of an "overloaded" polity seem to have stemmed primarily from coup attempts. Mobilized multiparty regimes were more vulnerable

[7] Personal communication from Robert Jackman.

TABLE 4. Regression analysis of plots, attempted coups, and successful coups, 1957–1984 (N=33).

| | *Dependent variables* | | | | | |
|---|---|---|---|---|---|---|
| *Independent variables* | *LPlots (57–84)* | *LPlots/Ind. (57–84)* | *LAttempts (57–84)* | *LAttempts/Ind. (57–84)* | *LCoups (57–84)* | *LCoups/Ind. (57–84)* |
| Social mobilization | .351[a] | .087 | .447* | .108* | .143* | .035 |
| | .220[b] | .053 | .213 | .052 | .268 | .064 |
| | .221[c] | .225 | .338 | .337 | .087 | .089 |
| Political factionalism | .058 | .012* | .355 | .088* | .261 | .063 |
| | .219 | .053 | .212 | .051 | .266 | .064 |
| | .037 | .032 | .270 | .278 | .159 | .160 |
| Military centrality | .652** | .159** | .287 | .067** | .619* | .148* |
| | .219 | .053 | .212 | .051 | .266 | .064 |
| | .493 | .414 | .218 | .212 | .378 | .375 |
| Ethnic antagonisms | .742** | .177** | .308* | .071** | .144 | .033 |
| | .214 | .052 | .207 | .050 | .261 | .063 |
| | .479 | .472 | .240 | .229 | .089 | .085 |
| Political competition | .291 | .072 | .198 | .049 | .585* | .142** |
| | .223 | .054 | .216 | .052 | .272 | .065 |
| | .180 | .184 | .147 | .151 | .349 | .351 |
| Export dependence | .034 | .009 | .093 | .022 | −.086 | −.070 |
| | .207 | .050 | .201 | .049 | .252 | −.061 |
| | .022 | .024 | .075 | .075 | −.055 | −.055 |
| $R^2$ | .506 | .504 | .332 | .329 | .319 | .318 |
| Adjusted $R^2$ | .392 | .390 | .177 | .174 | .162 | .161 |
| No. of observations | 33 | 33 | 33 | 33 | 33 | 33 |

*Notes:*
L = natural log.
Ind. = years of independent statehood
a = coefficient; b = standard error; c = standardized coefficient
*Coefficient is significant at .05 or less
**Coefficient is significant at .01 or less

to attempts, but this was less relevant for plots and successful seizures. Presumably these regimes provided greater opportunities for organizing coups and were more prone to governmental stalemates. Mobilization also seems to have facilitated coup attempts, presumably by facilitating the organization of attempts.

To further examine the "overload" thesis and economic dependence arguments, we reestimated these equations substituting the three mass participation measures and the various dependence variables. Domestic turmoil did contribute to plots but was not relevant to predicting attempts or seizures. Communal conflicts and early independence electoral turnout were insignificant and negatively related. We also estimated the equation for plots with both mobilization and turmoil included. Turmoil remained significant but the standardized coefficient for mobilization remained unchanged, indicating that the turmoil effects on coups were independent of mobilization (results not shown). As for the dependency variables, they were consistently negative and insignificant (results not shown), and, since they did not contribute to domestic turmoil, there was no reason to explore indirect effects.

In general, these results support a narrow version of the "overload" thesis. Mobilization did give rise to domestic turmoil and turmoil did lead to plots, but turmoil was not an intervening factor between mobilization and plotting. Nor did turmoil contribute to other types of interventions. The mobilization effect on coup events was largely direct, suggesting that it simply facilitated the organization of attempts and successful seizures.

## Conclusions

Military centrality and ethnic tensions have been the central factors behind military interventions in Africa. Strong yet factionalized militaries have been especially likely to intervene, reflecting their claims to state resources and the rivalries created by Africanizing the officer corps. Ethnic conflicts rooted in plurality and competition between the two largest groups, including competition within the pre-coup civilian cabinets, led to interventions, while the dominance of a single group proved stabilizing. Social mobilization and multiparty factionalized regimes played some role, but their significance was weaker and limited to particular time periods and types of interventions. There was some evidence that domestic turmoil spurred plotting, but it was not a mediating factor between mobilization levels and plots. Nor did it mediate between mobilization and the coup intensity index. High levels of conventional participation at early independence deterred interventions, creating strong single-party regimes that were more coup proof.

These results build on and yet depart from past work at several points. The major convergences center on the importance of military centrality and ethnic antagonisms, which were consistently important. We lack the data to explore ethnic tensions inside the military beyond the indirect measure of officer corps Africanization, but the case studies have shown these tensions to be important. Africanization of the officer corps seems to have set off a dynamic in which the check of former colonial officers was removed and internal rivalries intensified, leading to interventions. Extending our findings on political competition, the balance of ethnic power within the military officer corps should also be a source of coups. We also found strong support for the coup proneness of large, resourceful militaries. By claiming a large portion of governmental resources, these militaries become the dominant political institution. Larger militaries were also likely to include multiple ethnic groups, thereby giving rise to destabilizing plurality and competition. We have not explored the effects of military centrality on the development of civilian institutions; however, it would seem to be negative. Military interventions have clearly worked to discourage the development of independent and effective unions, voluntary associations, political parties, and a public opinion–shaping mass media. We suspect this also works in reverse, that military centrality reflects the weak development of independent political institutions and thereby leads to military interventions.

These results can be read as supporting a limited version of the political development argument. Social mobilization did contribute to domestic turmoil, which in turn led to plots. Political factionalism also made for attempts. However, conventional participation deterred coups and communal instability was irrelevant. Nor did turmoil or political factionalism contribute to any other type of interventions. At independence, mobilization also contributed directly by creating a favorable context for organizing interventions.

The major problem with the political development argument is the idea of a "demand overload." In view of the exclusionary policies laid down by the early coup governments, the meaning of an "overload" is highly ambiguous. These

governments typically outlawed independent political parties and voluntary associations, restricted press freedoms, and closed down universities. In this context, rioting and insurgency became the only available means of expressing political opinion. Military budgets increased, further strengthening the military. Independent political institutions atrophied, leaving the military even more central. Cause and effect, then, became inverted with strong militaries effectively preventing the development of independent political institutions. If our results are to be followed, the central factor behind this dynamic was an initially strong military that was placed soon after independence in the hands of indigenous officers.

A major departure is the negative dependence results. We looked at several measures of export dependence and foreign capital penetration yet found no evidence that these contributed to interventions. Past work found that export specialization (Johnson et al., 1984) and foreign debt (Jenkins and Kposowa, 1990) led to interventions. The models and measurements used here are quite similar, so the difference is probably due to weak or indirect effects that do not show consistently in multivariate equations. In other words, dependence effects may be largely due to the contribution that export dependence or foreign capital penetration has on military centrality, rather than to its direct contribution. Although we found that laggard economic growth contributed to coups, dependency could not explain it. In fact, export dependence in the early independence period deterred coups, presumably because of its positive growth effects. These results might be due to limiting the sample to Africa, but we are looking at roughly half the population of LDCs. If there is a strong relationship, it should have shown up in this sample. Dependence should also have helped explain intervening processes, such as slow growth and mass instability, but it did not.

These results have helped clarify the effects of ethnicity. One is reconfirming our earlier conclusion that plurality and competition led to interventions whereas dominance was stabilizing (Jenkins and Kposowa, 1990). We also distinguished the effects of cabinet competition from general ethnic relations, finding that the balance of power inside the government contributed independently to plots and attempts, especially in the 1970s. We also looked at the intervening role of communal instability, concluding that, even though it was rooted in plurality and competition, it did not independently create interventions. In other words, communal instability and military coups share a common ethnic basis, but mass instability is not a central source of elite instability. It could also be that ethnicity is important in African coups but not elsewhere. African states are among the most culturally diverse in the world and their "youth" makes it unclear whether these ethnic tensions will persist or are features of newly independent states.

The "departicipation strategy" (Kasfir, 1976) that contemporary African regimes have instituted does appear to be rooted in ethnic tensions. However, these tensions appear to be primarily rooted in elite power struggles rather than mass mobilization. It is the power and resources of the military, not the participation levels or the demands of the mass populace, that appear more relevant. It is the balance of ethnic power inside the government, not the level of communal instability. In this sense, the participation "crisis" in Africa is primarily a problem of constructing an elite consensus on the rules of the political game rather than containing the aroused masses. In line with neo-elitist arguments about democratic stability (Burton and Higley, 1987), the first step is an elite settlement in which those with significant political resources agree to put aside fundamental disagreements and the use of irregular means of acquiring power, adopting peaceful means of political competition. Mass participation discouraged coups at independence and appears to be playing a significant role in promoting the democratization of contemporary exclusionary regimes. This may eventually lead to another round of

military interventions, but the coup-makers will be responding to elite maneuvering, not mass instability. The major architects of African coups have been those with significant power, not the spectators on the periphery of the system.

This analysis also supports several conclusions about method. The coup intensity index is valid; however, it is also important to look at specific types of coup events. These events have slightly different sources. Plots stem from underlying ethnic antagonisms and strong, yet factionalized militaries. Coup attempts stem from conditions to facilitate organizing coups and factionalized regimes as well as these underlying conditions. Successful seizures are more difficult to predict, but ethnic struggles within the government and military centrality are the most important factors. It is also useful to control for exposure and to look at different time periods.

African military interventions have been structurally rooted in underlying ethnic relations and political institutions. The praetorianism that these "new nations" have experienced has been largely due to ethnic diversity and the strength and internal factionalism of the military. Overall, political institutions and processes, especially the power struggle among leadership groups and the political resources of the military, are the most important sources of interventions. Yet it is not clear that African states can do much to prevent praetorianism. In general, the institutional factors that are more readily malleable, such as regime structures or educational development, were less significant. Shrinking the size of the military is a promising option but difficult to institute against an already strong military. Economic development policies that would spur economic growth would be beneficial, but, at least by these results, it is unclear what these policies would be. Governments can do little to alter their ethnic diversity. Yet, in view of the democratization trends currently sweeping Africa as well as the rest of the globe, we may be witnessing an upsurge of mass mobilization that will help check elite instability. If our contention that military interventions are primarily driven by elite maneuvering is correct, then the key factor will be the construction of a political consensus among the powerful on the virtues of peaceful competition, thereby domesticating the struggle for power and setting aside irregular means such as the military coup.

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