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Ethnic Cleavage as a Component of Global Military Expenditures*

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This study argues that countries which are characterized by ethnic cleavage allocate a larger percentage of their resources to military expenditures in order to maintain control over ethnically diverse and fragmented populaces. The results of the statistical analysis undertaken contradict two previous empirical studies that had produced counter-intuitive results suggesting that there was no ethnic dimension to global militarization. Both an historical and a statistical cross-sectional analysis (for the year 1979) are employed in order to demonstrate that the greater the degree a country is characterized by ethnic cleavages the greater the percentage of its Gross National Product that will be allocated to military resources even after controlling for alternative explanations.

1. Introduction

What determines the variance in the allocation of resources by states in their military appropriations? This study argues that military expenditures are determined, in part, by the internal characteristics of states and that military expenditures are often designed for internal purposes.

One cannot explain global military expenditures by simply studying the dynamics of arms races and/or the demands placed upon states in an interstate system — although that is not to say that the external environment of states has no impact on these expenditures. Both an historical and a statistical cross-sectional analysis (for the year 1979) are employed in order to demonstrate that maintaining state control over ethnically diverse and fragmented populaces often encourages the threat and even the employment of force. However, force creates antagonism, which can be controlled only by more force. Countries which experience this feedback relationship over time come to be characterized by a structural phenomenon which I call ethnic cleavage.

The results of this study suggest that the greater the extent to which a country is characterized by ethnic cleavage the larger is the percentage of its GNP that is allocated to

military expenditures by policy-makers seeking to ensure the survival of the state. While expenditures have often been designed for internal purposes, policy-makers in other states frequently have perceived those expenditures as being directed outwards. These misperceptions may have helped to fuel a number of arms races.

2. Previous Research

The state-centric school of thought that has dominated the field of International Relations since the days of Hans Morgenthau believes it is the concept of sovereignty and its implications that explain global military expenditures. In the anarchic self-help system of sovereign states, so the argument goes, no state can rely on another for its sole means of protection. No state can be certain of the commitment of the other state, nor can it be certain that its protector might not one day become its conqueror. Therefore, a state must secure for itself the military power necessary to defend its sovereignty. There can be no international division of labor with regard to the ultimate defense of state sovereignty. Hence, the hundreds of billions of dollars presently being allocated to military expenditures worldwide is simply the price tag of the anarchic state system. According to Waltz (1979), the internal attributes of states have little bearing on their actions and interactions. It is the global structure that is determined by the relative capabilities of states, rather than

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their attributes, that causes actions and limits outcomes.

This study seeks to demonstrate that, contrary to the state-centric view of the world, the internal attributes of states play a very large role in determining the percentage of their GNP that goes towards military budgets. It will draw from the non-quantitative works of Enloe (1973, 1980), Buzan (1983), d'Encausse (1978), and Dreyer (1975), in order to demonstrate that ethnic cleavage is an important component of global militarization.

The findings of this present study concur with those of Hofferbert & Sharkansky (1973) in suggesting that traditional cleavages within countries are deeply rooted, and are important determinants of policy-outputs. In so doing, this paper contradicts the analysis of Terrell (1971) and Hill (1978), both of whom find no relationship between ethnicity and military burdens.

Terrell (1971) analyzes the relationship between a country's military effort and what he terms social cleavage. His analysis is a cross-sectional one using data for 1955 which exclude many now independent African and Asian states. Social cleavage is a standardized average of the number of religious, national, ethnic, and language groups within each country that are greater than one percent of the population. As such it is simply a demographic indicator of diversity. Social cleavage is not found to be positively correlated with military expenditures as a percentage of GNP.

Hill (1978) in a cross-sectional analysis of 1965 investigates the linkages between the internal characteristics of states, including the index of ethno-linguistic fractionalization developed by Taylor and Hudson (1972), and military expenditures. A negative bivariate relationship between ethno-linguistic fractionalization and military expenditures as a percentage of Gross Domestic Product was found. The results of this present study are based on an index of ethnic cleavage which I believe enjoys a much higher degree of construct validity.

Walker (1978), in analyzing the military policies of newly independent states, finds that both domestic disorder and the level

of regional hostility and instability affect a number of important military variables. However, Walker does not specifically analyze military expenditures as a percentage of Gross National Product in his study. This present study supports and extends Walker's analysis, and in so doing suggests that internal ethnic cleavages serve to create domestic disorders which result in a military response, as well as result directly in a military response so as to reduce the possibility of a domestic disorder.

It is the expenditures and perceived intentions of rival states, however, that are usually invoked by policy-makers wishing to justify and legitimate their own state military allocations. Zimmerman & Palmer (1983), for instance, have developed an ordinal scale of the Soviet Union's intent to increase or decrease expenditures by analyzing speeches to the Supreme Soviet by the Minister of Finance. In these speeches the threat of US imperialism is always invoked as the major justification of Soviet military expenditures, and an ordinal scale which attempts to capture the magnitude of this rhetoric produces a fair estimate of changes in Soviet military expenditures. No state can legitimate the extraction of surplus from its populace by invoking the need to maintain state control over its citizens.

US policy makers, on the other hand, constantly invoke the spectre of a Soviet bear waiting to strike at it from the anarchic forest. They neglect to analyze explicitly, however, how much of the bear's strength and attention is required in the squashing of ethnic fleas.¹

3. *The Kurds*

The history of the Kurdish people provides one example to support this study's analysis, in part by providing the rationale behind the index of ethnic cleavage that is employed in this paper. The Kurds have been major actors in the development of a number of Middle Eastern states. They are presently divided among five states — Iran, Iraq, the Soviet Union, Syria, and Turkey. Syria and the Soviet Union have relatively small Kurdish populations, approximately three hundred thousand each, and, therefore, little has

been written about them. Likewise, because the Turkish state has officially ignored its large Kurdish population, while often unofficially treating them ruthlessly, there is minimal information concerning their political, social, and economic conditions. Therefore, this study will limit itself to a brief discussion of the Iranian and Iraqi instances.

The Kurds are a people with a history dating back to at least the twelfth century (Kinnane 1964). They speak a language that is similar to, but still significantly different from, Persian. The Kurds are proud of both their long history and their unique culture. Of greatest importance, however, is that the Kurds have a sense of nationalism; they exhibit a high degree of national consciousness. The Kurds have not, however, experienced a great deal of political equality in the states within whose borders they reside. These states have, for the most part, been typified by personalized authoritarian regimes. The Kurds have been denied political power and oftentimes even access to it. There have been no avenues within these state structures through which the Kurds could express their grievances and defend their claims. Military rebellion was one of the few options available to them in this political setting.

During periods when Iran and Iraq have been militarily weak, the Kurds have rebelled; for instance in Iran, during and immediately after WWII, Iranian Kurds, with Soviet assistance, were able to establish the Kurdish Republic of 1946 (Kinnane 1964). Undoubtedly the young Shah Mohammed Reza understood at the time the importance of Iran's military in controlling its ethnic populations. Since the overthrow of the Shah and the subsequent reduction in Iranian military power, the Kurds have once again engaged in military rebellion.

The Iraqi state was beset by civil war with its Kurdish population from 1961-1975. Eighty percent of Iraqi military expenditures during this period were directed internally against the Kurds (American University Handbook 1970, p. 324). State policy-makers were unwilling to allow the Kurds the autonomy that this ethnic group demanded. At the time, the oil that is located

under Iraqi Kurdistan accounted for 53.5% of the states total income and 72% of its foreign exchange (Chaliand 1978, p. 176). Kurdish leaders insisted that a percentage of the oil revenues be controlled by an autonomous Kurdish government and be used for Kurdistan's economic development. However, Iraqi state policy-makers were not willing and/or not able to make such concessions, the reason of course being that foreign exchange was and continues to be needed desperately by the Iraqi state in order to purchase necessities. In a large number of states, distinctive ethnic groups reside in peripheral areas rich in natural resources; competition and conflict over these resources often serve to worsen ethnic tensions.

The Kurds have also served to increase antagonism between the Iraqi and Iranian states. The Shah supported Kurdish insurgents in Iraq in the sixties and the seventies in order to weaken the Iraqi state, and this almost resulted in a war between the two states in 1969 and again in 1975. The Algiers Agreement, initiated by Henry Kissinger in 1975, settled the differences between these two states on the issues of the Kurds and the Shatt al-Arab waterway. The subsequent withdrawal of Iranian support resulted in the collapse of Kurdish resistance.

However, after the overthrow of the Shah, when the Kurds began to revolt in Iran, Iraqi state policy-makers provided them with support in order to preoccupy the Khomeini regime. This served to increase the level of hostilities between the two states. In addition, policy-makers in both of these states have oftentimes perceived military expenditures by other states as being directed solely against them. A regional arms race between these two states has long destabilized the area. However, this arms race was fueled by misperceptions, because a large percentage of the expenditures were designed for internal rather than external purposes.

Iranian and Iraqi Kurdistan have been the most heavily militarized areas of these states since WWII. The military is visible in every village and controls even minute details of daily life. There is little individual freedom

for the Kurds in these states, which has helped to foster a great deal of resentment among the Kurds towards these two states. This resentment has frequently taken the form of armed uprisings as well as acts of civil disobedience. It is only natural that military force breeds resentment, which in turn, necessitates more military force.

Three factors mentioned: (1) a high degree of national consciousness; (2) a low degree of political equality; and (3) a low degree of political freedom, serve to worsen internal ethnic cleavages, and thus necessitate the continued application and/or credible threat of military force in order for these states to maintain control over their Kurdish minorities. A vicious cycle results: a high degree of ethnic cleavage causes a military response, which in turn increases the level of internal ethnic cleavage.

5. *Research Design*

A cross-sectional statistical model is developed for the year 1979 in order to examine empirically the relationship between ethnic cleavage and military expenditures while attempting to control for alternative explanations. The study looks at forty states which are included in Gastil's (1979) analysis of the global ethnic dimension and for which comprehensive data could be found. The ethnic cleavage scores of all other states are coded as missing data since Gastil admits that his is not an exhaustive study. These forty countries range from the most to the least developed countries of the world. A cross-sectional analysis was employed because the index of ethnic cleavage has not been duplicated as of yet for other years. Therefore, the feedback relationship between ethnic cleavage and military expenditures cannot be examined.

6. *Measurements*

6.1 *Ethnic Cleavage*

The primary contribution of this paper is the inclusion of ethnicity as a major component in a model of global military expenditures. As Enloe (1973) argues, ethnicity has not disappeared; indeed, its salience in world politics has, if anything, increased since the

two world wars with the independence of many multi-ethnic states.

Ethnicity is defined in many ways. In this study it will be defined as a sense of belonging and/or peoplehood based on language, culture, religion, and/or race. Ethnic cleavage within a state is made up of the following components: (1) the existence of more than one ethnic group within a state; (2) the national consciousness of the ethnic group(s) that are not the majority or the plurality of the populace, i.e. the degree to which these groups consider themselves to be a people; (3) the degree to which these ethnic groups are politically unequal; and (4) the degree to which these ethnic minorities suffer from individual repression. Based on the previous discussion of Kurdish/State relations it is hypothesized that: (1) the greater the degree of national consciousness the greater the possibility of internal ethnic cleavage; (2) the greater the degree of political inequality with regard to other segments of the populace the greater the likelihood of internal ethnic cleavage; and (3) the greater the degree of political repression that is directed towards these ethnic groups, the greater the degree of ethnic cleavage one would expect to find. These individual components have been significant factors causing Kurdish/State relations to be handled militarily, and it is believed that they are each significant on a global level.

Raymond Gastil (1979) has devised ordinal scales to measure the national consciousness, political inequality, and individual repression of ethnic groups throughout the world, and these scales have been adapted in order to compute an index of ethnic cleavage.

Initially, two indexes of ethnic cleavage were created. The first step in both cases was to devise a weighted average of national consciousness, political inequality, and individual repression for those countries with more than two ethnic groups. Weights were assigned based on the percentage of the total ethnic population that each individual group comprised. One index was devised by simply adding together the ordinal scores for national consciousness, political inequality, and individual repression, each of which

ranged in score from 10 to 35. The second method employed was a Factor Analysis, also using Gastil's indexes, that assumed that there was one underlying theoretical factor as well as a unique element. The two indexes had a relatively high correlation of .78, and, for the sake of simplicity as well as in the hope that the index can be reproduced easily for other years, the index that is the sum of the individual scores has been employed. The range of possible values for this index is from 30 to 105, while the actual range that countries experienced was 40 to 95. Lower scores indicate that states are characterized by ethnic diversity, higher scores indicate greater degrees of internal ethnic cleavage.²

This index of ethnic cleavage is quite different from the index of social cleavage employed by Terrel (1971) or the index of ethno-linguistic fragmentation employed by Hill (1978). Both of these studies employed indexes which simply tap the phenomenon of linguistic and cultural heterogeneity within a country; they do not, for instance, measure the degree to which groups within a state conceive of themselves as a people. Connor (1972), among others, sees national consciousness as the crucial dynamic in ethnic politics. Neither Hill's nor Terrel's indexes measure the political conditions experienced by these groups. Hill and Terrel are therefore tapping an internal demographic characteristic, while this present study attempts to measure an internal socio-political structural characteristic.

The degree of ethnic cleavage within a state is an important determinant in the decision by state policy-makers as to how large a percentage of their GNP should be allocated towards military expenditures. The internal instability that is a by-product of ethnic cleavage is often resolved by force of arms. Therefore, one would expect to witness a high correlation between the index of ethnic cleavage and military expenditures as a percentage of GNP. As Hobbes argued, 'When nothing else turns up clubs are trump'.

6.2 *Geographic Neighborhood*

The interstate environment that states find themselves in is, of course, relevant in determining the proportion of their Gross

National Product that is allocated to military expenditures. States which reside within proximate distance of a potential antagonist and/or in a geographic area such as the Middle East which is both hostile and unstable would be expected to allocate a much larger percentage of their resources towards military expenditures. As such it serves as an alternative explanation as to why states allocate a larger percentage of their resources to military expenditures.

These demands, however, may be in part a function of the ethnic makeup of the area. As Buzan (1983) argues, in areas where ethnic ties run across boundaries, domestic problems cannot be separated from relations among states. The colonial legacy of arbitrary borders continues to affect many states' internal and external security requirements.

Walker (1978) analyzed the impact that a state's geographic neighborhood has upon defense policy, hypothesizing that 'garrison state' behavior is contagious. Walker found a positive relationship between his regional measure of war-proneness (which he measures by taking the mean value of the months that the countries of the region have been at war divided by the number of years that the countries have been members of the international system) and his index of military modernization which is based in part on military expenditures per soldier. This study uses a much more subjective index because it is felt that a region of the world may be characterized by hostility even if no war is occurring at that time; in addition, Walker's index is not entirely sensitive to changes in the international system as no weights are assigned based on the proximity of a war to the present date.

I employ an ordinal index which ranks areas of the world with regard to their stability as a geographic neighborhood: the Middle East is coded as being the most insecure while North America is coded as being the most secure, the hypothesis being that the less stable the immediate external environment the greater the security needs of a state.³ This indicator is somewhat more geographically encompassing than Buzan's (1983) notion of a security complex, but it

attempts to capture the essence of his argument that the subsystemic interstate environment is an important factor influencing a country's military security requirements.

6.3 Economic Dependence

Most states participate in the international political economy, and it is believed that this participation affects the percentage of a state's resources that is allocated towards military expenditures. In particular, it is argued that the more dependent a state is within the international political economy, the larger the percentage of resources allocated to military expenditures, and this serves as an alternative hypothesis. While certain factions within a dependent state may benefit from the relationship, they must apply force internally in order to maintain control over the much larger percentage of the population which does not benefit. However, this internal relationship of dominance may also have an ethnic component, as ethnicity is often highly correlated with class.

An index was created which attempts to tap many of the aspects of economic dependence by multiplying the percentage of a country's exports that is concentrated in its primary commodity by the percentage of its exports that is accounted for by trade with its most important trading partner.⁴ It is felt that the degree of dependence will increase geometrically as both concentration in one's commodities and in one's trading partners increase. Both partnership and commodity concentration are seen as important indicators of dependence (Sylvan et al. 1983), and it is felt that the two components have an interactive effect which will be tapped through the process of multiplication.

7. The Findings

The findings of the statistical analysis serve to support the arguments outlined. The correlation coefficient between ethnic cleavage and military expenditures as a percentage of Gross National Product was .42. A scatterplot of the relationship between ethnic

Fig. 1. Plot of military burden and index of ethnic cleavage

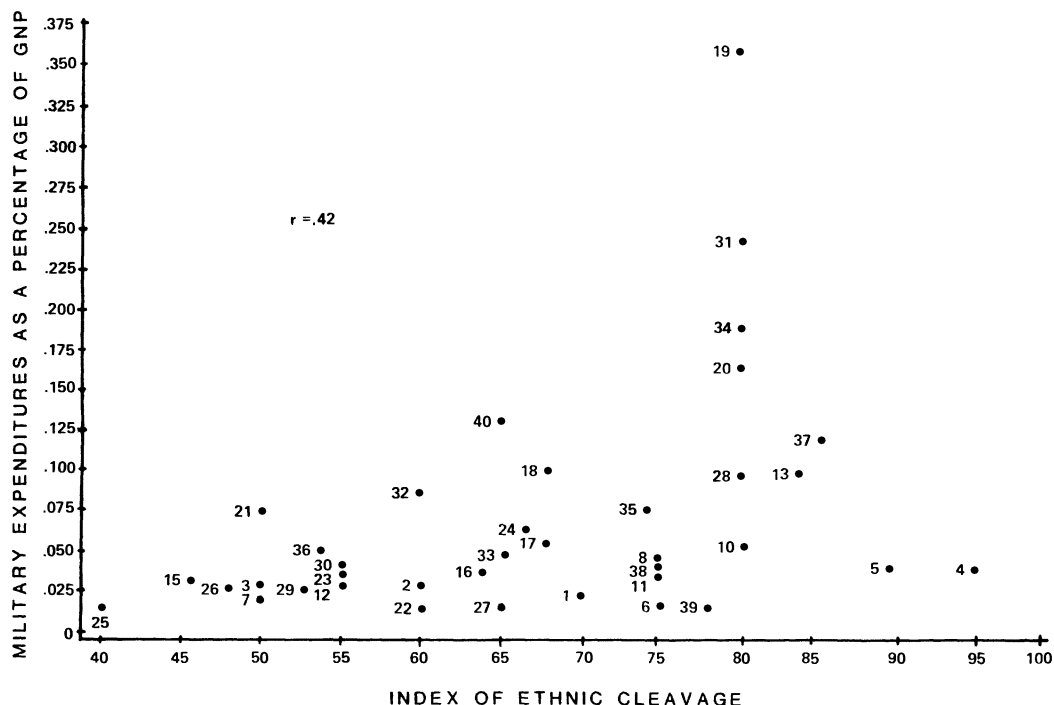


Table I. Country Scores

	Index of Ethnic Cleavage	Index of Economic Dependence	Index of Geographic Instability	Military Burden
1. Afghanistan	70	.02	8	.019
2. Algeria	60	.16	4	.022
3. Bolivia	50	.03	3	.025
4. Burma	95	.03	7	.035
5. Burundi	90	.27	4	.037
6. Cameroon	75	.05	4	.019
7. Canada	50	.05	1	.018
8. Chad	75	.05	4	.044
9. China	74	.05	7	.072
10. Congo	80	.08	4	.051
11. Czechoslovakia	75	.02	5	.030
12. Ecuador	55	.11	6	.022
13. Ethiopia	84	.02	4	.100
14. France	58	.008	5	.039
15. India	46	.006	7	.033
16. Indonesia	64	.17	7	.039
17. Iran	68	.11	9	.056
18. Iraq	68	.03	9	.097
19. Israel	80	.02	9	.353
20. Jordan	80	.02	9	.165
21. Morocco	50	.03	4	.070
22. Nepal	60	.09	7	.009
23. Nigeria	55	.04	4	.033
24. Pakistan	67	.02	7	.060
25. Papua New Guinea	40	.11	2	.015
26. Phillipines	48	.04	7	.024
27. Sierre Leone	65	.16	4	.014
28. South Africa	80	.04	4	.100
29. Spain	53	.008	5	.024
30. Sudan	55	.04	4	.033
31. Syria	80	.06	9	.242
32. Taiwan	60	.03	7	.088
33. Turkey	65	.01	8	.046
34. Uganda	80	.08	4	.185
35. USSR	72	.01	8	.107
36. UK	54	.005	5	.050
37. Vietnam	85	.06	7	.118
38. Yugoslavia	75	.006	5	.040
39. Zaire	78	.09	4	.015
40. Zimbabwe	65	.07	4	.129

cleavage and a country's military burden is presented in Fig. 1, and the country list can be found in Table I.

Even after controlling for alternative explanatory variables, the regression coefficient of the measure of ethnic cleavage was positive and statistically significant at the .05 level. The statistical model employed Ordinary Least Squares and the results suggested that the assumptions which OLS makes were not violated. The model tested is as follows:

$$Y = B_1 X_1 + B_2 X_2 + B_3 X_3 + e$$

where:

Y = military expenditures as a percentage of GNP

X₁ = index of ethnic cleavage

X₂ = index of geographic instability

X₃ = index of economic dependence

e = error term

The results are presented in Table II. The model was tested for forty cases — every

Table II. Results Of The OLS Model^a

	Standardized Estimate	Unstandardized Estimate	Standard Error	Level of Significance
Intercept		-.10	.05	.04
Ethnic cleavage index	.32	.0016	.0007	.03
Geographic neighborhood index	.39	.012	.004	.01
Trade dependency index	-.16	-.000017	-.000015	.25

^a The F Value for the model is 6.7. The coefficient of determination is .36

country for which there is comprehensive data — and achieved a coefficient of determination of .36.

According to the results, the most important variable influencing the percentage of a country's resources that are allocated to military expenditures is the degree to which a country's geographic neighborhood is characterized by instability. In the case of the index capturing geographic instability, the standardized regression coefficient suggests that an increase of one standard deviation in the militarization of a country's geographic neighborhood is correlated with an increase of almost four tenths of a standard deviation in that country's military burden. However, even after controlling for this effect, the ethnic cleavage index is strongly related to the percentage of a country's resources allocated to military expenditures. An increase of one standard deviation in the degree to which a country is characterized by ethnic cleavage results cross-sectionally in a .32 increase of a standard deviation in that country's military burden after controlling for the effects of the other variables. The index of economic dependence was found to have a negative and statistically insignificant effect, perhaps lending weak support to the 'free rider' argument suggested by Russett (1970).

8. *Conclusions*

A cross-sectional model for the year 1979 was employed in order to discover how the internal dynamics of multi-ethnic states influence the percentage of a state's GNP that is allocated to military expenditures.

The findings suggest that ethnic cleavage within states is an important explanatory

variable in analyzing global militarization. Although the military instability of a geographic neighborhood was found to be the most important factor influencing a country's military burden, even after controlling for this variable, ethnic cleavage was found to be an important factor affecting the percentage of a country's resources that are allocated to military expenditures. As the degree of ethnic cleavage increases within a state, the percentage of that state's GNP allotted to military expenditures likewise increases. Military outlays are often directed inwards in an attempt by state policy-makers to control populations divided by ethnic ties. Finally, there was no strong statistical relationship between the degree to which state trade is concentrated, both with regard to commodities and trading partners, and military expenditures as a percentage of GNP.

There are still many questions that need to be answered by further empirical research. For instance, how is the dynamic between ethnic cleavage and state military's expenditure played out over time? Do internal cleavages affect the magnitude of various arms races, and do they, in turn, influence the degree to which states are characterized by ethnic cleavages? In other words, how are internal state security needs related to the external environment of the state over time? How does the political process of a given state affect its ethnic relations? Finally, how do the individual components that comprise ethnic cleavage interact so as to elicit a military response? This present study is only seen as a preliminary attempt at analyzing the ethnic dimension of global militarization; there remains much work to be done.

NOTES

1. Most econometric studies of world military expenditures have concentrated on analyzing the actions and reactions of Soviet expenditures to US expenditures, for instance Rattinger (1975), Ostrom (1978), Majeski & Jones (1981), and Cusack & Ward (1981). However, these models fail to recognize explicitly that the actions and reactions may have been caused and compounded, at least in part, by misperceptions of the other state's intentions. Objections certainly could be raised as to whether expenditures on a great deal of military hardware are made, in part, with possible internal uses in mind. The Soviets, for instance, are not about to launch a nuclear strike against the Ukraine. Yet, many countries station large contingents of troops in areas with ethnic minority concentrations; state penetration in an attempt to achieve state control is the objective of such policies. These troops need to be paid, armed, and supplied. The problem lies in determining how easily troops trained and equipped for one mission can be redeployed for another.
2. Ordinal scales designed to measure the national consciousness, political equality, and freedom of ethnic groups can never be purely objective from a methodological standpoint. There is no electronic device available to measure an individual's or group's consciousness of any sort; sampling techniques are of little use, because many state policy-makers in multi-ethnic nations would never allow a pollster anywhere near its population, especially if they knew which questions to ask. There are no set criteria for measuring political equality or freedom, and even if there were, many states would forbid a social scientist from attaining data to measure these phenomena. Having said this, I must state that my own knowledge of particular ethnic groups leads me to believe that Gastil (1979) has devised relatively accurate, although admittedly imprecise, scales. There seems to be face validity. However, as the case of India suggests, the relative scores can change, and one would no longer expect India to have one of the lowest scores of the countries included in this study, given the recent Sikh uprisings.
3. The geographic rankings are as follows: North America = 1; Oceania = 2; South America = 3; Africa = 4; Europe = 5; Central America = 6; Asia = 7; Eurasia = 8; Middle East = 9. There are numerous problems in estimating military budgets, for the accounting is very tricky and is frequently biased intentionally for political purposes. Data on military expenditures may be the least precise of all macro indicators, which are imprecise to begin with. In order to arrive at approximate figures for military expenditures, estimates were gathered from both Ruth Leger Sivard's (1982) *World Military and Social Expenditures* and the *National Basic Intelligence Handbook*; these estimates were then averaged. The same procedure was employed with regards to GNP.
4. The index of dependency was created from variables in Taylor & Jodice's (1983) *World Handbook of Political And Social Indicators* and are for the year 1975.

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