

INTERNATIONAL CRISES IN AFRICA, 1929-1979: IMMEDIATE SEVERITY AND LONG-TERM IMPORTANCE

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This study will develop a method to predict the consequences of African crises based on their immediate characteristics. Indices of immediate Severity and long-term Importance are introduced: Severity is measured by the number of crisis actors, involvement by the superpowers, geostrategic salience, heterogeneity of actors, the range of issues contested and extent of violence. Importance is based on changes in power, actors, rules and alliances, assessed three years after a crisis has terminated. The Angola Crisis (1975-1976) is used to illustrate the properties of these ten indicators. The general hypothesis is that Importance can be predicted by Severity, and this assertion is tested using International Crisis Behavior Project data on 64 African crises from 1929 to 1979. Results from the regression analysis are encouraging: 29% of the variance in Importance is explained by Severity, adjusted for the effects of serial cases. This suggests that it is worthwhile to continue the search for patterns of conflict in Africa.

INTRODUCTION

International crises occur frequently in Africa. In some cases, these interstate conflicts are produced by political, economic, and social upheavals at the domestic level. South Africa's ongoing turbulence is a case in point. The instability of the apartheid regime has transcended its borders, resulting in numerous international crises and significant changes. In other instances, foreign crises have fueled the fires of internal disruption. A dramatic example is the fall of Idi Amin in 1979 as the almost direct consequence of an unsuccessful armed conflict with Tanzania. It would not be difficult to cite other important changes in foreign and domestic political systems which have resulted from African crises.

Despite the certainty that international crises bring about changes, it is difficult to predict their long-term effects. The Unilateral Declaration of Independence (UDI) by Rhodesia in 1965, for example, obviously had significant implications for the future of the African state system. However, it would not have been easy at that time to anticipate the impact of the UDI crisis in specific terms. Would it change the existing power structure on the continent? How likely was the UDI to produce new alliances or overturn old ones? Could

rules of the game be expected to change as a result of the Declaration? A systematic approach to answering questions such as these is currently unavailable.¹

Accordingly, a method to predict the systemic consequences of a crisis such as the Rhodesian Declaration on the basis of immediate characteristics would be a valuable acquisition. This is true especially with regard to crises in Africa, a region in which change itself is one of the few constant factors. The search for a predictive device entails certain conceptual questions.

1. What is an international system?
2. What is an international crisis?
3. How are the immediate severity and long-term importance of a crisis related to one another?

These concepts will play a fundamental role in the analysis to follow. The ultimate objective is to predict the impact of international crises on international systems, using immediate severity to estimate long-term importance.

CONCEPTS: SYSTEM, CRISIS, SEVERITY, AND IMPORTANCE

International or otherwise, a social system has both static and dynamic components.² At the static level, structure refers to how the actors stand in relation to each other. Its basic attributes are the number of actors and the distribution of power among them. In dynamic terms, process designates the interaction patterns among the actors of a system. The basic interaction variables are type (i.e., the continuum of conflict through cooperation) and intensity (i.e., volume of interaction per unit of time). Process and structure are inter-related: every structure has a corresponding interaction process, and a structure creates and maintains regular interaction.

One distinctive property of an international system, which serves to demarcate its boundaries, is issue. This concept may be defined as a specific shared focus of interest for two or more actors. There are war-peace issues, such as territory, rights and privileges to bases, national honor, unlimited aggrandizement or imperialism, liberation, and unification. Other issues are economic and developmental, like fishing, commercial navigation, and offshore drilling in the issue-area of oceans space and resources, as well as exchange rates, reserve assets, and capital movements within the international monetary issue-area. There are also political, cultural, status, and technological issues, within broader categories of issue-areas.

The notion of systemic boundaries presented here is derived from the general conception of an international system, which has explicit issue, geographic, or other limitations. Boundaries facilitate the spatial distinction between context and environment. They incorporate all geographic, political, military, technological, societal, and cultural elements which affect the structure and process of a system, from within and outside the system, respectively.

Having described its components, an international system may be defined in general terms:

an international system is a set of actors who are situated in a configuration of power (structure), are involved in regular patterns of interaction (process), are separated from other units by boundaries set by a given topic (issue) and are constrained in their behavior from within (context) and from outside the system (environment).

It is apparent that many such systems exist simultaneously in Africa. For example, the states in the Organization for African Unity (OAU) may be regarded as actors in a system that is virtually coterminous with the continent itself. (The exceptions are South Africa and Morocco. The latter left of its own accord in 1984 when the rebel Polisario Front was granted recognition.) It exists within boundaries set by the issue of Pan-Africanism, the central concern of the organization since its inception. Members of the OAU interact in the context of a common colonial heritage and similar cultural reference points. The remainder of the international polity constitutes the environment of this subsystem, constraining action through its preponderant capabilities.

There is more than one way to study change in systems such as the OAU. A natural approach would be to monitor events in the system on regular basis, in order to keep track of cumulative alterations in process or structure. While there is much to recommend it, that strategy will not be pursued here. The focus instead will be on discontinuities in international systems, i.e., crises. An international crisis may be defined as a situational change in an international system characterized by two individually necessary and collectively sufficient conditions:

- (1) distortion in the type and an increase in the intensity of *disruptive interactions*, with a high probability of military hostilities; and
- (2) a *challenge* to the existing structure of the system.

Conditions (1) and (2) denote a significant increase in the intensity of interactions and strain to structure. International crisis encompasses change. While it is recognized that developments in a system need not occur by leaps and jumps, and can result from cumulative events, such change is the product of something other than a crisis.³

For each international crisis there will be a corresponding set of actors, as noted previously. From the perspective of a single state, a crisis is a situation with three individually necessary and collectively sufficient conditions, deriving from a change in its external or internal environment. All three are perceptions held by the highest-level decision makers:

- (a) a *threat to basic values*, with a simultaneous or subsequent
- (b) *high probability of involvement in military hostilities*, and the awareness of
- (c) *finite time for response to the external value threat* (Brecher, 1977: 43-44).

An international crisis begins with the first actor-level crisis which is perceived, and ends when the last actor-level crisis has terminated. This process of distortion and accommodation may be gradual or rapid. In general, international crises are characterized by multiple breakpoints, that is, gradual distortion and, by contrast, few exitpoints, that is, rapid accommodation. The reason for this difference is that the onset of an international crisis is usually a process in which crisis actors cumulatively challenge one another. The result is that breakpoints tend to differ in time and, therefore, distortion is gradual. Accommodation, however, usually requires either a formal or tacit agreement, and thus exitpoints tend to coincide in time. In all cases, though, the termination of the unit-level crisis for the last participant and the end of the systemic crisis are identical in time.

For purposes of prediction, the immediate intensity and long-term impact of an international crisis must be distinguished from each other. The intensity of a crisis, referred

to from this point onward as *severity*, is assessed in terms of its destabilizing effects on an international system. Stability may be defined as change within explicit limits, while instability designates change beyond a normal range of fluctuation. These concepts may be operationalized in terms of the number of changes in the structure of a system, its process, or both. The absence of change indicates pure stability, its presence, some degree of instability. Instability in a system can be illustrated by change in the volume of interaction inherent in such events as wars or crises involving its states. The presence of one of these processes also may induce structural change and thereby accentuate the instability of one or more systems in Africa.

The long-term impact of a crisis, which subsequently will be known as its *importance*, is measured by the extent of disequilibrium it has produced in an international system. Equilibrium may be defined as the steady state of a system, denoting change below the threshold of irreversibility. This meaning is broader than the notion of balance of power, a widely-used synonym for equilibrium. These concepts may be operationalized in terms of the quality (significance) of change in structure, process, or both, ranging from total reversibility to absolute irreversibility. Step level (irreversible) change indicates disequilibrium, which inevitably leads to systemic transformation, that is, a change in essential actors and/or the distribution of power among them. The new system, with properties which significantly differ from those of its predecessor, denotes a new equilibrium, that is, changes within it are reversible.

Acute distortions in an existing structure or process (or both) may—or may not—lead to disequilibrium. Thus disequilibrium, *ipso facto*, denotes a high level of instability, but the reverse does not necessarily obtain. Every international crisis entails instability. Each of these events produces a distortion of existing processes and challenges the structure of a system. But not all crises will result in irreversible changes in structure or process.⁴

This completes the discussion of the central concepts in the analysis to follow: international system, international crisis, severity and importance. Measurement of the latter two constructs is the next problem to be considered.

INDICATORS OF SEVERITY AND IMPORTANCE

The severity of an international crisis will be measured by six indicators: number of actors, great power or superpower involvement, geostrategic salience, heterogeneity, issues, and extent of violence. These variables cover a wide range of system characteristics. The number of crisis actors demarcates a set of participants and an attendant power structure. The extent of violence measures the intensity of the process of interaction. Boundaries are set by the issues in dispute. The geostrategic salience of the location of a crisis provides a context for interaction, while involvement by the great powers or superpowers represents an environmental constraint. Heterogeneity bridges the gap between actor-level and systemic crisis, since it gauges diversity among participants.

At this point, each of the six indicators will be defined in operational terms. The data for these indicators (and for the other variables to follow) are from the International Crisis Behavior (ICB) Project's *Handbook of International Crises* (Brecher and Wilkenfeld et al. 1987). Table I displays the 64 international crises in Africa from 1929-1979 which have been identified by the ICB Project. The crisis actors in each case and its duration are also listed.⁵ (The scores which appear for overall severity and importance will be explained at a later point.)

TABLE I
International Crises, 1929-1979*

International Crisis	Crisis Actors	Duration	Severity	Importance
Wal-Wal	Ethiopia, UK	12/ 6/34-10/22/35	4.90	—
Ethiopian War	Ethiopia, France, Italy	10/ 2/35- 5/ 5/36	5.43	7.38
Italian Colonial Demands	France	11/30/38- 3/31/39	3.15	1.38
E. Africa Campn.	UK, Italy	8/19/40- 5/17/41	4.63	—
El Alamein	Germany, Italy	10/23/42- 5/13/43	5.16	—
Suez Canal	Egypt, UK	7/30/51- 1/30/52	3.96	5.13
Suez National.	France, UK	7/26/56-11/ 6/56	4.36	—
Tunisia/France I	Tunisia	5/31/57- 6/27/57	1.95	—
Ifni	Spain	11/23/57-11/ *1/57	2.62	2.13
Tunisia/France II	Tunisia	2/ 8/58- 6/17/58	2.75	2.50
Sudan/Egypt Bdr.	Sudan	2/ 9/58- 2/25/58	2.08	1.00
Ghana/Togo Bdr.	Ghana	3/ *1/60- 4/ 1/60	1.81	2.13
Congo I: Katanga	Belgium, Congo	7/ 5/60- 2/15/62	3.96	3.63
Mali Federation	Mali, Senegal	8/20/60- 9/22/60	2.08	4.38
Ethiopia/Somalia	Ethiopia	12/26/60-12/ *1/61	2.35	1.00
Bizerta	France, Tunisia	7/17/61- 9/29/61	3.69	1.00
Mauritania/Mali	Mauritania	3/29/62- 2/18/63	2.22	1.38
Algeria/Morocco	Algeria, Morocco	10/ 1/63-11/ 4/63	2.62	1.00
Kenya/Somalia	Kenya	11/13/63- 3/ 4/64	2.48	2.13
Dahomey/Niger	Niger, Dahomey	12/21/63- 1/ 4/64	2.89	1.00
Rwanda/Burundi	Rwanda, Burundi	12/21/63- 4/ *1/64	3.15	1.00
E. Africa Rebell.	UK	1/19/64- 1/30/64	2.22	2.50
Ogaden I	Eth., Somal.	2/ 7/64- 3/30/64	4.49	2.13
Congo II	Congo, Belg., US, USSR	8/ 4/64-12/30/64	7.98	5.50
Guinea Regime	Guinea	10/ 9/65-12/ *1/65	1.0	12.50
Rhodesia UDI	Zambia	11/ 5/65- 4/27/66	2.62	2.13
Portuguese Inv. of Guinea	Guinea	11/22/70-12/11/70	2.62	2.13
Chad/Libya I	Chad, Libya	5/24/71- 4/17/72	2.62	2.13
Caprivi Strip	Zambia	10/ 5/71-10/12/71	2.75	1.00
Ugan./Tanz. I	Uganda, Tanzania	10/20/71-11/25/71	2.75	—
Ugan./Tanz. II	Uganda, Tanzania	9/17/72-10/ 5/72	2.75	2.13
Zambia	Zambia	1/19/73- 2/ 3/73	2.48	1.00
War In Angola	Zaire, Zambia, South Africa, Angola, US, Cuba, USSR	7/12/75- 3/27/76	9.18	4.38
Mor. March Sahara.	Spain, Morocco	10/16/75-11/14/75	3.42	—
Sahara	Algeria, Morocco, Mauritania	11/14/75- 4/ *1/76	5.57	3.25
Uganda Claims	Kenya	2/15/76- 2/24/76	1.81	2.13
Op. Thrasher	Rhodesia, Mozambique	2/22/76- 4/ *1/65	3.96	—

(continued)

TABLE I Continued

International Crisis	Crisis Actors	Duration	Severity	Importance
Nouakchott I	Mauritania	6/ 8/76- 6/ 8/76	1.28	—
Entebbe Raid	Israel	6/30/76- 7/ 4/76	3.02	4.38
Sud. Coup Att.	Sudan	7/ 2/76- 7/15/76	1.14	3.25
Nagomia Raid	Mozambique	8/ 9/76-11/ *76	2.48	—
Op. Tangent	Botswana	12/20/76- 3/31/77	2.75	—
Shaba I	Angola, Zaire	3/ 8/77- 5/26/77	3.96	—
Mapai Seizure	Mozambique	5/29/77- 6/30/77	2.62	—
Nouakchott II	Mauritania	7/ 3/77- 7/ *77	1.28	4.00
Lib./Egy. Border	Libya, Egypt	7/14/77- 7/10/77	2.89	1.00
Ogaden II	Ethiopia, Somalia	7/22/77- 3/14/78	4.63	4.00
Rhodesia Raids	Zambia	8/31/77- 8/14/78	2.62	—
Fr. Hostages	France, Algeria	10/25/77-12/23/77	3.56	4.38
Chimoio Tembue Rd.	Mozambique	11/23/77- 3/22/78	2.62	—
Chad/Libya II	Chad, Libya	1/22/78- 3/27/78	2.48	—
Chad/Libya III	Chad, Libya, France	4/15/78- 8/29/78	4.36	—
Cassinga Incident	South Africa, Angola	5/ 3/78- 5/17/78	3.96	—
Shaba II	Angola, Zaire, Belgium, France, US	5/11/78- 7/30/78	7.44	2.13
Air Rhodesia	Rhodesia, Zambia	9/ 3/78-10/31/78	2.89	—
Fall of Amin	Tanzania, Libya Uganda	10/30/78- 4/10/79	4.09	4.00
Angola Inv. Scare	Angola	11/ 7/78-11/14/78	2.62	—
Tan Tan	Morocco	1/28/79- 3/ *79	1.81	—
Raids on ZIPRA	Rhodesia, Angola, Zambia	2/12/79- 5/31/79	3.69	—
Raids on SWAPO	Angola	3/ 6/79- 3/28/79	2.75	—
Goule./Tarfaya Rd.	Morocco, Algeria	6/ 1/79- 6/25/79	2.22	—
Chad/Libya IV	Chad, France, Libya	4/12/79-11/10/79	4.36	—
Rho. Settlement	Rhodesia, Botswana, Mozambique, Zambia	7/15/79- 3/ 4/80	5.30	7.00
Raid on Angola	Angola	10/28/79-11/ 2/79	2.75	—

*An asterisk means that an exact date could not be specified.

Data have been collected—from 1929 to 1979—on four sets of variables, two at the micro/state level, two at the macro/international level. For each international crisis as a whole, data have been generated for 28 variables which are grouped into seven clusters of crisis dimensions: setting (war/non-war, value threat, involved actors); breakpoint-exitpoint or trigger-termination (content, dates, duration); crisis management techniques (violent/pacific, intensity, extent of violence); great power/superpower activity (content and effectiveness in crisis abatement); the same for international organization involvement; outcome (content, form, legacy); and severity (number of crisis actors, major power involvement, geostrategy, heterogeneity, issues, violence). The data for each case were

TABLE II
Scale Points for Actors

Score	Criterion	Example
6	6 or more crisis actors	War in Angola
5	5	Shaba II
4	4	Congo II
3	3	Fall of Amin
2	2	Congo I: Katanga
1	1	Ghana/Togo Border

gathered by two coders, independently, under the supervision of a senior ICB scholar and showed an overall inter-coder reliability of .85. The cumulative data for 278 cases (64 on Africa) were then subjected to some or all of six controls: geography, polarity, system level, conflict, power discrepancy and combined involvement by the powers.

In addition to the macro (and micro) coding of each crisis, a summary of the salient facts was prepared. This included a brief background of the dispute which led to the crisis, together with a chronological account and description of the major events, including the dates of the trigger, response and termination for each crisis actor. Further, the summary includes an indication of involved actors as differentiated from crisis actors, a specification of the major issues, values threatened, techniques of crisis management, and outcomes for each crisis actor, as well as any unique circumstances of the crisis. Summaries also contain references to all previous and subsequent related crises involving substantially the same set of actors.⁶

Since the data referred to are relatively new, a descriptive analysis of the indicators may prove enlightening. A histogram will be provided for each indicator, along with illustrations of the scale points.

The number of adversarial actors in an international crisis is one indicator of its severity: the participation of more actors signifies wider embryonic change during a crisis. As Table II indicates, the number of crisis actors ranges from one to seven (coded as six or more).

About one-half of the African international crises had a single crisis actor, as evident in Figure 1. However, other states and, frequently, transnational (non-state) actors were involved in these cases. Thus every crisis actor has a perceived adversary, usually the state which triggers its crisis and, therefore, the international crisis as a whole. Moreover, one or more states or non-state organizations may be *involved actors*; that is, they may provide verbal, political, economic, semi-military or direct military support to the crisis actor or its adversary. The crucial distinction is that, in all these cases, involved actors and the adversary did not perceive the situational change as a crisis for themselves. Put differently, one or more of the three necessary conditions of a unit-level crisis (noted above) do not apply to them. Hence they are involved actors, but not crisis actors.⁷ A good example is Raids on SWAPO, March 1979: South African Defense Forces attacked soldiers and bases of the SWAPO liberation movement in neighboring Angola, triggering a crisis for Angola. South Africa was an involved actor as the triggering entity and Angola's adversary. SWAPO, too, was heavily involved as a non-state actor, like the United Nations.

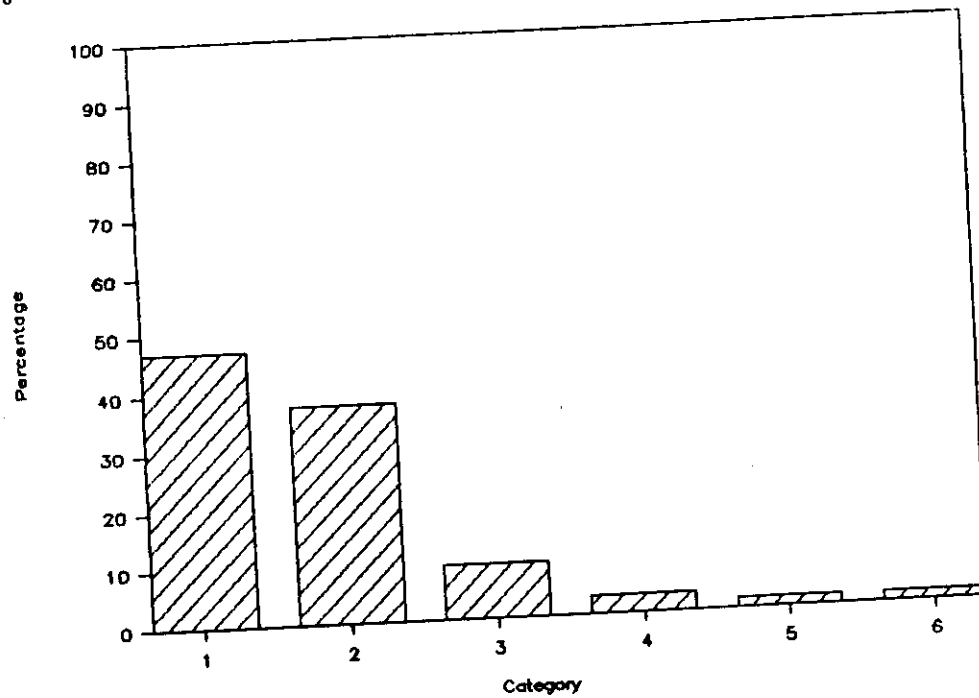


FIGURE 1. Actors: Prct. Frequencies

The latter, through a Security Council resolution on 28 March, condemned South Africa and demanded an immediate end to its provocative acts. While South Africa catalyzed that international crisis, Angola was the only state which perceived the situation as a crisis for itself.

Involvement refers to the extent of great power/superpower adversarial behavior in international crises.⁸ As illustrated by Table III, involvement has ranged from low or no

TABLE III
Scale Points for Involvement

Score	Criterion	Example
6	2 or more powers as crisis actors, others low or no involvement	Congo II
5	2 or more powers as crisis actors, others low or no involvement	Shaba II
4	1 or 2 powers as crisis actors, others high or low involvement	El Alamein
3	1 power as a crisis actor, others low or no involvement	Ethiopian War
2	1 or more powers high, others low or no involvement	Operation Thrasher
1	2 or more powers low or no involvement	Rwanda/Burundi

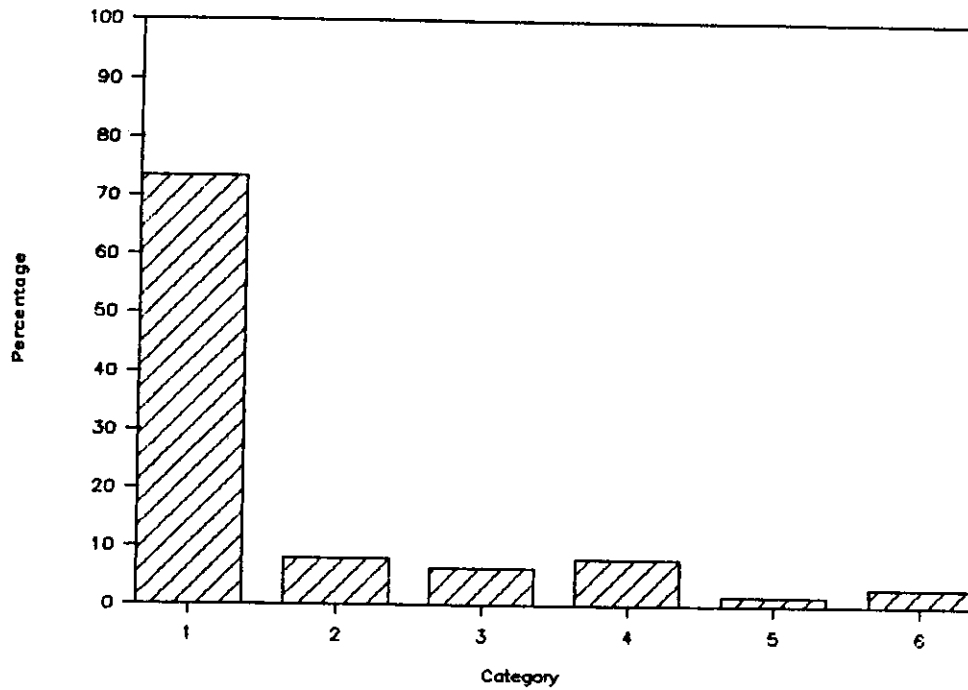


FIGURE 2. Involvement: Prct. Frequencies

TABLE IV
Scale Points for Geostrategy

Score	Criterion	Example
5	Global system	none
4	dominant system and more than one subsystem	Ethiopian War
3	dominant system and one subsystem	Congo II
2	more than one subsystem	Portuguese Invasion of Guinea
1	one subsystem	Operation Tangent

participation by the powers to two or more powers as crisis actors, with the others having low or no involvement. It is clear from Figure 2 that African crises have not stimulated a great deal of involvement by the powers at the apex of the global system. While that may change in the future, the past record is one of low or no involvement by the powers in most of the crises of Africa.

Geostrategic salience refers to the location of an international crisis in terms of its natural resources, distance from major power centers, and so forth. Geostrategic assets vary over time: oil and uranium-producing regions acquiring greater salience since the 1950s; coal-producing regions became less significant. Key waterways and choke points like Gibraltar and the Cape of Good Hope have retained their relevance over the decades. Table IV displays the scale points for geostrategic salience. They range from relevance to one sub-

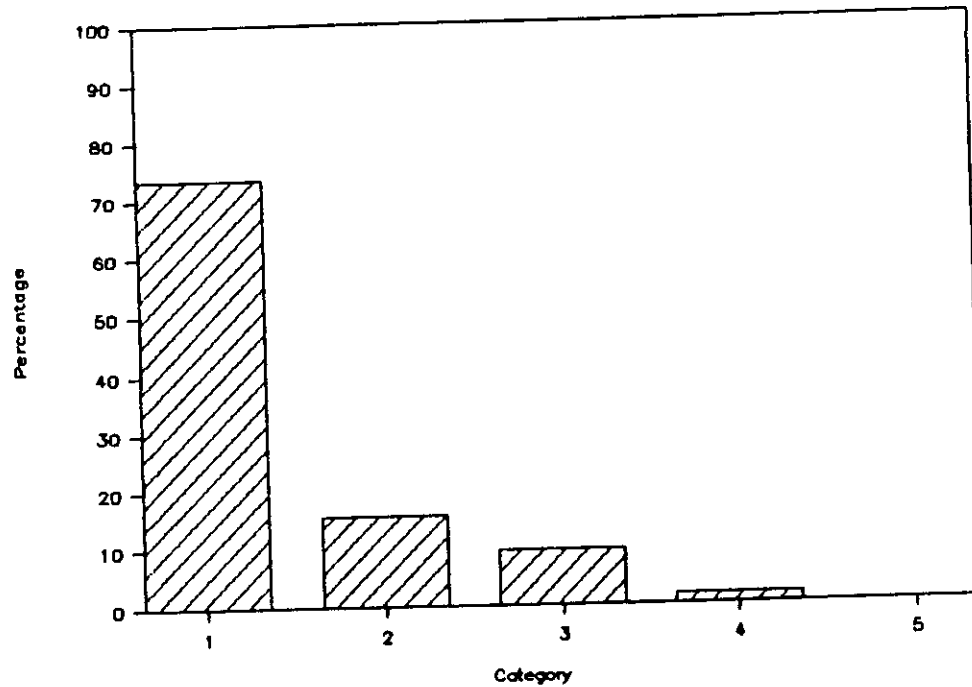


FIGURE 3. Geostrategy: Prct. Frequencies

system up to the global system itself. As Figure 3 demonstrates, there is no African crisis with relevance beyond the dominant system and more than one subsystem. In fact, if the World War II and colonial power crises were left out, the scale points beyond the first would have significantly lower percentage frequencies. About three-fourths of the crises would have received a minimal score, which, along with the distribution of data for involvement noted earlier, clearly illustrates the limited geostrategic significance of the continent, and its peripheral nature vis-a-vis issues that are salient to the global system.

With respect to the extent of heterogeneity, severity is measured by the number, not the intensity, of attribute differences among adversaries.⁹ The attributes are military capability, political regime, economic development, and culture. Table V shows the range of scale points, with no attribute differences at one extreme and four at the other. In over

TABLE V
Scale Points for Heterogeneity

Score	Criterion	Example
5	military, economic, political and cultural differences among adversaries	Ifni
4	three attribute differences	Tunisia/France II
3	two differences	Eritrea
2	one difference	Algeria/Morocco Border
1	none	Guinea Regime

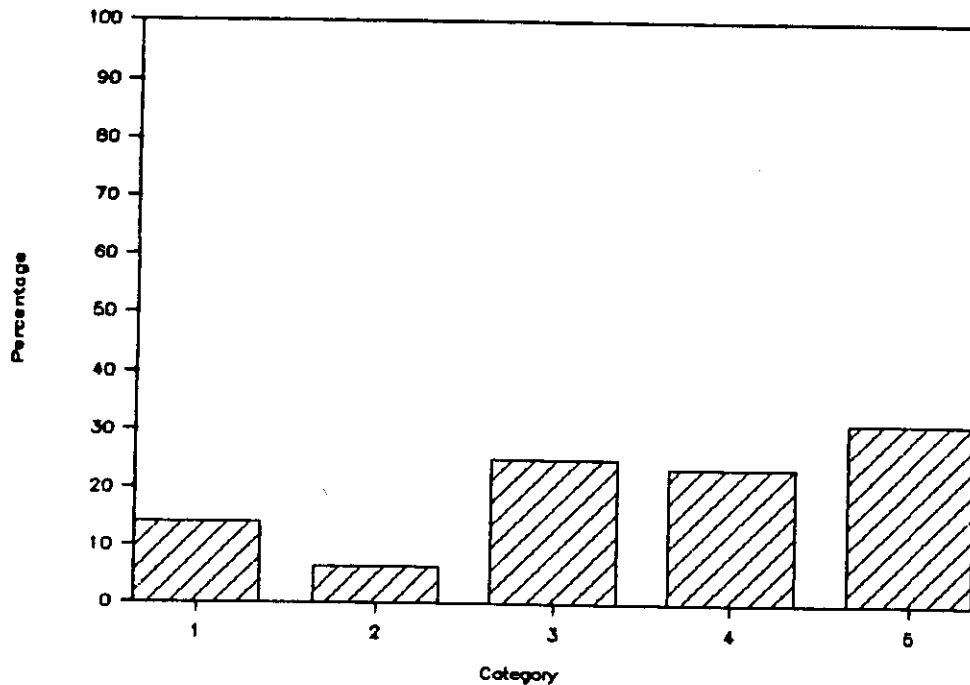


FIGURE 4. Heterogeneity: Prct. Frequencies

75% of the cases, as illustrated by Figure 4, there are two or more attribute differences. Given that most African states exhibit limited divergence in economic development and military capability, it is unlikely that these attributes account for the high level of heterogeneity in Africa. The heterogeneity variable undoubtedly reflects the pervasiveness of cultural diversity. Designed by colonial powers, Africa's borders are inconsistent with tribal realities. In crises involving bordering states it thus would not be uncommon for several cultures to be adversaries.

Issues denote generic substance, that is, groups or clusters of issues with a shared focus. These clusters can be grouped into four issue-areas: (a) military-security, incorporating territories, borders, free navigation, change in military balance, military incidents, and war; (b) political-diplomatic, including sovereignty, hegemony, and international influence; (c) economic-developmental, including the nationalization of property, raw materials, economic pressure such as boycotts and sanctions, and foreign exchange problems; and (d) cultural-status, comprising issues of ideology, and challenges to non-material values and symbols. Table VI displays the scale points for issues, which range from one non-military issue to three issues. The majority of crises involved only military-security, according to Figure 5. This is understandable, given the instability of African boundaries and the ethnic conflicts that extend beyond the confines of a single state. By contrast, crises over three issues are scarce in Africa, as they would be in any world region.

Last among the indicators of severity is the extent of violence in an international crisis. Displayed by Table VII, the scale points for violence range from none to full-scale war. Minor and serious clashes are the most common levels of violence attained, as revealed by Figure 6. This is plausible, since full-scale war means far greater costs for those who wage it.¹⁰ Since most African states are not in a position to engage in such a sustained

TABLE VI
Scale Points for Issues

Score	Criterion	Example
5	three issues	Rhodesian Settlement
4	two issues, including military-security	Chad/Libya III
3	military-security alone	Caprivi Strip
2	two issues other than military-security	Congo I: Katanga
1	one non-military security issue	Chad/Libya II

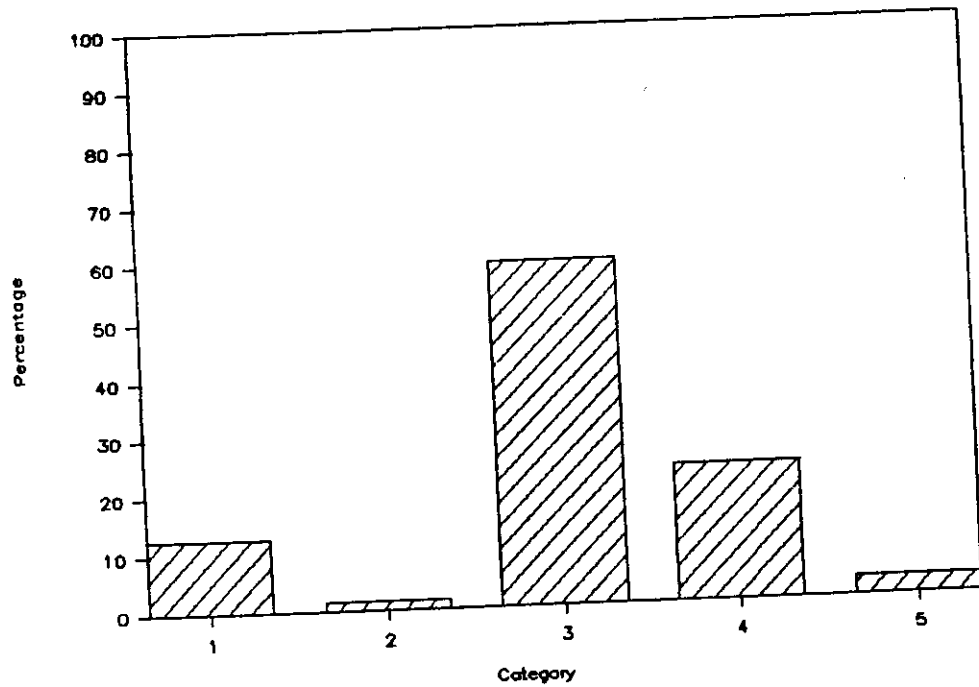


FIGURE 5. Issues: Prct. Frequencies

TABLE VII
Scale Points for Violence

Score	Criterion	Example
4	full-scale war	Chad/Libya IV
3	serious clashes	Raids on ZIPRA
2	minor clashes	Mauritania/Mali
1	no violence	Dahomey/Niger

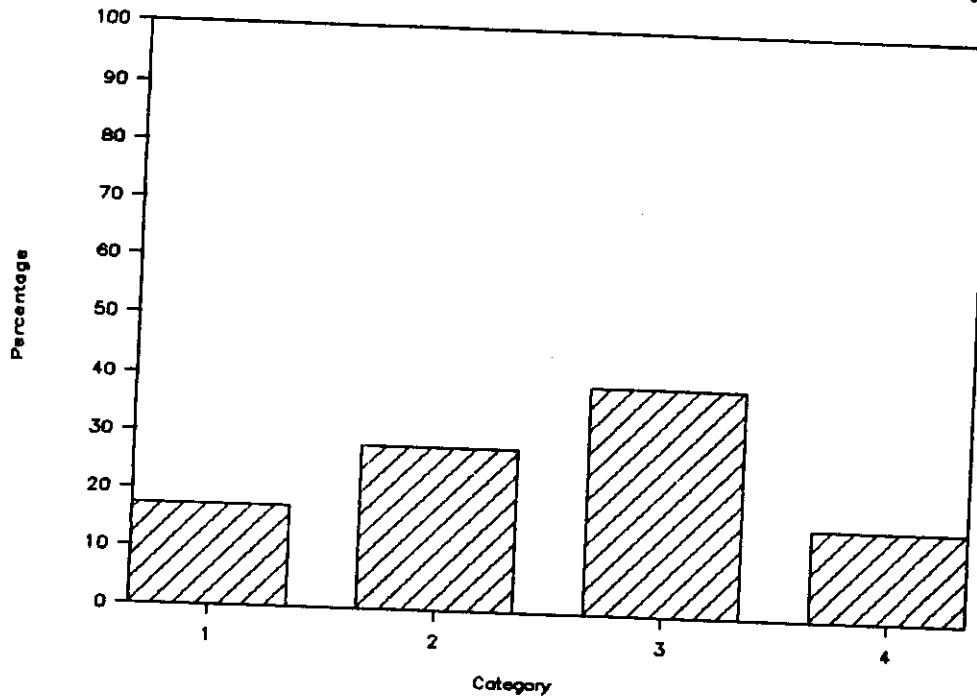


FIGURE 6. Violence: Prct. Frequencies

expenditure of resources, violence is limited by the capacity to indulge in it. This completes the presentation of the six indicators of severity.

The extent of disequilibrium resulting from an international crisis, i.e., long-term importance, will be measured by four indicators of system change—change in power distribution, actors, rules of the game, and alliance configuration. The first two represent structural changes, while the latter two cover developments in the process of interaction. Each of these effects is assessed three years after the end of the crisis. This time period, of course, is set arbitrarily. However, certain considerations favor the choice of three years after the termination of a crisis. Given the nature of systemic changes, a shorter time would not permit them to unfold. This is true especially of rules of the game, for which change may be imperceptible unless measured in years. By contrast, if a longer period was selected, the competing effects of diverse crises and other international events could not be readily disentangled.

As in the case of severity, the explanation of the indicators of importance will be accompanied by a descriptive analysis. Effects on the distribution of power within an international system refer to change in both the number of power centers and in the hierarchy of power. The scale points listed in Table VIII range from no change in the relative power among adversaries to change in the composition of states at the apex of a power pyramid. Given the lack of superpower and great power involvement, and generally limited geostrategic salience, African crises have less of an opportunity to affect the states at the top of the ladder. Consequently, there are no crises at the two higher scale points. The maximal level attained is change in the relative power of adversarial crisis actors. As Figure 7 demonstrates, about two-thirds of the cases resulted in that level of change.

TABLE VIII
Scale Points for Change in Power

Score	Criterion	Example
4	change in composition of states at the apex of the power pyramid	none
3	change in the ranking of states among the five most powerful within the dominant subsystem	none
2	change in the relative power of adversarial crisis actors	Kenya/Somalia
1	no change in relative power among adversaries	Bizerta

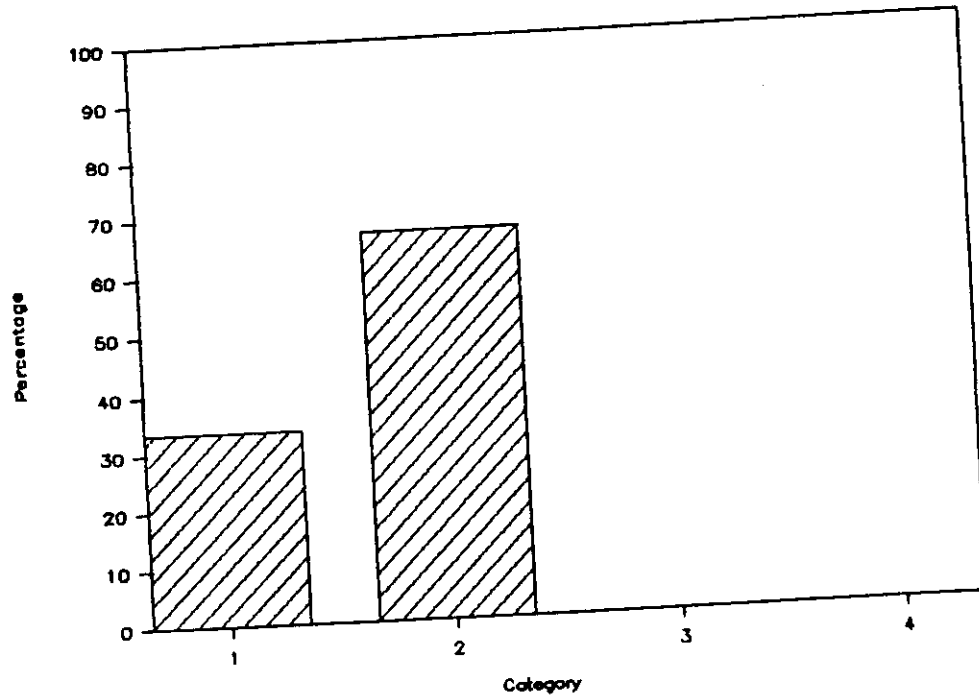


FIGURE 7. Change in Power: Prct. Frequencies

TABLE IX
Scale Points for Change in Actors

Score	Criterion	Example
4	creation/preservation/elimination of one or more state actors	French Hostages
3	change in regime type	Nouakchott II
2	change in regime orientation	Chad/Libya IV
1	no change in actors or regime	Ogaden I

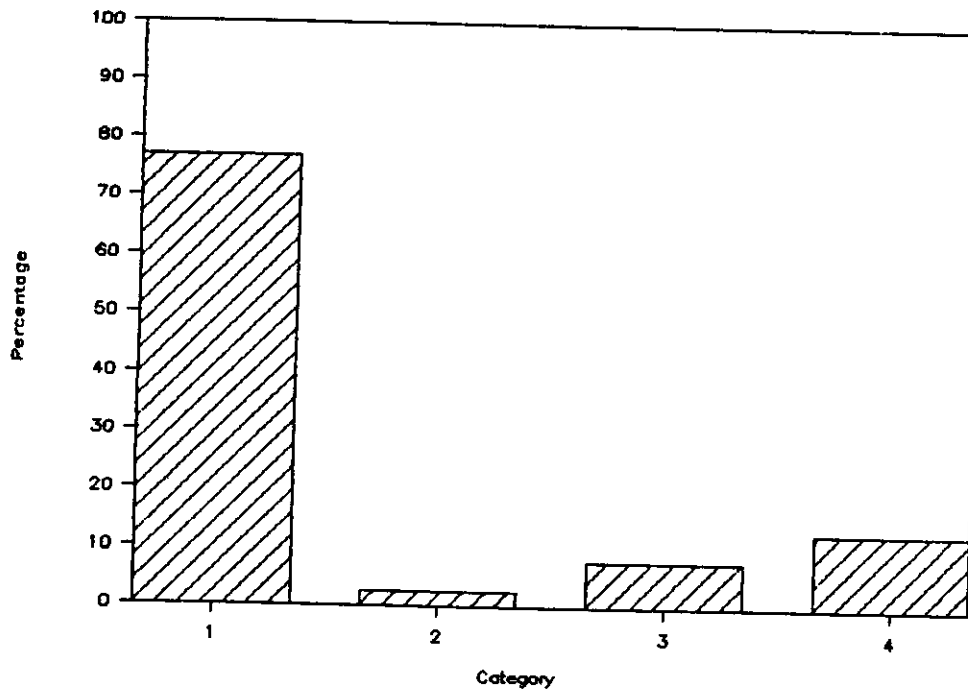


FIGURE 8. Change in Actors: Prct. Frequencies

Change in actors comprises both regime change, whether in orientation or type, and more basic structural shifts for one or more independent states as a result of an international crisis. Table IX displays the scale points, which range from no change in actors to the creation/preservation/elimination of one or more state actors.¹¹ Most crises failed to result in a change in actors or regime. It is, however, interesting to note the relatively high frequency of the maximal scale point in Figure 8. This underscores the unsettled character of the continent, and especially the transience of its state configuration.

Rules of the game refer to those norms derived from law, custom, morality, or self-interest which serve as guidelines for legitimate behavior by the actors of a system. These rules may be informal or formally-codified. As illustrated by Table X, the scale points range from no change to the creation or elimination of codified or tacit rules. The over-

TABLE X
Scale Points for Change in Rules

Score	Criterion	Example
4	creation or elimination of codified or tacit rules of the game	Entebbe Raid
3	breakdown in consensus	Raid on Angola
2	decline in consensus	Sahara
1	no change	Rwanda/Burundi

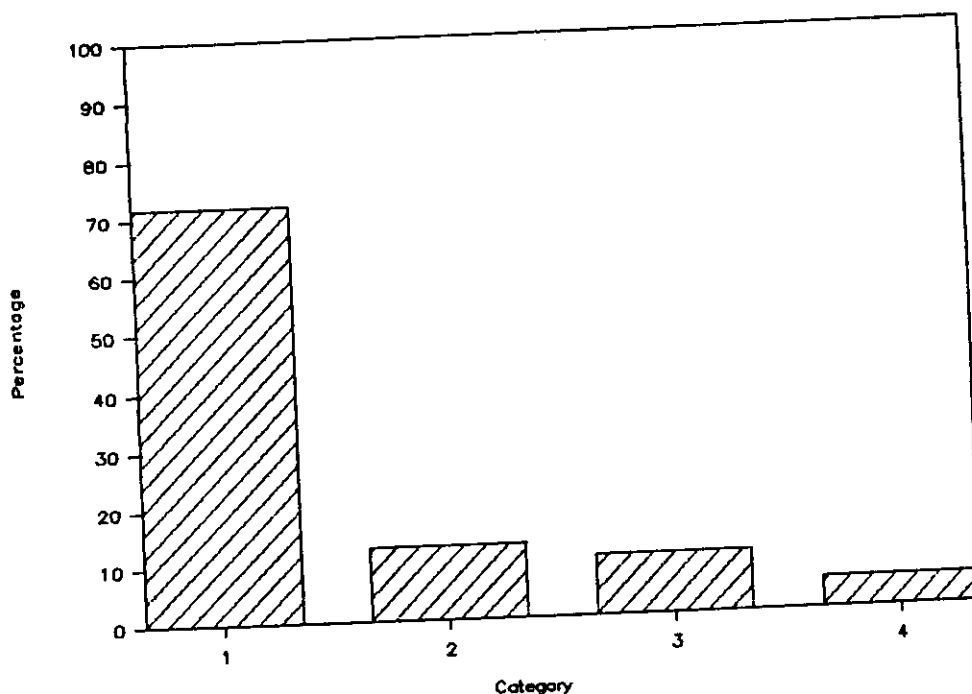


FIGURE 9. Change in Rules: Prct. Frequencies

whelming number of crises have been played out within the confines of the accepted rules of the game (Figure 9). The relative frequencies decline precipitously after that category.

Change in alliance configuration means a shift in the structure and functioning of alliances within an international system. The scale points in Table XI range from no change to the formation or elimination of an alliance. Most crises do not affect alliances, as seen in Figure 10. But there are numerous examples of change in alliance cohesion, possibly due to frequent regime changes and the highly personal nature of relationships among African heads of state.

Four indicators of importance and six indicators of severity have now been descriptively analyzed. The Angola Crisis (1975-1976) will be used to provide an in-depth illustration of the coding of these indicators for an individual international crisis.

TABLE XI
Scale Points for Change in Alliances

Score	Criterion	Example
4	formation/elimination of an alliance	Ethiopian War
3	entry/exit of actor(s) into/from a formal or informal alliance	Rhodesian Settlement
2	increase/decrease of cohesiveness within an existing alliance	Ogaden II
1	no change	Uganda Claims

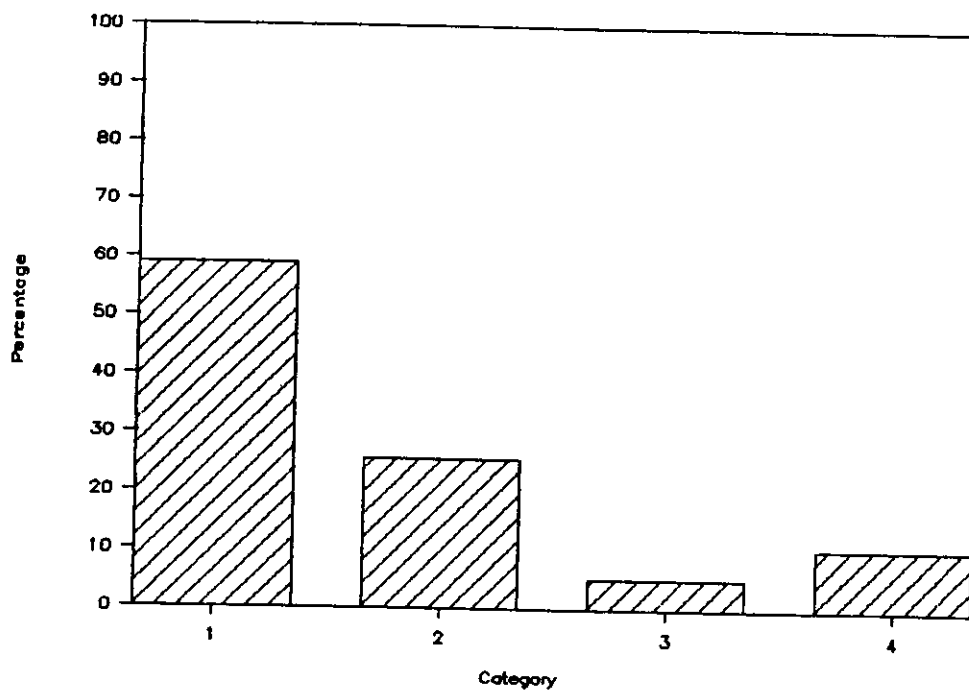


FIGURE 10. Change in Alliances: Prct. Frequencies

THE ANGOLA CRISIS, 1975-1976

Angola is an interesting example for several reasons. It is the most severe and one of the most important cases in the African data set. Furthermore, it is a rarity among African crises in a number of ways: (1) it escalated to full-scale war; (2) it involved both super-powers as crisis actors; (3) while African crises usually are played out on the periphery, this case involved the dominant system; and (4) a regime with a new, Marxist orientation came to power in Angola as a result of the crisis.

It is interesting to speculate on why this war of national liberation in a remote region against a faltering colonial regime assumed such importance. As will become apparent

TABLE XII
Indices of Severity and Importance, 1975-1976 Angola Crisis

Severity Indicators		Weight	Assigned Score
s ₁	Actors	4	6
s ₂	Involvement	4	6
s ₃	Geostrategy	2	3
s ₄	Heterogeneity	2	5
s ₅	Issues	2	4
s ₆	Violence	1	4

$$\begin{aligned}
 \text{Severity Index} = S' &= 0.134 \left(\sum_{k=1}^6 w_k s_k \right) - 1 \\
 &= 0.134(4(6) + 4(6) + 2(3) + 2(5) + 2(4) + 1(4)) - 1 \\
 &= 9.18
 \end{aligned}$$

Importance Indicators		Weight	Assigned Score
i ₁	Power Change	3	2
i ₂	Actor Change	2	2
i ₃	Rules Change	2	3
i ₄	Alliance Change	1	1

$$\begin{aligned}
 \text{Importance Index} = I' &= 0.375 \left(\sum_{j=1}^4 u_j i_j \right) - 2 \\
 &= 0.375 (3(2) + 2(2) + 2(3) + 1(1)) - 2 \\
 &= 4.38
 \end{aligned}$$

from a review of scores for the ten indicators listed in Table XII, the internal concerns of the civil war were subsumed by external concerns that were imposed upon it.¹²

Actors

Seven crisis actors ultimately emerged in the following sequence—the rival Angolan nationalist factions (that is, Angola itself), Zaire, Zambia, South Africa, Cuba, the Soviet Union, and the United States (scale point 6). In addition, there was an array of involved actors—China, Congo, North Korea, Portugal, Tanzania, and Yugoslavia, along with the diplomatic efforts of Ivory Coast, Kenya, Nigeria and Uganda, and multi-state actors such as the OAU, and international financial interests.¹³

Three nationalist groups, the Movimento Popular de Libertacao de Angola (MPLA), Frente Nacional de Libertacao de Angola (FNLA), and Uniao Nacional Para a Independencia Total de Angola (UNITA), were created in opposition to Portuguese colonialism. They began jockeying for position against each other after the leftist coup in Portugal on 24 April 1974, with the new regime's decision to decolonize as quickly as possible. The Alvor Agreement of 15 January 1975 provided for the granting of independence on November 10, 1975, to a coalition government that would be representative of all three groups, as chosen through legislative elections in October. This agreement never succeeded in achieving peace and was annulled de facto in March 1975 when FNLA troops attacked MPLA forces north of the capital, Luanda. President Kenyatta of Kenya mediated a cease-fire on June 21, but it was broken immediately. By July there existed a state of open warfare in Angola. The MPLA began receiving larger quantities of arms from the USSR, while the US-backed FNLA concluded an alliance with UNITA and, in August, formally declared war on the MPLA.

Zambia became directly involved in the crisis on July 12 due to its concern about the consequences of a violent conflict being waged in a border state, especially when the essential Benguela railroad was closed down. A pro-Western stance initially led Zambia to support UNITA. This state also was influenced by the fact that UNITA forces controlled the portion of Angola bordering its territory. Zambia's fragile economy was taxed further by the flood of Angolan refugees taking sanctuary in the state's western region. Being landlocked, they depended on Angolan territory and transport facilities for the export of copper and other goods. Zambia shifted policy and lent vocal, if not active, support to the MPLA once it realized that only the MPLA had the resources to keep the railway open and to stem the flow of refugees across the border.

Zaire's President Mobutu Seze Sekou initially supported the FNLA out of a sense of Bakongo nationalism. Moreover, Zaire's position as the "key to American foreign policy in sub-Saharan Africa" (Klinghoffer, 1980: 92) appears to have been a factor in its perceiving a crisis in Angola, as did the US. Mobutu allowed the US to transfer arms to Angola through Zaire and he sent Zairean commando units to fight alongside FNLA troops. However, once the MPLA was assured of victory, Mobutu announced that any Angolan refugees using Zaire as a base for operations against Angola would be expelled. Thus ended Zaire's participation in the crisis.

South Africa invaded Angola, through Namibia, on October 23, 1975, in support of FNLA and UNITA forces. This action led to these nationalist groups being perceived by other Africans as collaborating with South Africa's white supremacist regime. Thus, greater legitimacy was accorded the MPLA and, by extension, their Soviet and Cuban sponsors (Marcum, 1978: 273). By mid-November, MPLA and Cuban troops had stalled South Africa's advance. In January, 1976, South Africa withdrew as a direct result of the American Congress' ban on military aid to Angola, as this demonstrated the US's unwillingness to make a full-scale commitment to anti-Soviet forces in southern Africa.

South Africa clearly intervened out of concern for the regional balance of power. Already wary about the existence of an intractably hostile regime in Angola, they were alarmed further by the MPLA's collaboration with the South-West African People's Organization (SWAPO), which had been waging a guerrilla campaign for independence in Namibia. Thus the Angola Crisis provided South Africa with an opportunity to attack SWAPO. They hoped to establish a friendly regime in Angola, and to prompt some measure of gratitude from Zambia and Zaire. As well, the South Africans were anxious to display themselves to the United States as a strong and dedicated bulwark against communism in Africa.

Tanzania and Congo (Brazzaville) were involved regional actors. The latter, because of its relationship with the USSR, allowed the MPLA to establish headquarters in Brazzaville in 1963 and later allowed Cuban advisors to train MPLA troops in its territory. Tanzania initially supported the FNLA, permitting them to set up headquarters in Dar es Salaam. However, when South Africa intervened on their behalf, Tanzania shifted support to the MPLA, which was not tainted by contact with the apartheid regime.

China was the leading non-African power among the involved actors in the crisis. Beijing began sending aid to Angolan nationalists in 1971. The Chinese did this in an even-handed manner, through the OAU's Liberation Committee, which was then distributing funds to all three factions. In June, 1974 China sent military instructors to Zaire to train FNLA fighters, and in August, began supplying them with light arms. According to Marcum, China was motivated by a "consuming rivalry with the Soviet Union and eager[ness] to parlay excellent relations in East Africa and Zaire into an Angolan shutout of the Russians" (Marcum, 1978: 264). However, despite their continued support for the FNLA and UNITA, the Chinese withdrew from the crisis in July, 1975, "in response to the OAU's call for neutrality among the three rival Angolan movements. The reason they gave for the decision was that since they were not in a position to deliver aid to the MPLA, they would have been taking sides if they were left supporting only the FNLA and UNITA . . . Peking was not equipped to compete with massive Soviet aid" (Legum, 1977: 156).

Involvement

Both the United States and the Soviet Union were active semi-militarily, and both were crisis actors (scale point 6). Since Cuba's actions during the crisis had an important connection to those of the USSR, it will be included in the analysis of superpower involvement.

US policies toward Angola were essentially reactive to Soviet behavior and to MPLA initiatives. Washington was concerned with the amount of aid the USSR sent to the MPLA. Thus the CIA covertly funneled \$31.7 million to the FNLA from late July to September, 1975 (Uttley, 1979: 25). Marcum assessed American policy as follows:

American action and reaction seemed almost designed to provoke the Russians into seeking maximum advantage. Because the Soviet Union's outreach as a superpower is more military than economic, and because its capacity to intervene is essentially unconstrained by democratic accountability, there might have been every reason to conclude that the Soviets would enjoy an advantage in the event of an Angolan war by proxy (Marcum, 1976: 416).

Such a reactive policy rarely, if ever, leads to victory. In fact, the head of the CIA's Angola Task Force claimed his objective was not victory but, rather, to "prevent an easy victory by communist-backed forces" (Stockwell, 1978: 45). This was to be accomplished through the covert supply of arms and money to the FNLA and UNITA. The most disturbing facet of the US's crisis management was that, in a complex case involving many internal and external actors, it responded only to the East-West dimension of the crisis.

Partially because their policy was reactive, American leaders perceived a crisis in Angola. Their time to make decisions was limited by MPLA gains and by the fact that they were always reacting to Soviet policy decisions concerning Angola. Influence in the region—a basic value—was threatened, as was the stability of states whose regimes they supported (e.g., Zaire, Zambia). Since the ultimate level of escalation to be attained during the crisis was unknown, American military involvement became a distinct possibility, although Congressional constraints ultimately made that infeasible.

Investigating superpower crisis management in an aggregate context, Wilkenfeld and Brecher (1982: 194) found that nonviolent military action (e.g., mobilization, dispatch of troops) was the dominant Soviet crisis technique (45%), while the US rarely utilized that method (13%). This would suggest that Washington had pursued an ineffective strategy against the wrong adversary in Angola. Given that the Soviets seized the initiative (and because nonviolent military action is their dominant crisis management technique), they were more prepared to make a lasting and total commitment to their clients.¹⁴ Thus it would appear that the Soviets pursued more rationally calculated crisis management.

The USSR had been sending aid, off and on, to the MPLA since 1964. They engaged in a massive campaign to arm the MPLA between August 1975 and February 1976 (when open warfare ended) that cost an estimated \$270 million. The MPLA received such sophisticated fire-power as MiG-21s, tanks, rocket launchers, and ground-to-ground missiles (Klinghoffer, 1980: 27-28). These weapons, far superior to what the US sent to their clients, would ensure victory for the Soviet-supported faction.

Effective leadership and training was obtained by the MPLA from the USSR's ally, Cuba. The permanent Cuban presence in Angola can be dated from August 1975. Havana's initial function was to train MPLA soldiers in using the weapons supplied by the Soviets. Cuban combat troops began arriving on September 3, with large-scale deployment beginning in November, after the South African assault on October 23. The Cuban soldiers were primarily black and mulatto, making them more acceptable allies than if they had been white.

It is unclear whether Cuba's role in Angola reflected a desire to assist the revolutionary MPLA or merely action as Moscow's proxy. The Soviet Union was instrumental in making Cuban participation possible, because they facilitated the airlifting of Cuban troops to Luanda. The USSR was likely to have favored Cuba's role, in that it allowed them to avoid direct military involvement. However, some analysts believe that Cuba responded to the crisis in Angola independently (Jackson, 1982: 67-68; Klinghoffer, 1980: 114). According to Valenta, "Soviet and Cuban objectives apparently coincided in Angola. It may not be far-fetched to think of the involvement in Angola rather as the action of two allies than as that of Cubans subservient to Soviet politics" (Valenta, 1978: 25). Whichever interpretation is correct, it is certain that Cuba's participation played a decisive role in the ultimate success of Soviet policy in Angola.

Geostrategy

Among African cases, Angola ranks high on geostrategic salience—the dominant system being involved along with the African subsystem (scale point 3). It is quite rare for the dominant system to be affected by events in Africa (only 11.0% of the cases). As Uttley points out, however, Angola occupies a geographic position of considerable regional strategic significance:

Bounded by Zaire to the north and north-east, by Zambia to the west and by Namibia to the south, Angola is in a uniquely favourable position to promote stability or instability in much of southern Africa, as has already been demonstrated by the case of SWAPO, which mounts its raids into Namibia from base camps in southern Angola, and by invasion of Zaire's Shaba province by gendarmes operating from Angola with or without the Angolan Government's knowledge and tacit support. The potential for similar destabilizing action against Zambia is evident (Uttley, 1979: 24).

This explains in general terms why the surrounding states became entangled in the crisis.

Angola also is the transportation lynchpin of south-west Africa. Zambia and Zaire are dependent on the Benguela railway to carry goods bound for export to the Atlantic coast and the deep water harbors at Luanda and Lobito. Angola's major export is petroleum, which has been generating, on average, almost 90% of its export revenue (Wauthier, 1986: 24). The principal corporate benefactor of the Angolan oil industry, paradoxically, is US-owned Gulf, whose installations are guarded by Cuban soldiers. Angola's other natural resources include diamonds, iron ore, phosphates, gold, copper, manganese and uranium. Most of these industries are dominated by Western multinationals, although none is of a scope to justify deep involvement in an extensive crisis situation.

Along the same lines, the Americans always have emphasized the strategic relevance of Angola's proximity to the Cape shipping route, which serves as a link between the US and Western Europe and the Persian Gulf. In 1975 the US feared that, given access to Angola's deep water ports, the Soviets could interdict oil shipments. Some analysts assert that the United States exaggerated Angola's geostrategic significance, since the USSR already had access to ports in South Yemen, Mozambique, and Congo from which they could launch such actions (Klinghoffer, 1980: 78; Stockwell, 1978: 43). Regardless of Angola's objective geostrategic significance, the US certainly perceived it to be important and this, in itself, involved the dominant international system in the crisis.

Heterogeneity

Angola was among the international crises from 1929 to 1979 with the highest level of heterogeneity. Military, economic, political, and cultural differences existed among the adversaries (scale point 5). This is not surprising, given the multiplicity of crisis and involved actors in Angola.

Disparities between the actors are readily observable. In terms of military capability, the superpowers are at the apex of the scale, followed by Cuba and South Africa, Zaire and Zambia, and the Angola nationalists. The economic dimension, as well, was dominated by the quantities of aid distributed by the superpowers. Almost every conceivable regime type was represented in the crisis, from Western democracy (United States), to Communist rule (Soviet Union, Cuba), to authoritarianism (Zaire, South Africa), to a one-party state (Zambia). As well, ethnic and cultural differences were prominent. There were involved actors present in Angola from four of the five world regions (Africa, Asia, Europe, and the Americas).

However, the cultural heterogeneity among the external actors engaged in Angola was less salient than diversity within the African subsystem. Tribal distinctions were highly relevant in the three liberation movements. The FNLA was made up primarily of Bakongo. Upon achieving independence from Portugal, their goal was to have Northern Angola, their traditional territory, separated to join ethnic brethren in Southern Zaire. Almost needless to say, this plan was approved of by Mobutu. The MPLA drew their rank and file from the Mbundu, the second largest ethnic group in Angola, and the urbanized, intellectual, mixed-race class. They also boasted ties with Angolan and Portuguese Marxists. UNITA, even more so than the other groups, was primarily an ethnic movement. Comprised of the majority Ovimbundu, it was united by tribalism and a charismatic leader, Jonas Savimbi, rather than by ideology.

These internal ethnic cleavages had a profound effect on the crisis. They prevented the emergence of a single popular nationalist movement that would be representative of a unified

Angola and capable of managing the regional dimension of the crisis. Instead, East-West and Sino-Soviet rivalries were played out through the support of rival factions. This contributed substantially to the high severity and subsequent importance of the Angola Crisis. The absence of divisive internal rivalries would have lessened the opportunities for external powers to choose sides, and thus bring additional complications to the crisis.

Issues

Military-security and political-diplomatic issues were disputed during the Angola Crisis (scale point 4). Territorial jurisdiction and borders, along with the military balance in southern Africa, had the potential to be affected by the outcome of the crisis. In addition, the distribution of influence in the region became highly unstable among both African states and external powers.

Violence

By virtually any criteria, the Angola Crisis must be regarded as a full-scale war (scale point 4). Fighting among the various factions persisted for months. Intense military engagements resulted in extensive material destruction, and casualty figures have been estimated in the thousands (Stockwell, 1978). From a more rigorous point of view, the crisis in Angola is consistent with the Correlates of War Project definition of war, a standard in aggregate research. This definition consists of two threshold conditions: (1) two or more nation-states as participants and (2) 1000 or more battle-related casualties (Singer and Small, 1972: 17). Angola easily meets these conditions.

Power Change

Like most African cases, Angola terminated with a change in the relative power of adversarial actors (scale point 2). Angola itself, through the continued presence of Cuban troops, is a strong and fairly stable state, even though UNITA guerrillas continue to harass the MPLA government. South Africa, though not weakened by its retreat from Angola, is now in a position where it can no longer control what goes on in that state. Rather, South Africa must contend with the presence of a hostile government to the north of Namibia, which it continues to occupy.

Moscow emerged with a greater presence in southern Africa. It not only has an ally in Angola but, more importantly from its standpoint, the Soviet Union managed to keep China and the US out. The US lost ground, since Angola had been friendly territory while under the control of Portugal, a NATO ally.

Legum asserts that the balance of influence between the Americans and the Soviets in Africa shifted because the latter "demonstrated its willingness and capability to produce effective military support for an ally in a strategically crucial part of southern Africa. In doing so, the Russians succeeded in encouraging other liberation movements to think seriously about accepting their support" (Legum, 1977: 158). The United States, however, seems determined to prevent the Soviets from emerging as the sole reliable superpower ally in the minds of black African leaders. In the wake of Angola, the Americans sent \$25-30 million in security assistance to Zambia and Zaire, a \$70-75 million grant to Kenya for the purchase of a squadron of F-5E fighters, \$50 million in arms to Zaire, and planned military sales to Gabon (Crocker, 1976: 666). These initiatives were expected to boost

their presence in the region, as well as to strengthen regimes predisposed toward pro-Western attitudes.

Actor Change

The most significant result of the crisis for Angola itself was the change in regime orientation (scale point 2). At the outset, Angola was still ruled by the Portuguese colonial regime. In compliance with the Alvor Agreement, Portugal turned over power to the people of Angola in November 1975, without recognizing any official government. This was in the midst of the fighting among the MPLA, FNLA, and UNITA.

At the conclusion of the crisis, the People's Republic of Angola had been proclaimed by the Marxist MPLA. The changes in orientation between the white colonial government and that of the black nationalists are obvious. For example, the new leadership is hostile to the racist regime in South Africa. Furthermore, as an independent state Angola has taken a seat at the OAU, in addition to being admitted to the UN. While it is true that the Angolan regime has relied upon the Soviet bloc for aid and arms, it also has welcomed Western multinationals seeking to do business there.

Rules Change

Angola signalled a breakdown in consensus over intervention in African civil conflicts (scale point 3). The deployment of Cuban combat units exceeded the implicit restrictions on military involvement by non-African states in the internal affairs of the continent in its post-colonial era. To be sure, outside actors had taken military action in Africa before, as in the case of Stanleyville in 1964. The scale and persistence of Cuban involvement, however, departed significantly from previous interventions. By all accounts, the troops sent by Havana had a crucial impact on the outcome of the Angola Crisis.

Alliance Change

There was no change in alliance configuration as a result of the Angola Crisis, although an MPLA-led state was recognized and admitted to the OAU on February 11, 1976, after military victory over its rivals. However, this was not an alliance change, since Angola could not be accepted into the regional organization until it achieved independence and was under the control of a recognizable government (scale point 1).

No new rifts developed between African states as a result of their alignment in the civil war. Some states, like Congo and Zaire, acted in conformity with their superpower allies. Others, like Tanzania and Zambia, acted out of regional concerns. With the disclosure that South Africa was fighting for them, the FNLA and UNITA lost considerable credibility with the rest of black Africa. Therefore, all of Africa, except for Zaire, came to recognize the MPLA as legitimate black African nationalists. Zaire, as noted, did come to recognize the MPLA, but not because of South Africa's role in the crisis.

Having explained the coding of a sample African crisis, the next task will be to create indices of severity and importance based upon the two sets of indicators. This will facilitate the forecasting of overall importance on the basis of overall severity.

INDICES OF SEVERITY AND IMPORTANCE

Severity and importance are hypothesized to have a relation of cause and effect. The rationale is that destabilizing effects during a crisis (Severity) can be expected to penetrate the structure of an international system and, over time, to generate change (Importance), large or small.

All other things being equal, an index based on the presumed causal linkages among its constituents has more theoretical value than one which has been derived inductively. This is true for both severity and importance, because the structure of each index then can be understood in terms that are logical, as opposed to statistical. Accordingly, the initial development of indices will be deductive. (Subsequent predictive performance can be used to argue for (or against) a role for inductive generation of indices.)

The weight assigned to each indicator will be based on its ostensible causal linkages with the others. Figures 11 and 12 display the networks of effects among the indicators of severity and importance, respectively.¹⁵ Using the example of Angola, Table XII showed how the scores for the ten indicators have been weighted (based on the networks from Figures 11 and 12) and aggregated to generate scores, i.e., an *Index of Severity* and an *Index of Importance*. In the case of Angola, the final values of 9.18 and 4.38 for the respective indices result from the linear transformations demonstrated in the table. All of the scores in Table I for overall Severity and Importance have resulted from the same conversions, and range somewhere from 1-10. This has been done in order to facilitate presentation and comparison.¹⁶

Of the 64 international crises in the data set, all are scored for overall Severity but only 39 receive an overall Importance score. The reason for the discrepancy is to be found in the existence of clusters which together act as a catalyst to change in the system. Long-war crises are a striking illustration, notably those which occurred within Rhodesia/Zimbabwe 1973-1980. Unlike severity, which measures the intensity of a crisis during the period of its existence—hence a severity score for every crisis—importance gauges the impact of a crisis several years after its termination. Therefore, the consequences of each crisis within a long war are accurately assessed as the impact of the entire cluster, not of any component part. For example, the importance score for the prolonged crisis over Rhodesia is attached to the last of the crises within that cluster, namely, Rhodesian Settlement, 1979-1980, not Operation Tangent 1976-1977, Rhodesia Raids 1977-1978, etc. In other words, the importance of the cluster and of each crisis within it is gauged from the end of the Rhodesia crisis as a whole.

There are also clusters of crises which occur in close proximity in space and time and focus on a common issue. For example, of the two Tunisia-France crises in 1957 and 1958, only the latter was given an importance score.

Some international crises are parts of "unfinished" clusters, the importance of which cannot yet be measured, such as Tan Tan. The international crises in these clusters were therefore given an empty cell for overall importance.

In short, the consequences of each crisis in a sequence are assessed as the impact of the entire set, not of any component part. The completed clusters are as follows: (1) Wal-Wal and Ethiopian War; (2) Tunisia/France I and II; (3) Uganda/Tanzania I and II; (4) Moroccan March-Sahara and Sahara; (5) Nouakchott I and II; (6) Shaba I and II; (7) Chad/Libya II, III, and IV; and (8) Operation Thrasher, Nagomia Raid, Operation Tangent, Mapai Seizure, Rhodesia Raids, Chimoio-Tembue Raids, Air Rhodesia Incident, Raid on ZIPRA, and Rhodesian Settlement. There are five crises in sequences which have not

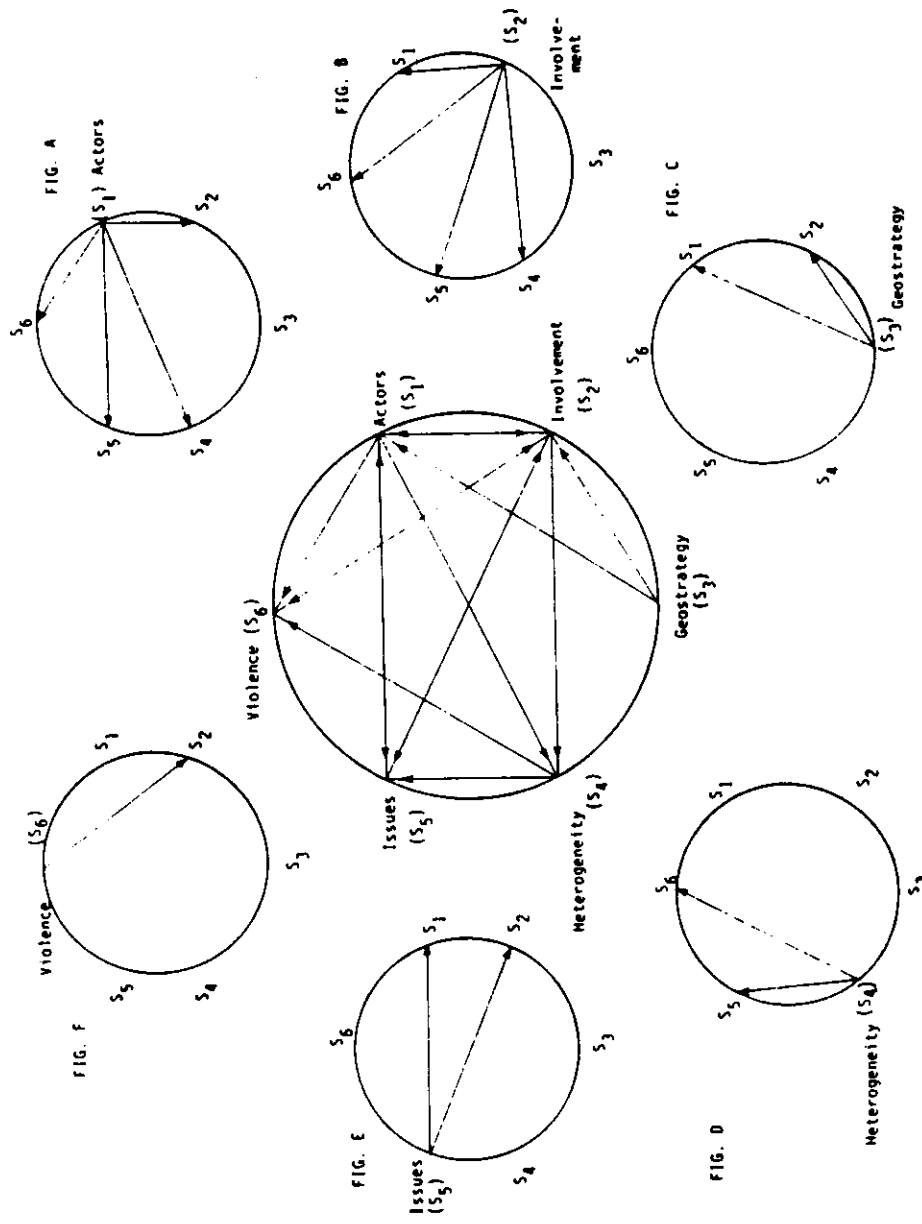


FIGURE 11. Indicators of severity-network of effects.

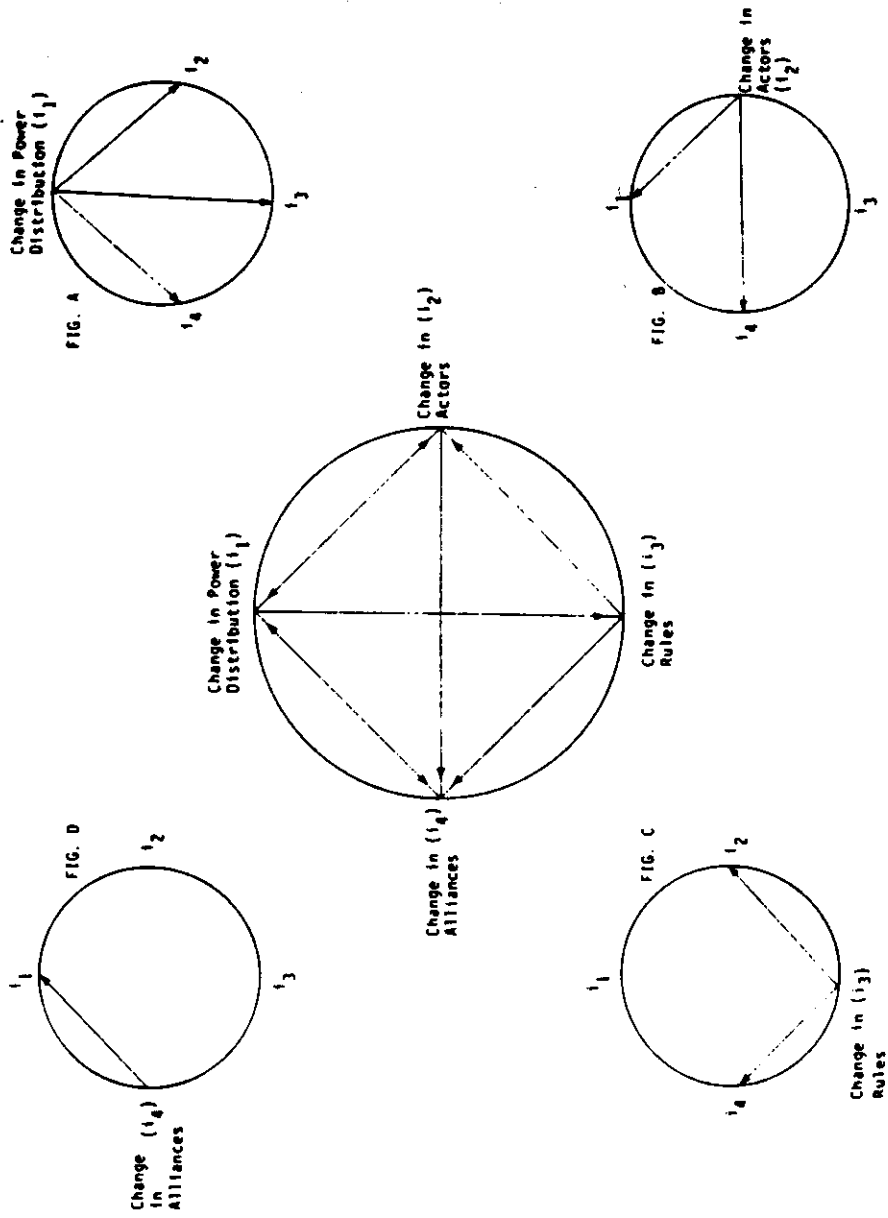


FIGURE 12. Indicators of importance-network of effects.

terminated as yet: (1) Angola cluster, comprised of Cassinga Incident, Angola Invasion Scare, Raids on SWAPO, and Raid on Angola; and (2) a renewed Sahara systemic crisis comprising (up to 1979) Tan Tan.

The crises over the East Africa Campaign (1940-41) and El Alamein (1942-43) fall within the World War II systemic crisis (1939-45). Since these two form part of a cluster with 30 international crises distributed globally, it was deemed inappropriate to score them for importance.

Although only 39 of the 64 international crises in the data set received Importance scores, that does *not* mean the others are without systemic consequences. It indicates instead that the impact of the other 25 international crises would be underestimated by individual assessment. Thus it is more appropriate to treat these crises as iterations in series that eventually terminate, such as Rhodesia/Zimbabwe 1973-1980. In sum, it is the series, not the individual case, which cumulatively effects systemic change.

Although the Severity and Importance scores in Table I are based on indices that have been derived deductively, there are two reasons why the linkages among their components should be checked before proceeding with a quantitative analysis of Severity and Importance. One is that each set of indicators is supposed to represent the same underlying concept. The components therefore should show a positive association with each other. The second reason is to make sure that the indicators are not too closely connected. Otherwise, one (or more) might be regarded as superfluous.

On the basis of these considerations, a moderate level of association among the indicators would be desirable. Tables XIII and XIV demonstrate that the components of the Severity and Importance Indices have that property.¹⁷ All of the bivariate measures of association are positive and, at the same time, none is overwhelming.¹⁸

TABLE XIII
Severity Indicators: Rank-Order Correlation Coefficients*

	s_2	s_3	s_4	s_5	s_6
s_1	0.50	0.29	0.08**	0.50	0.44**
s_2		0.48	0.05**	0.18**	0.37
s_3			0.22	0.05**	0.36
s_4				0.20	0.11**
s_5					0.07**

*These coefficients are generated by Kendall's tau, an appropriate measure of association between variables at the ordinal level. See Table XII for a listing of the indicators corresponding to s_1, \dots, s_6 .

** $p > .05$.

TABLE XIV
Importance Indicators: Rank-Order Correlation
Coefficients*

	i_2	i_3	i_4
i_1	0.12**	0.20**	0.15**
i_2		0.45	0.43
i_3			0.33

*These coefficients are generated by Kendall's tau, an appropriate measure of association between variables at the ordinal level. See Table XII for a listing of the indicators corresponding to i_1, \dots, i_4 .

** $p > .05$.

ANALYSIS OF SEVERITY AND IMPORTANCE

There will be two stages to the analysis. First, a contingency table will be used to probe for a general connection between the Indices. Second, an ordinary least squares regression will be used to link Severity and Importance in a more precise manner.

Table XV reveals a connection between the Indices. Of the low Severity crises, 72.2% scored low on Importance, while 66.7% of the high Severity crises scored high on Importance. The Pearson correlation coefficient for this table is 0.39, with a significance level $< 1.0\%$.¹⁹

There are twelve deviant cases in the table. Seven crises with high Severity scored low on Importance: Italian Colonial Demands, Bizerta, Dahomey/Niger, Rwanda/Burundi, Ogaden I, Libya/Egypt Border, and Shaba II. There are also five cases with low Severity and high Importance: Mali Federation, East Africa Rebellions, Guinea Regime, Sudan Coup Attempt, and Nouakchott II. It would be interesting to study these two sets of cases in detail, because they may have common features that could explain the discrepancies in Severity and Importance. That task, however, is beyond the scope of the present investigation.

TABLE XV
Contingency Table for Severity and Importance

		Importance		
		High	Low	
Severity	High	14 66.7%	7 33.3%	21 53.8%
	Low	5 27.8%	13 72.2%	18 46.2%
		19 48.7%	20 51.3%	39 100%

*The breakpoints for Severity and Importance are 2.75 and 2.13, respectively.

TABLE XVI
Outliers From Regression Analysis

Case	Severity	Importance	Standardized Residual
Ethiopian War	5.43	7.38	2.58
Rhodesian Settlement	5.30	7.00	2.35
Shaba II	7.44	2.13	-1.78
Mali Federation	2.08	4.38	1.50
Nouakchott II	1.28	4.00	1.49
Suez Canal	3.96	5.13	1.44
Bizerta	3.69	1.00	-1.30
Entebbe Reid	3.02	4.38	1.21

In its general form the regression model linking Severity and Importance has achieved a modest level of success ($R^2 = .22$, $N = 39$, $F = 10.6$). A closer look at the cases with the largest errors may prove instructive. Table XVI lists the 8 crises (i.e., about 20% of the cases) with the greatest standardized residuals. There are two conspicuous patterns among these crises in the component scores for Importance. For the cases in which Importance exceeds Severity, change in actors is at a maximum in five out of six instances. Where Importance is less than Severity, change in actors and rules is at a minimum in each case. Yet all of these cases show variation across the indicators of Severity.

Perhaps some additional indicators of Severity would be useful in the quest to anticipate Importance. Although a number of options could be suggested, limitations of space permit only one possibility to be pursued. For sequences of crises, such as Shaba I and II and Nouakchott I and II, only the final case can be assessed along the dimension of Importance. A modification of this practice might lead to an improvement in predictions. Perhaps the extent of recurrence should be included as a component of severity for the last case in a sequence of crises. Recurrence will be defined as follows:

an ongoing conflict relationship composed of more than one clearly definable international crisis, involving essentially the same principal participants (although those actually fitting the definition of a crisis actor may vary), with evolving issue-areas, and resolved when the issues that sparked the crisis incidents are settled.

An initial re-coding scheme would be as follows:

- (1) single crisis: no change.
- (2) sequences of two crises: one full point added after the calculation according to the formula in Table XII.
- (3) sequences of three or more crises: two full points added after the calculation according to the formula in Table XII.

The limit of two additional Severity points is set in order to prevent the inflation of scores for especially long series, like the nine-case set which terminated with the Rhodesian Settlement.

This modification of Severity leads to a somewhat better level of variance explained: 29% (with $F = 14.8$), as opposed to 22%. However, the consequences of systemic crises in Africa remain difficult to anticipate, given that approximately 70% of the variance in Importance still is unexplained. In the future, other indicators of crisis intensity should be considered for use in forecasting the results of crises in this turbulent region.

Even so, the difficulty with prediction may persist. The pervasiveness of change in Africa will make it more challenging to isolate the effects of individual crises. More research is needed on the spillover effects of crises from one system to another.

CONCLUSION

Partial success has been achieved in predicting the long-term significance of crises in Africa on the basis of their immediate characteristics. Indices of Severity and Importance have been developed. The incorporation of further indicators of intensity should lead to improved predictions—and this is now in process. A point of caution is that the disequilibrium of Africa as a social system will complicate forecasting, regardless of how it is to be conducted. For now, however, the development of a systematic approach toward the causal link between the severity and importance of crises has paved the way for the achievement of an ambitious goal, the accurate prediction of the consequences of international crises.

NOTES

1. Existing empirical studies of conflict in Africa are diverse in methods, time frame, and states included in the analysis. (Some examples include Morrison and Stevenson (1972), Collins (1973) and McGowan and Puckitt (1979).) The one seemingly constant finding is that political life in Africa "constitutes an almost institutionless arena with conflict and disorder as its most prominent features" (Zolberg, 1968: 70).
2. The following discussion of concepts is based upon Brecher and James (1986: Part I).
3. This definition of international crisis has emerged from an extensive review of concepts and is designed to resolve several difficulties with existing, system level formulations (Brecher and James, 1986: 3-30). First, the available definitions are not fully integrated with the body of literature devoted to systems and subsystems. Thus prominent concepts such as change in interaction and type of structure do not receive adequate attention. Second, existing definitions of international crisis are more descriptive than analytical in character. They describe processes of interaction but do not focus on the impact of crises on the properties of a system. Third, and finally, unit- and system-level definitions are inadequately linked at present (Brecher and James, 1986: 22). The organic link between an international crisis and the unit-level definition which follows is specified below and is elaborated in Brecher and James (1986: 25-30).
4. Given that international crises are manifestations of systemic instability, it might be deduced that disequilibrium must result from their occurrence. This logic is incorrect, as pointed out by Keohane (1981):

A "distortion" [i.e., instability] per se — an increase in temperature in an air-conditioned room, the rise of a single powerful state in a balance of power system, or a sharp increase in price because of a sudden upsurge in demand — does not suggest that a system is in disequilibrium: rather, it tests

that hypothesis by allowing us to see whether adjustments take place. Does the air-conditioning bring the temperature back to the normal level, do coalitions form to counter the power of the rising state, do new sources of supply appear in response to price increases? . . . Disequilibrium of a system . . . appears only when the "forces tending to restore the balance" (Arrow's phrase in a discussion of equilibrium) fail to operate.

5. The International Crisis Behavior Project concentrates on inter-state crises and on the behavior of states under externally generated stress, specifically, for the half-century 1929-1979, or 278 inter-state crises encompassing 627 crisis actors. In so doing it continues the tradition pioneered by McClelland (1961: 1964), Robinson (1962), and Hermann (1963; 1969; 1972) in the early 1960s and extended by, among others, Holsti (1965; 1972), Young (1967; 1968), George (1971; 1974), Allison (1971), Azar (1972), Paige (1968), Snyder and Diesing (1977), Bobrow, et al. (1977), and Lebow (1981). At the same time, it analyzes in detail the multiple roles of supra-state actors (League of Nations, United Nations, regional organizations) in crisis management, as well as the (often significant) roles of sub-state actors (e.g., nationalist movements, tribal groups in Africa) as triggering entities, stimuli to state behavior, etc. Moreover, the activity of non-state actors is discussed in the descriptive summaries of the 278 international crises, contained in Brecher and Wilkenfeld et al. (1987: Part V).
6. The entire ICB data set, the basis of *Crises in the Twentieth Century* (2 vols.), *op. cit.*, and of this paper, will be available to all interested scholars from the Autumn of 1988, through the Inter-University Consortium of Political Research, University of Michigan, Ann Arbor.
7. This analytical distinction between *crisis actor* and *involved/adversarial* actor also explains the ubiquity of single crisis actor-cases in Africa, even in many of the frequent bilateral border crises. State A, perceiving a threat, but not the likelihood of war or time constraints — or both — mobilizes forces or moves troops to a frontier, triggering a crisis for State B; the former, while deeply involved as the triggering entity and adversary is not classified as a crisis actor if either of the other two necessary conditions of a unit-level crisis is absent. This configuration occurs frequently in African cases.
8. Prior to the transition during World War II, France, Germany, Italy, Japan, the United Kingdom, the United States and the Soviet Union comprised the subset of great powers in global terms. After 1945, the UK and France were the prominent powers in Africa, the latter a continuing great power to the present. However, only the involvement of the two post-1945 global superpowers, the US and the USSR, is monitored for the entire ICB data set, including all African cases.
9. For cases with only one crisis actor, the comparisons are made with the adversarial actor(s).
10. The average length of time per crisis supports this line of reasoning, since it increases from 44 to 169 days across the four categories.
11. Although the primary focus of the concept of importance is on change, it is recognized in the coding of indicators that reinforcement of the status quo may constitute a significant development. For example, Table IX includes *preservation* of an actor within the highest scale point for change in actors. Other scale points across the four indicators of importance also allow for reinforcement of the status quo as a noteworthy occurrence. A further instance would be change in alliances (Table XI), with increasing cohesiveness of an existing alliance included as part of scale point 2.
12. Events subsequent to the crisis further justify the attention it has received. One of the factors behind Angola's support for anti-Mobutu rebels in the Shaba I and II crises was Zaire's backing of the losing forces in the Angola civil war. Furthermore, President Reagan's pursuit of covert funding for opposition UNITA guerrillas recently stirred controversy. Finally, Angola remains a major overseas military commitment for Cuba and Eastern bloc states; as of June 1980 approximately 5,000 East Europeans and 20,000 Cubans served either as combat troops or technical assistants (Jackson, 1982: 84).
13. The Angola Crisis had the largest number of crisis actors among the African cases.
14. Since the crisis erupted in the aftermath of Vietnam and Watergate, the Soviets perceived that the US would be unable to react strongly in Angola (Valenta, 1978: 22-23; Jackson, 1982: 64). Holsti and Rosenau determined that, in the post-Vietnam period, "it is hard to imagine that any American administration will, in the near future, have sufficient political capital to gain necessary support for a range of major undertakings comparable in scope to those initiated, for example, during the period 1947-1950" (Holsti and Rosenau, 1979: 267). This assessment is supported by the CIA's Angola Task Force chief's prediction in August, 1975, that "the winner would be the first to get effective weapons and leadership into northern Angola" (Stockwell, 1978: 134). By pursuing a reactive policy, the US surrendered the initiative necessary to take the lead in this form of competition.
15. These diagrams follow the exposition in Brecher and James (1986), where the linkages between the indicators are explained in detail. As one illustration of how the weights are derived, the weight for geostrategic salience based on Figure 11 is 2. This indicator is presumed to have an impact on the number of crisis actors and the level of superpower (and great power, prior to 1945) involvement, but not on the other three indicators of Severity. Higher geostrategic salience should result in more crises among actors *per se* and a higher level of involvement for the super (and great) powers.
16. The coefficients used in the conversions to 10-point scales are derived in the following manner: The lower and upper boundaries for Severity are 15 and 82. In order to convert these scores to a 10-point scale, it is necessary to multiply by 0.134 and subtract 1 from each value. Similarly, the lower and upper boundaries for Importance are 8 and 32, making 0.375 and 2 the appropriate parameters.

17. It is appropriate that some of the correlations in Tables XIII and XIV surpass the 5% threshold while others do not. A thorough discussion of this and other issues related to index construction appears in Babbie (1983).
18. It should be noted that the significance levels in Tables XIII and XIV appear in an advisory role. Since a population—not a sample—of cases is used to generate each coefficient, the corresponding probability figures are intended only to provide a benchmark for assessing the magnitude of tau.
19. Although other measures of association are more frequently employed for 2 × 2 contingency tables, there are specific conditions for which Pearson's "r" is appropriate. Reynolds (1984: 44) observes that the Pearson coefficient is useful "when one's definition of perfect is strict perfect association", as in the present case. The meaning of the latter technical term also is explained by Reynolds (1984: 31):

Under strict perfect association, each value of one variable is uniquely associated with a value of the other . . . Note that for this condition to hold, the numbers of categories of Y and X must be equal. Here knowledge of a person's X category [i.e., Severity] implies perfect prediction of his or her score on Y [i.e., Importance]. Under this relationship, "normed" measures of association equal 1.0.

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