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FACTORS IN INTERNATIONAL SYSTEM VIOLENCE--1750 TO 1960

Frank H. Denton^{*}

The RAND Corporation, Santa Monica, California

This paper gives a progress report on a research project still in its early stages. The procedures for collecting the data for this effort are described and a few initial findings based on these materials are presented. Since it is felt that the data, themselves, might be of use to others in the Peace Research Community, some space is devoted to describing details of the data. —

The elimination of war or violence as a form of human behavior seems an idealist's dream. When interests are in dispute and compromise, concession, or threat cannot be used successfully, then force is the means of determining who is "right." No matter the extent to which we deplore violence, its use seems close to a "fact of life." Man has always built an ideology, an allegiance, a commitment for which it is better to die than recant. We have retained, as the ultimate arbiter, the trial-by-arms to determine right and wrong.

Yet at the same time, some periods in history have been more violent than have others. Some nations have been more warlike (participated in more wars) than have others. Some disputes between social groups have endured for many years with only limited violence. Perhaps in better understanding the patterns of the past we can do more to control the future.

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The goal of the research reported on here is to better understand which conflicts erupt into violence and to better understand how these conflicts relate to the overall political system and to political group* behavior. Is today really unlike the past? Is the East-West conflict unique in any sense other than in the particular rhetoric which is used? What can we expect in the future if past patterns continue? What conditions are associated with a lesser frequency of violence? The first step in providing some answers to these questions is to provide a refined body of data on violent behavior between political groups.

DATA COLLECTION

There are two extensive bodies of data which record violent conflicts for the last several centuries (Wright, 1942; Richardson, 1960). I have tried to build upon these earlier data with the following goals in mind:

- (1) Make the collection procedure more objective.
- (2) Combine the strengths of the two sets--specifically to cover a longer time period than do the Richardson data and to cover more about the issues involved and to cover a wider range of conflicts than do the Wright data.
- (3) Expand the theoretical base on which the listing of issues is based. The listing of issues by Richardson is useful but limited. It does not cover all things suggested by conflict theory, and it covers many things which seem of limited relevance.

* Since sub-national groups are frequent actors in violence it seems inappropriate to use the term nation to describe the actors; political group is used to represent a large identifiable group of persons acting in concert for political ends.

In order to accomplish these objectives the following steps were followed. First, an "exhaustive" typology of expected types of conflicts was derived from a survey of the existing literature. Second, the universe of events of interest was defined as conflicts resulting in over 1000 casualties and involving at least one European (including Russia) or Western Hemisphere participant. Third, a content analysis was made of the writings of historians in order to obtain a listing of the reasons given for conflict and to obtain as exhaustive as possible a listing of conflict incidents. And finally, a reliability check was built into the collecting procedure.*

An effort was made to be as exhaustive as possible in the initial theoretical framework. The format suggested by Richardson is employed to describe a conflict. A violent event** is defined as a more or less continuous process of fighting which results in 1000 or more casualties. Within a violent event, the combatant pairs are defined as all pairs of political groups who actively engage one another in violence.

A political group is not always easy to define. But, in concept, it is generally any group of individuals with some organization for acting coherently together and who see themselves as a group. Or, in rare cases, it may be a well-defined class of persons who are the recipients of

* It is not possible in the space of a short paper to describe this process in detail. For more detail see Denton, 1968.

** A generalization of the term war, without the legal connotations of the latter word.

violence engendered by such a coherent group, even though the recipient group may take no concerted action. Examples of the latter type of "political group" would be the Jews in Russia or the Negroes in the United States when exposed to pogroms or lynchings.

Each violent event is described in terms of the number of casualties, the beginning and end dates for the overall event, the conflict pairs, and the beginning and end dates of violence for each conflict pair. For each conflict pair, the political relationship extant between the pair at the initiation of hostilities is coded and a series of issues and conditions associated with the conflict are included as applicable. A sample violent event is presented below.

Russo-Turkish 1768 Oct. - 1774 July

Russia (T4) vs Turkey

P1, B2, C3, S3, N1 (29)

Greece vs Turkey

P2, E8, M5

- P1 - Sovereign vs Sovereign
- P2 - Civil
- B2 - Dispute over third party territory
- C3 - Retaliation for raid, massacre, etc.
- E8 - Ethnic, religious hostility
- M5 - Effort to exploit weakness or distraction of opponent
- S3 - Immediate balance of power said to be threatened
- T4 - Government role holders have insecure tenure at time of incident
- N1 (29) - Pair had fought one another previously, 29 years before

In the Appendix, I have included a complete list of the items which occur with sufficient frequency to be retained in the typology. The initial typology, derived on a priori grounds, works reasonably well. Some items, however, are difficult to code and a few others occur very infrequently. A few additional items not included in the a priori list have been noted during the coding.*

How "good" are these data? If a truly objective and nearly exhaustive coding of the major conflicts and conflict issues cited by historians were to be considered as 100 on a scale of goodness, I estimate the score of this listing as about 80. Further investigation to improve the reliability of the coding for the remote, small events not well-covered by most historians would be worthwhile. However, it is my belief that such refinements would not influence the basic patterns shown by these data.

THE CONTENT ANALYSIS

In order for an issue to be coded for a given event the historian must explicitly indicate that the issue in question was a reason why the decisionmakers chose to go to war. Or, alternatively, the historian has to state that a given issue was one of the conscious grievances associated with the tensions erupting into violence. The desired goal is to obtain at least two citations for each issue; and this goal is generally attained except for the smaller conflicts in more remote areas. In these cases, it is frequently

*Available resources could not be stretched to cover a recoding to include these items.

difficult to find multiple references which would give any sort of detail on the conflict. The data are still being refined for such cases.

Approximately three hundred separate historical works have been consulted, although a majority of the data collected come from about forty to fifty of these. Some 67 percent of the references used were published in the United States and another 18 percent were published in Great Britain. Almost all of the remaining works were published either in Europe or Latin America. About 90 percent of the references are in English (6 percent of these are translations). The remainder are either in Spanish or French. Seventy percent have been published since 1951 and 80 percent since 1941. Thus, the view is that of the contemporary Western (or even American) historian.

Reliability varies depending on the centrality of the event to the schemes of these historians. For major events in European or North American history, reliability is quite high.* For remote, small conflicts, the reliability is some indeterminate amount less. Overall, a recheck by the author gave roughly an 80 percent agreement of first and second codings. A limited cross-check between the author and another coder indicated that cross-coder reliability is possible with some consultation on rules. The data are, as intended, reasonably objective.**

*For such events the descriptions are extensive and historical research has been thorough.

**Objective renditions of the statements of these historians, not necessarily of reality.

THE DATA

During the 210 years covered by this research, there are 296 violent incidents which can be found to meet the criteria of size and European civilization participation. The events vary widely in character from apparently unplanned riots and massacres, enduring for a few hours or days, to organized worldwide conflicts lasting for years.

These incidents involve about 660 separate conflict pairs for an average of a little over 2.2 pairs per violent incident. The distribution of the number of pairs per incident is highly skewed. Some 62 percent of the wars involve only a single pair, and another 20 percent involve just two pairs. Typically violent incidents involve very simple political cross-patterns. Some incidents, though, are very complex with more than 15 pairs occurring about 2 percent of the time. There is a tendency for recent conflicts to be slightly more complex, with an average of 3.1 pairs for the 54 incidents since 1920.

The vast majority of the incidents are small in size.

DISTRIBUTION OF CASUALTIES BY INCIDENT

<u>Casualty Range</u>	<u>Percentage of Incidents</u>
1,000 - 2,000	40.8
2,000 - 6,000	21.6
6,000 - 15,000	16.6
15,000 - 30,000	8.5
Over 30,000	12.4

Considerably over half involve no more than about 6,000 casualties. In subsequent sections, when the total data set

is treated, it should be remembered that the primary source of relationships are the small incidents.

When we think of war we tend to think of conflicts involving nations, that is, as occurring between groups without common political ties or conflicting allegiances. No such pattern is noted in examining these data on a conflict pair basis. About 35 percent of the pairs listed involve sovereign nation versus sovereign nation. Another 25 percent involve a sovereign nation fighting a group internal to itself, that is, a nation versus a group which conventionally could be considered to owe allegiance to the nation, as such. Some 28 percent are between groups having a dependency or colonial type relation of some nation. Another 12 percent involve pairs with other types of political relationships. An example of this "other" category is intervention, where a sovereign nation fights a non-sovereign group in another country. Another, less common type, is between two non-sovereign groups--competing revolutionary groups or groups in a riot.

The between-sovereign-nation-conflict pair accounts for only about a third of all pairs during this time. In a war there is frequently a mixture of political ties among the involved pairs. For example, outside intervention in a civil war is quite common. A large complex event such as World Wars I or II will involve almost all types of conflict. Thus, even wars thought of as "international" are frequently only partially so.

The frequency of occurrence of issues reflects the above pattern of political ties.* The issues occurring with

*It is true, as noted above, that the small incident dominates the data.

greatest frequency are those indicating that the two members of the combatant pair have political ties, again indicating that war or violence is not the product of the international system. A large number of these cases involve dispute over the extent or form of the political ties.

MOST FREQUENT POLITICAL ISSUES CODED

	<u>Frequency of Occurrence- Percent</u>
Conflict over territory	36
Fight for greater political autonomy	27
Ethnic, cultural, or religious antagonism involved	18
Retaliation for raid or massacre	12
Dispute over the form of the polity	11
Dispute over discriminatory or asymmetric laws or taxes	10
Immediate balance of power threatened	8
Rebellion against poor rule or brutality	8
Effort to exploit the weakness or distraction (another crisis) of the opponent	8
General concern with trade and commerce (except mutual trade)	8

It cannot be said that these are necessarily the true issues involved. They are the reasons cited by noted Western historians.

Previous research suggests that there are periods, extending on occasion for many years, during which there is relatively little violence.* What differentiates periods

*The years from 1768 to 1788, from 1873 to 1896 and from 1922 to 1932 are the quietest times in terms of the amount of conflict (Denton and Phillips, 1968; Denton, 1968).

of relative lull from the periods when conflict is more widespread and intense? During the lull periods conflict over territory is considerably more common, as is dispute over political autonomy. Retaliation for a raid or massacre occurs twice as often in this subset as in the overall sample. Less common during a lull are disputes over the form of the polity, concern over asymmetric laws and rebellion against poor rule.

Issue or Type of Political Relation	Issue Frequency- Percent	
	During Lull	During Non-Lull
Sovereign vs sovereign	28	36
Civil	28	24
Colonial	40	26
Conflict over territory	46	34
Fight for greater autonomy	33	26
Ethnic, cultural conflict	23	17
Retaliation for raid-massacre	20	11
Dispute over the form of the polity	6	12
Dispute over asymmetric laws-taxes	7	11
Immediate balance of power threatened	9	8
Rebellion over poor rule	5	9
Effort to exploit distraction	11	8
Concern with trade	9	8

The lull periods are characterized by wars which involve conflict over relatively unemotional and rational issues such as territory or retaliation for a raid (usually a raid by some uncontrolled border tribe). Colonial-type relationships typify conflict during a lull. On the other hand, the more emotional issues related to ideology characterize the periods of intense conflict. Disputes over the form of the polity or over asymmetric laws are far more common in

the periods with more war. This is consistent with previous research indicating a strong correlation between revolutionary war and the amount of war in the system (Denton and Phillips, 1968).

Another item coded related to the degree of continuity of conflict and alliance. Some 18 percent of the pairs involve contestants who have fought previously, one or more times, in the past 60 years. On the other hand, some 9 percent are between pairs involved, in the previous 60 years, in a fight against a common opponent.* Relationships thus appear as fairly fluid. There is a correlation between the frequency and intensity of war and the frequency of occurrence of the shifting of alliances. When issues involving balance of power are common and war is intense, changes of alignment occur more frequently.

WARLIKE PROPENSITIES OF POLITICAL GROUPS

A favorite theme in the folklore of man is how warlike one's enemies are. This folklore has translated itself into the social sciences through the "character of nations" route. In contemporary quantitative research, cross-national studies have frequently involved attempts to relate internal, national structure to external conflict (Rummel, 1968; East and Gregg, 1967). In particular there has been a strong and pervasive belief that one or another form of the polity is less war-oriented. What is the evidence from the last two centuries about frequency of participation in war?

*The nearest approximation to a condition of alliance which could be defined short of an intensive search for treaty data.

To provide something of an answer to this question, the relative frequency with which the polities are involved in conflict is examined. Overall, England is involved in more of the total conflict pairs than is any other nation. Of the total conflict pairs, the British are involved in about 17 percent. France is second with a participation rate of around 14 percent. And third is Russia, participating in some 11 percent of all conflict pairs. The participation rates are fantastic when you consider the possibilities which could have occurred. Even considering only sovereign or near-sovereign European and Western Hemisphere political groups, about 50 potential actors existed on the scene during most of the time period of interest. If one adds revolutionary groups and non-European participants, expected participation rates, assuming an equi-probable condition, would be 2 percent or less.

Participation rates among the top ten have changed somewhat over time. The following table shows the relative frequency of involvement (relative to the highest participant

RELATIVE PARTICIPATION RATE FOR THE TOP TEN

<u>Total Time Period</u>		<u>1750-1820</u>	<u>1821-1890</u>	<u>1891-1960</u>
England	1.00	England 1.00	England 1.00	England 1.00
France	0.80	France 0.79	France 0.92	Germany 0.87
Russia	0.65	Russia 0.68	Russia 0.66	France 0.70
Germ-Prus	0.52	Spain 0.65	Turkey 0.63	Russia 0.62
Turkey	0.49	Austria 0.47	Spain 0.50	Italy 0.57
Spain	0.49	Prussia 0.38	Italy 0.42	Turkey 0.53
Ital-Pied	0.40	Turkey 0.26	Austria 0.34	U.S. 0.43
Austria	0.35	Holland 0.26	U.S. 0.26	Austria 0.28
U.S.	0.30	Poland 0.24	Mexico 0.24	Spain 0.26
Holland	0.24	Sweden 0.21	Holland 0.21	Holland 0.21

rate) of the top ten participants in war. The data are broken out for the total time period and for three 70-year intervals.

Capability and opportunity appear to be the only obvious correlates of participation rate. The countries with the highest rates of involvement in conflict are the countries with the greatest power. As power declines, participation rate declines; as power increases, involvement increases. Over time Spain, Austria, Holland, Sweden, and, to some extent, Turkey and even France fall in their rankings. The United States and Germany, two nations gaining in power, move up. And Italy moves up after unification.

It may be saying the same thing over again, but the other parameter which appears to be obviously involved is opportunity. Countries with many political ties have high participation rates. Thus, as Germany, the United States, and Italy acquire colonies and interests in various parts of the world, they become more involved in conflict and violence. England, France, Russia, and Turkey--nations with multitudinous political ties during most of this time--have continuing high participation rates. Spain and Holland, and to some extent Austria, find themselves involved in less violence as they are divested of their dependencies. The time of decline is a high violence time, of course, since ties are usually not broken peacefully.

These data are consistent with a model assuming that participation in war and violence is not a characteristic of a particular nation. It seems probable that as Britain draws her troops home she will lose her place as number one and that, similarly, France's ranking will drop. No particular form of government appears to have a monopoly on

violence. The number one ranker is a democracy. France and the United States are other democracies ranking in the top ten. Communist Russia and Czarist Russia rank quite high. Turkey, a dictatorship or semi-theocracy during much of the time, scores in the top ten. Austria and Spain, as kingdoms, shared heavily in the world of violence.

Power and involvement appear to be much better predictors of the frequency of involvement. The capability to use force to settle disputes favorably and a multiplicity of political ties to ensure involvement in many disputes--these are the ingredients suggested by this listing. It would be highly desirable to test such hypotheses more systematically than is done here, but this must await the development of indices of power and of political ties.

THE SYSTEM OF CONFLICT

There are many ways of viewing these data. In the above descriptive work wars, conflict pairs and nations are treated as the units of analysis. Another useful way of examining these materials is to look at time as the unit of analysis. The empirical record suggests that some trends transcend individual wars, even individual nations, and become virtually universal in scope. Thus, we have historians referring to a particular historical time as the "age of..."

Part of the variation in the conflict pattern can be explained from a knowledge of these sweeping trends or fads, if you will, which historians refer to in their "age of...." term.* The concept of these universal trends shall be

* Such periods are referred to by Frederick B. Artz, Reaction and Revolution 1814-1832, New York: Harper and Row,

referred to as the political or conflict system. The system tends to determine the type of behavior which predominates at a given time. One goal in collecting these data was to provide a means of testing hypotheses, suggested in earlier research, about the system.

Hypothesis 1--There will be periods in the international system when conflict is relatively intense and enduring. These periods will alternate with periods of extended lull. The cycle will be about 100 years in length.

Earlier research based on the data collected by Quincy Wright suggests such a pattern (Denton and Phillips, 1968). Contemporary observers have called our times an age of revolution (Spanier, 1966). The later half of the nineteenth century was noted for its lack of conflict, and the more optimistic saw in that era an end to the wars which had plagued Europe. Prior to that was an earlier era of revolutionary wars. Is this pattern of alternating intense war and lull a consistent one?

These data cover only about two periods of such a cycle. Thus, it is not possible to test for the endurance of the pattern. It is possible to examine for its presence during the time period covered. The following operationalization was derived to test for the validity of the above hypothesis within the interval.

The amount of war index was plotted against time, and intense periods and quiet periods were defined by visual

Publishers, 1934, and by Carlton J. H. Hayes, A Generation of Materialism, New York: Harper and Row, Publishers, 1941.

examination.* The intense periods are from 1793 to 1846 and from 1913 to 1960. The cycle time indicated by this division is on the order of 120 years, which is consistent with the hypothesis. The index of the amount of war was then scored as above or below the mean and a two-way contingency table constructed.

CONSISTENCY OF INTENSE AND LULL PERIODS
IN WAR IN THE SYSTEM

<u>Time Period</u>	<u>Amount-of-war Index</u>	
	<u>Below Mean</u>	<u>Above Mean</u>
Intense	8	25
Lull	35	0
$\chi^2 = 38.2$		
$p << .001$		

The visual specification of the intense and lull periods probably destroys the condition of independence required by statistical theory. The pattern is strong and pronounced enough to suggest the data are consistent with the hypothesis regardless of statistical criteria. Within the limited interval covered by these data, there were periods of intense conflict followed by lulls. And the period of the cycle was on the order of 120 years.

Hypothesis 2--Internal instability is associated with intense conflict in the system.

*The indices used were formulated from a factor analysis of the data coded into a time frame. Indices for the amount of war, frequency of civil and colonial wars, etc., were formed. See the Appendix for detail.

Rummel has suggested, on a cross-national basis, that there is no correlation between domestic and international conflict (1963). On the other hand, Rosecrance found in a longitudinal analysis that "...the four disequilibrium systems...were either immediately preceded or accompanied by fundamental change in the security of the tenure of the national elite (1963, p. 281." Earlier work with the Wright data showed a strong correlation between the frequency of civil conflict and the total amount of war reported in the system (Denton and Phillips, 1968).

Two variations on this hypothesis are formulated for compatibility with these data: (1) System periods of intense violence are associated with a high frequency of internal war. (2) System periods of intense violence are associated with a high frequency of perceptions of elite insecurity.

Rosecrance suggested, in the statement quoted above, that there might be a lag involved in the relationship. The following table shows the X^2 values, based on a two-way table, for various time lags between the amount-of-war index and the relative frequency of civil wars.

CORRELATION OF CIVIL AND AMOUNT INDICATORS

<u>Lag of Civil Index After Amount Index</u>	<u>Chi-square Value for Two-way Mean Test</u>
- 9 years	0.43
- 6 years	0.20
- 3 years	(a)
0 years	0.69
+ 3 years	0.61
+ 6 years	4.24
+ 9 years	3.00

^aRelation is reverse of that predicted.

Lagging civil war six years behind the amount of total system violence maximizes the X^2 value (significant at 0.04). The second test suggests a positive relationship between the amount and elite instability indices.

INSTABILITY VERSUS AMOUNT
-6 Year Lag

<u>Amount</u>	<u>Instability</u>	
	<u>Below Mean</u>	<u>Above Mean</u>
Lull	31	13
Intense	7	17

$$X^2 = 9.3$$

$$p = 0.003$$

Again the hypotheses are supported by the data.

Hypothesis 3--Periods of relatively intense conflict in the system are marked by conflict between central system members and peripheral members.

The investigation of Professor Wright's data suggested such a pattern (Denton and Phillips, 1968). A similar relationship is also alluded to by Rosecrance when he states: "National Imperialism was the device to win new acquiescence to conservative rule (1963, pp. 290-291)." Others have hypothesized that an aspect of status quo, internal policies is often the glorification of the nation. National glorification can be manifested with low risk in expansion against much weaker groups (Sabine, 1961, pp. 664-668, and Hayes, 1946, pp. 200-202).

The following table shows a two-way tabulation of the amount-of-war index versus the prevalence of colonial wars

index. The hypothesis is not directly tested with these variables. However, in these data a colonial war almost inevitably involves central system versus peripheral members.

COLONIAL VERSUS AMOUNT INDICES

<u>Amount Index</u>	<u>Colonial Index</u>	
	<u>Below Mean</u>	<u>Above Mean</u>
Below Mean	15	27
Above Mean	22	4

$$\chi^2 = 7.59$$

$$p < 0.01$$

Hypothesis 4--Periods of bipolarity are associated with intense conflict in the system.

The above hypotheses are restricted to internal relationships in the conflict data. J. D. Singer, Michael Haas, and others have spoken of the effects of alliance entanglements on international system stability (Singer, 1966a and b, and Haas, mimeo). The above hypothesis is taken from the work of Singer. He has already shown that such a relationship holds for a more restricted set of data.

Haas has taken the concepts of Morton Kaplan and made estimates of European System polarity for the years from 1649 to 1963. These estimates are basically subjective, but they are carefully reasoned and the logic behind them is well-defined (Haas, forthcoming, pp. 67-86). The amount-of-war index is tabulated against Haas' system polarity categories in the following table.

SYSTEM POLARITY VERSUS AMOUNT OF CONFLICT

<u>System Polarity</u>	<u>Amount-of-war</u>	
	<u>Below Mean</u>	<u>Above Mean</u>
Multipolar	22	1
Bipolar	14	24

$$\chi^2 = 18.3$$

$$p < 0.001$$

The relationship found by Singer and Small was maximized by lagging the occurrence of war after alliance formation. They then suggested war as a product of alliance formation or greater bipolarity (Singer and Small, 1966c). Implicit in their argument is the assumption that war is a discontinuous phenomenon which has a well-defined start and end. This research suggests that certain system conditions are associated with the general prevalence of war and these conditions endure for extended periods of time. Violence is simply the most intense manifestation of these system conflicts, which exist before and frequently after the violent event. While it is certainly conceptually possible to treat war as a discontinuous process, it does not seem the most useful treatment. War can be thought of as a more extreme point on the scale of conflict, which includes demands, threats, embargoes, and so forth. The conflict leading to a war can evolve for many years prior to the eruption of violence.

For example, the conflicts leading to World War I were known for a considerable time prior to that event. Some of the system bipolarity in the early twentieth century appears to have been in response to the expectation of that war. And while there may be a circular type causation, it would

appear from this case* that the anticipation of a war causes bipolarity (thus a lead between alliance formation and the onset of violence does not ensure a causal precedence). Whether it is a causal relation or not, there is a correlation between the intensity of conflict and system bipolarity.

The above hypotheses are all related by the concept of periods of intense war and of relative lull. They associate certain system characteristics with the existence of these periods. The central concept is that certain habits of action exist in the international sphere for extended periods of time. And the form which these habits take influences the prevalence and intensity of conflict. It would appear that the system with a prevalence of ideological concerns is the system with widespread and intense violence.

SUMMARY

Refined and extended data have been collected on relatively large incidents of violence in European-derived cultures. These data cover the last two centuries and are collected in a systematic and reproducible fashion. The materials have been coded for IBM cards. Although the punching has not, as yet, been accomplished, the cards will be available in the near future. Further work to improve the reliability of the less well-documented events would be desirable.

* Similar arguments can be made about the Napoleonic wars, World War II, and others.

The data have been examined for some basic patterns. Initial results suggest that international violence does not constitute a major portion of organized conflict. Rather, well over half of all conflict pairs which have occurred in the last two centuries involve two social groups with some degree of allegiance to the same polity. A significant number of cases involve conflict directly over the form which the existing political ties should take. Other conflicts between groups with a common political allegiance are: conflict over bad rule or oppression, ethnic separatist moves, and conflict over asymmetric or one-sided laws. Thus, war and violence appear to be at least as intranational as international.

An examination of the political entities most frequently involved in these conflicts suggests that power and opportunity are the major predictors of involvement. No one nation appears to be peaceful and another warlike. No particular form of government appears to result in avoidance of involvement in conflict.

Over time there has been little monotonic change in the issues cited as causes of conflict. The wars of today look much like those of the past. There are, however, extended periods when the level of conflict in the system is relatively low. And although these periods have not been permanent, they are somewhat different in terms of conflict patterns than are the more intense conflict periods.

During the periods of lull (which endure for perhaps 50 to 60 years), there is a relative absence of conflicts over reform in the political structure. The ideological issues associated with revolution and with civil war are less common during these times than they are during the

periods of intense conflict. During the periods of lull we find more colonial violence. Conservative attitudes during the lulls are implied by the absence of the conflict over ideological questions.

Today we are involved in a period of relatively intense conflict which has been on-going for a number of years. Many observers today suggest that they see major signs of conservative moods in the two major protagonists of the last two decades. Is it possible that the ideological issues which have split the world since the time of World War I are dying in intensity? That perhaps we are approaching another lull in the conflict system? Extrapolation of the trends detected in the analysis of these data would suggest yes. On the other hand, such an extrapolation would be prediction without understanding the why of the prediction. One can only guess in such circumstances whether the patterns of the past will continue into the future.

Appendix

LIST OF ISSUES CODED

Internal Tensions

- T1 - Number of years (n) since illegal change in head of state or government ($n \leq 5$).
- T2 - Economic depression or major inflation (high economic tensions) occur in the five years before the incident.
- T3 - Internal social or political tensions rated as high before incident.
- T4 - Government role holders have insecure tenure before incident.
- T6 - Significant increase in arms expenditures in the two to five years before the incident.

Territorial-Population Issues

- B1 - Mutual border or territorial disputes including colonial territorial acquisitions.
- B2 - Dispute over third party territory.
- B3 - Dispute over territory of a strategic nature (includes a B1 or B2 code).
- B4 - Attempt to regain lost territory (replaces B1 or B2).
- B5 - Dispute of location and/or control of ethnic minorities.
- B6 - Intervention to protect citizens in alien country, culturally empathetic group, etc.

Power Issues

- S1 - Recent change in power alignments or change in power distribution among major actors causes concern.
- S2 - One side expresses concern with future power potential of opponent.
- S3 - Immediate balance of power threatened (including intervention to protect a threatened group important to the power balance).
- S4 - Dispute over dynastic succession or intervention to protect or install friendly regime.
- S7 - General peace-keeping or suppression of conflicts which involve delicate issues or are considered as potentially spreading.

Social Economic Issues

- E1 - Indicated that economic differential is a source of dispute.
- E5 - Dispute over political form.
- E6 - Dispute over social-economic form.
- E7 - Dispute over role of church in society and politics.
- E8 - Ethnic, cultural or religious antagonisms a source of conflict.
- E10 - Disputes over asymmetric or discriminatory laws.

Colonial Issues

- C2 - Conflict over the degree of political autonomy.
- C3 - Retaliation for raid, massacre, ship sinking or other relatively minor incident construed as an insult.

C4 - Dispute over mutual trade arrangements.

C5 - Dispute over economic investment.

Elite Issues

K1 - Party in power tries to create an external threat and/or success in order to strengthen hold on office.

K2 - A leader's desire for prestige, place-in-sun or in history.

K3 - A try for office by an elite group such as a coup attempt.

K4 - Elite group try to reverse recent changes.

Miscellaneous

M4 - Repression, brutality, or poor rule.

M5 - Effort to exploit the weakness or distraction of the opponent.

M6 - General concern with trade and commerce excluding mutual trade.

INDICES OF AMOUNT AND TYPE OF WAR

A factor analyses of these data suggested that perhaps five to eight major clusters could be defined. These clusters are pretty much those suggested on a theoretical basis (see the sub-headings in the above theoretical typology).

In looking at time trends of the type of war in the system, it was decided to look at clusters rather than at individual variables. The clusters are more parsimonious and

to some extent more reliable since combining the variables tends to reduce the impact of random errors.

Principal component or concept-mapping factors are fitted to each of the clusters of variables finally selected. Observation scores are obtained by computing factor scores for each factor. These artificial data are used in testing the hypothesis.*

The component variables and their factor loadings for the indices employed in this paper are given below.

AMOUNT-OF-WAR INDEX

<u>Variable</u>	<u>Loading</u>
Total pair years of war during interval	0.98
Total pair years X number of casualties	0.98

ELITE INSECURITY INDEX

<u>Variable</u>	<u>Loading</u>
Economic tensions high (T2)	0.83
Recent illegal change in head of government (T1)	0.83
Internal tensions cited as high (T3)	0.83

CIVIL OPPRESSION INDEX

<u>Variable</u>	<u>Loading</u>
Economic difference in dispute (E1)	0.74
Political form in dispute (E5)	0.74
Socio-economic form in dispute (E6)	0.74
Elite counter-revolution (K3)	0.74

*For more detail see Denton, 1968.

COLONIAL INDEX

<u>Variable</u>	<u>Loading</u>
Mutual territory at issue (B1)	0.64
Political autonomy at issue (C2)	0.64
Retaliation for raid or massacre (C3)	0.64
Trade at issue (M6)	0.45

COLONIAL INDEX

<u>Variable</u>	<u>Loading</u>
Mutual territory at issue (B1)	0.64
Political autonomy at issue (C2)	0.64
Retaliation for raid or massacre (C3)	0.64
Trade at issue (M6)	0.45

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