The Long-Term Patterns of Violent Conflict in Different Regions of the World

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Paper prepared for the Uppsala Conflict Data Conference on 8-9 June 2001 in Uppsala, Sweden.

ABSTRACT

This paper is an interim report of a long-term project to develop a taxonomy of violent conflicts and ultimately a conflict early warning system. The paper first describes the nature of the conflict early warning problem—as the author perceives it—that shapes the design decisions the author has made. The paper then describes the Conflict Catalog, a listing of all recorded violent conflicts that meet Richardson's magnitude 1.5 or higher criterion (32 or more deaths). The Conflict Catalog is a dataset designed for the purpose of making a conflict taxonomy that is comprehensive in terms of the types of conflicts included and extensive in terms of encompassing conflicts in all regions of the world since 1400 AD. The paper presents "in-progress" findings from the catalog for the regions of the world for which a reasonably complete compilation has been assembled. The paper then describes a list of variables that define the criteria for placing historical conflicts into the appropriate category in the taxonomy.

INTRODUCTION

One goal for the field of peace studies should be that we acquire the ability to forecast with considerable accuracy the outbreak of violent conflicts at least six months before they erupt. The forecast should include a probability assessment for a window of time surrounding the most probable date of conflict initiation and a probability assessment of the nature or type of conflict likely to occur. These two pieces of information would be helpful for policy makers and decision makers as they attempt to determine a best course of action and prioritize resource allocations.

Conflict early warning at this level of specificity—what I call true conflict early warning—entails a much higher level of capability than simply asserting that a particular country, for example, is at relatively higher risk of suffering state failure. One could reasonably ask, “How difficult is the problem of actually achieving that capability? What do we need to be able to do in order to identify harbingers of violent conflict that give us the information described in the previous paragraph six to twelve months in advance?” I do not have the answer to those questions, but I would not be at all surprized if the problem is comparable to the situation described in the following paragraph.

To get a visualization of the magnitude of the problem, the reader might wish to perform the following “experiment.” On a clear evening near sunset, go to a body of water that is at least a kilometer and a half long and wide. There need to be ducks and/or seagulls sitting on the surface and flying low over the water. The wind needs to be less than 8 kilometers per hour. You need to have a high quality pair of binoculars (I have Zeiss 10x50s) and have them carefully focused. Sit less than 20 meters from the shore and be perhaps 2-3 meters above the water surface. (Other combinations may work, but this is what worked for me.) The goal is to be in a situation where the body of water dominates the field of view (greater than 75%) and the waves in the water have a gentle random appearance. The view you should have in your binoculars will be one of essentially random noise vaguely reminiscent of TV channels where there is no signal (but much prettier). The problem of true conflict early warning is (hopefully) not more difficult than spotting a duck swimming on the surface or a gull flying over the water at least a kilometer away.

If the problem is more difficult than that, true conflict early warning is a monumental task that will require significant resources. Conversely, I doubt the problem is significantly easier, because if it were, we probably would have the capability to do conflict early warning by now.

Two points regarding this “experiment” that are relevant to conflict early warning must be noted. First, the conflict early warning problem can and should be conceived of as a pattern recognition problem. Identifying the situations that subsequently become violent conflicts equates to spotting a particular pattern of the variables that describe a country or region’s situation at any given point in time (a duck floating in the water) or, perhaps more challenging, spotting a particular changing pattern among those variables (a gull flying over the surface). Second, the difficulty in identifying the important patterns can vary significantly depending upon how “obvious” the patterns are, and the techniques for finding those patterns should be able to easily scale to higher levels of difficulty. A fishing boat or even more so a sailboat is much easier to spot than a duck, for example, and if the conflict early warning problem turns out to more closely approximate spotting a duck, a technique that can easily adjust from a lower to a higher resolution, if that is necessary, is advantageous.

The remainder of the paper describes work the author has done towards achieving such a capability.

KEY DESIGN COMPONENTS

In earlier papers (Brecke, 1998, for example) I have argued for using a pattern recognition technique that satisfies the requirements outlined above. This technique, which is open with respect to specific numerical algorithms such as neural networks, hidden Markov networks, genetic algorithms, or other artificial intelligence techniques such as nearest neighbor matching, requires patterns that correspond to different types of violent conflict. A reasonable question that follows thus is: On what basis should different types of conflict correspond to different types of conflict?

The most straightforward basis is the characteristics of the conflicts. We can have different types of conflicts correspond to different patterns on the basis of the characteristics present or absent in the instances or members of a type of conflict or the values that the members have with respect to the characteristics. Figure 1 presents a very simple example of what such a pattern can look like.

Figure 1
Example Conflict Description Pattern

Criteria	Classification Value								
	1	2	3	4	5	6	7	8	9
Point of Contention							■		
Number of Actors			■						
Capability Differential		■							
Nature of External Power Involvement						■			
Political-legal status of Actors						■			
Level of Violence					■				

An interesting feature of depicting types of conflicts in terms of characteristics shared by the members of a type is that the work entailed in determining the patterns is the

same as the work involved in building a taxonomy of violent conflicts.

There has been some recent discussion in the peace science community of developing a new, more comprehensive typology of wars. While I do not object to that endeavor, I do not think a new typology is sufficient unless certain criteria are satisfied, and satisfying those criteria will transform the typology to a taxonomy.

While the terms ‘typology’ and ‘taxonomy’ are often used almost interchangeably (Holsti, 1966), there is a major difference if one adheres to definitions. Most importantly, typologies are *conceptual schemes* in which the criteria chosen for distinguishing between different examples or cases serve as dimensions of a matrix (Bailey, 1994). Each cell of the matrix, which is typically one- or two-dimensional, defines a different type. Hierarchical typologies are possible but not common (Clark, 1994).

Taxonomies, in contrast to typologies, are *empirically-based categorizations* in which individual examples or cases are placed into groups according to characteristics the examples possess. Grouping is based on the values for the characteristics of each example as determined from the data collected about the examples. Those groups possessing examples that have the same value (or very similar values) for most if not all of the variables are most closely related while those groups whose examples share the same value for only a few variables are more distantly related. Individual groups or clusters are called taxa. The categorization is often hierarchical, and, if so, a tree-like diagram is produced to clearly illustrate which taxa are most closely related to each other and at which level of generality they are related (Bailey, 1994).

Typologies are created to express and explore particular theoretical explanations. The extent of an empirical grounding for typologies is that historical or current examples are often marshalled to demonstrate that each or most of the different types exist. However, given that typologies typically have only modest empirical grounding, their validity extends only to the degree that they are useful pedagogical or heuristic devices. One typology cannot be objectively demonstrated as being superior to another because each is so intimately related to the research questions of its creator(s).

A new typology of wars, to be useful for the pattern recognition task described above, must include a rather precise specification of the characteristics that put a particular conflict into one category as opposed to another, and, ultimately, must have the historical instances of wars placed into the appropriate categories. Doing this equates to making a taxonomy.

Unfortunately, constructing a taxonomy of violent conflicts is a non-trivial task. The first challenge is that there exists no set of agreed-upon characteristics to define violent conflicts across the broad range of historical conflicts other than things like a peasant

revolt is one in which peasants are the main group fighting against the authorities. A second, exceedingly daunting challenge is that up to this point the needed data are scattered across a large number of sources, many of them about—and sometimes produced in—parts of the world other than Europe (and North America), especially for the period prior to 1816.

THE CONFLICT CATALOG

The Conflict Catalog contains the sample of conflicts that provides the basis for a taxonomy of violent conflicts. It is a computerized dataset that contains a superset of all extant compilations of violent conflicts that have been identified at this time. Assembly of the Conflict Catalog began in 1996 by combining the conflicts from existing computerized war datasets such as Correlates Of War (Small and Singer, 1982), Militarized Interstate Disputes (Jones, Bremer, and Singer, 1996), Great Power Wars (Levy, 1983) and Major-Minor Power Wars (Midlarsky, 1988). From there I added additional conflicts from Richardson (1960), Wright (1965), Sorokin (1937), Luard (1987), and Holsti (1991). Further research has unearthed a large number of other sources containing a plethora of conflicts not listed in those nine sources. In fact, a brief perusal of the additional sources indicates that those nine sources combined contain perhaps one third of the conflicts contained in the entire set of sources that have been identified at this time. (See Appendix A for a listing of conflict compilations that have been identified and in some instances used thus far.)[1]

The sources that have been identified are quite varied in nature. They range from academic research manuscripts to encyclopedias by military historians to historical atlases to historical chronologies. Notable about the Conflict Catalog is that it employs sources produced in other regions of the world that are not in English or other West European languages. The most important of these are major Chinese, Japanese, and Russian compilations that are essentially equivalent to what has been produced by military historians in the West except that they include many violent conflicts overlooked by Europeans and North Americans. In practical terms, the only conflicts not included from previous compilations (with only a small number of exceptions where it is known that less than 32 people were killed) are those that occurred before 1400 AD.

The Conflict Catalog as of this writing contains 3516 violent conflicts. The primary

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3. One massive compilation among these additional sources never cited is that of Sutton (1972a; 1972b). He attempted to assemble in one place all violent conflicts from 1820 to 1970 in which more than 20 people were killed in order to provide a strong, comprehensive foundation for an empirical analysis of war. Amazingly, he never followed through to get that enormous effort published, and the voluminous manuscripts languish at the Hoover Institution Archives at Stanford.

information about each conflict in the Conflict Catalog at this time is very simple: *Who*, *when*,*where*, and *common name* (if one exists) and variables derived from that information. The derived variables are: The number of major actors in the conflict, the duration of the conflict in years, and the duration of the conflict in months (when that can be calculated). For some of the conflicts, 1139 to be precise, information regarding the number of fatalities has been added. Over time, the number of conflicts possessing this piece of information will expand as I begin to use more focused historical materials. As this project progresses, the violent conflicts found in the additional sources is being added to the Conflict Catalog. If more sources are found, they will be used. Most new sources are likely to *not* be in the English language. The expected number of conflicts in the Conflict Catalog when the additional sources have been tapped is between 4500 and 5000. A worksheet for documenting the values of the variables for each of the conflicts in the Conflict Catalog has been developed and is being used.

INTERIM FINDINGS FROM THE CONFLICT CATALOG

This section presents findings from the Conflict Catalog in its current state. The catalog is quite complete with respect to five regions of the world: Western Europe, Eastern Europe, North Africa, West & Central Africa, East & South Africa, and Central Asia and Siberia for it is unlikely that many additional conflicts will be found for these regions. European conflicts are comparatively so well documented that it is improbable that very many have escaped inclusion in one compilation or another. On the other hand, identifying additional African or Central Asian conflicts would entail *significant* additional effort.

If the 3516 conflicts currently in the dataset are broken down according to the decade in which they began, as is done in Figure 2, one finds a rather interesting pattern. The number of conflicts dips markedly starting in the mid-1600s and remains at a reduced level for almost a century before rising sharply in the 19th and 20th centuries. Of note is that the “worst” decades in terms of new conflicts are the 1890s, 1910s, and 1960’s with between 110 and 120 new conflicts for each of those decades.

So that we may see the geographic breakdown of conflicts, each conflict has been coded as to where it occurred (or at least primarily occurred) in one of 12 regions. The regions and their approximate extent on a current map are:

1. North America, Central America, and the Caribbean
2. South America
3. Europe west of 15 degrees east longitude plus Sweden and Italy
4. Europe east of 15 degrees east longitude (includes Caucusus region)
5. Middle East (Iran west to Syria and Arabian peninsula)
6. North Africa (Egypt to Morocco and Mauritania east to Sudan)

7. West & Central Africa (Senegal to Congo)
8. East & South Africa (Ethiopia to Zambia to Angola and south)
9. Central Asia (former Soviet republics, Siberia, and Mongolia)
10. South Asia (Afghanistan and Indian subcontinent)
11 Southeast Asia (Burma to Australia and Pacific islands)
12. East Asia (China, Korea, Japan)

Other regional breakdowns are, of course, possible. This particular set of regions was selected as a tradeoff between precision in location, concordance with regional studies breakdowns, and comprehensibility in graphics.

One of the early findings of this research effort was that if one restricts oneself to the nine original data sources mentioned earlier, one discovers a strong Eurocentric bias in the data, and an especially stark bias for the period prior to 1800. The Conflict Catalog attempts to at least in part correct this disparity as it moves towards completion. Fortunately, many of the sources identified in Appendix A will fill the voids for the different regions. Given that the Conflict Catalog is expected to grow by 1000-1500 conflicts from those sources, we can expect to see a much more even distribution across regions over time.

As one would expect, different regions show different patterns than the global total. Figures 3 and 4 present the 600-year patterns for Europe and Africa, respectively. The two continents exhibit markedly different trends. Europe experienced a general decline while Africa’s experience was that of a slow increase until the 19th century when European imperial expansion created a sharp spike peaking in the 1890s followed by a second, smaller spike in the 1960s. It must be noted that it is possible that the number of conflicts in Africa prior to 1800 was significantly higher than presented in Figure 4. However, given the low population densities in Africa during that period, it is unlikely that the discrepancy is so large that the general trend portrayed in that figure is incorrect.

Figure 5 displays the 600-year pattern for Central Asia and Siberia. Even though that region also shows a dip in the number of conflicts somewhat corresponding to those for the other regions—the latter part of the 18th and the early 19th centuries—it is unclear how much credence can be given to those results. Unfortunately, the total number of conflicts for that region is 141, which is much lower than for the other regions and which implies that there may be a significat problem of unreported conflicts.

FIGURE 2

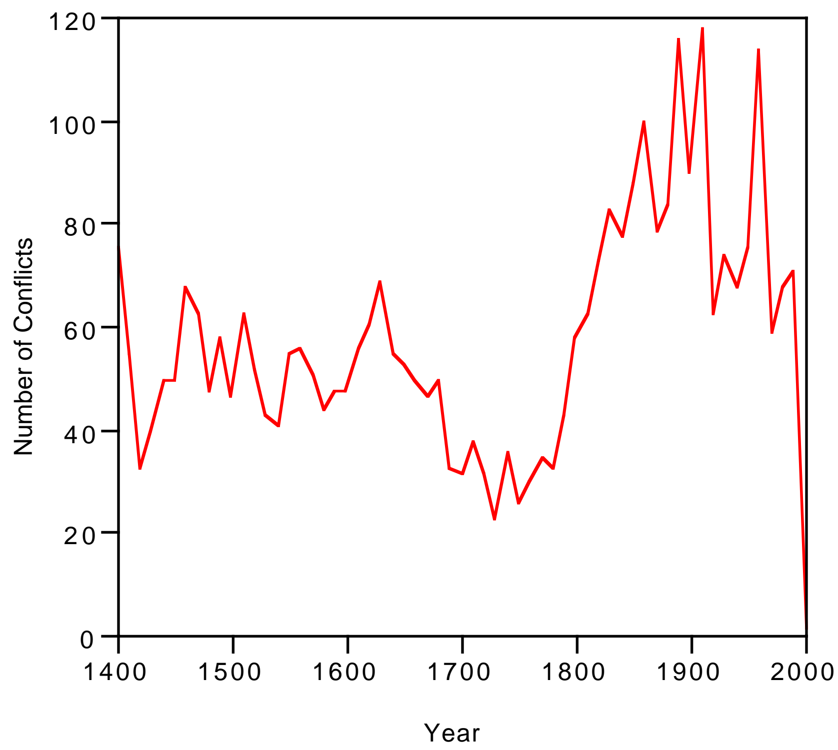


FIGURE 3

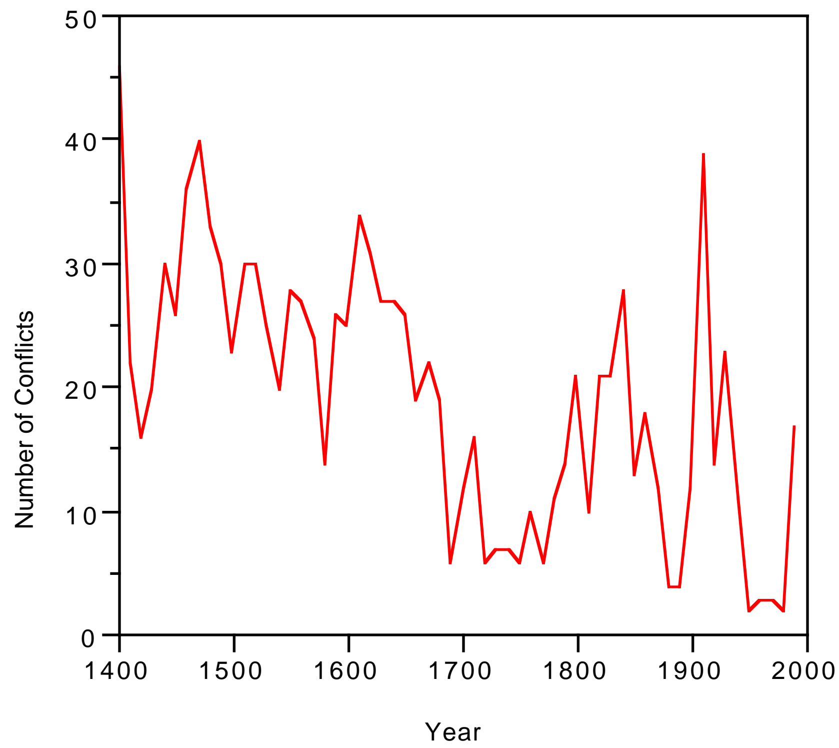


FIGURE 4

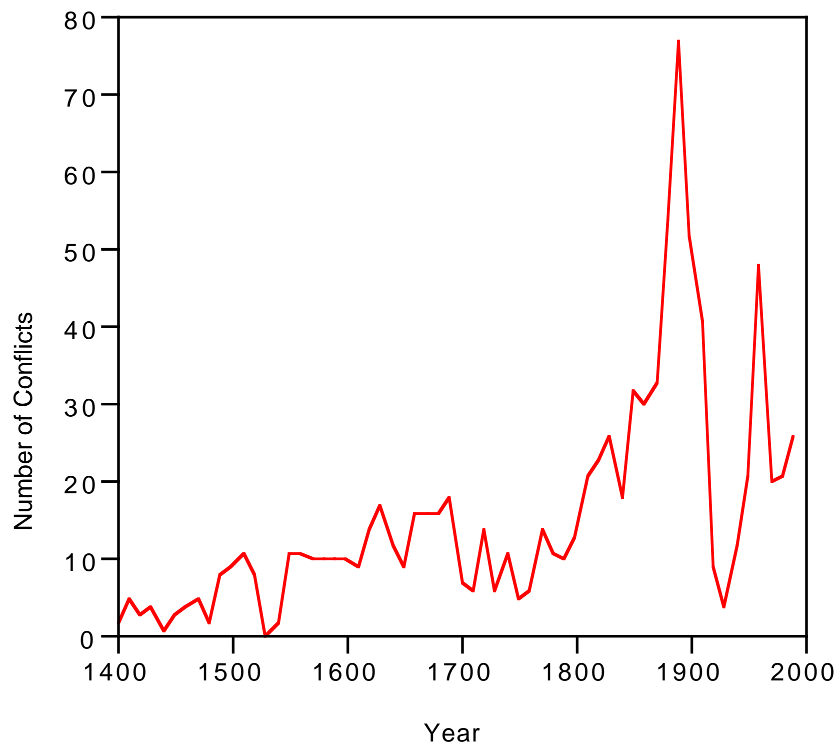
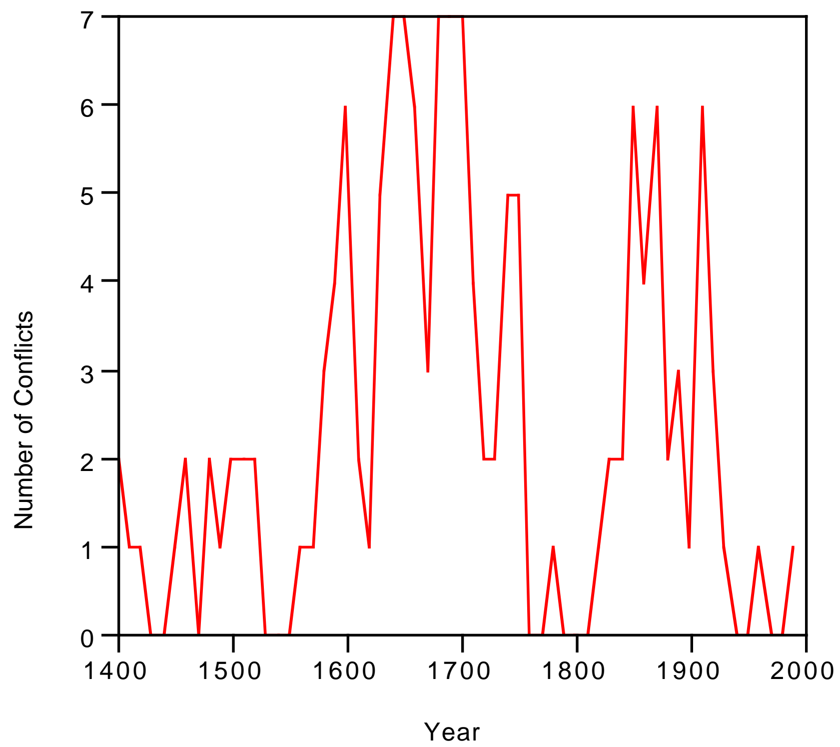


FIGURE 5



The continent-level breakdown presented above can be further extended. Figures 6 and 7 portray the number of conflicts in Western and Eastern Europe, respectively, while Figures 8, 9, and 10 delineate the comparable trends for North Africa, West & Central Africa, and East & South Africa, respectively.

Of note is the stark contrast in the long-term trends. The number of conflicts declines in a clear and rather consistent manner in Western Europe while the decline for Eastern Europe is much less pronounced and even uncertain.

North Africa displays a fairly consistent rise in the number of conflicts until the 20th century when there is a rather vague indication that the rise is over and the ubiquity of conflicts may even be declining. West & Central Africa is dominated by the surge of conflicts associated with European colonial expansion beginning in the 1840s and the subsequent spurt of conflicts associated with decolonization in the 1960s. East & South Africa, like West & Central Africa, evinces the double spikes associated with the colonialization and decolonialization processes, and, like Europe and North Africa, apparently experienced a relatively peaceful 18th century compared to the surrounding periods of time.

FIGURE 6

Number of Conflicts per Decade

Western Europe

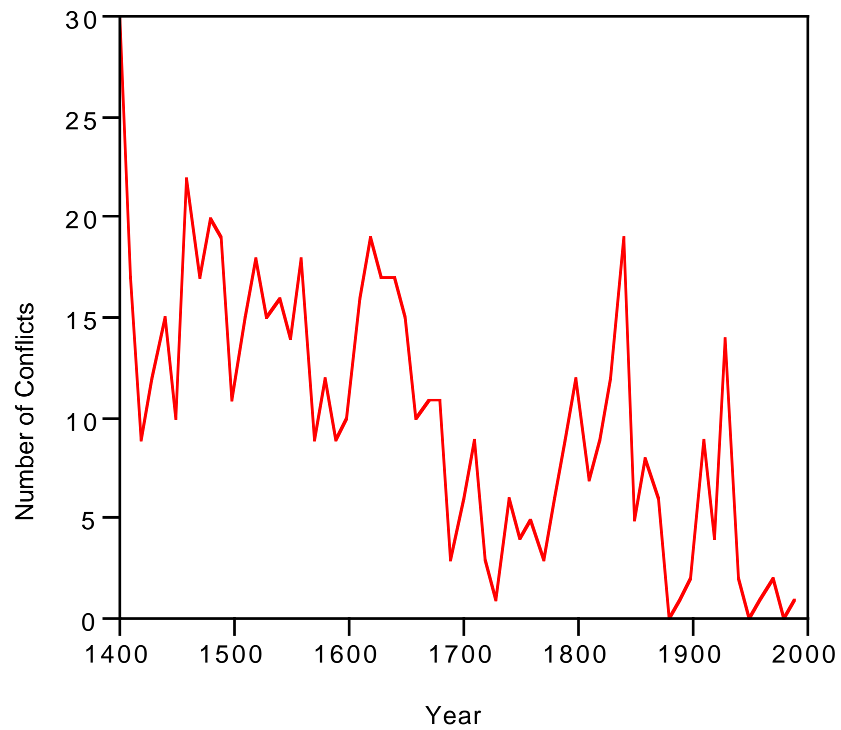


FIGURE 7

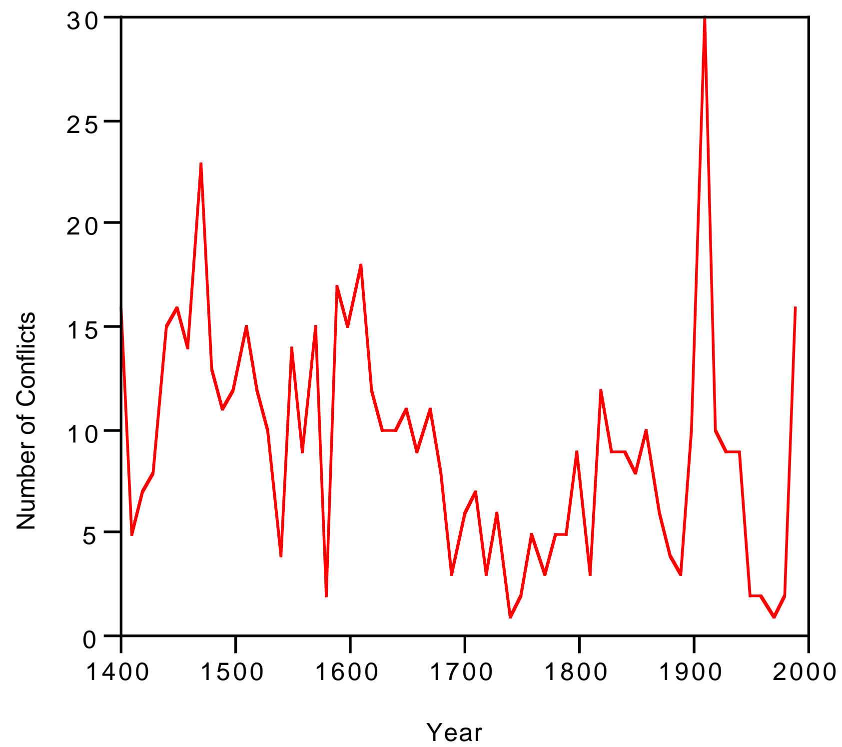


FIGURE 8

Number of Conflicts per Decade

North Africa

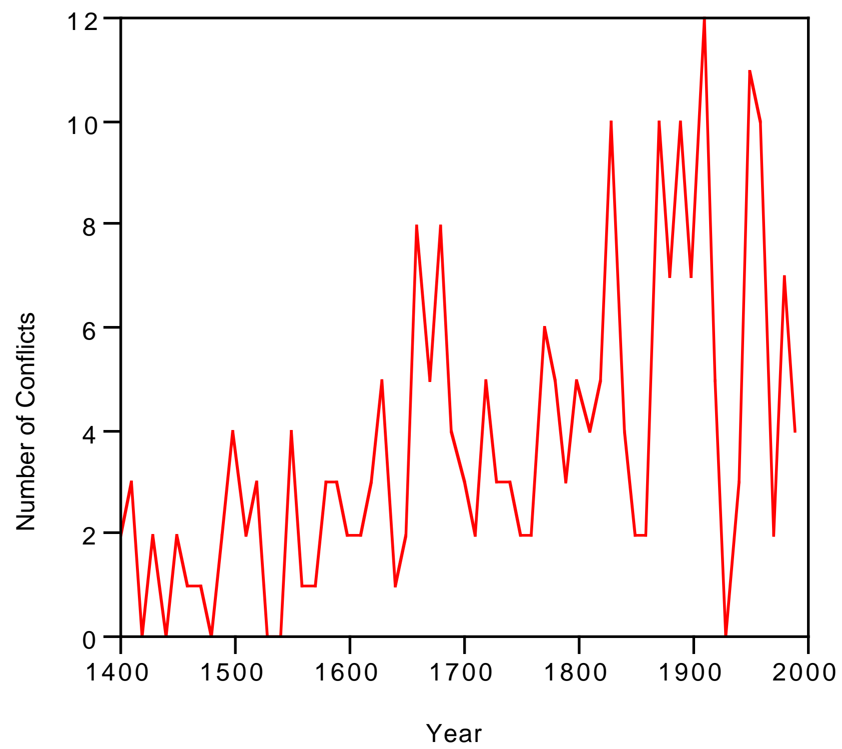


FIGURE 9

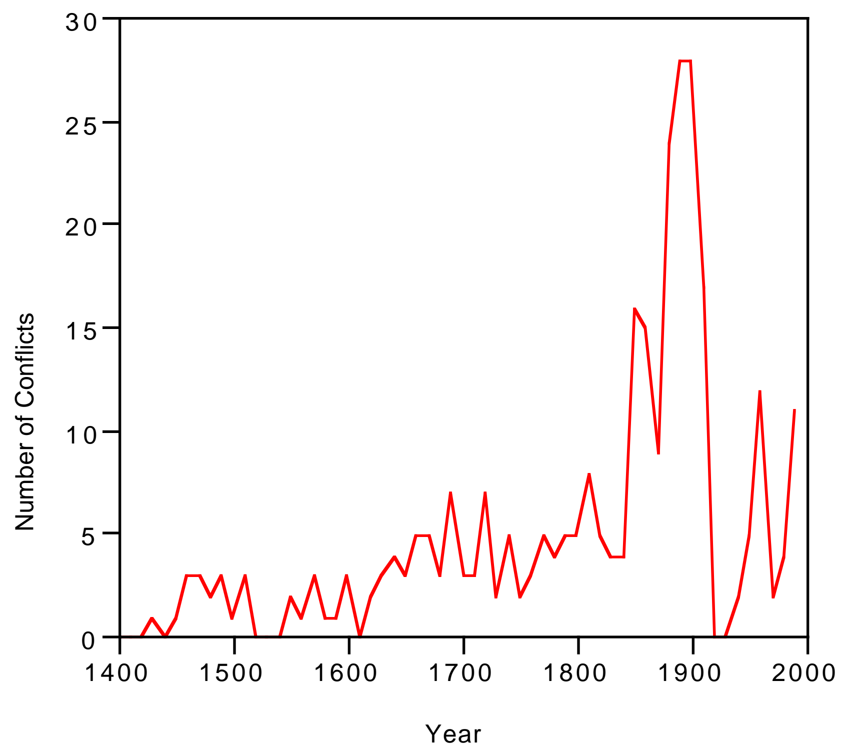
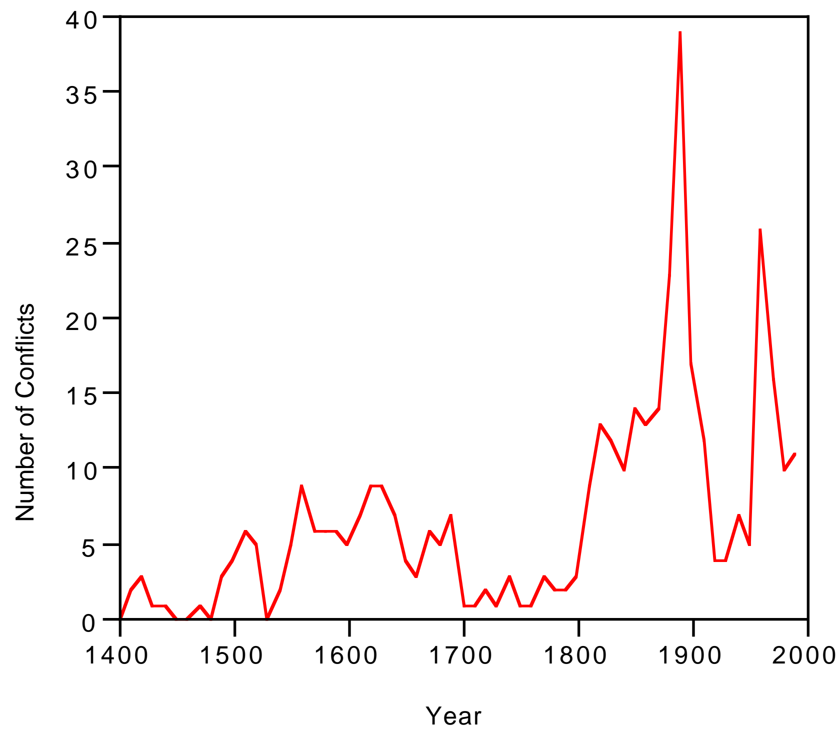


FIGURE 10

Number of Conflicts per Decade

East & South Africa



CHARACTERISTICS FOR DEVELOPING A CONFLICT TAXONOMY

This section describes the nature of the information that is being added to the Conflict Catalog in support of developing a taxonomy.

A critical step for that development is determining the criteria, the variables, by which the cases are deemed to be similar or dissimilar to each other. For the problem of classifying violent conflicts, the inadequate state of our theory for the causes of violent conflicts supports developing a taxonomy based on *phenotypic* characteristics of conflicts as opposed to *genotypic* characteristics (Lenski, 1994). That is, the basis for distinguishing violent conflicts will be their observable characteristics as opposed to their causes. As such, the question then becomes what are the appropriate or best characteristics.

A review of the various literatures pertaining to violent conflicts has found limited guidance. The following list of characteristics summarizes what different researchers (including the author) deem to be the most relevant to classifying violent conflicts. As can be seen, many of the variables are rather obvious. In the numerical taxonomy literature, this list would be called a taxonomic character list.

1. The political-legal status relationships of the major actors or participants in the conflict
2. The number of major actors
3. The point of contention
4. The primary purpose for one side to change area of territorial control
5. The principal identity-defining difference between the major actors (ethnicity, religion, class, etc.)
6. The nature of external power involvement in intrastate conflicts
7. The nature of government involvement in intrastate conflicts
8. Whether the territorial boundaries between the actors are clearly defined or not
9. The ratio of capabilities between the major actors
10. The level of discipline of the armed actors
11. The form of combatant engagement
12. The level of military technology employed in the conflict
13. The nature of the political system within which an intrastate conflict takes place
14. The nature of the different political systems involved in an interstate or state-versus-external-nonstate actor conflict
15. The duration of the conflict
16. The outcome of the conflict
17. The number of military fatalities
18. The total (military + civilian) number of fatalities
19. The nature of the relationship between a particular conflict and a larger conflict of which it is a part
20. The geographic extent of the conflict

21. The number of combatants
22. The fatality density

A number of these variables require elaboration, but first, it is important to remember that these criteria apply to each conflict and only incidentally refer to the characteristics of the actors involved in the conflicts.

The *political-legal status relationships of the major actors* , used by Small and Singer (1982), provides a way to distinguish between conflicts in terms of the possible combinations of actors and their sovereignty status. It allows for possibilities in the nature of the relationships that are currently constrained by the traditional distinction of conflicts between states and conflicts within states. The additional possibilities are defined below.

The *point of contention* provides a way to distinguish between conflicts in terms of what the actors are fighting over. Point of contention is used instead of alternative variables that attempt to capture the reason for a conflict such as the *goals of the actors regarding the outcome* because, as Small and Singer (1982) assert, it is often difficult to discern the actors' true goals. The *point of contention* is less ambigous and (relatively) easier to determine, and it effectively subsumes the (relevant) goals of each of the actors. It is worth noting that Luard (1987), Holsti (1991), Diehl (1992), and Hensel (1996) place considerable emphasis on identifying the *issues* that are central to violent conflicts. *Point of contention* is conceptually very similar to issue. The difference is that *point of contention* attempts to be even more concrete and ascertainable. This last point is best illustrated by looking at the different points of contention listed below.

Most conflicts involve territory in some manner, so to say that territory is the point of contention will result in many otherwise disparate conflicts being grouped together by that criterion. The *primary purpose for one side to change area of territorial control* provides a way for conflicts to be defined in terms of the reason there is contention over particular territory. Using this variable in conjunction with *point of contention* makes it is possible to more finely distinguish between different types of conflict.

The *principal identity-defining difference between the major actors* provides a way to distinguish between conflicts in terms of the particular identity characteristic that the actors use to differentiate themselves from each other. The characteristics that have been considered most salient have varied across both time and space, and this variable enables us to track those changes. It must be noted that this variable is not meant to imply that a particular identity characteristic such as religion was the cause of a particular conflict. It is intended to simply chronicle what was the primary characteristic by which the major actors distinguished themselves from each other.

The *nature of external power involvement in intrastate conflicts* , used by Small and

Singer (1982), provides a way to differentiate conflicts that occur within a state based on the degree and nature of external intervention. Interventions have varied significantly, and it is likely that this will be an important variable for distinguishing between different types of intrastate conflicts.

The *nature of government involvement in intrastate conflicts* , also used by Small and Singer (1982), provides a way to differentiate conflicts by the degree of government involvement. This variable interacts with the variable *political-legal status relationships of the major actors* to more finely differentiate intrastate conflicts.

Whether the territorial boundaries between the actors are clearly defined or not provides a way to group conflicts in a very crude way according to the pattern of fighting, which reflects a “strategy” of how to fight taken by at least one of the actors. What this means will become clearer upon reading the possible patterns below.

The *ratio of capabilities between the major actors* , used by Vasquez (1986), provides a way to group conflicts according to power differentials. The variable is a measure of the capabilities at the beginning of the conflict. Besides its potential conflict classification role, this variable may be useful for other analyses because it is a proxy of (assumed) calculations by the actors of their situations when they choose to begin fighting. As such, it may be useful to analyses pertaining to conflict early warning. The variable is not necessarily appropriate to analyses of conflict outcomes. It is fully understood that capabilities are extremely difficult to measure and will not be collected for most conflicts.

The *form of combatant engagement* , used by Small and Singer (1982), provides a way to distinguish between conflicts in terms of the types of armed units involved in the fighting. What this means will become clearer upon reading the possible values for this variable below.

The *level of military technology employed in the conflict* provides a way to distinguish between conflicts in terms of the differential (if any) between the contestants with respect to the sophistication of the weaponry they employ in the conflict. Since technology has advanced markedly in the 600 year time frame of the Conflict Catalog, the differential is determined with respect to the “state-of-the-art” of military weaponry at the time of the conflict. As with the *ratio of capabilities between the major actors*, to make this variable most relevant to conflict early warning, the assessment of the appropriate value for a conflict pertains to the early stages of the conflict.

The *nature of the political system within which an intrastate conflict takes place* and the *nature of the different political systems involved in an interstate or state-versus-external-nonstate actor conflict* are variables that besides being potentially useful in categorizing violen conflicts, may also contribute to the debates about the democratic peace, both in the current interstate war context, and with respect to future

consideration of intrastate conflict, a task to which the Conflict Catalog will provide a useful sample.

The *number of military fatalities* and the *total number of fatalities* are employed in tandem to help us get a measure of the apparent phenomenon that civilian populations have been impacted by conflicts differently over time, and they correspond to the approach taken by Eckhardt as presented in the publications of Sivard (for example, Sivard, 1993). It may be that the impact on civilian populations is closely related to the type of conflict.

The *nature of the relationship between a particular conflict and a larger conflict of which it is a part* is intended to get at the phenomenon that some conflicts are recognized as separate conflicts while at the same time being part of a larger conflict. The European and Pacific theatres of World War II, the Egyptian Campaign of the Napoleonic Wars, or the conflicts that comprise the Wars of the Roses serve as examples. This variable enables us to differentiate how conflicts are related hierarchically and as such may be a potentially important characteristic.

The *geographic extent* of the conflict is a variable to capture the degree to which a conflict is concentrated in a particular location or is dispersed over a large area. The disparity in conflicts in this regard is considerable, ranging from a village to a major portion of the globe.

The *number of combatants* is distinct from the number of actors variable mentioned earlier in that it embodies the size of the armed forces involved in the conflict as opposed to the number of major political entities.

The *fatality density* statistic attempts to describe the intensity of the conflict by weighing the number of fatalities by the populations of the involved actors and the time frame over which the fatalities occur. The formula for fatality density is the following: FD = ((total fatalities)/(actors combined populations))/(conflict duration).

CONCLUSION

A taxonomy needs several variables in order to generate categories that are stable in terms of how an object, in this case conflicts, get classified. While there is no hard and fast rule, 30 variables is considered desirable. The preceding list of 22 hopefully is sufficient. Any attempt to make a new typology needs to be attentive to the concern of classification stability. Hopefully the individuals working on the new typology will consider the importance of some of these 22 variables rather than trying to make a typology based on just one or two dimensions.

Work on the Conflict Catalog continues. The next two regions scheduled for

completion are East Asia and South Asia. North America and South America will follow. Last will be the Middle East. Population data for each of the countries and/or regions back to 1400 AD has been assembled. Assembly of fatalities data for many more conflicts than the 1139 mentioned above is almost complete. My hope is to provide peace science researchers a dataset on violent conflict that will enable the study of many questions that have heretofore been unanswerable because of data limitations. My personal goals are a conflict taxonomy as a stepping stone to a true conflict early warning system.

Appendix A

Compilations of Violent Conflicts

Dictionaries or Encyclopedias of Wars and Battles

Brownstone, David F. and Irene Franck. Timelines of War: A Chronology of Warfare from 100,000 B.C to the Present. New York: Little, Brown & Company. 1996.

Bruce, George. Collins Dictionary of Wars. Glasgow: Harper Collins. 1995.
(this was formerly Harbottle's Dictionary of Battles, 1966, 1971, 1981 and The Paladin Dictionary of Battles, 1986)

Chandler, David. Dictionary of Battles: the world's key battles from 405 BC to today. New York: Random House. 1991.

Clodfelter, Micheal. Warfare and Armed Conflicts: A Statistical Reference to Casualty and Other Figures, 1618-1991. Vols. 1 and 2. Jefferson, North Carolina: McFarland & Company, Inc.. 1992.

Davis, Paul K. Encyclopedia of Invasions and Conquests: from Ancient Times to the Present. Santa Barbara, CA: ABC-Clio. 1996.

Dupuy, Trevor N., and R. Ernest Dupuy. The Harper Encyclopedia of Military History from 3500 B.C. to the present. 4th edition. New York: Harper & Row. 1993.

Eggenberger, David. An Encyclopedia of Battles: accounts of over 1,560 battles from 1479 B.C. to the present. New York: Dover. 1985.
(this was formerly A Dictionary of Battles, 1967)

Gallay, Allan. Colonial Wars of North America: an encyclopedia, Military History of the United States series, Vol. No. 5. New York: Garland, 1996.

Goldstein, Erik. Wars and Peace Treaties: 1816-1991. New York: Routledge. 1992.

Hogg, Ian. V. Battles: A concise dictionary. New York: Harcourt Brace. 1995.

Kaye, G. D., D. A. Grant, and E. J. Emond. Major Armed Conflict: A Compendium of Interstate and Intrastate Conflict, 1720 to 1985. ORAE Report No. R95. Ottawa, Canada: Operational Research and Analysis Establishment, Department of National Defence. 1985.

Keenan, Jerry. Encyclopedia of American Indian Wars: 1492-1890. Santa Barbara,

CA: ABC-Clio. 1997.

Kohn, George C. Dictionary of Wars. Garden City, N.Y.: Anchor Press/Doubleday, 1987.

Laffin, John. Brassey's Battles: 3,500 years of conflict, campaigns, and wars from A-Z. Washington, D.C.: Brassey's Defence Publishers, 1986.

Sweetman, John. A Dictionary of European Land Battles: from the Earliest Times to 1945. New York: MacMillan Publishing Company. 1985.

Van Creveld, Martin. The Encyclopedia of Revolutions and Revolutionaries : from anarchism to Zhou Enlai. New York: Facts on File. 1996.

Young, Brigadier Peter, with Brigadier Michael Calvert. A Dictionary of Battles 1715-1815. Vol. 3. New York: Mayflower Books, 1979.

Young, Brigadier Peter, with Brigadier Michael Calvert. Dictionary of Battles 1816-1976. Vol. 4. New York: Mayflower Books. 1978.

Academic Research Works Containing Compilations

Bodart, Gaston. Losses of Life in Modern Wars: Austria-Hungary; France. Oxford: At the Clarendon Press. 1916.

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