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Journal of Peace Research, Vol. 37, No. 5 (Sep., 2000), 563-581.

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© 2000 Journal of Peace Research, vol. 37, no. 5, 2000, pp. 563–581 Sage Publications (London, Thousand Oaks, CA and New Delhi) [0022-3433(200009)37:5; 563–581; 014112]

Fifty Years of Ethnic Conflict and Cohesion: 1945–94

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The diversity of conflict sequences observed among 163 ethnic groups ranging from 1945 to 1994 is portrayed in correspondence with political and socio-economic factors. This diversity comes first from the strong association between mobilization, slight discrimination, migration distress, religion and repression. On a finer detail, discrimination appears to be associated with resistance if it is related to land and power, with war if it concerns social mobility, or with insurgency if it has to do with social customs. Migration from rural to urban and abroad is accompanied by high mobilization and rioting or war when social mobility is at stake. Declining state power and democratization can open the door to violent action. Finally, there is also international diffusion of protest. Locating minority groups in this landscape of correspondence helps to compare and characterize the various particular histories. These range from Lebanon's period of war, or the years of insurgency in Iran or Somalia, to the mixture of verbal opposition and terrorism in Western democracies. Crystallizing protest in India or China is differentiated against the deterioriation of group coherence in the Middle East; sporadic bursts of violence in Africa are contrasted against insurgency and rioting in East and Southeast Asia. The results point to the need for conflict prevention policies to pay more attention to the promotion of equitable social mobility.

Introduction

Gurr (1993a: 162) advocated the empirical analysis of conflict from study of 'the status

and political actions' of communal groups. He collected the conflict histories of 233 minority groups, documenting their major political and socio-economic determinants in 1980, and of 268 groups in the 1990s. These data comprise the 'Minorities at Risk' database.¹

Gurr (1993a,b, 1994, 1997) has analyzed

^{*} The views expressed, the designations employed and the presentation of material throughout this article do not imply the expression of any opinion whatsoever on the part of the UNESCO Secretariat concerning the legal status of any country, territory, city or area of its authorities, or the delimitations of its frontiers or boundaries. The data used in this article can be obtained from: http://www.prio.no/jpr/datasets.asp. Correspondence should be addressed to the authors by e-mail: bonneuil@ined.fr and n.auriat@unesco.org.

¹ UNESCO, Social and Human Sciences Sector (MOST Programme), purchased this database from the Centre for International Development and Conflict Management, University of Maryland at College Park. We completed this dataset for the period 1990–97 from the Minorities at Risk (MAR) website: http://www.bos.umd.edu/cidcm/mar.

this dataset extensively, employing multiple regression analysis and statistical modelling, assessing which aggregated variables correlate with ethnic conflict. We suggest a complementary approach based on two key premises: we focus on sequences of conflict rather than on conflicts at a given period; instead of modelling causal patterns through econometric techniques, we use correspondence analysis so as to visualize the structure of the dataset in terms of dispersion and multiple correlation among the most frequent sequences of ethnic conflicts from 1945 to 1994, and in terms of their statistical associations with socio-political factors. We then position each minority group in this landscape.

By doing this, we are not building a model in the usual sense, where we would test the effect of a given determinant on a given response. Instead, we consider all statistical correlations, even for collinear variables, thus helping to reveal relevant variables, to pinpoint misleading covariations, to detect potential outliers, which also enables assessment of the quality of the data.

Our proposal to rework Gurr's data on ethnic mobilization and conflict by means of correspondence analysis and textual representation of local histories comes close to the ideas of Abbott (1998: 176). This latter scholar acknowledged that 'interactional fields are probably too complex for us to predict', but that 'they do show various internal patterns; they do sketch the "rules of the game"; they do portray the limits and possibilities of action'. Franzosi & Mohr (1997: 150-151) and Franzosi (1997, 1998), in exploring the origins of Italian fascism, were similarly concerned with 'processes of mobilisation (and counter-mobilisation) unfolding over time', and with turning 'textual information into a usable data source, with the collection, organisation, and analysis of narrative'. In fact, Franzosi (1997) went further than ourselves, for he was able to address 'actors and actions, and the network

of their relationships', whereas we only have macro-level variables. Aminzade (1993), in a case-study of the revolutionary communes in France in 1870–71, also highlighted the importance and role of sequences of motivated actions in understanding the conflict. Mahoney (1999) provided an illuminating discussion on macro-causal analysis in history.

Our main purpose here is to offer comprehensive displays of histories of ethnic conflict since 1945, highlighting the richness and the complexity of this qualitative dataset and addressing competing explanations for why ethnic conflict occurs. We can anchor our argument in three contrasting theoretical schools - called intrumentalism, primordialism and constructivism. Respecting the diversity of the data and their temporal structure, we offer an empirical backdrop for some of these theories. According to the instrumentalist approach, 'echoing rational choice theory' (Väyrynen, 1994: 8), the ethnic endowment of an individual or a group contains a repertory of social resources and roles that can be drawn upon to pursue material gain. This approach 'considers violence a means to a variety of ends' (Bates, 1983; Fearon & Laitin, 1996; Hardin, 1995; Väyrynen, 1994: 8). Primordialism, on the contrary, 'stresses kinship and blood ties, and associated myths and rituals that cement an ethnic group into a Gemeinschaft. This theory also views ethnic conflict as a consequence of group identity, itself viewed as an integral part of personal identity, and it maintains that ethnic attachment is a natural kind of affiliation' (Geertz, 1993; Stavenhagen, 1990; Väyrynen, 1994: 9). Finally, the constructivist approach 'stresses the manufacture of ethnic identity' and 'the crystallisation of the group for a particular societal purpose', notably conflict (Thompson, 1991; Anderson, 1991; Hobsbawm, 1990; Schaeffer, 1990; Väyrynen, 1994: 10).

Tilly (1995, 1997a,b), drawing on human

psychology much in the spirit of Elster (1999), clarified the very specific historical nature of every conflict and noted how any one causal theory was insufficient to explain the different outcomes over time of the same determinant. Our treatment of temporal sequences, based on an original use of textual analysis (Lebart et al., 1998), should help us to portray the diversity of the historical trajectories as recorded from 1945 to 1994, and to identify 'verifiable causal stories nestled in differing chains of cause-effect relations' (Tilly, 1997b: 50). Our purpose, much in the spirit of factor analysis, is to provide a clear view of types of individuals, and is thus different from usual causal regression analysis, which emphasizes the interaction of variables. We favour correspondence analysis over other techniques because we acknowledge Tilly's recommendation to consider the specificity of each minority's history. Representing patterns of conflict sequences in association with covariates enables us to discuss contending theories of ethnic conflict in the light of the empirical mapping.

Methods

The Minorities at Risk Dataset

Gurr (1993a) worked around the premise that there were essentially three forms of conflict: nonviolent protest, violent protest and rebellion. In his original Minorities at Risk dataset (MAR), Gurr (1993a) created these three conflict variables by aggregating a series of indicators of protest which are assumed to be correlates of one of the three categories of conflict.2 Of the 233 groups of the original dataset, 163 were completed for the 1990s: new groups and new variables were added for this period, and the three variables of conflict specified between 1945-49 and 1985-89 were merged into two after 1990, namely 'protest' and 'rebellion'. The variable describing rebellion for 1990-94 (Gurr, 1997: 1089) is unequivocally connected with the variable describing rebellion from 1945-49 to 1985-89. Given this methodological difficulty, we constructed a single variable 'rebellion' ranging from 1945-49 to 1990-94 (the third item of rebellion for 1990-94, 'local rebellion - armed attempts to seize power in a locale' (F), is then assimilated to 'small-scale insurgency' (u)). We proceeded similarly for nonviolent protest in assimilating items of protest in 1990-94 (Gurr, 1997: 1089) to specific items of the variable 'nonviolent protest' as follows: 'a few demonstrations, strikes, rallies; limited rioting; other' to the item d; 'a number of demonstrations, strikes, rallies; substantial rioting' to the item e; and 'major demonstrations, serious and widespread rioting' to the item f. This approximation is a little imperfect, but it has the considerable advantage of increasing the time-series for nonviolent protest. The timeseries of the variable 'violent protest' was not completed for the 1990-94 period and is therefore limited to 1945-49 to 1985-89.

We retained these 163 'minorities at risk', because they can be followed from 1945–49 to 1990–94. We note that Gurr (1993a) tackled the testing of a complex causal model showing the dynamics of conflict between ethnic groups and states. The database includes political, ethnic and demo-economic factors in the 1980s and 1990s, characterizing minorities and their relationships to dominant groups (Gurr, 1994: 349: MAR website). Gurr compared living conditions of minorities to those of the dominant group, thereby producing a set of economic,

² Nonviolent protest: a, 'none reported'; b, 'verbal opposition'; c, 'political organizing activity on a substantial scale'; d, 'a few demonstrations or strikes'; e, 'a number of demonstrations or strikes'; f, 'major demonstrations'; m, 'missing value'. Violent protest: A, 'none reported'; B, 'scattered acts of sabotage'; C, 'limited rioting'; F, 'local rebellions – armed attempts to seize power in a locale'; M, 'missing value'. Rebellion: r, 'none reported'; s, 'political banditry'; t, 'campaigns of terrorism'; u, 'small-scale insurgency'; v, 'large-scale insurgency'; w, 'protracted civil war'; z, 'missing value' (Gurr, 1993a: 169).

political and cultural covariates. He commented and graphically portrayed global and regional patterns and trends in ethnopolitical conflict from 1945-49 to 1985-89 (Gurr, 1993a). Generally, the data show that there is a rise in forms of action undertaken by minority groups and that the trends in conflict vary markedly from region to region. A global observation of the data shows a general rise in all forms of communal conflict, over time, with an acceleration of groups entering into conflict in the 1960s and 1970s compared to earlier periods. Gurr commented comprehensively upon regional trends of conflict, for ethno-nationalists, indigenous peoples, ethnoclasses, communal contenders and militant sects. He concluded that the grievances of contemporary minorities were driven mainly by political and economic dynamics, and reasoned that 'political and economic disadvantages motivate communal groups to demand greater access to the political system and greater economic opportunities, whereas a history of political autonomy leads groups to attempt secession' (Gurr, 1993a: 87).

Building Sequences of Conflicts

Each of the 163 minority groups documented from 1945-49 to 1990-94 was scored for the most widespread and intense event reported during each quinquennial period. With respect to Gurr's original dataset, we chose to disregard summary or aggregated indices and to work directly with the primary variables, which are listed in the Appendix. Gurr (1993a) defined minorities as communal groups of people ethnically distinct from the rest of the population and numerically inferior. The selected minorities are 'non state communal groups that were politically salient during the post-World War II era, that is, to say politicized communal groups'; they 'collectively suffer, or benefit, from systematic discriminatory treatment vis-à-vis other

groups in the countries in which they reside' and they 'were the focus of political mobilisation and action in defense or promotion of the group's self defined interests' (Gurr, 1993a: 5). Further criteria for a minority group to be considered in the study were that the communal groups at risk resided in a country that had a population of at least 1 million in 1985; and that the group itself had a population of at least 100,000 or, if less, in excess of 1% of the population of at least one country in which the group resided (for detailed information on the conceptual clarification of a communal group, see Gurr, 1993a, 1994).

As noted by Tilly (1978), the legal definitions separating strikes from other forms of conflict (such as demonstrations and 'riots') themselves result from previous struggles among workers, employers and government officials. They vary from one country and era to another. Other complications follow: workers in different countries sometimes pursue similar ends by different means, and in moments of deep political division observers and participants assign different meaning to strikes than in moments of relative tranquillity. We agree with Tilly's observation. But when using the MAR dataset, our analysis is inevitably based on the conceptual foundations used by Gurr in his data collection.

Our original methodological contribution consists of regarding minority trajectories as words containing ten letters (or nine in the case of violent protest), that we have assigned on the basis of one letter for each of the ten quinquennial periods ranging from 1945–49 to 1990–94. For example, if a minority's history in nonviolent protest is: 1945–49: none reported ('a'), 1950–54: verbal opposition ('b'); 1955–59: none reported ('a'); 1960–64: a few demonstrations ('d'); 1970–74: a number of demonstrations ('e'); 1975–80: a number of demonstrations ('e'); 1980–85: a few demonstrations ('d');

1985–89: a few demonstrations ('d'); 1990–94: none reported ('a'), for purposes of our analysis, its chronological history appears as a 'word', which is 'abadeeedda'.

This 'word' is then segmented into sequences of all possible lengths, ranging from two to ten letters, which gives the following 44 patterns:

ab, ba, ad, de, ee, ed, dd, da; aba, bad, ade, dee, eee, eed, edd, dda; abad, bade, adee, deee, eeed, eedd, edda; abade, badee, adeee, deeed, eedd, eedda; abadee, badeee, adeeed, deeedd, eedda; abadeee, badeeedd, deeedda; abadeeedd, adeeedda; abadeeedd, adeeedda; abadeeedd, badeeedda; abadeeedda.

Since our purpose in this particular study does not reside in studying the length of any given state of conflict, we collapsed any repeated segment into its corresponding single letter. To return to our example, our list is then reduced to 23 elements:

ab, ba, ad, de, e, ed, d, da; aba, bad, ade, eda, ded; abad, bade, aded, deda; abade, baded, adeda; abaded, badeda; abadeda.

A simple conflict history would thus be the succession of two letters, corresponding to the succession of two types of different conflicts over the period; a word made of a single letter represents a stationary state during at least two periods; the presence of long sequences testifies a history of significant change. We adopted the following guidelines for coding the types of conflict:

- Nonviolent forms of protest: small letters ranging from 'a' to 'f'; missing values are coded 'm'.
- Violent forms of protest: capital letters ranging from 'A' to 'F'; missing values are coded 'M'.
- Forms of rebellion: small letters ranging from 'r' to 'w'; missing values are coded 'z'.

Each minority group is then defined by a series of 'word' segments reflecting their

conflict histories and a set of covariates. The contingency table in which we are interested is defined by the proportion of cases sharing a given sequence with any item of a given covariate. This table can be treated through correspondence analysis.

Correspondence Analysis

Correspondence analysis (Benzécri, 1992; Greenacre, 1984; Volle, 1985; Bry, 1996; des Nétumières, 1997) is an appropriate tool for representing contingency tables. In order to sketch its principle for those unfamiliar with this technique, we consider a contingency table between two variables A and B with I and J items respectively, with k_{ii} observations at item i for the first variable and j for the second. Then, the empirical frequency in the cell (i,j) becomes $f_{ij} = k_{ij}/\sum_{j=1}^{J} k_{ij}$ and a point X^i is defined as having the coordinates f_B^i : $\{f_j^i := f_{ij} / \sum_{k=1}^J f_{ik}, j = 1, \dots J\}$. The cloud of points X^i , I = 1, ..., I is scattered along J - 1dimensions. Correspondence analysis consists of finding the axes – those principal axes - that give most of the variance of this cloud, variance representing information. Thus, the orthogonal projection onto the two-dimensional first principal plane (made of Axis 1, taking the largest part of the variance) and the second-largest (Axis 2, orthogonal to Axis 1) provide the best two-dimensional approximation of the data. However, it is obvious that part of the information is lost in passing from a multi- to a two-dimensional space. In this study, information is completed by examining higher order axes, such as the third and fourth.

The intersection of the principal axes represents the marginal distribution $\{\sum_{i=1}^{I} f_{ij}, j = 1, \ldots, J\}$. The distance between two points X^i and X^i on the two-dimensional projection is the projection onto this plane of the distance $\sum_{j=1}^{J} (f_j^i - f_j^i)^2 / \sum_{i=1}^{I} f_{ij}$ between the distributions f_B^i and f_B^i ; this distance must be interpreted in taking into account distorting

perspective effects that arise from any projection. Notably, the proximity between points can be interpreted only when these projected points are located at the periphery of the cloud; the closer to the origin of the axes, the less interpretable they are. Points, and hence variables, contributing too little to the principal axes are erased from the graphs. The weight with which a point contributes to a given axis is an essential indication, and points appearing far away on the axis but with a weak contribution must be excluded from the interpretation. Only those variables giving the biggest contributions to a given axis are retained. Here, we do not publish the weights of contributions, nor the various qualities of each representation simply for lack of room, but these are available upon request. Moreover, the principal axes for the cloud of points Yj with coordinates $\{f_i^{J} := f_{ij} / \sum_{k=1}^{I} f_{kj}, i = 1, \dots I\}$ are the same, so that points Y^{j} and X^{i} can be put on the same representation, and proximity between their projections can be interpreted, provided the latter are located sufficiently at the periphery. Finally, supplementary points can be added, representing distributions playing no role in the making of the axes: notably here, designations of minority groups are supplementary variables that enable us to locate the groups on the graphs.

Thus, instead of searching for causal links controlling for 'everything else equal', as in usual regression analysis, this correspondence analysis permits visualizing the diversity of all factors as they are taken together, so that different types of minorities can be identified and characterized by socio-economic and political variables. The objective of grouping minority groups according to their sequences of conflict and their conflict determinants prevails, in our analysis, over the notion of causality between variables (des Nétumières, 1997) (notably, there is no difficulty in representing collinear variables); we are able to clarify how minority groups are similar or

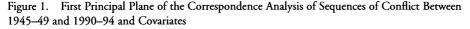
different in terms of their patterns of conflict sequences, and how these patterns can be associated with covariates. The qualitative nature of the data is respected, providing a more detailed picture than what could be provided by aggregated indices. It is particularly interesting since the aggregated indices constructed by Gurr (1993a: 101-112) emerge from qualitative indicators of conflict which statistically must not be placed on a unidimensional quantitative scale. For example, Gurr (1993a) regrouped, under the indicator of 'Non-Violent Protest', the variables verbal opposition and large demonstrations. Although we agree that they are both nonviolent forms of protest, they are different phenomena that, one could argue, deserve treatment per se. Similarly, Gurr regrouped under a single scale of rebellion measures of scattered acts of sabotage and protracted civil war.

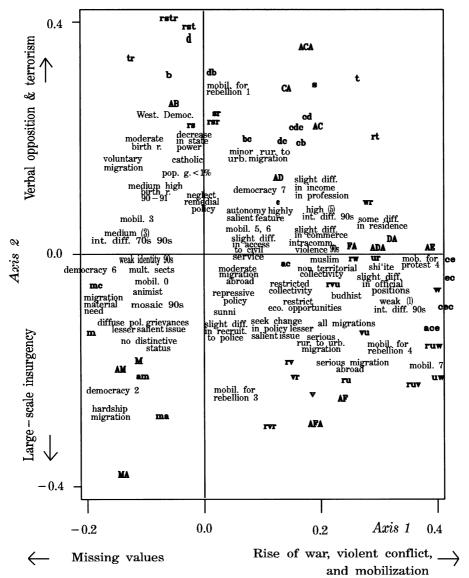
Correspondence analysis is usually applied to the contingency table of a given set of variables crossed with itself; however, it is possible to work with a contingency table that has different variables in its rows and columns (for example, with the procedure CORRESP, option TABLE in the SAS software package). This is one of the principles of 'textual analysis' (Lebart et al., 1998), which is an adaptation of correspondence analysis and which has similar features to our approach. Here, we build our own 'text' by considering the historical sequences of conflict as words. As usual in correspondence analysis, we select those items and those sequences of conflict appearing with 'sufficient' frequency (in this case 20, obtained after trial and error), to give enough weight to points so as to avoid serious distortions in the results (Volle, 1985; Cibois, 1997).

Results

The Four Structuring Axes

We begin by interpreting Figures 1 and 3, which provide information on sequences of





Total variance for axes 1 and 2, 12.4% and 9.0%, respectively. Int diff. means international diffusion of group protest. Democracy and state power are scored from 0–9; international diffusion from 0–5; mobilization, mobilization for protest and mobilization for rebellion from 0–7. Scores appear on the graph in parentheses. Nonviolent protest: a, 'none reported'; b, 'verbal opposition'; c, 'political organizing activity on a substantial scale'; d, 'a few demonstrations or strikes'; e, 'a number of demonstrations or strikes'; f, 'major demonstrations'; m, 'missing value'. Violent protest: A, 'none reported'; B, 'scattered acts of sabotage'; C, 'limited rioting'; D, 'substantial rioting'; E, 'serious and widespread rioting'; F, 'local rebellions – armed attempts to seize power in a locale'; M, 'missing value'. Rebellion: r, 'none reported'; s, 'political banditry'; t, 'campaigns of terrorism'; u, 'small-scale insurgency'; v, 'large-scale insurgency'; w, 'protracted civil war'; z, 'missing value'.

conflict and their covariates. Figures 2 and 4 give supplementary information on the minority groups. As a basic principle of interpretation, the greater the variance accumulated by the selected axes, the better the perspective given by the graph. Here, the first two axes accumulate 21.4%, the first four axes 37.0%. For such an important mass of data gathering 82 variables (or 360 items) and 87 retained sequences, the 37% testifies to the heterogeneous nature of the sequences and provides us with a good (considering the size of the contingency table) summary of the sample on the first four axes.

Axis 1 (12.4% of the total variance) on Figure 1 contrasts the rise of war and violent conflict on the right-hand side with missing values on the left-hand side, together with rising mobilization (for protest, for rebellion, in general), slight discrimination, restriction to collectivity and to economic opportunities, serious constrained migration and specific religions - Buddhist, Muslim, Shi'ite - on the right-hand side opposed to the absence of mobilization, of distinctive status, of identity, to animism and multiple sects on the left-hand side. It should be noted that Figure 1 indicates missing values are not randomly distributed in this dataset and that they explain a large part of the variance. The lower left-hand quadrant in Figure 1 shows that missing values are associated with 'hardship migration' and 'no distinctive status'. One could infer that these missing values are associated with specific ethnic groups that also appear in the lower left-hand quadrant of Figure 2.

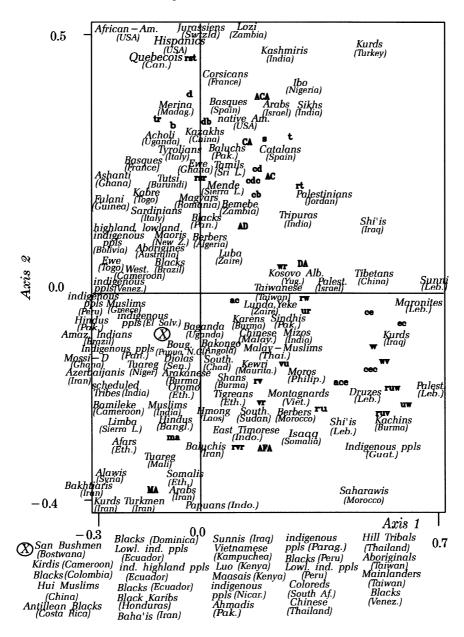
Mobilization scores are gradually located along Axis 1: 0 and 3 on the left-hand side, then 5 and 6 on the right-hand side near Axis 2, then 7 at the extreme right-hand side. Axis 2 (9.0%) shows the rise of political banditry ('s'), scattered acts of sabotage ('B') and terrorism ('t'), contrasted with large-scale insurgency ('rv', 'vr', 'v'); a mixture of verbal opposition ('b'), and a few demonstrations or

strikes ('d') on the upper side of Axis 2 on Figure 1 contrast with missing information ('M', 'm') and with large-scale insurgency ('rvr') situated on the lower side of this axis; similarly, moderate or voluntary migration, Catholics, Western democracies and weak mobilization for rebellion (score of 1) on the upper side of Axis 2 are opposed to weak democracy (score of 2), hardship migration and medium level of mobilization for rebellion (score of 3) on this axis's lower side.

In Figure 3, the right-hand side of Axis 3 (8.1%) 'crystallizes' protest: political banditry ('s'), political organizing ('c') turning into demonstrations and verbal opposition ('cd', 'cb'); it can also be seen that it opposes high international diffusion of group protest (score 4 on a 0-5 scale) and discrimination associated with land on the right-hand side of Axis 3, to the deterioration of the group's coherence: advantaged minority challenged, serious emigration abroad and high mobilization (score of 7). Axis 4 (7.5%) on Figure 3 contrasts a deteriorating situation of sporadic bursts of violence (substantial rioting, 'D'; serious and widespread rioting, 'E'; insurgency, 'u', 'v'; and protracted civil war, 'w') to groups in a permanent situation of insurgency and rioting ('vr', 'vu', 'v', 'ruv'); however, never degenerating into war. This opposition is concomitant with weak democracy (score of 2), slight discrimination in state-related services (higher education, official position, income, recruitment to police) on the upper side, opposed to high state power, high democracy (score of 8), medium mobilization, share of public funds on the lower side. The percentage of the variance falls to 4.9% for the fifth principal axis.

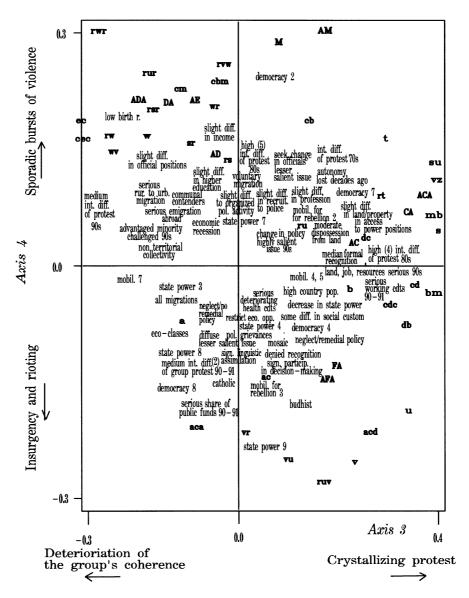
As previously mentioned, variables located at the origin of the graph do not contribute significantly to the axes and their proximity to any other variable cannot be interpreted. For the sake of clarity, we have erased them from the graph (but they are listed in the Appendix).

Figure 2. Minorities in the First Principal Plane



A few sequences of conflict are left to help the superimposition with Figure 1. Nonviolent protest: a, 'none reported'; b, 'verbal opposition'; c, 'political organizing activity on a substantial scale'; d, 'a few demonstrations or strikes'; e, 'a number of demonstrations or strikes'; f, 'major demonstrations'; m, 'missing value'. Violent protest: A, 'none reported'; B, 'scattered acts of sabotage'; C, 'limited rioting'; D, 'substantial rioting'; E, 'serious and widespread rioting'; F, 'local rebellions – armed attempts to seize power in a locale'; M, 'missing value'. Rebellion: r, 'none reported'; s, 'political banditry'; t, 'campaigns of terrorism'; u, 'small-scale insurgency'; v, 'large-scale insurgency'; w, 'protracted civil war'; z, 'missing value'.

Figure 3. Axes 3 and 4 of the Correspondence Analysis of Segments and Covariates



The segments represent temporal sequences of conflicts from 1945–49 and 1990–94, 8.1% and 7.5% of total variance, respectively. Int diff. means international diffusion of group protest. Democracy and state power are scored from 0–9, mobilization (all types), for protest and for rebellion from 0–7. Scores appear on the graph in parentheses. Nonviolent protest: a, 'none reported'; b, 'verbal opposition'; c, 'political organizing activity on a substantial scale'; d, 'a few demonstrations or strikes'; e, 'a number of demonstrations or strikes'; f, 'major demonstrations'; m, 'missing value'. Violent protest: A, 'none reported'; B, 'scattered acts of sabotage'; C, 'limited rioting'; D, 'substantial rioting'; E, 'serious and widespread rioting'; F, 'local rebellions – armed attempts to seize power in a locale'; M, 'missing value'. Rebellion: r, 'none reported'; s, 'political banditry'; t, 'campaigns of terrorism'; u, 'small-scale insurgency'; v, 'large-scale insurgency'; w, 'protracted civil war'; z, 'missing value'.

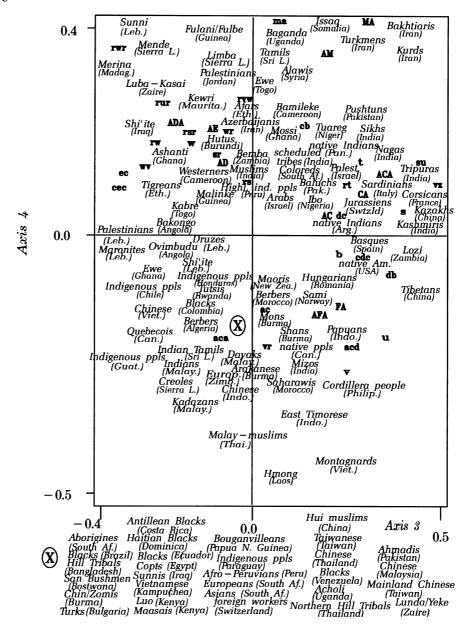
Figures 1 and 3 are to be superimposed onto Figures 2 and 4, respectively. We begin by superimposing Figure 1 on Figure 2 while commenting upon some peripheral groups which may help validate our visual representation. By superimposing these two figures, we can see that Lebanon - Sunni, Maronites, Palestinians, Druzes, Shi'is - which experienced war in the period 1975-90, is located at the extreme right-hand side of Axis 1, which is the axis of war and mobilization ('r', 'u', 'w', 'uw'), discrimination and migration. We can visualize this pattern as well for Palestinians from Jordan and from Israel. The analysis also shows that Kurds from Iraq are similar in this respect, and we know that they have fought for their autonomy since Kurdish nationalism in the 1930s, and have experienced successive defeats Saddam Hussein and his use of chemical warfare. The same can be said for Shi'is of Iraq and their continued resistance and defeat against Saddam Hussein. Continuously superimposing Figures 1 and 2, we can draw similar observations on the Kurds from Turkey, who owe their location at the upper right-hand corner, close to the sequence of sustained terrorism, to the guerrilla movement led by the PKK since 1984. At the right-hand side of Axis 1, Tibetans from China have been suffering from armed oppression, from restrictions to higher education and from economic discrimination to the advantage of Han Chinese (Litvinoff, 1997: 605). The location of indigenous peoples from Guatemala at the lower righthand corner of the first principal plane refers to the social movements in the 1960s demanding land and fair wages, to their repression and the following armed insurgency, to the massacres in the 1980s by General Rìos Montt, to the discrimination from the legal, political, economic and social systems of the country (Litvinoff, 1997: 93). Saharawis from Morocco, also located at the lower right-hand corner, reflect the

continuous struggle of Polisario Front against occupying Moroccans since 1975 and against Mauritanian forces until 1978 (Litvinoff, 1997: 437). Similarly, Kachins from Burma led an armed resistance from the 1960s until the ceasefire of 1994 (Litvinoff, 1997: 533).

Several groups from Iran - Bakhtiaris, Kurds, Turkmen, Arabs, Baluchis - are gathered on the lower side of Axis 2, toward missing values. On the lower side of Axis 2, toward rising insurgency, mobilization and weak democracy, Isaaqs from Somalia, close to and equidistant between 'ruw' (no rebellion reported then small insurgency then war) and 'MA' ('missing value', followed by 'no violent protest'), tried to liberate their clan territory against the state in the 1980s at the expense of tens of thousands of civilians killed (Litvinoff, 1997: 454). Although Isaaqs did not experience the sequence 'AFA', they are located close to it: this comes from the statistical association of 'AFA' ('none reported' followed by 'local rebellions, armed attempts to seize power in a locale' followed by 'none reported') with the other sequences containing insurgency, through the other minority groups. Crushed tribal uprisings and constant rural agitation in the 1950s and continuing resentment associated with constant migration to cities led Berbers from Morocco to be located at the lower right, close to 'AFA' and 'ru', which these Berbers experienced.

Along the upper side of Axis 2, toward sustained verbal opposition (b) and demonstrations, (d) accompanied by rising political banditry and terrorism, we find Western democracies: USA, France, Spain, Italy and Switzerland. For example, the Jurassians formed a militant separatist movement in the 1960s and 1970s which resorted to arms to protest against the Swiss–German-speaking Protestant bureaucracy (Litvinoff, 1997: 182). The Hispanics from the USA joined in a protest movement in the 1960s and, more recently, against urban poverty and discrimination (Litvinoff, 1997: 34). Close to these

Figure 4. Minorities in Axes 3 and 4



A few sequences of conflict are left to help the superimposition with Figure 3. Nonviolent protest: a, 'none reported'; b, 'verbal opposition'; c, 'political organizing activity on a substantial scale'; d, 'a few demonstrations or strikes'; e, 'a number of demonstrations or strikes'; f, 'major demonstrations'; m, 'missing value'. Violent protest: A, 'none reported'; B, 'scattered acts of sabotage'; C, 'limited rioting'; D, 'substantial rioting'; E, 'serious and widespread rioting'; F, 'local rebellions – armed attempts to seize power in a locale'; M, 'missing value'. Rebellion: r, 'none reported'; s, 'political banditry'; t, 'campaigns of terrorism'; u, 'small-scale insurgency'; v, 'large-scale insurgency'; w, 'protracted civil war'; z, 'missing value'.

groups, we find for example the Lozi from Zambia, resentful of the active discrimination practised by central authorities, which resulted in a Lozi secessionist movement in the mid-1990s (Litvinoff, 1997: 528); and Kashmiris from India, resentful of the Indian government for lack of economic development (Litvinoff, 1997: 566); and Merina from Madagascar, where educational and language policy issues are made 'explosive' by polarities in social class (Litvinoff, 1997: 495).

We also notice that the right-hand corner of Axis 3, the axis 'crystallizing' resistance against oppression related to discriminatory land and ownership practices, gathers several groups from India and Pakistan: Kashmiris, Tripuras, Nagas, Sikhs, Pushtuns, as well as Kazakhs and Tibetans from China. On the left-hand side of Axis 3, toward mobilization, are groups from Lebanon for example. Most of the groups from the African continent are located along the upper side of Axis 4, toward weak democracy and slight discrimination. Bates (1983) showed that competition for land, for markets and for jobs stratifies contemporary African society, and that 'the spatial diffusion of modernisation makes inevitable' that one ethnic group is more advanced than another (Bates, 1983: 159), and that frustration generated by competition creates fertile soil for conflict. On the opposite side, moving toward the lower end of Axis 4, groups from East and Southeast Asia – Hmong from Laos, Montagnards from Vietnam, Malay-Muslims from Thailand, East Timorese and Chinese from Indonesia, Indians and Kadazans Dayaks, Malaysia, Cordillera People from the Philippines, Arakenese, Shans and Mons from Burma, Chinese from Vietnam - are gathered at this lower end of Axis 4, toward high state power and medium mobilization for rebellion, significant linguistic assimilation and participation in decisionmaking. For example, Chinese from Indonesia in the past 'have suffered significant discrimination', notably after the 1965 coup, but 'their assimilation into the local communities in which they live has been government policy since the 1970s, and 'anti-Chinese policies have been muted or relaxed' (Litvinoff, 1997: 615–616).

Roads to Conflict

The right-hand side of Axis 1, showing the path toward war or rioting, shows closeness between five sets of variables: high mobilization (scoring 7 on a 0-7 scale) and mobilization for rebellion (scoring 4 on a 0-7 scale) are linked to migration stress (important migration from rural to urban and abroad), repression (restricted collectivity, restricted economic opportunities, repressive policy), specific religions (Muslims, Shi'is and Buddhists) and slight discrimination (by income, profession, residence, commerce, official positions and access to civil service). This arrangement of these five classes of determinants along the axis of war and rioting echoes the loop mechanism presented by Gurr & Moore (1997: 1081). According to these authors, repression and grievances activate mobilization which, together with grievances, triggers rebellion and this, in turn, brings about repression. Our analysis is incapable of revealing such a dynamic mechanism; however, our study does show the close statistical associations between these factors. Notably, protest and rebellion do not occur without mobilization. To state that there is a causal relationship between them is another matter; we prefer to limit our observation by saying that, from the observed minorities, these factors are likely to occur jointly, and this pattern is highly salient because it reflects most of the variance of the dataset. Religion plays an important role as observed by its location on the far right of Axis 1. This location probably is due to the fact that religion is one important determinant of group coherence, itself a factor in group mobilization (Gurr & Moore, 1997: 1083; Fox, 1999a: 304; 1999b).

Axes 3 and 4 give a more fine-grained version of discrimination, which we describe as a three-pronged star: (1) the right-hand side of Axis 3, which crystallizes rising action of the group, captures slight differences in land and property, moderate dispossession from land and from positions of power in the 1980s and serious discrimination related to land and resources in 1990-91; (2) the upper side of Axis 4 is characterized by slight discrimination related to other economic and political factors, namely income, access to higher education, organizing political activity and access to official positions; (3) cultural discrimination appears along the lower side of Axis 4, close to medium levels of state power and of democracy and to decreasing state power. Thus, discrimination plays a two-stage role: in the first order (Axis 1), it is strongly associated with mobilization and rioting and war; in the second order (Axis 3 with variance nearly equal to that of Axis 2), discrimination related to land and to positions of power, as well as lost autonomy, is associated with rising action; in the third order (Axis 4), discrimination concerning income, higher education and access to official positions is associated with war, and discrimination more specifically of social customs is clearly linked neither to rioting nor to verbal opposition. These results are complementary to the view that different forms of discrimination have different effects, notably that 'economic and social grievances and demands for greater political rights . . . were weakly but consistently correlated with magnitudes and communal protest' while 'resentments about restricted access to political positions and a collective history of lost autonomy drive separatist demands and rebellion generally' (Gurr, 1993b: 189). Our results distinguish between different types of economic discrimination (i.e. related to land or not) and suggest that protest turns to war when autonomy, income, higher education or access to official positions are at stake.

The closeness of migration distress serious migration abroad and from rural to urban - to slight differences in access to official positions both on the first principal plane (lower right-hand quadrant) and on the plane of Axes 3 and 4 (upper left-hand quadrant) and the proximity to slight differences in higher education on this plane echoes the joint effect of geographic and social mobility toward mobilization and war or rioting. In the particular case of 19thcentury France, Bonneuil & Rosental (1999) showed a strong correlation between these two forms of mobility: migrants are very likely to attain a higher-valued occupation than those who are sedentary. In the present context, we could suggest that truncated social mobility (through discriminatory access to official positions and unequal access to higher education) is a form of injustice against which people who are robbed of any hope for a better future for themselves, and particularly for their children, are sensitive to the possibility of migrating abroad or mobilizing into rioting and war. Burguière (1991: 493) similarly remarks on the relative abundance of the comparatively deprived younger generation in the outbreak of violence during the French Revolution of 1789.

Gurr & Moore (1997: 1083) concluded that 'democracy is simply a proxy for repressive behaviour' and stressed the relationship between state repression toward a minority group and the extent of ethno-rebellion. Violent ethno-political conflict was thus unlikely to develop in democracies, contrary to autocratic states or to democratic states that have not yet developed a 'dense network of institutions to channel and respond to protest'. The upper side of Axis 2 confirms that Western democracies are associated with nonviolent protest mixed with outbursts of political banditry and terrorism, excluding

more serious conflicts. Interestingly, in Figure 3, Axis 3 contrasts a pattern of no conflict ('aca'), high democracy (score of 8 on a 0-9 scale) and high state power (score of 8) in the lower left-hand quadrant, to limited rioting and insurgency, with decrease in state power, medium state power and democracy (both score 4 on a 0-9 scale), medium mobilization for rebellion, denied recognition and significant participation in decisionmaking. The coexistence of these two patterns on the lower side of Axis 4, the axis of state power and democracy, and their confrontation along Axis 3, the axis of awakening resistance, can be interpreted in the argument of Gurr (1993a) or Gurr & Moore (1997), according to which, said simply, democracy inhibits too much violent action in permitting protest, whereas democratization accompanied by decreasing state power opens the door to insurgency and rebellion.

The relatively important contributions to the principal axes of sequences like 'political banditry' followed by 'small-scale insurgency' ('su'), 'none reported' followed by 'small-scale insurgency' followed by 'large-scale insurgency' ('ruv'), or 'none reported' followed by 'small (or large)-scale insurgency' followed by 'war' ('ruw' and 'rvw') suggest that rebellion is a process that builds up over time. The same can be noticed for 'political banditry – campaigns of terrorism' ('rstr').

Axis 1 opposes medium to high and weak international diffusion of group protest, Axis 3 medium to high, Axis 4 the highest to medium low. Thus, international diffusion is generally present in all kinds of conflict structuring the dispersion of the dataset. Gurr (1993a: 91) also noted the transnational dimensions to most kinds of intrastate conflicts. However, the road from insurgency to war (below the right-hand side of Axis 1) is associated only with weak diffusion in the 1990s, so that according to Gurr and Moore (1997: 1083), if 'the occurrence of similar rebellions elsewhere in a region is hypothesized to have a positive effect on

rebellion', the causal mechanism, if any, between international diffusion and conflict is not linear.

Discussion

Through this correspondence analysis, we have attempted to decipher the statistical associations between 50 years of successions of conflicts and their accompanying political and socio-economic factors. We notably highlighted four structuring axes in terms of information (variance) provided by the dataset. The first principal axis, reflecting most of the variance, helped characterize the road to rioting and war, by providing a hierarchy of the importance, first, of mobilization, associated with (slight) discrimination, migration stress and religion and, to a lesser extent, with repression. The pattern delineated along Axis 1 corroborates the multifactorial nature of the roots of violent conflict, without however imposing a causal mechanism such as was found in Gurr & Moore (1997: 1081). It intermingles primordialist notions, such as religion, and instrumentalist ones, such as grievances, mobilization, migration stress and repression.

We also note that discrimination was split into power and land-related issues along Axis 3 with limited rioting and demonstrations; it was felt through unequal social mobility, up along Axis 4, with substantial rioting and war; and discrimination through social custom, located down Axis 4, with verbal opposition and local rebellions. We can thus agree with Fisher (1993: 120), according to whom 'distributive injustice or structural inequality combined with historically significant ethnic cleavages provides a particular focus for the frustration of basic needs and the development of protracted social conflict'. Our (sample-dependent) results, moreover, distinguish a finer structure combining different types of discrimination together with the outbreak of forms of conflict.

Moreover, the relationship between discrimination and conflict is not linear, as 'substantial differences' will contribute to none of the first four axes. This lack of mechanism between substantial discrimination and conflict has already been noted by Hobsbawm (1990: 167) in the case of Poland.

The association between geographic and social mobility together with rioting and war emerges from the upper right-hand quadrant of the plane made of Axes 3 and 4. Although this is not a first-order pattern, we strongly believe it deserves attention, for this kind of discrimination involves the future of individuals and that of their children. Social mobility has been a sensitive matter for developed countries; it appears as a legitimate claim for emerging countries as well as a strong incentive for migration or mobilization and conflict. We therefore recommend that conflict prevention policies should devote more attention to the promotion of equitable social mobility.

Finally, we confirm the presence of international diffusion of protest in a variety of different types of conflict. Several variables, such as settlement patterns (Toft, 1998), for example, did not appear to contribute to any of the four axes and thus they convey very little of the variance (we recall that all variables not contributing enough to the principal axes were erased from the graphs).

Our use of correspondence analysis has enabled us to situate each minority group on the panorama of 50 years of sequences of conflicts from 1945 to 1994. This results less in the building of a general theory, where universals would emerge (Tilly, 1997b) and from which predictions could be made, than in contributing toward a statistical description of the diversity of connections between sequences of conflicts and their historical determinants.

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Appendix: Variables Used in the Correspondence Analysis

Names in the Minorities at Risk dataset are given in parentheses.

Values for 1980

Seek greater regional autonomy? (AUTON4)

Autonomy lost (AUTONEND)

Population size (BESTPOP)

Belief (BELIEF)

Eco-classes? (CATEC)

Communal contenders (CATCC)

Religious sects (CATMS)

Indigenous peoples? (CATIN)

Group cohesion (COHEREX)

National people seeking autonomy? (CATNA)

Differential social custom (CULDIFX5)

Different urban/rural distribution

(CULDIFX6)

Emigration abroad (DEMEMIG)

Birth rate (DEMBIRTH)

Rural-to-urban migration (DEMURB)

Dispossession from land (DEMEVICT)

Inequalities in income (ECDIFX1)

Inequalities in land/property (ECDIFX2)

Inequalities in higher/technical education (ECDIFX3)

Presence in commercial activities (ECDIFX4)

Differential presence in profession (ECDIFX5)

Differential presence in official position (ECDIFX6)

Economic discrimination (ECDISX)

International diffusion of group protest in the 1970s (ISEGPRO7)

International diffusion of group protest in the 1980s (ISEGPRO8)

Different group language (LANG)

Group migration among regions

(MIGRANT)

Mobilization score (MOB80)

Score of mobilization for protest (MOBPRO80)

Score of mobilization for rebellion (MOBREB80)

Democracy score (NDEM86)

National economic growth rate (NECOGRO)

Number of points change in democracy (NDEM7586)

Number of years with significant changes in national political Institutions (NICH7586)

Population growth rate (NPOPGRO)

Change in state power (NSCO6086)

State power (state control of economic and social life) (NSCOPE86)

Number of adjoining countries with segments of the group (NUMSEGX)

Seek greater political rights (POL2)

Seek greater central participation (POL3)

Seek equal civil rights (POL4)

Seek change in officials, policies (POL5)

Access to power positions (POLDIFX1)

Access to civil service (POLDIFX2)

Recruitment to police (POLDIF3)

Right to organized political activity (POLDIFX5)

Differences in legal protection (POLDIFX6)

Political discrimination (POLDISX)

Political status (POLSTAT)

Region (REGION)

Group concentration (REG1)

Religion (RELIGS1)

Values for the 1990s

Discrimination present? (ATRISK1)

Disadvantaged from past discrimination? (ATRISK2)

Advantaged minority being challenged (ATRISK3)

Group mobilized? (ATRISK4)

Group cohesion in 1990–91 (COHESX90) Country population in 1990 (CPOP90) Group population in 1990 (POP90) Birth rate, 1990–91 (DMBIRT90) Emigration for political reasons, 1990–91 (DMEMPO90)

Disposession from land, 1990–91 (DMEVIC90)

Deteriorating health conditions, 1990–91 (DMSICK90)

Economically advantaged, 1990–91 (ECADV90)

Economically discriminated, 1990–91 (ECDIS90)

Diffuse economic concerns, 1990–91 (ECRIG11)

Share of public funds, 1990–91 (ECRIG21) Economic opportunities, 1990–91 (ECRIG31)

Working conditions, 1990–91 (ECRIG41) Land, jobs, resources, 1990–91 (ECRIG51) Groups spatial distribution (GROUPCON) Intercommunal violence since 1990 (INTERCON)

Intracommunal violence since 1990 (INTRACON)

International diffusion of group protest in 1990s (ISEGPRO9)

Political support from foreign governments, 1990–91 (ISPOL90) Political discrimination (POLDIS90)
Diffuse political grievances, 1990–91
(POLRIG11)
Communal rights, 1990–91 (POLRIG21)
Participation in decision-making 1990–91
(POLRIG31)

Equal civil rights, 1990–91 (POLRIG41) Change in policy, 1990–91 (POLRIG51) Other political grievances, 1990–91 (POLRIG61)

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