DATASETS FOR THE ANALYSIS OF CONFLICT MANAGEMENT:
THE UPPSALA CONFLICT DATA PROGRAM, COSIMO AND
THE MEDIATION PROJECT

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While not all scholars in the field of conflict and peace research would agree that large-N, quantitative efforts can provide better insights than case-oriented, even ‘anthropologic’ analysis (cf. Journal of Peace Research 1972), a significant number of datasets in this field is today available for the scientific community.

This essay aims at assessing three of the most relevant projects that have been developed to date for the study of conflict management: the Uppsala Conflict Data Program, COSIMO and the Mediation Project. Part I, after a brief outline of the historical development of quantitative studies in the field of peace research, will introduce the general features of the main datasets produced by the abovementioned projects. Part II will offer a comparative assessment of the research designs of these datasets: it will first introduce the main diatribes concerning the definition of ‘conflict’ and ‘dispute’ and the main differences among these datasets on the operationalisation of these concepts; it will then detail the approaches adopted by each dataset in relation to six crucial variables for the analysis of conflicts and conflict management, which identify the main actors and the main disputed issues in each conflict, its intensity, the role of mediators, a range of potential types of conflict termination and the durability of such terminations. Part III, finally, will discuss some potential dimensions for improvement: it will suggest - drawing from the author’s current research interests (cf. Pinfari 2007) – that more attention should be paid to the concepts of ‘peace process’ and mutually hurting stalemate, but, first and foremost, it will stress the importance of improving the dialogue across these quantitative projects.

The main aim of this paper is, thus, to highlight which conflicts we can see through these quantitative projects, and how we see them. In line with the author’s qualitative research background, but also because of the inescapable degree of subjectivity involved in much of the coding processes that take place in the field, the paper will pay comparatively less attention to assessing the reliability and replicability of each dataset than to discussing which research designs proposes the more theoretically rigorous and methodologically coherent approaches to a series of crucial dimensions for the analysis of contemporary conflicts.
1.1 A historical overview

Despite some pioneering material being published prior to the end of World War II (such as Lewis Richardson’s ‘Statistics of Deadly Quarrels’ and Quincy Wright’s ‘Wars in Modern Civilisation’ statistical tables attached to his monumental ‘A Study of War’), it was not until the early 1970s that the quantitative study of conflicts acquired a defined status in international relations and comparative politics. This was mostly due to the work of David Singer, who co-authored with Melvin Small in 1972 the seminal volume ‘The Wages of War 1816-1965: A Statistical Handbook’ which laid the foundations for what is still considered as the single most authoritative source of data on international conflicts: the Correlates of War (COW) project.

With the passing of years, a wide range of similar comparative sources had been developed by American and European academic institutions, typically in coincidence with the establishment of research centres explicitly dedicated to the comparative study of internal and international violence. Amongst the research programs belonging to this ‘extended family’ which were developed in the 1980s and which achieved the most relevant and lasting impact on the scientific community, worth of mentioning are the Minorities at Risk (MAR) and the Uppsala Conflict Data Program (UCDP). The former, first developed by Ted Robert Gurr in 1986 and based at the University of Maryland’s Center for International Development and Conflict Management (CIDCM) since 1988, today provides comprehensive qualitative and quantitative information on 284 politically-active minority groups which suffer from some form of discrimination, in many cases escalated into some form of violence. The latter, more specifically focused on contemporary wars and conflicts, has been developed since the mid-1980s at the Department of Peace and Conflict Research of the Uppsala University (Sweden), steered by a wide group of researchers led by Prof. Peter Wallensteen. The UCDP has been publishing data in the Stockholm International Peace Research Institute (SIPRI) Yearbook since 1988, and yearly summaries in the Oslo-based Journal of Peace Research since 1993 (last paper published: Harbom, Högladh and Wallensteen 2006).
COW and UCDP are today often considered the most trustworthy datasets for the study of contemporary warfare (cf. Cunningham 2006). Their fame derives in particular by the vastness and comprehensiveness of their empirical basis, which, with the passing of time, has caused both projects to spill over into a cluster of partially-overlapping databases. COW today proposes thirteen datasets, aimed at coding a wide range of war-related dynamics spanning from bilateral trade to IGOs to interstate disputes. UCDP is currently organized around four main projects (Armed Conflict Database; Prevention of Violent Conflicts; Human Security; Peace Agreements Projects) and contributes to at least an equal number of shared projects with other institutions. This decentralization of research work seems to be due not just to the need to cope with the inherent complexities of international warfare, but also (mainly) to the natural, incremental growth in scope of these projects over the last two decades, as more research and financial resources became gradually available.

COW, MAR and UCDP certainly do not stand alone in the field. An increasing amount of quantitative databases, often offered as replication datasets for specific papers and sometimes further developed into full-fledged research projects, aim at shedding light on a vast range of variables and factors related to contemporary conflicts. In the following analysis, two of them will receive particular attention: the COSIMO project, developed by the Heidelberg Institute for International Conflict Research (HIIK) in the late ‘90s, and Jacob Bercovitch’s Mediation Project (University of Canterbury, NZ), initially conceived as replication dataset but subsequently refined to the point of becoming one of the major sources of conflict resolution data. Both of them were developed and made public after the end of the Cold War, have a much simpler structure than the COW and UCDP programs (being constituted of a single dataset) and mainly aim at redressing a series of shortcomings in the main datasets produced by the scientific community and at adding new dimensions and variables to the study of contemporary conflicts.

1.2 UCDP, COSIMO and the Mediation Project: a general outline

UCDP has produced to date three main datasets. The hallmark dataset is denominated ‘UCDP/PRIO Armed Conflict dataset;’ the most recent version (v. 4), updated in 2007, includes conflicts from 1946 to 2006. It features 1883 units of analysis and analyses 251
conflicts; each unit of analysis consists of one specific year within the conflict analysed. Each unit of analysis is coded according to 25 variables. A large number of them (21) is devoted to the identification of the conflict (conflict identifier, location and regional identifier according to conventional COW regional codes, dates when the conflict began and ended, name of the territory disputed) and to the specification of the actors involved (side A, side B, states supporting either side with troops, and country codes for each of these actors according to Gleditsch & Ward 1999). Four variables are designed to describe a range of relevant characteristics of these conflicts: the ‘conflict issue,’ the ‘level of intensity’ and of ‘cumulative intensity,’ and the ‘conflict type.’

The UCDP ‘Conflict Termination’ dataset, of which only one version has been produced so far (1.2006), includes a single unit of analysis for each conflict, but subdivides the unit of analysis into ‘episodes’ – defined by starting and ending dates – and proposes for each episode a dummy variable (‘conflict terminated’) to define ‘if the year coded was the last of activity,’ and a categorical variable that identifies a range of potential ‘types of termination.’ The UCDP ‘Peace Agreement’ dataset, which concentrates exclusively on the post-Cold War period (1989-2006), codes 149 peace agreements according to a set of (mostly dummy) variables that describe the agreement and identifies the actors involved in it, specify the content of the agreement and the issues regulated in it, and proposes a range of measures of the durability of each peace settlement.

COSIMO 1.3 dataset includes 692 units of analysis, related to 297 conflicts which took place between 1942 and 1999. Each unit of analysis consists of a specific phase within each conflict, typically defined on the basis of specific levels of intensity, which can last for one year or more. The units of analysis are coded according to 25 variables. The proportion of variables used to identify the participants and time span of each conflict (9) is much lower than in the case of the UCDP armed conflict dataset, and most of the variables are dedicated to the analysis of the characteristics of the conflict and of the behavior of the parties involved. These include indicators for the ‘intensity’ of a conflict, for the ‘issues’ involved, for the ‘types of political systems’ of the parties involved in the conflict, for their ‘economic and political stage of development,’ for the positioning of the conflict within the spheres of influence of superpowers, for the behavior of mediators, for the number of battle deaths, for the type of conflict termination and for the reaction of surrounding states to the outcome of the conflict.
Jacob Bercovich’s ‘Mediation Project’ has produced a dataset called ‘International Conflict Management’ (ICM) dataset which includes 3207 units of analysis related to 295 international disputes which took place between 1945 and 1995. Each unit of analysis identifies a specific episode of conflict management within a dispute. Each episode is coded according to 195 variables, organized in three sub-sets of similar breadth: ‘dispute variables’ specify, among other things, the duration, intensity, number and kinds of disputed issues and number and identities of parties involved in it; ‘party variables’ define the political and economic characteristics of the actors involved in the conflict; ‘conflict management variables’ outline the time span in which the specific episode of mediation coded was taking place, the types of mediation strategies employed, the status and authority of the mediators, and the outcomes of the intervention. ‘Dispute’ and ‘party’ variables are kept constant for all the episodes that belong to the same dispute, whereas ‘conflict management’ variables are coded in relation to each specific unit of analysis.

All these projects make their data available through the websites of their home institutions (see appendix 1). While UCDP datasets are regularly updated – and, indeed, the website of the project has been recently re-designed to make some qualitative features of the project more easily available to the web surfers –, the COSIMO website features only the ‘older’ version of the dataset (1.3), whereas the newer version (COSIMO 2/CONIS) is protected by a moratorium and, to our best knowledge, the data are not released even on a personal basis.¹ The Mediation Project is defined as an ‘ongoing project’ but in fact the last version of the dataset, compiled in 1999, has not been updated since. All projects produce synopsis / rationales of various lengths and detailed codebooks, which are easily downloadable from the same websites.

The material produced by these datasets is in general conceived to be basis for statistical analysis. However, while the ICM dataset is provided in an SPSS file and all its variables are coded as dummy or categorical variables, the datasets of UCDP and especially COSIMO (both producing Excel spreadsheets) are conceived both as quantitative datasets and as qualitative databases – therefore, some variables include qualitative descriptions and may need some editing or further coding before being

¹ Email exchange with the responsible of the COSIMO project (11-18 October 2007).
transferred into statistical programs. No aggregate index is included in any of the dataset proposed by these projects.

PART II – DEFINITIONS, PROJECT DESIGNS AND OPERATIONALISATION: A COMPARATIVE ASSESSMENT

The reasons for choosing these three datasets, among the wide range of data collection project launched in particular since the end of the Cold War\(^2\), lie in the apparent similarities among their empirical realms – they all code a similar number of conflicts which took place between the World War II and either the mid-1990s or the beginning of the new millennium – and, most importantly, among their stated missions: to analyse the impact of conflict management on contemporary conflicts. The concept of ‘conflict management’ is understood here in its most inclusive meaning, which includes attempts either to put an end – either by ‘resolution’ or ‘settlement’\(^3\) – to a specific conflict, or at least to ‘manage’ it – i.e. ‘to maximize the total gain to both parties, no matter what the distributional outcome’ (Boulding 1978, 344).

All three projects explicitly share this research agenda. One of the principal aims of UCDP, outlined in the general overview of the project, is to ‘conduct theoretically and empirically based analyses of armed conflict: its causes, escalation, spread, prevention and resolution’\(^4\). Similarly, the designers of the COSIMO dataset point out that ‘noting and analyzing cases in which crisis management succeeded in preventing outbreaks of violence […] provides for a comprehensive and intelligent view of the world and its conflicts.’\(^5\) The codebook of Bercovitch’s ‘conflict management dataset’ is predictably

\(^2\) Others projects which have been developed with similar aims in the last decade include the Issue Correlates of War, MIT Cascon System, the IISS Armed Force and the Political Instability Task Force (PITK) datasets.

\(^3\) ‘The resolution approach prescribes an outcome based on mutual problem-sharing in which the conflicting parties cooperate to redefine their conflict and their relationship. […] The settlement approach, in contrast, prescribes an outcome built on agreement reached through negotiation and bargaining.’ (Bloomfield 1995, 152 – emphasis added).

\(^4\) ‘Uppsala Conflict Data Program — an Overview’ <http://www.pcr.uu.se/research/UCDP/ucdp_projects/program_overview.htm>. All websites have been accessed on 31 March 2008.

even more explicit, stating plainly that ‘the central task of this research project has been
the compilation of an extensive original dataset of international conflict management
events.’6

Yet, despite these similarities, these datasets differ in many ways. The differences in the
end dates of the datasets imply that some of them (in particular the Mediation Project)
are not fit for analyzing the most recent developments in the post-Cold War period. They
propose different conceptualizations and operationalisations for some core variables for
the analysis of conflicts and conflict management, as we will explain in paragraphs 2.2
and 2.3. Most of all, however, they do differ in the way they define the very basic macro-
phenomenon that they aim at exploring: the concept of ‘conflict.’

2.1 The Conflicts We See: terminological and methodological diatribes

What appears to be the main substantive difference in the field of quantitative research
on conflicts is the gulf between UCDP’s current use of the term ‘conflict’ and the concept
of ‘dispute’ as defined by COW’s most recent developments. A ‘conflict’ is defined by the
general UCDP codebooks as ‘a contested incompatibility that concerns government
and/or territory where the use of armed force between two parties, of which at least one
is the government of a state, results in at least 25 battle-related deaths in one calendar
year.’ UCDP often specifies that what the project aims at observing, thus, are armed
conflicts – ‘minor’ ones if involve at least 25 battle-related deaths per year, proper ‘wars’
if they involve more than 1000 battle-related deaths per year. In this sense, UCDP is
using the traditional threshold of quantitative researches on warfare (1000 battle-related
deaths per year as main theoretical boundary for claiming that we are in presence of a
war) and applies a further subdivision within the range of conflicts that feature less than
1000. The category of ‘intermediate’ conflicts – featuring a number of battle-related
deaths comprised between 25 and 1000 per year but passing on aggregate the 1000-
threshold – was used up to 2005, but has been eliminated afterwards.

6 ‘Official Codebook of the International Conflict Management Dataset (1999.dat),’ compiled by Allison
the rest of the analysis, when no references are included the quotes are to be referenced to the codebooks
of each project (see appendix 1).
However, most researchers in the field of peace and conflict studies would agree that, in principle, conflicts may be ‘serious’ before becoming ‘armed.’ The COW project uses the term ‘dispute’ to encompass ‘conflicts in which one or more states threaten, display, or use force against one or more other states.’ In this sense, the concept of dispute is less connotated than the UCDP’s definition of conflict, and provides the ground for a wider exploration of the phases preceding and following a specific armed confrontation, or for considering instances of international confrontation – such as international crises – which may not reach the level of open violence. The ICMD employs in its analysis the concept of ‘dispute’ with a meaning very close to what outlined by the COW project: while starting up by setting a 100-fatalties threshold for identifying which conflict should be included in the dataset, in the final version of the project ‘no minimum threshold is [...] placed on the number of fatalities needed to qualify as a legitimate conflict. This approach includes a broad scope of conflicts that pose a grave threat to international peace and security and had political effects and ramifications equal to that of full warfare.’

What is rather unfortunate, however, is that the reasonable ambition to explore non-violent confrontations has spilled from a diatribe on the substance of the empirical phenomena to be observed for fully understanding contemporary warfare over to a terminological quarrel on the very meaning of the idea of ‘conflict.’ The COSIMO project, in fact, while declaring its intention to analyse ‘conflicts,’ has widened the definition of conflict to make it overlap with what COW and ICMD define as ‘disputes’ - any ‘clashes of interest (differences of position) concerning national values (territory, secession, decolonization, autonomy, system/ideology, national power, regional predominance, international power, resources, other). These clashes are of a certain duration and scope, involving at least two parties (organized groups, states, groups of states, organizations of states) determined to pursue their interests and win their cases.’ This confusion in terms is hardly beneficial for the field, since the researcher not just has to find his or her way through a significant variety of terms and concepts, but may also have to cope with such vertical stratifications of meanings within the same concept – something which may reasonably scare anyone who first approaches these datasets.

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7 Militarized Interstate Disputes (v. 3.10), ‘Overview’ <http://www.correlatesofwar.org/>.
8 ‘Official Codebook of ICMD’ [Rationale], cit., p. 3.
These different approaches to the idea of ‘conflict’ and ‘dispute’ intuitively subsume different operational processes and, thus, different potential methodological biases. The more conventional, quantitative approach of UCDP is dependent on the correct identification of the yearly number of battle-related deaths. While no issue may exist with extremely violent conflicts which largely pass the 1000-deaths threshold, the identification of ‘minor’ conflicts does pose a series of theoretical and practical problems. Even if we chose to disregard the problems inherent to trying to draw a line in the sand to distinguish which deaths are ‘battle-related’ and which are not (cf. Lacina and Gleditsch 2005, 147-150; Lacina 2006, 277-278), the main problematic issue concerns the significant discrepancies that obviously exist between different assessments of fatalities, in particular during civil and ethnic wars. The UCDP ‘definitions’ webpage quite enigmatically states that its ‘general rule for counting battle-related deaths is moderation,’ fails to indicate explicitly which primary sources have been used in each case and generally leaves to the single coders the task to decide which figures can be considered reliable enough to serve as basis for the coding. However, considering that the UCDP may rely also on what is today the most detailed bulk of empirical research on battle-deaths (the ‘Uppsala/PRIO Armed Conflict Dataset’ elaborated by Bethany Lacina⁹) which discusses in depth a wide range of primary sources, we may think that the coding choices done by the UCDP are not less reliable than the average of similar studies in the field.

The approach chosen by COSIMO and the Mediation Project for the operationalisation of its research variables and for guiding the coding does pose a larger set of methodological problems, which would require a much more detailed discussion than what is allowed by the scope of this paper. In general, the qualitative procedure adopted by these projects for selecting the disputes or conflicts that are included in their databases involves two steps. They both start by reviewing the material included in existing secondary sources, and both codebooks provide rather lengthy lists of datasets which have been taken into account – 39 datasets for COSIMO, 28 for the Mediation Project. They then operate a series of choices about which instances satisfy the criteria

⁹ <http://new.prio.no/CSCW-Datasets/Data-on-Armed-Conflict/Battle-Deaths-Data2/Battle-Deaths-Data>. In particular, the pdf file ‘Documentation of Coding Decisions: UCDP/PRIO Data’ discusses in depth (in almost 400 pages) the reliability of different battle-deaths estimates for each conflict.
established by their operational definitions of ‘conflict.’ However, while both databases claim to have used also primary sources to triangulate the data\textsuperscript{10}, the ICM dataset codebook provides a more satisfactory explanation of how such triangulations have been implemented by explaining in detail how each component of its ‘operational definition of a conflict case’ has been operationalised as a guideline to approaching primary sources; by contrast, COSIMO provides a general operational definition but fails to explain how this has guided the selection of the conflict cases. Similar qualitative triangulations also are implemented by both projects for the coding of each research variable, although guided by much fuzzier operational definitions. In no case the names or identities of the coders are specified, nor the training that they have received.

2.1 How We See Conflicts: actors, issues, and intensity

The terminological confusion in the definition of the *explanandum* of these projects is faced by an increased homogeneity in defining what kind of actors need to be present for an episode of violence to be classified as ‘dispute’ or ‘conflict.’ The real fault-line, in this regard, separates recent projects developed since the late 1980s – such as the UCDP – and those conceived in the Cold War years. While Quincy Wright, or also David Singer, would have found no major crack in the Westphalian paradigm when they were compiling their tables, today no serious researcher in the field of peace and conflict studies can disregard the relevance of intra-state or trans-state violence in the international scene. The definition of armed conflict proposed by UCDP states explicitly that ‘the use of armed force’ should be ‘between two parties, of which at least one is the government of a state;’ COSIMO – as well as the Mediation Project - mentions only that each conflict should involve ‘at least two parties (organized groups, states, groups of states, organizations of states).’ Both these definitions loosen the requirements on the nature of these actors (although UCDP still requires at least one of them to be a government of a state), while at the same time stressing the importance of detecting in a

\textsuperscript{10} The sources used by the ICM dataset include the CIA World Factbook, Keesing’s Contemporary Archives and Keesing’s Record of World Events, the London Times and New York Times News reports, Reuters Online News Service and the Statemen’s Year Book International Organisation and State facts; those used by COSIMO are mainly newspapers in German language – Archiv der Gegenwart, Fischer Weltalmanach, Neue Zürcher Zeitung, Tageszeitung, Frankfurter Rundschau – plus the International Herald Tribune.
conflict at least two groups of opposing parties that can be described as opposing sides, and that can be attributed specific behaviors and actions. This strict division in sides often becomes rather artificial, or at least difficult to operationalise, when we are in the presence of ethnic or inter-communal wars: for instance, the UCDP ‘armed conflicts’ dataset identifies the ‘SideB’ for a significant part of the Israeli-Palestinian conflict generically as ‘Palestinian Insurgents’ or ‘Non PLO groups; PLO groups;’ similarly, the ‘SideB’ in the 1980s Lebanese War is simply identified as ‘Various organisations.’ On balance, however, the methodological and conceptual advantages of this approach seem to outweigh its faults: setting a threshold to the limited diversity of opposing parties within a conflict allows the researcher to follow a non-state-centric approach to international warfare, but also to organize each unit of analysis around a rather strict binary opposition, which may resemble the traditional bilateral inter-state oppositions of the Westphalian system, but which is also needed in practice to create some reasonable comparability among cases in large-N datasets.

In a post-Westphalian era (Linklater 1998), the types of disputed issues tend to overcome the identity of the actors as preferred cleavage identified by scholars who want to draw lines in the sand to differentiate among different types of conflicts (cf. Diehl 1992). While the UCDP still provides a variable named ‘conflict type’ which somehow reproduces COW’s distinction between ‘inter-, extra- and intra-state wars,’ its datasets are explicitly organized around two different types of conflict issues. The concept of ‘conflict issue,’ also named ‘incompatibility,’ is defined in rather redundant terms as ‘the general incompatible positions’ of the parties involved in the conflict,’ which can concern either ‘government’ or ‘territory’ or both. The former are defined as ‘incompatibilities concerning type of political system, the replacement of the central government or the change of its composition,’ the latter as ‘incompatibilities concerning the status of a specified territory, e.g. the change of the state in control of a certain territory (interstate conflict), secession or autonomy (intrastate conflict).’ The possibility of a war being

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11 This variable codes each conflict according to the four categories of ‘extrasystemic,’ ‘interstate,’ ‘internal’ and ‘internationalized internal’ conflicts. *Extrasystemic* armed conflict occurs between a state and a non-state group outside its own territory; *interstate* armed conflict occurs between two or more states; *internal* armed conflict occurs between the government of a state and one or more internal opposition group(s) without intervention from other states; *internationalized internal* armed conflict occurs between the government of a state and one or more internal opposition group(s) with intervention from other states (secondary parties) on one or both sides.
described as including both governmental and territorial incompatibilities has been introduced in recent versions of the dataset.

While the use of two catch-all categories may appear in theory particularly attractive, a strict use of the ‘governmental’-‘territorial’ polarity seem to require a too clear-cut simplification of real-world conflicts, in particular because to date UCDP authors have used the possibility of identifying conflicts as belonging to both categories very sparingly – indeed, for only three conflict out of 251: two civil wars involving significant secessionist forces (the conflict between China and Taiwan and the 1970s Yemenite Civil War) and an interstate war generated by territorial diatribes but also featuring a relevant ideological cleavage (the Iran-Iraq conflict in the 1980s).

COSIMO provides a more fine-grained classification for conflict issues, distinguishing – in version 1.3 of the dataset – between eight categories: (1) territory, borders, sea borders; (2) decolonization, national independence; (3) ethnic, religious or regional autonomy; (4) ideology, system; (5) internal power; (6) international power; (7) resources; (8) others. According to the authors of the project, these eight categories can be aggregated into three groups that characterize the conflict by the objectives in dispute: issues 2, 5 and 6 pertain the realm of ‘international power,’ issues 3 and 4 ‘national power,’ and issues 1 and 7 ‘material or territorial resources.’ Any combination of these issues may be present in a single conflict or phase of conflict. While no clear operational definition of these concepts is provided, in general the combination between a range of seven plus one issues and three aggregate variables looks more attractive than the classification provided by UCDP. It is not sure, however, if this structure will survive in the most recent version of the database, which will not only include a new conflict item (‘Regional Predominance’) but, most worryingly, will also allow for specifying, in particular within ‘resources,’ a range of sub-issues that can help to identify more precisely the claims of the actors involved in the conflict (e.g. oil, water, diamonds). This development may indeed spoil the reasonable and interesting balance between connotation and denotation found within the present version of the dataset.

A third relevant variable that helps identifying the characteristics of a conflict is its intensity. As we have noted, the ‘level of intensity’ in a conflict is defined by UCDP using the familiar 1000 battle-related deaths threshold per year to determine whether a conflict can be considered as a ‘war,’ whereas if the number of battle-related deaths per year lies between 25 and 1000 the conflict would be defined as a ‘minor’ one. The ‘Armed Conflicts’ dataset also proposes a dummy variable denominated ‘cumulative intensity’ that signals ‘whether the conflict since the onset has exceeded 1000 battle-related deaths’ and is aimed at capturing ‘the temporal dimension of the conflict.’ The quantitative approach based on battle-deaths used by UCDP contrasts with the inherently qualitative judgment focused on levels of violence preferred by COSIMO. The authors of COSIMO argue that ‘all violent conflicts evolve from non-violent conflicts. Further, violent conflicts are not terminated through ‘sudden peace.’ Instead, tensions are reduced gradually and this process will have its ups and downs.’ They adopt a typology which includes four level of violence: ‘latent conflict’ (completely nonviolent), ‘crisis’ (mostly nonviolent), ‘severe crisis’ (sporadic, irregular use of force, ‘war-in-sight’ crisis) and ‘war’ (systematic, collective use of force by regular troops). In the latest version of the dataset split the concept of ‘crisis’ into non-violent ‘manifest conflict’ (which includes the use of measures that are located in the preliminary stage to violent force) and a now explicitly violent ‘crisis’ (‘a tense situation in which at least one of the parties uses violent force in sporadic incidents’) and a series of examples is provided for each category to facilitate the operationalisation. COSIMO does also include two rough estimates of the maximum and minimum number of victims associated to the conflict under scrutiny as quantitative indicators of the intensity of fights.

In general, quantitative and qualitative indicators seem to code different empirical phenomena: qualitative indicators typically describe the types of hostile actions undertaken by the parties, whereas the quantitative ones quantify their impact. Therefore, while the choice of quantitative or qualitative indicators for conflict intensity may be partly related to the general research design of each project – as the former are clearly not helpful for classifying non-violent disputes –, for the analysis of armed conflict both types of indicators can (and, arguably, should) coexist to give a comprehensive overlook on the characteristics of a conflict. COSIMO has thus a point in including both quantitative and qualitative indicators. Mediation Project is however even more convincing in the choice of a quantitative-qualitative combination of indicators: it includes
a quantitative categorical indicator for fatalities and two qualitative indicators for ‘hostility level’ (parallel to the levels of violence used by COSIMO) and, interestingly, an indicator for the most hostile type of action (named ‘highest action’) that has been undertaken by the parties. Such multiplication of indicators for conflict intensity should indeed be considered as a welcome feature in the analysis of conflicts, as the severity of a dispute is rightly considered as one of the crucial issues that often elude clear-cut statistical classifications.

2.3 How We See Conflict Management: mediation, conflict termination and durability

The reason why these datasets may look particularly interesting in the eyes of an international relations researcher, as we have mentioned before, lies not just in their post-Westphalian approach to the analysis of contemporary conflicts, but also in their explicit ambition to research the effectiveness of potential strategies of conflict prevention, management and resolution.

COSIMO and the Mediation Project adopt rather similar approaches to tackle this research agenda: they include a range of variables which identify both the mediation efforts of third parties and the kind of ‘termination’ of the specific unit of analysis (i.e. of a specific phase of the conflict) – thus enabling the researcher to explore potential correlations between certain strategies and specific outcomes, everything else being equal. UCDP, on the contrary, divides this analysis into two separate logical steps. On the one hand, it provides a dataset for the analysis of ‘conflict termination’ alone, which simply describes the final outcome of specific episodes of conflictuality without coding the behavior of external actors. This is supplemented by a second dataset which considers those conflicts which produced specific peace agreements, and for each agreement it does now provide a list of the third parties involved and a description of their behavior, together with a detailed coding of the duration of a specific negotiated settlement. This fragmented structure significantly hinders the explanatory power of the UCDP datasets in this field; moreover, the former set of variables (external intervention) is presented in a discursive form and has not been coded to date, and thus cannot be homogeneously compared with the structure of the other datasets.
The solution chosen by COSIMO and the Mediation Project to analyse the role and impact of external mediation is organized around two sets of variables. First, both datasets try to identify who acted as ‘mediator’ in a particular conflict. Both COSIMO and the Mediation Project have no restriction on the type of actor (a state, an IGO, and NGO, even an individual) that may have mediated in a dispute. However, while the Mediation Project would consider the concept of ‘third parties’ and of ‘mediators’ as synonyms, COSIMO (as well as of UCDP) rightly allows for differentiating among four different roles that actors may play in a conflict – not just being part of the two main sides or acting as mediators, but also intervening as ‘external participants’ who explicitly take sides in favor of one of the parties directly involved in a dispute.

When it comes to the second step of the analysis – the identification of the behavior / strategies of the mediator - the Mediation Project does make up for its relative imprecision in distinguishing between the real aim of the external intervention by providing a highly detailed series of dummy or categorical variables to classify the context and type of intervention of the external actors. The dataset codes each unit of analysis (i.e. each ‘episode of conflict management’) according to 47 conflict management variables, including an analysis of the relations between the mediator and the parties involved, of the types and effectiveness of previous attempts of conflict management, of the rank and experience of the mediator, of the primary and supplementary strategies adopted. COSIMO, on the other hand, fails to provide any substantive analysis of the behavior of the listed mediators by choosing to propose only two general categorical variables which describe the behavior of neighbors and of great powers, actors which only in some cases are also indicated as mediators.

All three datasets, however, provide some form of quantitative coding for the outcome of a specific episode of conflictuality – for what is usually labeled ‘conflict termination.’ COSIMO, in this respect, distinguishes between ‘resolution’ – a general depiction of the status quo at the end of the episode – and the ‘outcome’ – a more detailed outline of the specific ‘fruits’ borne by the phase of conflict under scrutiny. The former variable allows for 11 potential types of conflict resolution¹³, while the latter includes 23 potential outcomes.

¹³ (1) Consensual resolution; (2) consensual resolution with mediation; (3) authoritative resolution, e.g. with arbitration or court decisions; (4) ‘negotiated resolution’ dictated by third party; (5) ‘non-resolution,’ passive
‘territorial,’ ‘military’ or ‘political’ outcomes. The Mediation Project codes both the final outcome of the dispute and the outcome of the specific episode of conflict management which is analysed by the unit of analysis. Both variables are coded using six categories.

Interestingly, however, the Mediation Project provides also some indicators for a different yet related dimension of conflict termination: the durability of these conflict outcomes. The concept of durability, completely ignored by COSIMO, is arguably crucial to determine the success of a specific episode of conflict mediation or resolution (cf. Page Fortna 2003). The Mediation Project tries to measure it by establishing whether a specific dispute has generically ‘reemerged’ and how many weeks (from one to eight or more) the settlement reached by the mediation effort has lasted. It is the UCDP which, together with an analysis of types of conflict termination which uses a range of six variables not dissimilar from those used by the Mediation Project\(^{14}\), provides in the ‘Peace Agreements’ dataset what is arguably the most comprehensive set of indicators for measuring the durability of negotiated outcomes. The concept of duration is here operationalised in four indicators. The indicator ‘Vi05’ is a dummy variable describing whether ‘violence with the same parties restarted within 5 years’ (long-term success); ‘Vi01’ is a categorical variable signaling whether the agreement ‘terminated the whole conflict the following year, signed an active year’ (short-term success); ‘termdur’ indicates the ‘number of years since last activity;’ ‘noconf05’ is another dummy variable specifying if the conflict was ‘still terminated as of 2005.’ With ‘termination of conflict’ the UCDP Peace Agreements dataset implies that in the time span analysed in no single year more than 25 people died in conflict-related violence.

In general, however, considering the complexity in design and the insufficient precision in the identification of mediators and their strategies of the UCDP datasets, and the absence of a measurement of the durability of the conflict outcomes in COSIMO, the Mediation Project arguably emerges from this analysis as the single dataset which

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\(^{14}\) (1) Peace agreement; (2) ceasefire agreement with conflict regulation; (3) ceasefire agreement; (4) victory; (5) no or low activity; (6) others.
proposes the most coherent and comprehensive set of variables for the analysis of conflict management and resolution.

PART III – WHAT WE DO NOT (BUT WE SHOULD) SEE: RANGE FOR IMPROVEMENT

Our discussion so far has laid down a general framework for assessing the theoretical scope and empirical relevance of some datasets for the study of contemporary warfare. Some potential criticisms to this framework have already implicitly or explicitly emerged in the previous paragraphs, but the extent to which they affect the explanatory and descriptive potential of this field of quantitative datasets may not be clear yet. So, what are we missing? What these datasets does not allow us to see?

3.1 The ‘big picture’

First of all, it should be clear from our analysis so far that we not see the ‘big picture.’ This field of quantitative research remains extremely fragmented. The problem of fragmentation and incommensurability among different research projects is by no means new, although everything seems to suggest that, with the flourishing of the field of peace research that we have been witnessing in the last 15 years, things will hardly get better in the near future.

In the early 1980s Gochman and Maoz (1984, 586) observed that scholars in this field disagree first of all on their ‘conceptual and operational definitions, selection criteria, and assumptions about the nature of international conflict and the forces that produce it,’ but are also kept apart by what they call ‘historical parochialism’ – that is, by the tendency of considering specific historical periods as qualitatively unique and, thus, to deny the possibility of creating homogeneous datasets for long periods of time. This competitive attitude results in what is arguably the main problem from which the quantitative study of conflicts is currently suffering: the tendency to generate ‘non-cumulative findings.’

While in some sense the analysis and the conclusions of Gochman and Maoz in general still hold today, as proved by the abovementioned horizontal growth of the field after the
end of the Cold War and by the limited number of cooperative efforts currently undertaken, some interesting developments are under way. UCDP, COSIMO and the Mediation Project, for instance, all refer to COW country codes for the identification of the actors involved in each conflict. On a more informal level, the overwhelming convergence of the field of peace research around a common research agenda (which includes taking into account the role of non-state actors, research on the impact of specific disputed issues on conflict resolution and the analysis of conflict management and mediation) has facilitated a certain homologation of the quantitative projects around a comparable set of variables.

Yet, much still needs to be done. The very convergence of research paths in the field of peace research that has constituted the basis for this paper should suggest that the failure to refer to a minimum set of agreed-on definitions and a higher commitment towards the use of standardized codes that can increase the dialogue across datasets is hardly justifiable if not on the basis of a short-sighted, parochialistic research attitude. The scientific community may disagree on whether ‘armed conflicts’ and ‘disputes’ can be analysed using the same research variables, but it can be reasonable to expect a certain degree of consistency in the definition and operationalisation of specific concepts – in particular the very idea of ‘conflict’ – and, most of all, the use of a standardized coding system for the identification of the disputes / conflicts coded within each dataset.

The first issue has already been mentioned in the second paragraph: if some form of conceptual simplification should take place in the field, the first step should be trying to reduce the vertical stratification of contested meanings in relation to central concepts. Terminological fragmentation is not beneficial for the dialogue among different projects, but at least makes it clear where differences are; assigning radically different meanings to the same concept, however, creates a superficial feeling of convergence but also a range of conceptual and practical confusions that ultimately hinder such potential for convergence.

As for the use of a wider set of common codes, two directions should arguably be explored. One is supplementing COW country codes with an agreed-on set of codes that refer to a minimum set of non-state actors. Mediation project, for instance, mingles COW country codes with some new codes (comprised between 1100 and 1300, whereas
COW codes stop at 1000) that identify a wide range of intra-national or trans-national entities (e.g. rebel groups, secessionist regions, ethnic communities). While it would be difficult to agree on the identification of each single non-state actor, a significant proportion of them – in particular rebel or secessionist groups – are indeed recognized by all three projects as relevant actors in specific conflicts.

A second direction for improvement would be the identification of common codes for specific conflicts. We have noted that, while differences exist on the very definition of ‘conflict’ or ‘dispute’ adopted by the projects, in practice all three projects focus on a similar number of conflicts (251 for UCDP, 297 for COSIMO, 295 for the Mediation Project). If not on a simple, agreed-on identification number for all relevant disputes that took place since the end of World War II, to facilitate the identification of conflicts that are included in all three datasets some agreement may be reached on a code that includes some geographical specification of the sub-region in which the conflict took place, or – ideally – on a code that includes COW country codes plus a range of shared codes for non-state actors.

3.2 Peace processes

A second dimension that we do not see (or that could have received much more attention) from these datasets is constituted by the concept of ‘peace processes.’ The idea of ‘peace process’ is frequently used by politicians and researchers alike, but has not yet received a clear theoretical definition. From the few studies available to date (cf. Selby 2007), two main features seem to emerge as guides for the operationalisation of this concept: the presence of a series of peace negotiations, and of a sequence of episodes of conflictuality connected by a chain of cause-effect.

As we said, only one dataset (the UCDP ‘Peace Agreements’ dataset) focuses explicitly on the analysis of peace negotiations in the context of contemporary conflicts. Yet, this dataset also shows a series of serious shortcomings: its timeframe is very short (1989-2006), the operationalisation procedures used to ‘cherry-pick’ certain agreements and
not others are very opaque,\textsuperscript{15} and most of all the dataset aims at describing these negotiating outcomes more than at connecting specific types of peace agreements to the general characteristics of the conflict that they tried to solve, or to the strategies adopted by mediators. In other words, this dataset would be extremely useful if it could be successfully integrated with other projects – such as Bercovitch’s – that provide adequate background to the signing of specific agreements; yet, for the reasons outlined in the previous paragraph, such integration of data is little more than an auspice for the future.

The scene is only slightly brighter if we try to understand how well equipped these datasets are for analyzing a series of crucial factors that affect the parties’ likelihood to strike comprehensive and lasting agreements: the constraints that affect their decision-making procedures and the presence of relevant inter-cultural differences.

The role of constituencies (Putnam 1988) or of veto players (Tsebelis 1995) in affecting the effectiveness of decision-making processes, also at a diplomatic level, has now been widely researched. COSIMO and the Mediation Project, indeed, provide indicators for the regime types of the states involved in a conflict, although clearer connections between these indicators and the data offered by major quantitative projects in the field (e.g. Polity IV) could be set. Yet, no effort has so far been made to define the types of institutional or organizational constraints of non-state actors. David Cunningham’s recent paper (2006) has provided a potential approach for operationalising the concept of ‘veto players’ in the context of non-state actors who operate in civil wars by identifying those groups that have a cohesive internal organization (‘cohesiveness’), who can afford to continue warfare if negotiations fail (‘viability’) and who ‘have preferences that are to some extent divergent from the other parties to the conflict’ (‘autonomy’). Data that can help coding these indicators could be found, for instance, in the ‘group organisation’ section of the Minorities at Risk dataset.

\textsuperscript{15} For instance, the 1993 Tripura agreement, classified by the Peace Agreement Dataset as ‘full’ agreement, was signed between Tripura officials and the leaders of the major rebel group ATTF on 23 August 1993. No mention of this agreement is made in the Minorities at Risk qualitative database, another major comparative source for the analysis of ethnic conflictuality which provides extremely detailed timelines of most contemporary ethnic and civil wars, including the Tripura conflict. Nor it can be traced in any piece of news provided by news search engines, including Nexis News.
Oddly enough, however, no dataset provides any indicator for the second abovementioned dimension – the degree of cultural diversity between the actors involved in a conflict. The problems of operationalising the concept of ‘culture’ without falling into the ‘clash of civilisation’ trap are not minor ones; yet culture does play a role in increasing the level of emotional and – one may say – ‘irrational’ impulses that affect international negotiations (cf. Samuelson 1997, 126). Again, a tighter dialogue with the Minorities at Risk project could have helped to find indicators – for instance, connected to the ‘ethnic differentiation index’ – to operationalise this crucial concept.

The Mediation Project and UCDP perform relatively better, however, when it comes to provide ground for the analysis of processes. The Mediation Project provides a variable generically coding the ‘reemergence of dispute,’ but also a series of variables which summarise, for each episode of conflict management, the scope and success of previous conflict management efforts. The UCDP ‘Armed Conflict’ dataset, as said, includes a dummy variable (‘cumulative intensity’) which gives a sense of the overall severity of a conflict, even in face of single ‘minor’ episodes of violence; most of all, the ‘Conflict Termination’ dataset enables the researcher to explore specific patterns of temporal evolution of a conflict. Yet, again, the framework of the UCDP project does not allow to research the specific connections between the conflict management efforts of external actors and each single ‘conflict termination.’ Regrettably, COSIMO seems to ignore the issue altogether.

3.3 Mutually Hurting Stalemate

A third under-researched area in these datasets is in the definition of what we may call ‘contingent intensity’ of a conflict, or – using is now a popular concept in peace research – its ‘ripeness’ for solution. This concept is typically encapsulated by the idea of ‘mutually hurting stalemate’ (MHS). First elaborated by William Zartman, the concept of MHS has been effectively summarized by Marieke Kleiboer (1994, 110):

A ripe moment implies that a mutually hurting stalemate exists, marked by a recent or impending catastrophe […] the efforts of both parties to impose unilateral solutions
are blocked and bilateral solutions become conceivable, leading antagonists to perceive that there is a workable alternative to combat; and power relations have changed in a way that a party that previously had the upper hand in the conflict starts slipping and the underdog starts rising (e.g. before settlement can be achieved, a rough power parity between the disputants needs to exist).

The four components of MHS outlined in this summary, which reflect what Zartman has exposed - although less succinctly - in various works (e.g. Zartman 2000, 228-232), are the presence of an objective obstacle to the prosecution of hostilities, the perception by the parties that war has failed, the perception that peace is possible and the presence of a certain parity in the capabilities on the ground.

Even from this brief exposition it would appear that the concept of MHS, while extremely appealing and powerful in theory, is not easy to operationalise in practice. Stephen Stedman (1991, 240) has correctly noted that the ‘to improve the usefulness of the concept, we need to bring more precision to it, so that ripeness becomes more than a tautology and subject to more rigorous definition than […] ‘I know it when I see it’.’ In Zartman’s own words (2000, 229), ‘the ripe moment is necessarily a perceptual event, not one that stands alone in objective reality.’ In one of the few analytical studies which tried to operationalise the idea of MHS, Mooradian and Druckman focused on coding a range of ‘incidents’ occurring in the Nagorno-Karabakh conflict on a six-value scale describing whether the event had been a move towards peace or towards further violence (Mooradian and Druckman 1999, 714-715). In other words, they did not attempt to operationalise directly the concept of MHS, but rather tried to observe \textit{ex post} if conflict resolution efforts were really taking place in more ‘ripe’ phases of the conflict; triangulation with qualitative methodologies (mainly interviews) were used to substantiate the conclusions of the research (\textit{ibid.}, 724).

Despite these problems, the idea of MHS can indeed inspire the creation of a whole new range of indicators. For instance, a dummy variable may be designed to capture those situations in which a ‘recent or impending catastrophe’ (Kleiboer 1994, 110) clearly throws its shadow on the conflict. By ‘catastrophe’ we will mean literally catastrophic natural occurrences that make the prosecution of the conflict practically infeasible: the 2004 Aceh tsunami, which profoundly affected the course of the peace process in north-
west Indonesia, can be considered as a typical instance of such events. The ratio of battle-deaths of the two sides, and not just their aggregate number, may be used to suggest the presence of military stalemates. Discourse analysis, moreover, could be used to devise a range of indicators that help identify when exactly, within a sequence of episodes of conflictuality, the parties realized that a conflict cannot be resolved through the continuation of violence. The methodological challenges for operationalising this concept would certainly be major ones; yet the rewards in terms of increased predictive power appear to be extremely appealing.

**Conclusion**

This paper has been to create a framework for analyzing the research designs and operationalisation procedures of some of the most relevant datasets for the study of contemporary conflicts.

These projects provide researchers with a comprehensive range of analytical tools for approaching the study of warfare and of episodes of conflict management. The UCDP datasets stands up with their particularly solid operational definition of ‘conflict,’ have pioneered in the past a post-Westphalian approach to conflict analysis and are now moving into a range of extremely interesting new research fields – including the analysis of peace processes and negotiations. COSIMO provides a comprehensive, yet handy set of indicators for the analysis of conflict management. The Mediation Project gives an extremely detailed and excellently structured picture of conflict mediation efforts in a ready-to-use statistical format.

Yet, no single project emerges from our analysis before having revealed some shortcomings. The material produced by the UCDP is fragmented and the number of variables explicitly devoted to analyzing conflict management efforts is very limited – making the ‘Armed Conflict’ dataset more useful as blueprint for further, individual quantitative projects (cf. Cunningham 2006) than as a self-contained dataset for the analysis of conflict management. The general research design of COSIMO seems to miss a rather large number of variables that would be needed for analyzing contemporary conflicts and peace resolution efforts, but most of all the project suffers
from the absence of clear operationalisation rules that would make its codes at least partially replicable. The main shortcoming of the Mediation Project is certainly its timeframe – which makes it essentially unusable for the analysis of the post-Cold War period –, and the large number of variables included in the project also implies that, when considered on an individual basis, many variables appear to adopt rather superficial and too clear-cut classifications of the phenomena that they are designed to capture.

However, on a balance, these projects do provide a structured and coherent overview on contemporary episodes of conflict. Significant progress can be made if there were more occasions for constructive dialogue among the designers of these datasets; however, even in their current form, they certainly deserve to be considered as a crucial source of information that cannot be ignored by any researcher in the field who believes in the importance of approaching contemporary warfare with a rigorous comparative perspective.

**BIBLIOGRAPHY**


Wright, Quincy (1942). A Study of War (Chicago).

Appendix 1 – Web pages for datasets and codebooks

1) UCDP
   a. Program overview: http://www.pcr.uu.se/research/UCDP/ucdp_projects/program_overview.htm
   b. Access to all datasets and codebooks: http://www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm
   c. Operational definitions: http://www.pcr.uu.se/research/UCDP/data_and_publications/definitions_all.htm

2) COSIMO
   b. COSIMO 1: http://www.hiik.de/kosimo/kosimo1.html.en
      [alternative codebook available at http://first.sipri.org/www/kosimo.html]
   c. COSIMO 2/CONIS: http://www.hiik.de/kosimo/kosimo2.html.en

3) Mediation Project
   a. Program overview and access to dataset, codebook and rationale: http://www.posc.canterbury.ac.nz/staff_pages/jbercovitch/mediation.html