

**Title: Coding political (non) violent conflict processes in quantitative studies**

Abstract:

With the geopolitical changes of the end of the cold war a series of studies focused on the dynamics of civil war (intra-state). One of such areas of research relates to quantitative studies looking specifically to the processes of onset, duration and termination of conflict. Most of these studies operationalize civil war as a distinct phenomenon of political contestation, focusing on agency in a dyad government-challenging group, the nation state as the unit of analysis and a dichotomous peace versus war approach determined by a threshold of battle related deaths. Through a comparative analysis of the main datasets, the procedures and concepts of such operationalization are critically assess in light of a more dynamic process oriented approach to the phenomena of conflict and civil war. The relevance of this study is found in the fact that the specifications of key variables, in this case the dependent variable, can lead to significantly different results in the models. As a conclusion areas of conceptual and operational improvement for the main quantitative datasets are identified.

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**DRAFT –COMMENTS WELCOMED**

## **1. Introduction**

The study of civil war gained significant momentum with the end of the cold-war period. The dynamics of onset, incidence, duration and termination of civil war have been extensively studied as the dependent variable through econometric analysis.

In general these studies conceptualize civil war in an actor-oriented and state-centred approach. The dyad involves the government and some challenging group, assume the nation state as the unit of analysis and define a level of battle (related) deaths to consider it either a conflict or war. Normally there is some identification of the overall issue at this level of aggregation.

This dichotomous operationalization is limited in a series of aspects, but specifically in the way it fails to capture the dynamics of the conflict process. The objective of the paper is to identify areas of conceptual concern and improvement in the dependent variable – conflict – which could lead to better knowledge development. Some already underway innovations are identified regarding issues, actors and geographical disaggregation.

The paper will start by a brief overview of the evolution of the quantitative studies of civil war. In the second section analyse the current procedures of codification of civil war by the main datasets, compared to more process oriented approach. In the third section a more process oriented codification is conceptually analysed and three operational options are identified. The paper ends in the fourth section with a conclusion.

## **2. Evolution of the studies**

At first glance and as in many other sciences one can identify the predominance of the Anglo-Saxon research in this field. This can be partly explained by the fact that peace studies and in particular quantitative studies of war initiated in these region during the twentieth century.

First it developed with the accumulation of systematic data on armed conflict from the 1940s onwards and later in the mid-1960s with the important data effort of the Correlates of War (COW) project from 1963 onwards. The two pioneer researchers of this project, David Singer and Melvin Small, have set up to a great extent the methodological principles of this field. In particular in how to conceptualize the unit of analysis – civil war – as conflict within state borders, with an agency (a dyad government versus non-governmental force) and a certain intensity to be considered war (in this case with a threshold of at least 1000 battle related deaths).<sup>1</sup>

In subsequent decades other programmes emerge with specific contributions aiming at more detailed information. A prominent project would develop in the 1980s - the Uppsala Conflict Data Program (UCDP) in Sweden –lowering the annual fatalities threshold to 25 battle related deaths per year and per dyad in order to capture both major and minor conflicts.<sup>2</sup> In

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2001 this project would become associated also with the International Peace Research Institute Oslo (PRIO) and its period backdated to 1946.

A contribution in disaggregating agency was the Minorities at Risk Project (MAR) at the Center for International Development and Conflict Management (CIDCM) which identified ethnic civil wars and currently tracks 283 politically active ethnic groups, within the nation state unit of analysis.<sup>3</sup>

Another initiative of the Study Group for the Causes of War (AKUF) focus more on the time dimension and persistence of the conflict between two organized groups, one of which is the government, therefore losing the main death toll criteria to be considered either war or armed conflict. Further more the *Konflikt-Simulation-Modell* (COSIMO) extends the analysis to non-violent forms of political conflict.<sup>4</sup>

Several replication datasets emerged, mostly based on COW, or following closely the initial conceptualization of the unit of analysis of previous studies. Nevertheless the quantity of initiatives, these datasets reveal little pluralism in the analysis of the phenomenon.<sup>5</sup>

On methodological grounds over the last fifty years of studying world politics, preoccupations moved: from measurement to inference and analysis, from naïve data representativeness of reality to precaution, from simple research designs to attention to threats of inference and case selection, from inductive to deductive methods with ever more elaborated theoretical models (even if observing parsimonious requirements) or from a systemic to a dyadic level of analysis.<sup>6</sup>

The development of these data initiatives and methodological innovations was not immune to the geopolitical concerns of the era, first on the aftermath of the Second World War, then within the cold war era and latterly of the post-cold war period. Such overall context have naturally determined the way in which conflict is fought, but also seen and codified by researcher working from specific locations of the world political and cultural map. For instances bias has been identified both in the data sources as well as in comparing research. Data gathering invariably rely on printed English sources (mainly newspapers) for most of the datasets which produces an a priori selection bias.<sup>7</sup> To this is added the lack of consensual definitions of terms which is aggravated by the fact that researchers speak different languages.<sup>8</sup>

Overcoming such limitations, especially in quantitative studies, is a challenging undertaking out of the scope of current considerations in this paper. One can, on the other hand, aim for an aware positivist logical approach, where these shortcomings are recognized and a certain degree of triangulation is sought for. In this case such can be achieved by: the use of datasets developed from within different ontology or epistemology or the use of qualitative validation (where different perspective of the conflict will be more easily available).

It is from within this broader context of research that the characterisation of conflict and civil war has been determined and the current configuration is assessed in the following section.

## **2. Characterisation of conflict in quantitative methods**

Before dealing with the particularities of the codification of civil war, a caveat is in place regarding the nature of quantitative methods, even if such is of common knowledge. Quantitative research is about measurement or counting of a phenomenon, it tends to be more objective, focusing on general and reliable data. Tradeoffs exist regarding the richness of information, thickness of descriptions, depth and specificity of the information. Despite that, the principle of codification of data is one in which one intends to capture the essence of the phenomenon under analyses, having in mind the resource constrains that availability and gathering of large N data entails. It is first in the balance between these two, measurability and “reality”, where the reliability and relevance of data is to be found.

Studies of civil war generally adopt on of three approaches for the analysis: conflict onset, conflict incidence (including all years of war in the analysis) and conflict duration.<sup>9</sup> In particular studies have analysed: a) the diversity of codifications of the civil war variable;<sup>10</sup> b) the way civil onset or duration studies have been modelled;<sup>11</sup> and c) specific hypothesis of relationship between variables.<sup>12</sup>

Overall the civil war classification is made within a certain level and unit of analysis along the dimensions of: agency, issue, form and intensity of contestation and outcome. Table 1 below summarizes these dimensions to a series of main datasets of civil war or conflict.<sup>13</sup>

The selection of the datasets was based on a few criteria. First the main reference, Correlates of War (COW) project, of Small and Singer (1982) together with three of its replications which have produced several studies widely referenced in the literature: Fearon and Latin (2003), Collier and Hoeffler (2002), and Elbadawi & Sambanis (2002). Then the other main data initiative of Uppsala/PRIO with Gleditsch et al (2002). The dataset of Licklider (1995) as one of the references of the cold war period. Sambanis (2004) as the result of a detailed and systematic effort to improve the coding procedures which was compared to 11 other civil war lists. All of the above follow more closely or not the overall methodology of the COW project, which some have considered deductive. Three differently conceptualized dataset have also been identified. Pfetsch Rohloff (2000) dataset is included due to its conceptualization of conflict within the broader violent conflict spectrum and Shawnk (2010) for extending it with a disaggregation of conflict to the sub national units.<sup>14</sup> Finally Bloomfield and Moulton (1997) was selected for its inductive approach.

### **Unit of analysis (space and time)**

#### **Level of analysis - space**

A preliminary main clarification regards the acceptance of the nation state as a valid unit. In here the international law and functioning of the international system of nations will determine what is a country or contested sovereignties and in that sense non-consensual definitions will have to be judged by the researcher, even if such cases are in a small numbers within the universe of 196 United Nations member states.

All studies identified in table 1 accepted such level of analysis and country becomes one of the dimensions that determine the unit of analysis. This procedure makes the studies more comparable and has acquired a significant synergy of analysis due to its extensive use. But this was a progressive move from the system level of analysis to the nation state.

The systemic level of analysis allows for a more comprehensive perspective, appropriate to analyse international systems, which is able to encompass most interactions. But it assumes a deterministic orientation of the system over national actors and homogenises foreign policy. At the same time the nation state level of analysis allows for more differentiation, a better information regarding decision-making processes even if might exaggerate the differences among the sub-system of actors or derive into ethnocentrism.<sup>15</sup>

In the field of conflict research the last decades move from systemic to a dyadic nation level of analysis has been considered positive. Also it is considered that the determination of the level of analysis should be made on theoretical grounds rather than on common practice, even if constrained by data availability.<sup>16</sup> In line with this perspective two relevant additional levels of analysis are micro or sub national and regional, supra national levels, below the international system.

The macro versus micro divide has been amply explored, specially when it mimics some of the discussions between quantitative macro and the qualitative micro analysis. An advancement on a sometimes assumed homogeneity on the macro-micro separation, is the distinction between center and periphery, where the periphery is a micro site of a mix of identities, actions and motivations distinct from the overarching conflict of the elites at the centre.<sup>17</sup> An implication of this is that actors should not be seen as unitary, with specific and own agendas. From this proposition one can identify three possible levels of aggregation: high at the international system, an intermediate at the neighbourhood level and a micro at individual level.<sup>18</sup>

The main dataset developments that answer this proposition consider the identification of conflict at the sub-national level, both regarding conflict periods as well as conflict events<sup>19</sup>, the identification of non-state dyads of agency, presented ahead, or the identification of the relationship between local (sub-national) conflict with specific localized (sub-national) factors such as resources.<sup>20</sup> Results from disaggregated spatial data both confirm earlier national cross-country results or challenge some of its findings,<sup>21</sup> which constitute a promising area of contributions to research in the future.

The other level of analysis is above the nation state level but below the international system level. It is related to a regional level where contagion (spillovers) from neighbouring countries matters on the study of conflict. Geographical variations of conflict have been explained in terms of “regional conflict complexes” where extensive links are developed between one’s country conflict and the neighbours’ conflict.<sup>22</sup> The mechanisms can differ from trans-boundary ethnic groups, refugees,<sup>23</sup> direct external support and ethnic, political or economic transnational linkages.<sup>24</sup>

Ultimately the level of aggregation to be used in the unit of analysis will depend essentially on the main causal hypothesis to be tested.<sup>25</sup> These should be at a level which is relevant to

the problem at hand and not fall into the tendency of excessive detailing, where the too micro-level cause-and-effect relationships can remove the focus from the variance in the outcome of what is being explained.<sup>26</sup>

### Time of analysis - duration

Most datasets define the dates of initiation and termination of civil war when the intensity of conflict rises above or falls below a certain threshold of death toll for a sustained time period.<sup>27</sup> The measure is consistently the year, although also here the main causal hypothesis will determine the level of analysis, as for instances studies on the dynamics of mediation on civil war outcomes, might favour a disaggregation into monthly data. The issue of identification of war among political violence, and therefore of its beginning and ending, will be further developed below under contestation and intensity. Additionally the time period will be dependant on both the need to maximize the number of observations and the availability of data of the explanatory variables.

**Table 1 – Civil war and conflict datasets**

<b>Dataset and data structure</b>	<b>Actors</b>	<b>Issue</b>	<b>Contestation (intensity)</b>	<b>Outcome</b>	<b>Other</b>
COW-Intra, Small and Singer (1982) *1 (1816-1997) <i>Conflict level</i>	Central government and non governmental forces	Central government/ Local issues	Battle deaths (>1000 deaths/ cumulative)	Victorious side	Outside intervention identified
Fearon and Latin (2003)*1*2 (1945-1999) <i>Country-year</i>	Government and challenger	Control of government, take power in region, change government policy	>= 1000 cumulative total and >100/year average		Based on COW
Collier and Hoeffler (2002) *2 (1960-1999) <i>Country-year</i>	Government and challenger	Challenge to sovereignty	Battle deaths (>1000 deaths/ cumulative)		Based on COW
Elbadawi & Sambanis (2002) *2 <i>Country-year</i>	Government and challenger	Challenge to sovereignty	Battle deaths (>1000 deaths/ cumulative)		Based on COW
Gleditsch et al (2002) *1*2*3 (1946–2000) <i>Country-year</i>	Government-opposition dyad(s)	Government/territory	Minor (>25 deaths/year) and war (>1000 deaths/year)		Extrasystemic, interstate, internal and internationalized
Licklider (1995) (1945-1993) <i>Conflict-level</i>	Leaders concerned with living in same political unit with their enemies; multiple sovereignty.	Goals of fighters: Revolution/Separation Identity/Non-identity	Deaths G-P, Deaths war (>1000 deaths/year)	Termination mode: ongoing/military victory/negotiated settlement Result-one state or more	Genocide-politicide (G-P) COW operational criteria

<b>Dataset and data structure</b>	<b>Actors</b>	<b>Issue</b>	<b>Contestation (intensity)</b>	<b>Outcome</b>	<b>Other</b>
Sambanis (2004) *1 (1945-1999)  <i>Country-year</i>	Government and challenger(s) (a state with a population more >500.000)	Publicly stated political objectives	>500 deaths, (cumulative first 3 years > 1000, no 3 years period with < 500 deaths)	Peace treaty, cease fire or military victory	Based on COW
Pfetsch Rohloff (2000) COSIMO *3 (1945-1998)  <i>Conflict-level</i>	Groups including state	Territory, borders, sea borders; Decolonization, national independence; Ethnic, religious or regional autonomy; Ideology, system; Internal power, International power; Resources; Others.	Latent (non-violent), crisis (non-violent), severe crisis and war	Type of resolution and outcome (political, territorial, military )	Measures of mediation and non violent negotiation
Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010 *4 *3 (1985-2007 in Africa)  <i>Conflict-level</i>	State and non-state parties	National interest: internal power, resources, local predominance, autonomy, territory, secession (90% of items)	Dispute non-violent, Non-violent crisis, Violent crisis, Limited war, War. Even less than 25 deaths considered		Communication as determinant of conflict Sub national location of conflict
Bloomfield and Moulton (1997) (85 post-World War II conflict cases)  <i>Conflict-level</i>	Status quo side and non-status quo side (actors not necessarily state)	Ethnic, governance, independence, resources, strategic or territory.	Phases: Dispute, conflict, hostilities, post-hostilities with conflict and without (dispute) and dispute settled.	Phase dispute settled.	Type: interstate, primarily internal, external intervention, colonial

Notes: Characteristics of all datasets are: the unit of analysis is the nation state, some identification of the conflict period in the format of day/month/year, month/year or year start and end.

\*1 - Four main databases according to Blattman and Miguel (2009)

\*2 – Four datasets of civil war and natural resources Ross (2004)

\*3 – These datasets are both to interstate and intrastate conflict. Only the characteristics of intrastate are identified here if different.

\*4 - All datasets include all regions of the world except Schwank (2010) which is only for Africa.

### Agency – actors

A main characterisation of the conflict is dependent on who are the actors involved. Most current datasets of intrastate conflict assume that there is a government which the authority is being challenged either centrally or locally by a group or groups within its recognized state borders.<sup>28</sup> This can be part of a real intention to take power or as a mechanism of negotiations and it is normally required that the groups have some form of organization and persist over time. This is normally referred to as intrastate conflict and if either of the parties is supported by outside parties can be considered an internationalized intrastate conflict.

Two main concerns have moved research: one regards the disaggregation of agency and another refers to the combination of actor with action.

In disaggregating, some research has considered the possibility of more than one dyad (government and non government force) in a specific country, for the cases where several groups are challenging the government.<sup>29</sup> Also situations where non state actors fight between each other (not involving directly the state), considered inter-communal war or non-state conflict, have been identified.<sup>30</sup>

As mentioned before in disaggregation there is the challenge of conceptualizing and analysing the periphery of micro local violence of actors with their own agendas which seem unrelated to the main issues and cleavages of the overall conflict of the elites at the centre.<sup>31</sup>

In tandem with this vertical (centre-periphery) diversity there is also an horizontal diversity between and within actors. Differences here can be found not only in splintering groups or intragroup variations<sup>32</sup> but also in the political economy of class formation and their relations.<sup>33</sup>

Regarding the dynamics of actor and action both the role of civilians have been brought to the forefront as the onus of violence has been put not only on the “challenger” but also on the incumbent.

Recent research has focused on the identification of one-sided violence, for instances when the government of a state or a formally organized group attacks civilians with a certain number of deaths.<sup>34</sup>

An under-explored area is the identification of government violence exercised through the state apparatus or other means. Violence can be characterised as repression (which can be proxy by a political terror scale), when it is one sided violence by the incumbent government to stay in office, to uphold order<sup>35</sup>, or civil war, when it is two sided by both the government and the insurgent group.<sup>36</sup>

Other studies focus more on identifying neutral process of change when differentiation between the parties is made on who seeks to maintain the status quo and those who which to alter it and their respective supporters.<sup>37</sup>

Finally one can investigate about who are these actors. Civil war research had been grouped into the first focus on ethnic clashes of the 1980s and 1990s, a following focus on weak and failed states and finally the last years focus on resources.<sup>38</sup> Within each, one can identify the natural characterization of actors as mostly ethno-linguistic groups, then with states and challengers and finally of groups of economic entrepreneurs respectively. Other critiques of the neoclassical economic formulations of greedy civil war dynamics have put a focus on other collective identities, such as grievance of class, as actors in conflict.<sup>39</sup> Still further, other researchers would highlight the combination of these groups formed around inequalities of power and resources between groups, differentiated also along the lines of race, religion or language.<sup>40</sup> According to these analyses the way groups are formed is significantly connected to the issues at stake, which are detailed next.

## Issue

Following from the baseline definitions and accepting the nation state unit the primary issue of contestation regards the government of the state in terms of controlling the government, changing government policy or acquiring regional power.<sup>41</sup> The latter can sometimes be associated with issues of territory for increased autonomy or even independence.<sup>42</sup> In order to be clearly recognised these objectives should be publicly stated by the actors<sup>43</sup> and be of national interest.<sup>44</sup>

Ideology or revolution is highlighted in only a few datasets,<sup>45</sup> even if considered a change in government policy under the above classifications. This absence reflects what has been termed as the “New Civil War” and “Old Civil War” dichotomy, even if misguidedly characterised according to some scholars.<sup>46</sup> The classification of “New Civil Wars” of the post cold-war era characterises conflict as a process of private looting with little popular support and full of gratuitous violence. To this is opposed the “Old Civil War” where collective grievances would gather popular support in a conflict of controlled violence. Therefore the former criminal and apolitical and the later, less common in the post cold war era, ideological and political.<sup>47</sup>

A specific treatment is given to the wars of empire and independence or decolonisation (termed as extrasystemic). It is argued that for the models of civil war such wars should not be included due to operational (data availability) reasons even if they have similar characteristics to civil wars.<sup>48</sup> In contrast other dataset projects have considered this type of war.<sup>49</sup>

A disaggregation of the issues can be sought with the identification of issues over: resources, identity, strategic positioning, internal power, local predominance, ethnic or religious (see table 1). Other authors distinguish between issues substance into areas as: military/security, political/diplomatic, economic/developmental, cultural/status or others.<sup>50</sup>

In practice and serving as an illustration, in some cases the issue might be the level of redistribution made to specific groups or regions. In other cases there can be specific local issues affecting the populations and the local authorities, like land titling or access to water resources. In other situation the issue can be on tensions between communities due to differences of wealth alone or in combination with other axes of differentiation such as religion, ethnicity, caste, gender or age. Also the issue can relate to differences in ideological perspectives, for instances from socialist to liberal or from autocratic to democratic. Overall the issue must have (at least potentially) a national reach and be of national relevance.

Two main critiques on this dimension of issue are in terms of the assumption of issue symmetry between participants and lack of identification of the salience of the issue to the participant.<sup>51</sup> Furthermore attention should be put on the relation between issue tangibility and conflict, in the difference between issues and characteristics of nations, and on the linkage and different salience for the actors due to the issue’s intrinsic but also relational value.

The neoclassical economic formulations of the greedy “New Civil Wars” would suggest that issues are mainly economic, in the form of control of central or local governance and very likely involving natural resources where ethnicity and religion are mechanisms for group cohesion. Within this framework emotions regarding relative positioning, value systems, ethnicity or others find little echo. An attempt has been made in establishing a relation between the economics and the emotional aspects of war framing it as the supply and demand side respectively.<sup>52</sup>

But research has also associated violence to emotional responses to structural change<sup>53</sup> which can be associated to positional goods. These imply the negative consumption by others (in contrast with public goods where there is the impossibility of excluding consumption by others) posing a problem of social scarcity instead of natural scarcity of typical economics. When the positional good is power, such can constitute a motive of conflict, especially when a structure of social power relations needs to be redefined under “end of hierarchy moments”.<sup>54</sup>

Finally and related to emotions or not, at the different levels of agency, one can also find not only different agendas at both centre and periphery levels, but also as violence motivated by private non political reasons.<sup>55</sup> The criminality is a related area, which not being directly political as forms of organized contestation in these models, does have a political dimension. The treatment of such violence also needs to be conceptualized within the overall theory of conflict and war.

### **Form of contestation - intensity**

An important characterization of the conflict are the forms of contestation. The form of contestation that is most used as indicative of the conflict status are deaths, specifically battle related deaths. This is the main indicator to determine thresholds between minor conflict and war. The former normally above 25 battle related deaths per year, minor if cumulative deaths are below 1000 and intermediate if above,<sup>56</sup> and the later above 1000 battle related deaths per year.<sup>57</sup>

The main difficulty regards the low quality of data on deaths due to armed conflict. This becomes more problematic when the magnitude of such measurement becomes the main distinction between civil war and other political violence.<sup>58</sup> A solution would be to accurately determine the number of battle related deaths historically, which is a complex undertaking. This will limit the possibilities of data analysis in, for instances, determining escalation and de-escalation of the conflict or accurately determine intensity.<sup>59</sup>

Another difficulty of the data regards its large country population reporting bias. An absolute measure of deaths is not sensitive to the size of the country wherein larger countries will naturally have more likelihood of producing more deaths. An alternative is to have a relative measure as per capita deaths but the development of such data is difficult and labour intensive.<sup>60</sup> Current research works mainly with ranges of estimations and not reliable absolute numbers.

Additional critiques of this measure is the emphases on battle related deaths, omitting civilian killings, refugee movements, and state repression,<sup>61</sup> or the need for increased attention to non-battle causes of mortality as a result of displacement and disease.<sup>62</sup> Furthermore the main reliance on death counts to determine onset and termination of conflict can become a “blind” assessment as the same conflict, involving the same actors, over the same issues in the same space can have periods of dormancy.

Deaths are also central in other forms of political violence widely studied: genocides and politicide<sup>63</sup>. Also the previously referenced one-sided violence can be related to massacres when there are large scale killing of civilians. A further conceptualization which encompasses the previous three but also cases not considered by them, is democide<sup>64</sup>. It is defined as the murder of any person or people by a government, either by action or through deliberate inaction even if killing people indirectly. These measures go in line with the previously presented critique in agency of focusing also on government perpetrated violence in conflict and other non-state related deaths.

Other forms of political contestation are assassinations (in this case one could consider any assassinations with a political content, either of political figures or indiscriminate but timed and politically relevant) which take the form of extra judicial killings if executed through the state apparatus. Another form of contestation relates to terrorist activity, as the selective targeting of civilians with the intention to kill.

In line with a broader definition of war as a political process both with low violence as well as with non violent forms of contestation both defined intensity in terms not essentially of death tolls.<sup>65</sup> Finally three datasets in table 1 have considered both violent and non-violent political processes, and therefore give less prominence to the death toll measure.

For instances one research enlarges conflict processes to consider forms of contestation by assertive social groups (state-group dyad), with either military, organizational or financial strength claiming issues of national interest and which engage in forms of contestation out of the “normal” political conflict into forms that can have the potential for a violent escalation. To determine the later the criteria used is for the forms of contestation to be conducted out of the existing legal regulations of the country.<sup>66</sup>

A series of other forms of political contestation with differing degrees of intensity can be identified, both legal and un-legal. Namely: (non) violent demonstrations aimed at creating pressure and showing the strength of a groups; media campaigns as non violent initiatives aimed at pressuring and changing the perspective about issue relevant to the political agenda; riots, which involve a violent demonstration or clash of more than 100 citizens involving the use of force or unrest which involves domestic conflict with or without shots fired; or strikes both within legal rules of practice and outside.

Other less tangible forms could be political discrimination through the systematic discrimination in employment, voice, civilian rights and others of citizens of a certain political identification or plots consisting of a series of events with a certain degree of causality intended to improve a group’s position vis a vis another group. The later can involve a more tangible violent or non violent coup and be constitutional or not.

Also these other forms of contestation acquire magnitude through its measurement. For instances demonstration will acquire strength by the number of participants or type of participants, media campaigns by social impact, riots by the loss in human lives and damage to property, strikes can be measured in terms of days of strike or economic impact, and in some countries the number of attempted or successful coups can become an indicator of governance in certain periods.

When considering other non-death related forms of contestation the ambiguity of political relevance to the conflict processes increases. One of such cases regards Internal Displaced Persons (IDP) or refugees which can constitute the consequences of civil war but also used as a form of contestation by the conflicting parties. This is better illustrated by contrasting a classic example with more ambiguous situations. On one hand a classic example regards forms of contestation in intrastate conflict where a rebel group challenges the authority of the government by attempting to win over the government forces or becoming a relevant power in a certain region, with whom the government will have to negotiate extended concessions to reach peace. On the other hand more ambiguous situations are when a certain social group in a specific economic activity initiates a strike or lock out in order to gain some demands within a democratic middle or upper income country. Such will be, most often, considered a usual mechanism of negotiations. If instead the same strike is made in an autocratic government with little civic participation liberties it can signal a concrete challenge to the established power system and potentially become the element of escalation of the conflict.

In the combination of forms of contestation, intensity and timing one can find the triggers of escalation into violent conflict. On one hand this can be a very straightforward analysis, like if there is an intense politically motivated attack which originates significant death tolls in a period of less intense conflict. On the other hand this could be a subjective analysis when selective forms of conflict, for instance selective assassinations, constitute events which might or not escalate the conflict.

## **Outcome**

The outcome of a civil war is not always a focus of the datasets. In some cases there is the identification of the victorious side in a conflict,<sup>67</sup> if a decisive military victory, cease fire or peace treaty was reached,<sup>68</sup> while other datasets go into significant detailed over the type of resolution and outcome reached.<sup>69</sup>

## **The puzzle**

In resume all the civil war definitions under analyses use the nation state unit, with a violent form of contestation measurable in terms of a level of deaths threshold and at least a dyad government-challenging group. After this assessment it can be informative to review one long definition of civil war resulting from a systematic and detailed study (even if long, the definition is fully presented here as illustrative of the main characterisations previously presented). According to this research a civil war can be identified when:

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- (a) The war takes place within the *territory of a state* that is a member of the *international system* with a population of 500,000 or greater.
- (b) The parties are politically and militarily *organized*, and they have publicly stated *political* objectives.
- (c) The *government* (through its military or militias) must be a principal combatant. If there is no functioning government, then the party representing the government internationally and/or claiming the state domestically must be involved as a combatant.
- (d) The main insurgent organization(s) must be locally represented and must *recruit locally*. Additional external involvement and recruitment need not imply that the war is not intrastate. Insurgent groups may operate from neighboring countries, but they must also have some territorial control (bases) in the civil war country and/or the rebels must reside in the civil war country.
- (e) The *start year* of the war is the first year that the conflict causes at least 500 to 1,000 *deaths*. If the conflict has not caused 500 deaths or more in the first year, the war is coded as having started in that year only if cumulative deaths in the *next 3 years* reach 1,000.
- (f) Throughout its duration, the conflict must be characterized by *sustained violence*, at least at the minor or intermediate level. There should be no 3-year period during which the conflict causes fewer than 500 *deaths*.
- (g) Throughout the war, the weaker party must be able to mount *effective resistance*. Effective resistance is measured by at least 100 *deaths* inflicted on the stronger party. A substantial number of these deaths must occur in the first year of the war. But if the violence becomes effectively one-sided, even if the aggregate effective-resistance threshold of 100 deaths has already been met, the civil war must be coded as having ended, and a politicide or other form of one-sided violence must be coded as having started.
- (h) A peace treaty that produces at least 6 *months of peace* marks an end to the war.
- (i) A *decisive military victory* by the rebels that produces a new regime should mark the end of the war. Because civil war is understood as an armed conflict against the government, continuing armed conflict against a new government implies a new civil war. If the government wins the war, a period of peace longer than 6 *months* must persist before we code a new war (see also criterion k).
- (j) A cease-fire, truce, or simply an end to fighting can also mark the end of a civil war if they result in at least 2 *years of peace*. The period of peace must be longer than what is required in the case of a peace agreement because we do not have clear signals of the parties' intent to negotiate an agreement in the case of a truce/cease-fire.
- (k) If new parties enter the war over new issues, a new war onset should be coded, subject to the same operational criteria. If the same parties return to war over the same *issues*, we generally code the continuation of the old war, unless

any of the above criteria for coding a war's end apply for the period before the resurgence of fighting. (Sambanis, 2004, 829-830, italics added).

Some general assumptions, maybe within a rationalist realist approach, can be identified in this coding of civil war (see italics on the text above): first the acceptance of the nation-state unit of the territory of the state recognized in the international system; then of the dyad government-nationally based challenging group; then the forms of contention are measured in terms of thresholds of deaths and its observance or not measured in years to determine stages of peace or war; legalist issues are only relevant if a peace treaty is signed and observed; and sustained victory by either part can cease the conflict; finally the issue is only analysed for the sake of differentiate between a new and old war. The dynamics of process is relatively absent besides the time of sustained observance of a certain level of deaths or peace.

This study then compared a revised version of civil war list with 145 civil war onsets between 1945 and 1999 based on the new classification with a series of other 11 lists and identifies that the correlation between them is low (both in terms of onset and termination and less so in terms of its occurrence).<sup>70</sup> It then goes on to test if these differences between civil war lists have substantive implications. For that the same civil war onset and prevalence model (similar to the popular Fearon and Laitin (2003) and Collier and Hoeffler (2001)) is used with the different civil war lists. The findings are that the coding of the dependent variable affects the results and very few variables are significant throughout the several civil war lists.

Even if on methodological grounds to have a plurality of coding procedures allows for more confidence in results that are found across several studies these results do challenge any of the findings of a study as potentially limited by the coding of the dependent variable. Furthermore, and more relevant for this research, this uncertainty within “established practice” over the codification of a phenomena leads one to consider that the possibilities of changing the procedures can even more significantly alter the conclusions reach with the current models to analyse conflict. Even if then one would not be talking of civil war as defined above. Such is the argument that a revised conceptually different version of conflict will lead to a different view regarding the conflict scenario, at least for the case of Africa.<sup>71</sup>

But in which lines could one revise the conceptualizations of conflict in a way that better reflects the events observed. It is this delimitation that the paper now analyses.

Taking one step back, and removing our know knowns of war, such as its structures, actors, space, time and meanings, we can wonder what is left. Ultimately there is an event (Wm) or action executed by one individual or group (Xn) to another individual or group (Yn) (which could also be physical), through certain means, the tools of the action (Ti), with a certain intensity (Ij) and selective intention (Intz), in a certain location (Gf) at a certain time (Tl) producing a certain impact (Impk).

It will be the grouping of these which ultimately will turn a collection of events into a, for instance, conflict for autonomy, and another collection of events a challenge to the central government, and cross cutting both of these groups competitions for central and local power

structures in many cases also motivated by private interests. In this process of ordering and labelling we contextualize the events into political issues, agency is afforded to the actors (individual or groups, operating through institutions or not), and linkages in a dynamic process with historical dependences.

Having in mind this, among the datasets identified above, one could broadly differentiate two approaches. One approach follows the death toll count in view of reaching the frontier to enter the negative peace spectrum. Another which aims at analysing not only violent conflict but also some of the dynamics of the negative peace and the process of reaching the positive peace (from within table 1: Pfetsch and Rohloff (2000), Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010, and Bloomfield and Moulton (1997) seem to follow the later approach). Following this distinction one characteristic seems to emerge between the datasets, that the former answer more appropriately to parsimonious requirements than the latter. The issue is to what extent such simplification might not be limiting the understanding of conflict and in what way could, within the parsimonious requirements, one add relevant information to our datasets.

This issue of codification of the dependent variable is rarely discussed, to the extent that Schwack (2010) sub-title of his paper is “the forgotten question for details of the depending variable [political conflict] in quantitative conflict research”. Nevertheless some studies do offer some guidance and some focus solely on the conceptual and empirical complexities of an operational definition of civil war, even if within the tradition of the COW Project,<sup>72</sup> as presented before.

The characteristics of the main dyadic state-centered dichotomous (war equals action, peace equals no action) mode of codification has been presented above as well as some of the critiques in the literature. In here the challenge is to conceptualize possible advancements.

Summing up the main critique is that politics is a dynamic process with different degrees of complexity and if meeting certain conditions can become conflictive and violent<sup>73</sup> at different level of disaggregation both space wise and in terms of agency. In this time line, periods of no civil war can have important events of conflict and violence, where a path dependence of violence requires a modelling that captures different forms of political violence in that process (like riots, genocides, politicides, civil war or terrorism)<sup>74</sup> with information of tendencies (escalation and de-escalation).

Such refinements might also contribute to an understanding of processes where violence is used to create, maintain and uphold order in the face of challenges at both national or local levels.<sup>75</sup> Still further they might permit a better understanding of how conflict is a site of proactive social re-engineering and change of the (power) relations in societies.<sup>76</sup> Also it allows for a better understanding of the process through which occurs the break down of the social contract which is related to conflict and civil war.<sup>77</sup>

Even if the main difficulty of characterizing civil wars is a conceptual problem rather than one of measurement<sup>78</sup> data limitations extensively identified in the literature do constrain the options available to researchers.

Within those one of the possible implications of the above might be a different unit of analysis which is not the country-year, for instance to a sub-national level<sup>79</sup> and an increased focus on the forms of contestation, or technology of contestation, and its intensity (besides battle related deaths) with several dyads (of government and non-government).

### **3. Possible alternatives**

Aiming at moving further the research, in the tradition of the changes from the COW to Uppsalla or MAR, in order to attempt to capture the dynamics of the civil war process into quantitative studies one can identify some alternatives within established methodologies: a) to incorporate in the coding rules some elements of process and dynamic change; b) to defined theory and typology and code new dataset; and c) structuring the dependent and independent variables.

#### a) Coding rules that are process oriented

The general concern of a researcher when defining his/her coding procedures is for them to be general enough to encompass all the known phenomena that is intended to be captured, but specific enough to delimit the boundaries of each case according to accepted conceptualizations.

Overall the concern underlying this critique is to consider conflict as a process, which escalates and de-escalate over a certain period of time. More so one could take the general approach that coexistence in society, by definition, is a site of tensions. It is assumed that when the management of such tensions is made through the institutional mechanisms of the state such is its “normal” functioning, therefore assuming also that the state does not legislate violent forms of conflict resolution.

The issue emerges first when groups engage in forms of political contestation outside the institutional legal setting. Such is seen as a challenge to the established authority and therefore a process which potentially can escalate.

For a better understanding of the phenomena one would require a taxonomy of conflict contestation, one which accounted for a broad range of events. One needs an holistic approach that “conceptualizes periods of peace and nonviolent conflict as events, units and objects that are methodologically equivalent to violent conflict and war”.<sup>80</sup>

For instances measuring all different forms of violent political conflict by assertive actors over issues of national interest outside the “normal” political conflict even if producing less than 25 deaths or if conducted between non-state actors. In this case the level of intensity is measured by: 1 non-violent dispute, 2 non-violent crisis, 3 – violent crisis, 4 – limited war highly violent and 5 war, highly violent.<sup>81</sup> Also illustrative are the dimensions of conflict illustrated in the following conceptualization of the conflict spectrum:

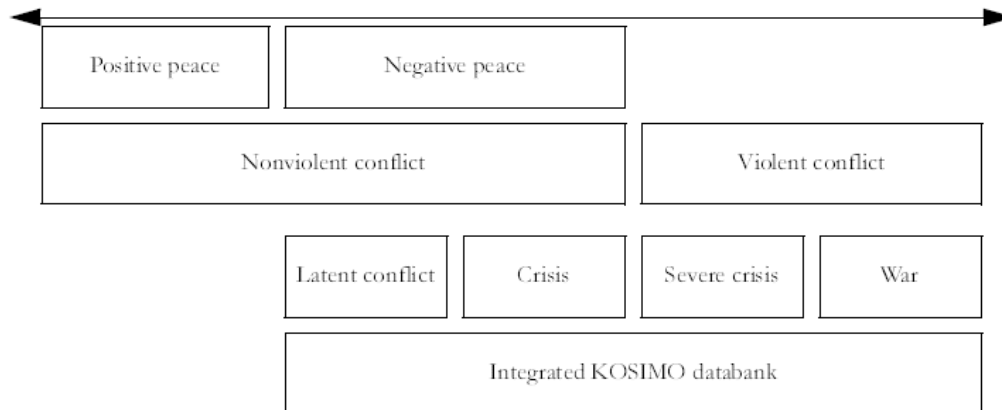


Figure 1: Dimensions of Conflict (see definitions in annex 1)

Source: Pfetsch and Rohloff (2000, 382) (COSIMO 1 dataset, renamed to CONIS in the second version)

This approach does allow for a broader perspective on events. A comparison between the new CONIS and UCDP datasets reveals that the former identifies both more minor wars (armed conflict/violent crises) as well as wars.<sup>82</sup>

Through this research one opens the quantitative approach to a widened concept of political conflict. It does maintain the actor-oriented and state-centered design but is open for non-violent, low-intensity and domestic conflict.

This approach would require some degree of re-conceptualization of the phenomenon in order to determine some of its added classifications, either through a deductive or inductive process. In particular would require a good understanding of the conflict process, the technologies of contestation and the possibilities of categorizing them.

#### b) Structuring the dependent and independent variables

Following the initiative of other researchers<sup>83</sup> a possible solution to broaden the conflict analysis would be to follow a two-tiered structure for the unit of analysis. In the first instance the information would be organized around the level of conflict as the unit of analysis. These are the specific elements of the conflict are viewed in a restricted way. At a second layer and for each conflict, aspects of conflict contestation would be recorded. This two layer approach would allow to disaggregate information to the level of analysis required and be able to respond to questions not only of if there is a war ongoing, but also what forms of political contestation, such as battles, but also riots or other, are occurring in that process. This approach would necessarily require a broad definition of conflict.

At the same time, the selection of the data structure to be used will also determine the possibilities of the dataset. Generally speaking the appropriateness of the dataset will depend on the demands of the research design, in particular how the research question frames the problem in order to inform what kind of data is most theoretically appropriate.

The data structure will be associated with the unit of analysis, and there are four main common structures (see table 1 for identification of structure in each dataset) and the event datasets:<sup>84</sup>

Country-year: normally used for onset and occurrence of civil war. The Collier and Hoeffler (2001) study uses country-5 year structure.

Conflict-level: When the conflict is the unit of analysis. Studies that look into duration could either use this or country-year structure.

Conflict-year: This structure is useful to analyse situation where the conflict is given and one is interested in having a time-series, for instance to identify the effect of third-party interventions on conflict. UCDP-PRIO main conflict data is in this format.

Dyad-year: A dyad is defined in conflict terms as “a pair” of parties, normally a government on one side and either another government (inter-state conflict) or a rebel group on the other side (intra-state conflict), or two non-state group (communal violence). In a country with several parties in conflict there will be several dyads. This structure is specially relevant when intending to differentiate the effects of a variable on different parties.

Event datasets: refers to the interaction of actors as reported in the open press. These are data not treated in the sense of labelling. Recent technological developments have allowed to make computer-coded material as well as human coding.

The choice of a dataset or datasets will generally follow the unit of analysis, and while aggregation of data is possible more or less easily (moving from country-year to conflict-level for instances) the disaggregation of a dataset will normally require additional coding work.

c) Develop theory and create a typology of forms of contestation and code a new dataset

Within the context of a critical assessment of the conflict studies some authors have explored the possibilities of developing typologies. Naturally these will follow the axes of analysis of conflict presented in the previous section. One example across the axes of identification of ruler and position of the state are conflicts over: ideology, resources, leadership and ethnic.<sup>85</sup> Another example focusing on warfare with a distinction along the axes of resource level of incumbents and parity between the actors leads to four combinations: conventional wars; symmetric nonconventional wars; symmetric irregular wars and urban wars.<sup>86</sup> Still others have made a distinction between “New Civil Wars” and “Old Civil Wars” presented before. Along the axes of actors one can have: interstate conflict (state versus state); intrastate conflict (non-state versus state); non-state communal conflict or (non-state versus non-state); one-sided violence (state or non-state versus civilians). Other typologies could be derived based on other axes of classification of conflict.

The validity of such an initiative has been questioned both on utility and conceptual grounds. On one hand the disaggregation of an already rare event into different types will allow little statistical validation of the data. On the other hand the type of conflict might be endogenous to other characteristics of the state.<sup>87</sup>

Associated with the typology would need to be developed an exercise of theory building, or more precisely theory summarizing if all the extensive research on this area is considered. It has been suggested that in theory building about rare events as conflict and war, such should follow either deductive theory or case studies rather than regression analysis.<sup>88</sup>

At the same time a significant data gathering effort would need to be done to operationalize such process. But data collection for intra-state conflict is a complex undertaking, requiring significant resources, and raising several problems of accuracy and reliability of the data. This option needs to be analysed based on resource availability.

#### **4. Conclusion**

The paper resumes some of the most widely used conceptualizations of civil war and assesses them critically. A series of proposals are identified from the literature. The main critique relates to the need to capture the complexity of the dynamic process of conflict, both non violent and violent, including the normally defined phenomena of war. This will entail the more detailed identification of the forms of contestation, or technology of conflict, which is used in and around war. Additionally it is proposed a multi layered focus, from micro, to regional (meso) and macro.

Through a comparison with alternative datasets of conflict and based on the proposals three possible non exclusive alternatives are summarized. One for the re-conceptualization of conflict along the dynamic process perspective, another by the combination of dependent and independent variables on a double layer and finally the most ambitious theory development and gathering of new data.

The main conclusion of the paper is that it is relevant to question the dependent variable used in the studies and such process can provide increased confidence on the research.

## **Annex1: COSIMO operational definitions**

### Conflict

Defined as the clashing of opposing interests or positional differences around national values and issues (independence, self determination, borders and territory, access to or distribution of domestic or international power). A conflict has to be of some duration and is carried out between at least two parties (states, groups of states, organizations or organized groups) that are determined to pursue their interests and win their case. At least one party is the organized state.

### War

Defined as the systematic and collective use of force of some duration and extent between comparable opponents.

### Severe crisis

Defined as a threat to use of force. Military threats include the mobilization of regular troops, guerrillas or liberation armies, the partial occupation of land, border territories or security zones and the threat or declaration of war.

### Crisis

Defined as tensions below the threshold of violence. Tense relations between the parties can reach a turning point from where the use of force may become more likely. Around this point, many decisions are based on incomplete information and taken under time pressure. Economic sanctions, for example, are a means by which a latent conflict can be turned into a crisis. In a crisis, the affected party reacts in a permissive, enduring or de-escalating manner.

### Latent conflict

Groups, parties, or states question existing values, issues or objectives that pertain to an issue of national interest. The positional differences and the opposing interests in a latent conflict must be articulated as demands or claims. The affected party must be aware of these demands.

Source: Pfetsch and Rohloff (2000)

<sup>1</sup> Intrastate wars are wars that are fought within state borders between a government and non-government forces (civil war), or at least two non-government forces (inter-communal war). Singer and Small intrastate wars only describes civil war. A dyad consists of two conflicting primary parties.

Sarkees, Meredith Reid (2000). "The Correlates of War Data on War: An Update to 1997," *Conflict Management and Peace Science*, 18/1: 123-144

<sup>2</sup> Gleditsch, Nils Petter; Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg & Håvard Strand, (2002) "Armed Conflict 1946–2001: A New Dataset." *Journal of Peace Research* 39(5): 615–637.

<sup>3</sup> Gurr, Ted R. (1993). *Minorities at risk: A global view of ethno-political conflicts*. Washington, DC: United States Institute of Peace Press.

<sup>4</sup> The new version COSIMO 2 dataset of the Heidelberg Institute for International Conflict Research as now been renamed to CONIS – Conflict Information System – but is still not available. For the earlier version of the dataset COSIMO1 see:

Pfetsch, Frank and Christoph Rohloff, (2000). *KOSIMO: A Databank on Political Conflict*, *Journal of Peace Research*, vol.37, no.3, pp.379-389.

The previous chronology of initiatives is based on Eck, Kristine, 2008. 'An Overview and Typology of Conflict Data: the Advantages of Data Diversity,' in Mayeul Kaufmann, ed. *Building and Using Datasets on Armed Conflicts*, Vol. 36 NATO Science for Peace and Security Series. Amsterdam: IOS Press.

Other related data initiatives are POLITY IV project, State failure, International Crisis Behavior Project or the Kansas Event Data System project (KEDS).

<sup>5</sup> Sambanis, Nicholas. (2004a) "What Is Civil War? Conceptual and Empirical Complexities of an Operational Definition." *Journal of Conflict Resolution*, 48(6): 814–58.

<sup>6</sup> Bremer, S. A., P. M. Regan, and D. H. Clark (2003) *Building a Science of World Politics: Emerging Methodologies And The Study Of Conflict*, *Journal of Conflict Resolution*, February 1; 47(1): 3 - 12.

<sup>7</sup> Blattman, Christopher and Miguel, Edward (2010), *Civil War*. *Journal of Economic Literature* 2010, 48:1, 3–57

<sup>8</sup> Angstrom, Jan (2001) 'Towards a typology of internal armed conflict: Synthesising a decade of conceptual turmoil', *Civil Wars*, 4: 3, 93 — 116

<sup>9</sup> Blattman and Miguel, (2010).

<sup>10</sup> Sambanis (2004a) compares 12 different specifications

<sup>11</sup> Hegre and Sambanis (2006) explore the sensitivity of eighty-eight variables used to explain civil war.

Hegre, Håvard, and Nicholas Sambanis. 2006. "Sensitivity Analysis of Empirical Results on Civil War Onset." *Journal of Conflict Resolution*, 50(4): 508–35.

<sup>12</sup> Such as on how the relationship between conflict and resource wealth have been differently analyzed, Ross (2004)

Ross, Michael L. 2004a. "How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases." *International Organization*, 58(1): 35–67.

<sup>13</sup> Some specific civil war data initiatives are identified in table 1, references not mentioned already are:

Fearon, James D. & David D. Laitin, (2003). 'Ethnicity, Insurgency, and Civil War', *American Political Science Review* 97(1): 75–90.

Collier, Paul & Anke Hoeffler, (2002). 'Greed and Grievance in Civil War', Oxford University, Centre for the Study of African Economies, Working Paper 2002–01

Elbadawi, Ibrahim & Nicholas Sambanis, (2002). 'How Much War Will We See? Explaining the Prevalence of Civil War', *Journal of Conflict Resolution* 46(3): 307–334.

Licklider, Roy (1995) "The Consequences of Negotiated Settlements in Civil Wars, 1945-1993," *American Political Science Review*, 89 (September, 1995), pp. 681-690.

Presentation at the VAD conference, Mainz, 9th April 2010 by Nicolas Schwank. His presentation identified the main characteristics of the new CONIS (COSIMO 2) dataset which are analysed in this paper. His presentation was based on the unpublished paper: Schwank, Nicolas (2010), *It's all about resources, isn't it? Items of political conflicts – the forgotten question of details of the depending variable in quantitative conflict research*.

<sup>14</sup> CONIS dataset (previously called KOSIMO) is a German based conflict list updated annually at the University of Heidelberg, but has been subjected to criticism because the definition of conflict is subjective and includes non-violent conflicts.

- <sup>15</sup> Singer, J. David. (1961), *The Level-of-Analysis Problem in International Relations*, *World Politics*, Vol. 14, No. 1, *The International System: Theoretical Essays*. (Oct., 1961), pp. 77-92.
- <sup>16</sup> Bremer, Regan and Clark (2003)
- <sup>17</sup> Kalyvas, Stathis (2003), *The Ontology of "Political Violence: Action and Identity in Civil Wars in Perspectives on Politics* 1:3, 475-494
- <sup>18</sup> Kalyvas, Stathis (2008), *Ethnicity and the Dynamics of Civil War*, First draft prepared for presentation at the Rethinking Ethnicity and Ethnic Strife Conference, Budapest 2008
- <sup>19</sup> Raleigh et al, 2006 *Armed Conflict Location and Event Dataset (ACLED)* and Raleigh et al, 2006, *Conflict Sites 1946–2005*, both from the Centre for the Study of Civil War, International Peace Research Institute, Oslo (PRIO).
- <sup>20</sup> Presentation of Nicolas Schwank at VAD in Mainz, 9<sup>th</sup> April 2010
- <sup>21</sup> Buhaug and Rød (2006) and presentation of Nicolas Schwank at VAD in Mainz, 9<sup>th</sup> April 2010, respectively.
- Buhaug, Halvard, and Jan Ketil Rød. (2006) "Local Determinants of African Civil Wars, 1970–2001." *Political Geography*, 25(3): 315–35.
- <sup>22</sup> Wallensteen, P., & Sollenberg, M. (1998). *Armed conflict and regional conflict complexes, 1989–97*. *Journal of Peace Research*, 35(5), 621–634
- <sup>23</sup> Blattman and Miguel (2010)
- <sup>24</sup> Gleditsch, Kristian Skrede. (2007) "Transnational Dimensions of Civil War." *Journal of Peace Research*, 44(3): 293–309.
- <sup>25</sup> Cederman, Lars-Erik and Gleditsch, Kristian Skrede (2009) Introduction to Special Issue on "Disaggregating Civil War", *Journal of Conflict Resolution*; 53; 487
- <sup>26</sup> Sambanis, Nicholas. (2004b) "Using Case Studies to Refine and Expand the Theory of Civil War." *Perspectives on Politics*, June; Vol. 2/No. 2
- <sup>27</sup> Small and Singer (1982). In this section when Singer and Small (1982) are referenced it also considers the other three datasets identified in table 1 which follow closely its method: Fearon and Latin (2003), Collier and Hoeffler (2002) and Elbadawi & Sambanis (2002); unless otherwise specified.
- Small, Melvin, and J. David Singer (1982). *Resort to Arms: International and Civil Wars, 1816-1980*. Beverly Hills, Calif.: Sage Publications
- <sup>28</sup> Small and Singer (1982).
- <sup>29</sup> Gleditsch and all (2002), Shwank (2010), Pfetsch and Rohloff (2000), Sambanis (2004).
- <sup>30</sup> Sundberg, Ralph, (2009) *UCDP Non-State Conflict Codebook Version 2.1-2009* in "Human Security Brief 2006" (Human Security Centre, University of British Columbia)
- <sup>31</sup> Kalyvas (2003).
- <sup>32</sup> Cederman and Gleditsch (2009).
- <sup>33</sup> Cramer, Christopher (2002). "Homo Economicus Goes to War: Methodological Individualism, Rational Choice and the Political Economy of War." *World Development*, 30(11): 1845–64.
- <sup>34</sup> Eck, Kristine and Lisa Hultman (2007). "Violence Against Civilians in War." *Journal of Peace Research* 44(2)
- <sup>35</sup> Kalyvas (2008).
- <sup>36</sup> Besley, Timothy J., and Torsten Persson (2009). "Repression or Civil War?" *American Economic Review*, 99(2): 292–97.
- As a first ordered variable they consider data from US state department and Amnesty International which include civil and political rights violations such as execution, imprisonment and when political murders/brutality are widespread. As a second ordered variable they count up purges: systematic murders and eliminations of political opponents within regimes based on Arthur Banks (2005)
- Gibney, Mark, Linda Cornett, and Reed Wood (2007). *Political Terror Scale 1976 to 2006*. Banks, Arthur (2005). *Cross-National Time- Series Data Archive, Databanks International]*
- <sup>37</sup> Bloomfield, Lincoln P. and Allen Moulton (1997), *Managing International Conflict: from Theory to Policy*, St. Martin's Press, New York, 1997 (includes the CASCON software)
- <sup>38</sup> Shwank (2010)
- <sup>39</sup> Cramer (2002)
- <sup>40</sup> Ostby, Gudrun (2008) "Polarization, Horizontal Inequalities and Violent Civil Conflict", *Journal of Peace Research* 2008; 45; 143
- <sup>41</sup> Small and Singer (1982)

- 42 Gleditsch et al, (2002), Shwank (2010), Bloomfield and Moulton (1997), Pfetsch and Rohloff (2000)
- 43 Sambanis (2004a)
- 44 Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010.
- 45 Licklider (1995), Pfetsch and Rohloff (2000).
- 46 Kalyvas, Stathis (2001) Research Note “New” and “Old” Civil Wars, a valid distinction?, *World Politics* 54 (October), 99-118
- 47 Kalyvas (2001).
- 48 Sambanis (2004a).
- 49 The COW have a specific extra-state dataset and Gleditsch et al (2002) considers extrasystemic wars.
- 50 Wilkenfeld, Michael & Michael Brecher (1989) 'International Crisis Behaviour Datasets', *DDIR-Update*, vol. 4, no. 1, October, pp. 1-12.
- 51 Diehl, Paul F. (1992) What Are They Fighting for? The Importance of Issues in International Conflict Research. *Journal of Peace Research*, Vol. 29, No. 3 (Aug., 1992), pp. 333-344
- 52 Sambanis (2004)
- 53 Petersen, Roger D. (2002) Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth-Century Eastern Europe. Cambridge: Cambridge University Press. In Sambanis (2004a).
- 54 Cramer (2002)
- 55 Kalyvas (2003)
- 56 Gleditsch (2001)
- 57 Singer and Small (1982), Gleditsch (2001), Licklider (1995).  
Battle-related deaths are defined as “those caused by warring parties that can be directly related to combat over the contested incompatibility. Namely: traditional battlefield fighting, guerrilla activities (e.g. Hit-and-run attacks/ambushes), and all kinds of bombardments of military bases, cities and villages etc. Urban warfare (bombs, explosions, assassinations) does not resemble, but are considered battle-related. The target of attacks is either the military forces or representatives of the parties, though there is often substantial collateral damage in the form of civilians being killed in the crossfire, indiscriminate bombing, etc. All fatalities – military as well as civilian – incurred in such situations are counted as battle-related deaths” (Gleditsch et al (2001), Definitions, sources and methods for Uppsala Conflict Data Program Battle-Death estimates, pag. 3-4). Battle-related deaths, which concern direct deaths, are not the same as war-related deaths, which includes both direct as well as indirect deaths due to disease and starvation, criminality, or attacks deliberately directed against civilians only (one-sided violence). (ibid).
- 58 Sambanis (2004a)
- 59 Lacina and Gleditsch (2005) is considered one of the most reliable time-series of battle fatalities since 1946 (Eck, 2005) even if it provides in most cases specific period estimates for each country and with significant differences from other sources.
- Eck, Kristine, (2005) ‘A Beginner’s Guide to Conflict Data: Finding and Using the Right Dataset,’ UCDP Research Paper Series.
- Lacina, Bethany and Gleditsch, Nils Petter (2005) Monitoring Trends in Global Combat: A New Dataset of Battle Deaths, *European Journal of Population* (2005) 21: 145–166]
- 60 Sambanis (2004a)
- 61 Cramer, Christopher (2007) *Violence in Developing Countries: War, Memory, Progress*. Bloomington: Indiana University Press
- 62 Lacina and Gleditsch (2005)
- 63 Genocide: acts committed with intent to destroy, in whole or part, a national, ethnical, racial or religious group. Politicide: seek to destroy groups because of their political beliefs rather than their religion or ethnicity.
- Harff, Barbara (1992) “Recognizing Genocides and Politicides.” In *GenocideWatch*, ed. Helen Fein. New Haven, CT: Yale University Press, 27–41
- 64 Rummel, R.J. (1994) *Death By Government*, New Brunswick, N.J.: Transaction Publications
- 65 Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010, Bloomfield and Moulton (1997), Pfetsch and Rohloff (2000).
- 66 Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010.
- 67 Small and Singer (1982)
- 68 Sambanis (2004), Licklider (1995)
- 69 Licklider (1995)

70 Even if sharing a similar COW methodological tradition different datasets have low levels of  
correlation in their civil war lists.

71 Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010.

72 Sambanis (2004a)

73 Kalyvas (2003)

74 Sambanis (2004a)

75 Kalyvas (2008)

76 Cramer (2002)

77 Murshed, S M (2009) Understanding Civil War: A rational Choice approach, Edward Elgar, 2009.

78 Kalyvas (2003)

79 Sambanis (2004a)

80 Pfetsch and Rohloff (2000: 381)

81 Presentation of Nicolas Schwank at VAD in Mainz, 9th April 2010.

82 *ibid*

83 Regan, Patrick (2002) Thoughts on How to Organize a Data Set on Diplomatic Methods  
of Conflict Management, International Negotiation 7: 53–65

84 Based on Eck (2005)

85 Angstrom (2001)

86 Balcells, Laia, and Stathis N. Kalyvas. 2007. “Warfare in Civil Wars.” Unpublished.

87 Blattman and Miguel (2010)

88 Blattman and Miguel (2010)