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Discussion Paper

New Wars in Numbers: an empirical test of the 'new war' thesis

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Abstract

This paper investigates to what extent the 'New War' thesis put forward by Mary Kaldor (2006) is supported by empirical evidence. The 'New War' thesis maintains that since the Second World War, and especially after the end of the Cold War, warfare increasingly displays 'New War' characteristics, such as targeting of civilians and involvement of non-state combatants. The paper finds that, in concurrence with the 'New War' thesis, the ratio of civilian to military deaths from battle has increased significantly over the period 1946-2010, as has violence against civilians over the period 1989-2010. Evidence on the participation of non-state combatants is mixed, although some evidence in favour of the 'New War' thesis is found. Overall, empirical evidence supports the idea that the character of war has changed since 1946, on at least one aspect. There is no indication that these trends have intensified after the end of the Cold War, or during the 1980s.

Introduction

Has the character of warfare changed fundamentally since the end of the Second World War? Proponents of the 'New War' thesis argue that it has, and/or that the changing nature of war has become more pronounced since the end of the Cold War in 1989. This is the first of two hypotheses with regards to trends in violent conflict that the present thesis will investigate empirically. A number of variations to the 'New War' argument exist (see (Melander, Öberg, and Hall 2009) for an overview). However, having coined the term, Mary Kaldor's book on *New and Old Wars* is often held up as emblematic of the 'New War' thesis (Kaldor 2006). Mary Kaldor describes 'New Wars' as being increasingly fought over identities rather than ideologies, by non-state combatants rather than (or in addition to) regular state armies, engaging in attacks on the civilian population rather than direct military encounters, and undermining rather than building the State, among other characteristics.

The idea that the nature of warfare has changed fundamentally has been of concern to those making or studying International Humanitarian Law (IHL). Two aspects of 'New War' are of particular relevance. First, the 'New War' thesis poses that bringing harm to civilians is a main goal,

rather than an unfortunate 'byproduct' of modern warfare. This is directly contrary to IHL, according to which only attacks on military targets are legitimate acts of war and which attempts to minimize harm to civilians (Akkerman 2009). Secondly, the 'New War' thesis holds that participation of non-state armed actors has become more common. Currently, only sovereign states are signatories to IHL, specifically to the Geneva Conventions. Although the second Additional Protocol to the Geneva Conventions in particular is considered to give rights to non-state combatants in as far as they are in conflict with a sovereign state (Cherif Bassiouni 2008; Nevers 2006), the bases on which IHL confers *obligations* on non-state combatants are weak (Kleffner 2011) and the text of the second Additional Protocol does not cover conflicts not involving a sovereign state. Ultimately, one may be concerned that IHL is legislating for a situation ("mass battles between more-or-less evenly matched armies of uniformed soldiers from opposing states") that is becoming extinct (Nevers 2006). Calls to substantially change or add to IHL naturally follow (Cherif Bassiouni 2008; Nevers 2006).

These concerns resonate outside the realm of academia. Kofi Annan for example, in his opening address to the General Assembly of the United Nations in 1999, addresses the critique that the UN charter is "ill-suited to guide us in a world of ethnic wars and intra-State violence", by stating it is a living document that can be reinterpreted.[1] The International Committee of the Red Cross, to give another example, devoted an entire issue of one of their main publications to the topic of non-state combatants in 2011.[2]

Despite these concerns that IHL is becoming obsolete with the rise of 'New Wars', the supposed fundamental change in the nature of warfare is heavily disputed. 'New Wars', critics of the thesis say, are not new at all (Henderson and Singer 2002; Kalyvas 2001; Newman 2004). Their critiques emphasize how 'Old Wars', such as the American civil war or the Boer war display many 'New War' characteristics and how 'New Wars' such as wars in Kosovo and Mozambique do not confirm as readily to the stereotype as claimed. Ultimately, these critics say, it is not the nature of warfare that has changed, but our perception of it. A second category of criticism concerns the data used to support the 'New War' argument. Especially the claim that the ratio of military to civilian casualties has been reversed from 8 military deaths to 1 civilian death in the early 1900s to 8 civilian deaths for each military casualty in the late 1990s has come under fire (Roberts 2011).

Hence, the empirical validity of the 'New War' thesis is a policy-relevant matter for investigation. This paper will therefore investigate to what extent the 'New War' thesis is supported by empirical evidence.

In existing literature, there is certainly no shortage of works investigating trends in global conflict; the Human Security Report does this on a yearly basis, as do the papers accompanying the release of each updated version of various datasets. Although these analyses have some implications for the 'New War' thesis, they often consider trends in conflict in *absolute* terms (e.g. is the overall number

[1] Press Release SG/SM/7136 GA/9596, 20 September 1999, accessible at http://www.un.org/News/Press/docs/1999/19990920.sgsm7136.html
[2] International Review of the Red Cross, volume 93, number 882, June 2011.

of wars, casualties, etc. increasing or decreasing?), whilst the 'New War' thesis is a *relative* statement ('New War' characteristics become more common relative to others). One relative trend that *has* gotten considerable attention is the percentage of all wars that is categorized as 'intra-state conflict'. Although increasing by most accounts (Human Security Report Project 2012; Themnér and Wallensteen 2011), this is a rather rough test of the 'New War' thesis. *Within* 'intra-state conflict', certain characteristics may over time become more common compared to others (e.g. violence against civilians versus violence amongst armed actors), even though the percentage of all conflicts classified as 'intra-state' may not change. Lastly, many investigations into the 'New War' thesis do not systematically consider armed conflicts over time, and instead highlight specific conflicts in 'Old War' times that look like 'New War' and vice versa (e.g. (Kalyvas 2001; Newman 2004). These examples do not necessarily constitute damning evidence against the 'New War' thesis; even though some wars in the distant past may have displayed 'New War' characteristics already, this does not preclude the possibility that these have become more prevalent over time. Therefore, this paper investigates *relative* trends, *within* various forms of violence classified as *intra-state*, systematically considering all violent conflicts for which data is available.

One may argue that currently available data is biased *against* finding evidence for the 'New War' thesis, because it was gathered with an 'Old War' conception of violent conflict in mind. Indeed, until the 1980s, the then leading dataset on conflict (the Correlates of War dataset) excluded civil wars (Singer 1972), and interest in gathering data on violence not involving a state army fighting another armed actor only arose in the 2000s (Eck and Hultman 2007; Sundberg, Eck, and Kreutz 2012). To my knowledge, little systematic data is available on private military contractors, looting and other 'criminal' activity during violent conflict, or aggression against civilians short of physical violence. Furthermore, the most comprehensive datasets classify each conflict as a whole into a particular category, for example as 'intra-state war', 'one-sided violence' or 'non-state war', but provide no information on practices *within* particular violent conflicts. As the 'New War' thesis argues that practices in war have changed, this overall classification may make it difficult to recognize the trends that the 'New War' thesis proposes empirically. To the extent that data is currently not gathered on 'New War' aspects of violent conflict, it would be *more* difficult to find empirical evidence in favour of the 'New War' thesis. Any such evidence found in this paper could therefore be considered a subset of the evidence that may have been found had more data been available.

To investigate to what extent the 'New War' thesis is supported by empirical evidence, this paper derives various testable hypotheses. The main premise of the 'New War' thesis is formulated as: violent conflict worldwide increasingly displays 'New War' characteristics, relative to 'Old War' characteristics. This trend started after the Second World War, and picked up speed after 1989. Testable hypotheses derived from the 'New War' thesis include: the military to civilian casualty ratio has increased over the period mentioned; violence against civilians has become more common relative to other war activities; fighting by non-state combatants has become relatively more

common; and: there is a structural break in the relative prevalence of these three characteristics after the end of the Cold War in 1989. It should be noted that these are by no means all hypotheses that one could derive from the 'New War' theses. However, data to test other potential hypotheses is currently not available.

The paper concludes that overall, there is evidence in favour of the idea that the character of war has changed since 1945 on at least one aspect. Data suggests that the ratio of civilian to military deaths from battle has increased significantly over the period 1946-2010. Furthermore, a relative increase in violence against civilians is found over the period 1989-2010. Evidence regarding the participation of non-state combatants in conflict is mixed, with some datasets supporting the 'New War' thesis while others do not. Despite this upward relative trend in most 'New War' characteristics, no evidence is found suggesting that these trends have become more pronounced after the end of the Cold War, or during the 1980s.

The remainder of this paper is organized as follows. Section two sets out the 'New War' thesis. Section three considers existing literature. Section four describes hypotheses to be tested and data used. Section five presents the results. The final section concludes.

The 'New War' thesis

This section briefly presents the 'New War' thesis, as set out in Mary Kaldor's book, *New and Old Wars* (2006). In this book, she argues that the nature of warfare has changed fundamentally. This change has supposedly been in progress since the Second World War, although it has become more pronounced since the end of the Cold War or during the 1980s. With regard to the latter: the increasing prevalence of 'New War' may have been obscured by Cold War rhetoric during the 1980s, misleadingly interpreting emerging 'New Wars' in state-versus-state, 'Old War' terms.

How does 'New War' differ from 'Old War'? 'Old War', Kaldor argues, is typically fought between states, over state interests. The immediate goal in 'Old War' is to defeat one's enemy by weakening its military forces through violence. Hence, one characteristic of 'Old War' is battle, direct military engagement between armies. 'Military necessity' permitting, civilian casualties are minimized. Combatants are usually recognizable and uniformed. In 'New War' by contrast, armed groups do not try to assume control by directly engaging each other, but through controlling the population. Armed groups thus avoid direct combat, but attempt to remove individuals with a different ethnicity or identity (in the broad sense of the word) from the territory they aim to control. This means directly targeting civilians, through violence, ethnic cleansing, forced displacement or rape, in such a way that it instils fear among other individuals with a different identity, inciting them to leave the territory controlled by the armed group. Attacking civilians is thus an objective and civilian casualties not an unfortunate by-product of war. Combatants in 'New War' are usually a myriad of difficult to identify armed groups. These can be regular forces, not always in uniform and not

always operating under direct control of the state, organized armed groups, armed civilians, private

Table 1: Some characteristics of Old and New War

Old War	**New war**
Fought between states.	Fought by numerous non-state and state groups, within states.
Distinction combatant – non-combatant clear	Combatants not easily recognizable; blurring distinction combatant - criminal.
'Military necessity permitting' civilians are not targeted	Civilians are main victims
Controlling territory through direct military engagement with opposing groups (i.e. battle)	Controlling territory through controlling population (displacement, rape, ethnic cleansing weapons of war). Avoidance of direct military encounters.
Clear front line	Patchwork of enclaves controlled by different groups
State-building effect of war financing	Violence financed by looting, hostage taking, illegal trade, diaspora; international networks tied into conflict

military contractors, or foreigners who have joined the fighting.

Well-defined groups of combatants having battles over territory in 'Old War', implies a war with clear front lines, whilst disparate armed groups targeting civilians result in a 'leopard skin' pattern of enclaves held by different groups. In the war in Bosnia Herzegovina for example, Bosnian groups controlled most population centres, with Serbian and Croat groups holding most power in the country side.

Violence against civilians by armed groups in 'New War' results in a low level of support for these groups among the local population. Since many of these groups also lack funding from a state, they rely on predation and external support. Funding for 'New Wars' thus stems from looting, robbery, hostage taking, from trade in illegal commodities, extorting those who provide humanitarian aid and from remittances from diaspora and foreign governments. Especially the last four ways of war financing connect 'New Wars', though often fought locally and within-country, firmly to the global economy. These types of war financing may also mean that combatants develop a vested interest in continuing the fighting, and they may even collude to sustain fighting and the money-making opportunities it brings. 'Old Wars' by contrast, are financed through the state taxing the population, which may have a state-building effect, if the population demands a certain level of accountability of the state in return. 'New Wars', on the other hand, are financed by by-passing the state and do not have such a state-building effect.

In sum, 'New Wars' are fought employing a different logic from that of 'Old Wars' and this leads to observable differences in the mode of warfare. A summary of the characteristics of 'Old' and 'New War' respectively is given in Table 1. This table sketches two ideal types; in practice it is likely that all wars display both 'Old War' and 'New War' characteristics to a certain extent. Hence, the 'New

War' thesis as presented by Kaldor (2006) does not imply that wars prior to the Second World War did not display any 'New War' characteristics, nor that modern warfare is completely devoid of any 'Old War' qualities. It also does not imply that warfare as a whole, or the number of 'New Wars' has increased in an absolute sense since the Second World War. It does state that the character of overall warfare has changed substantially. For the purpose of this paper, I formulate the 'New War' thesis as follows:

> *Warfare globally has increasingly displayed 'New War' characteristics relative to 'Old War' characteristics since 1946. This development accelerated after 1989 or during the 1980s.*

The idea of 'New War' has attracted numerous critiques. Many of these can be summarized as: "'New Wars' are not new". Kalyvas (2001) for example, argues that the distinction between 'New Wars' and 'Old Wars' is not valid, and that it arises because information about current or ongoing wars is biased, downplaying political motivations behind current conflict, and because historical research on past war is disregarded, ignoring 'New War' characteristics present in past wars. Kalyvas illustrates is argument using various examples: for instance, combatants in the recent civil war in Sierra Leone articulate a clear political motivation for employing violence that is easily missed by journalists covering the conflict, while historical research indicates that the Vietcong during the Vietnam War engaged in extensive coercion of the local population. Henderson and Singer (2002) similarly highlight the use of guerrilla tactics in wars as early as the US Civil War, the Franco-Prussian War, or the Boer War. They furthermore argue that 'New Wars' readily fall on under the existing categories of war, such as extra-state war, intra-state war, or low level violence. Newman (2004) calls the idea of 'New Wars' ahistorical, and argues that they are not clearly distinct from past wars.

In response to these critiques, Kaldor (2013) admits that many features of 'New Wars' can be found in earlier wars. The usefulness of the term 'New War', she argues, is not only to indicate the changing nature of organized violence, but, perhaps more importantly, to bring about a change in policy-makers' and policy-shifters' perception of it. Kaldor argues against "preoccupation with empirical claims" and discussions about the adjective 'new', and in favour of recognition that thinking about war needs to change to arrive at better frameworks for research and policy (Kaldor 2013).

To the extent that debates among practitioners in International Humanitarian Law (IHL) are the result of the 'New Wars' thesis, this shift in the perception of war may have been accomplished. However, despite Kaldor's warning to avoid "preoccupation with empirical claims", it is still interesting to investigate empirical evidence for the 'New Wars' thesis. As the next section will illustrate, the academic debate on whether the character of warfare (rather than our perception of it) has changed has by no means been resolved. In addition, whether 'New War' is indeed 'new' is of importance to practitioners in IHL. The argument is easily made that if the 'New War' thesis exaggerates the novelty of empirical trends, the need to reform IHL is therefore also overemphasized (Akkerman 2009). This is not necessarily true: IHL may not be becoming obsolete

because war is increasingly 'new', but it may have disregarded important aspects of warfare from its inception, implying that reform may still be desirable. However, the idea that IHL needs to adapt to trends that are verifiably new appears to have more traction than the idea that thinking needs to be renewed, and the idea that war is 'new' and the need for reform of IHL remain closely linked (Akkerman 2009; Cherif Bassiouni 2008; Nevers 2006; Reydams 2006).

Literature

For the purpose of this section, I distinguish three strands of related literature: papers setting up a direct test of one or more 'New War' hypotheses, the debate surrounding the military to civilian casualty ratio and the debate on whether war is becoming more or less prevalent globally.

A number of papers explicitly set up a test of the 'New War' thesis. Chojnacki (2006) for example, equates 'New War' with 'Sub-State War' and aims to find out whether this is the dominant form of violence over the period 1946-2003. Sub-state war is defined as 'violence between non-state actors within or across national borders'. The critical reader will remark that this not an accurate operationalization of the 'New War' thesis: proponents of the 'New War' thesis in general, and Kaldor (2006) in particular do not argue that the state army will be completely absent from 'New Wars', nor that the majority of violent conflicts have been 'New Wars' as defined by Chojnacki since the Second World War. Nevertheless, Chojnacki (2006) recodes and integrates datasets on war, using his definition of 'sub-state war'. He recognizes 166 wars over the period 1946-2003, 16 of which are 'sub-state' wars. Chojnacki therefore rejects the hypothesis that 'New War' is now the dominant form of violence, as 'sub-state' wars do not form a majority of all conflicts. However, he recognizes that sub-state wars have grown in relative importance (from constituting 5 per cent of all wars in the '70s to 25 per cent of wars post 2000)(Chojnacki 2006).

Using another formulation of the 'New War' thesis, Melander, Öberg and Hall (2009) investigate whether the absolute human impact of war has increased since the end of the Cold War. Again, this is not an accurate interpretation of the 'New War' thesis as put forward by Kaldor (2006); this does not imply that there will be more civilian victims per conflict in an *absolute* sense, but that *relative* to other groups, they are increasingly targeted. Nevertheless, Melander, Öberg and Hall (2009) propose four indicators for the human impact of war: the average number of battle-related deaths per conflict-year, the average number of civilians killed in genocide or politicide per conflict-year, the average number of civilians displaced per conflict-year, and the ratio of civilian to military casualties. Only the last indicator gives a sense of the *relative* increase in the human cost of war. The authors conclude that conflict-years after 1989 were on average associated with *fewer* rather than more battle-related and civilians deaths. The authors furthermore find no evidence to support that the number of displaced people per conflict-year was systematically higher over the post-Cold War period as a whole. Lastly, the authors argue that the hypothesis regarding the military to civilian casualty ratio can be tentatively dismissed, in light of the fact that the number of

civilian casualties from genocide or politicide is not systematically higher post 1989, even when controlling for the number of battle-related deaths (Melander, Öberg, and Hall 2009). Although the last idea has some intuitive merit, I ultimately find it unconvincing. The battle-related deaths dataset used includes civilian deaths from battle (very broadly defined), so changes in who is targeted by war may already be hidden in this single variable. Furthermore, the approach assumes that controlling for battle-related deaths captures completely the downward trend in overall military violence, leaving a dummy for a post 1989 to pick up any changes in the military to civilian casualty ratio. In practice however, the overall downward trend is very strong and correlated to both the number of battle-related deaths and the dummy, which could easily prevent the dummy from picking up even very substantial changes in the military to civilian casualty ratio.

These papers illustrate that there is a lack of clarity about what is and what is not claimed by individual proponents of the 'New War' thesis. The papers above formulate the 'New War' thesis mostly in an *absolute* sense: the absolute number of casualties or displaced must have increased, or the absolute number of sub-state wars must be higher than any other type of war. Some 'New War' authors indeed seem to take this line of argument, for example by stating that current wars are "nasty, brutish and long"(Holsti 1996). However, a close reading of the book *New and Old Wars* indicates that it does not employ this absolute argument, but poses instead that 'New War' is becoming *relatively* more important compared to other forms of war. This does not exclude the possibility of an absolute decrease in the 'human cost of war', as the following example will illustrate. Imagine the global number of battle-related deaths per year has decreased ten-fold over some period, from 400 to 40. Battle-related deaths used to consist of 75 per cent combatant deaths versus 25 per cent civilian deaths, but the ratio has since been reversed. These numbers both show a marked decline in the absolute number of civilians killed in battle (100 in the past versus 30 now) *and* a clear increase in the relative importance of civilian death in battle (from 25 per cent of total deaths in the past to 75 per cent now). A different expression of this emphasis on the absolute is evident when Chojnacki only considers wars fought *exclusively* between non-state parties as 'New War'. However, it is entirely possible that 'New War' elements, such as targeting of civilians or fighting by irregular forces, have become more common *within* more traditional categories of war.

In the wider literature, the global (absolute) trend in violent conflict has also received a lot of attention. The debate has centred on whether the world is now more or less war-prone or violent than it was in the past. Without fully doing justice to this literature, we can discern that around 2003, there was a tendency to say that the world was becoming more violent. Often quoted are Sarkees, Wayman and Singer (2003), stating that "risk of death in battle trended neither up or down since the date of Napoleon's exile" and that "we are living through one of the worst decades in human history", as the 1990s ranked number two on the list of decades with the highest number of war onsets (Sarkees, Wayman, and Singer 2003). In addition, Fearon (2004) noted an alarming increase in the average duration of war (Fearon 2004). In later years however, there has been a tendency to argue that the world is becoming more peaceful. Lacina, Gleditch and Russet (2006)

for example, present an article on the "declining risk of death in battle", arguing that earlier conclusions on this risk being constant were an artefact of outliers (mainly the World Wars) and inconsistently gathered data (Lacina, Gleditsch, and Russet 2006). The Human Security Report aims to disabuse us of the notion that wars last increasingly long (Human Security Report Project 2012). The sentiment that violent conflict is in decline is put forward most boldly by Steven Pinker, who states that mankind has become progressively less violent since its inception (Pinker 2011). Within the space of a decade, the literature appears to have made a remarkable turnaround, from dire predictions about increasing violence, to the optimistic prediction that the world is moving towards peace. This turnaround is partly due to a disagreement on how to collect and interpret data on wars and partly a consequence of data on wars in the years late 1990s and 2000s becoming available. Lower numbers of wars in these years have altered our outlook on the overall trend.

According to the current state of knowledge, the number of wars and the number of battle-related casualties is decreasing globally. However, this conclusion may again change, as datasets continue to expand in the future. Furthermore, an increasing percentage of the remaining wars are civil wars (Human Security Report Project 2012; Themnér and Wallensteen 2011). Again, it should be noted that most of the debate concerns *absolute* trends in violence and rarely looks at relative trends within broad categories of war.

The military to civilian casualty ratio is the subject of another debate. Kaldor states in her book that this ratio reversed from 8 military deaths to 1 civilian death at the beginning of the 20th century, to a ratio of 1:8 in the 1990s. Although this number has often been repeated, a consensus has emerged that it is not based on any reliable source (see for example (Roberts 2011) for an investigation of the origin and spread of this particular 'fact'). Whether it is therefore untrue, and if so, what the true military to civilian casualty ratio is remains unclear, and the issue will likely not be resolved in the foreseeable future given the unreliable reporting of civilian casualties. We do have some estimates for individual wars. Roberts (2011) estimates that civilians make up 40 per cent of violent deaths in Bosnia and Herzegovina, and anywhere between 66 per cent and 90 per cent in Iraq. However, it should be noted that casualty numbers for both conflicts are heavily disputed. Lacina and Gleditsch (2005) consider the percentage of total war deaths that is not battle-related in ten civil wars and present numbers in the range of 70-97 per cent, although they have doubts as to the accuracy of the data on total war deaths (Lacina and Gleditsch 2005). Investigation into the development of this ratio over time has remained limited. Exceptions are Eckhardt (1989), who argues that the ratio has remained stable at 50 per cent of the last three centuries, although the source of the data used is unclear and the data is in need of updating, (Eckhardt 1989) and the earlier mentioned assertion by Melander, Öberg and Hall (2009).

Confusion arises when it is unclear which exact casualty number is used. 'Battle-related deaths' is often rephrased as deaths of combatants in battle, while most battle-related death numbers include civilian deaths due to battle. The definition of battle is furthermore not the same

across different datasets. A term such as 'war casualties' is often taken to mean 'deaths in war through violence', but could also include deaths in war due to starvation or disease.

Overall, studies exist investigating whether current data support the 'New War' thesis and (more commonly) overall trends in global violence. These studies have overall been critical of the 'New War' thesis, although it is common to see the thesis interpreted in ways that are not supported by 'New War' authors themselves. Unlike these studies however, the current paper investigates the *relative* importance of 'New War' over time. Furthermore, it will look at trends *within* conflicts involving non-state combatants.

Data and hypotheses

Data used

The analysis in this paper will use data from three sources: the Correlates of War (COW), the Uppsala Conflict Data Program (UCDP) and the Armed Conflict and Event Dataset (ACLED). As the previous section has highlighted, definitions of 'war', 'battle-related death' or 'event' in these dataset often appear superficially similar, but differ meaningfully in reality. Therefore, this section will specify definitions used in each.

Useful for all datasets is the following typology of war: (a) Inter-State War is war between two or more state actors; (b) Extra-State war is war between a state and a non-state actor outside the state's territory; (c) Intra-State war is war between a state and a non-state actor within the state's boundaries. Trends in the relative importance of these broad categories of war have been researched extensively, as described in the previous section, especially the increase in the percentage of conflicts categorized as 'extra-state' or 'intra-state' war compared to 'inter-state' war. Therefore, this paper investigates trends *within* conflict that involves at last one non-state combatant, and thus excludes all inter-state wars from the analyses that follow.

The Correlates of War dataset (COW) (Sarkees and Wayman 2010) can be considered a pioneer under the cross-country long term datasets on war. It defines war in its various codebooks (Sarkees 2010, 2011, 2010) as "sustained combat, involving organized armed forces, resulting in more than 1000 battle-related combatant fatalities within a 12-month period". It categorizes war in Inter-State, Intra-State, Extra-State and Non-State War, with a further breakdown of these categories into nine types of war. The broad typology of wars is similar to the one defined above, adding Non-State War (war among non-state actors in non-state territory or across state borders). One exception is that COW expands the category of 'intra-state' war with wars between a government of a regional subunit and a non-state entity, and wars between two or more non-state entities within state boundaries (which more commonly fall in the category of non-state war). Over the period 1946-2007, it recognizes 300 wars. Per war, it includes the number of *battle-related combatant fatalities*, or the number of combatants dying in battle. COW has been critiqued in the past for inconsistent

recording of fatalities: casualty numbers for inter-state wars included combatant deaths only, while numbers for all other types of war included all war deaths (violent or non-violent) (Lacina, Gleditsch, and Russet 2006). However, the latest codebook and notes with the dataset suggest that this problem has been addressed and numbers for all wars now only include battle-related combatant fatalities (Sarkees 2010, 2010).

The UCDP/PRIO Armed conflict dataset is the currently most used cross-country dataset on war. It defines armed conflict as: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, at least one of which is the government of a state results in at least 25 battle-related deaths [for minor armed conflict and at least 1000 battle-related deaths for war]". It recognizes Extra-Systemic (Extra-State) War, Inter-State War and Intra-State War, and distinguishes 'Internationalized Intra-State War' (Intra-State war with a second government intervening militarily) as a fourth category (Themnér 2011). Where COW takes the war as the unit of analysis, UCDP/PRIO records conflict-country-years, i.e. each year that a particular country is experiencing particular conflict is a separate entry in the dataset. This implies that a particular country can experience more than one conflict in a given year. Over the period 1946-2010 the dataset includes 2022 conflict-country-years and 245 unique conflicts.

For the period 1989-2010, UCDP provides data on battle-related deaths for all conflict-country-years in the main dataset. The UCDP Battle-Related Deaths Dataset defines its core variable as "those deaths that can be directly related to combat over the contested incompatibility". Including both military and civilian deaths, this definition is considerably broader than that of COW. Although combat is not explicitly defined, it is stated to include battle-field activity, guerrilla activity, bombing and urban warfare, in as far these target the military forces or other "representatives" of the parties to the conflict (Sundberg 2011).

Possibly in response to critiques that the UCDP datasets are exclusively state-based, UCDP has recently started producing two more datasets, on 'Non-State Conflict' (Sundberg, Eck, and Kreutz 2012) and 'One-Sided Violence' (Eck and Hultman 2007). The former is defined as "the use of armed force between two organized armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year"(Sundberg 2010) and the latter as "the use of armed force by the government of a state or by a formally organized group against civilians which results in at least 25 deaths a year"(Kreutz 2008). The structure of both datasets is very similar to the larger Armed Conflict Dataset. Both cover the period 1989-2010, recognizing 601 country-years in non-state conflict (392 unique non-state conflicts) and 680 country-years with one-sided violence respectively. It is worth noting that fatalities are only included in the one-sided violence dataset if the killing of civilians was intentional and a direct result of the use of armed force.

Lacina and Gleditsh (2005) (L&G) provide an alternative dataset on battle-related fatalities. It covers all conflict-country-years included in the UCDP/PRIO Armed Conflict Dataset, up to 2008. The definition of 'battle-related death' is on first glance very similar to that employed by UCDP, essentially deaths resulting from direct combat. In practice however, 'combat' for Lacina

and Gleditsch seems to encompass more than for UCDP, as combat can be violence against both military and civilian targets with the only requirement that the perpetrator faces an immediate threat of lethal force from the opposing forces. By this reasoning, terrorist attacks such as those on 9/11 constitute combat, and casualties from it are battle-related deaths. Massacre also constitutes combat, as long as there is a possibility that the perpetrator will face a reciprocal threat.

The Armed Location Conflict and Event Dataset (ACLED) has pioneered a new form of cross-country dataset, in which the unit of analysis is not the conflict or the conflict-country-year, but the conflict event (Raleigh and Hegre 2005). Although not explicitly defined, events appear to be actions by organized armed groups over issues of political authority. Individual events are taken from news reports and their type, geo-coded location and date is subsequently coded. ACLED recognizes 'violence against civilians' and 'battle' as necessarily violent event types, where the latter is defined as violence between two armed groups, not necessarily including a government, and subcategorized according to whether changes in territory result. In addition, ACLED also includes 'riots and protests', 'headquarters or base established', 'non-violent conflict event' and 'non-violent transfer of location control'(Raleigh, Linke, and Dowd 2012). These events are excluded for the purpose of this paper, as they are not necessarily violent. ACLED covers only African countries for the period 1997-2012 and includes 53.053 individual events.

Lastly, in 2012 UCDP published its own event-based dataset, the UCDP Geo-referenced Event Dataset (UCDP-GED). This explicitly defines an event as: "The incidence of the use of armed force by an organized actor against another organized actor, or against civilians, resulting in at least one direct death in either the best, low or high estimate categories at a specific location and for a specific temporal duration"(Sundberg, Lindgren, and Padskocimaite 2010). It covers African countries over the period 1989-2010 and includes 21.860 events.

UCDP-GED, unlike ACLED, only covers events in country-years that are included in the UCDP Armed Conflict, Non-State Conflict or One-Sided Violence datasets, i.e. years in which a country experiences some type of conflict according to UCDP's definitions above.[3] Furthermore, it does not code individual events according to some typology, but indicates which type of conflict the event is considered to be associated with. Further differences between ACLED and UCDP-GED are the following: (a) UCDP-GED records only 'deadly events' i.e. events with at least one casualty, while ACLED has no such requirement; (b) ACLED codes events as happening on a single day and appears to record every new day of fighting as a new event, whereas UCDP-GED records violence stretching out over multiple days as a single 'continuous event'; (c) UCDP-GED includes 'summary events', multiple instances of violence for which no disaggregate information is available (e.g. when the news report reads: "in the past month, X people were killed in violence"), ACLED does not; (d) UCDP-GED requires the organized actor perpetrating the violence to be known, whereas a non-negligible proportion of ACLED's events are coded as involving an 'Unidentified Armed Group' (Eck 2012).

[3] Although UCDP has the ambition to expand the dataset to include the remaining African countries.

Hypotheses to be tested

This section will derive testable hypotheses from the 'New War' characteristics displayed in Table 1. *Testable* implies that these hypotheses should be formulated specific to available data. Data is unfortunately is not available on a number of characteristics of 'New War', such as the state-building effect of war finance. Therefore, I focus on the hypotheses on war casualties, targeting of civilians and the participation of non-state combatants. With regard to war casualties, these hypotheses follow:

> *H1.1a: The yearly ratio of civilian to military casualties from 'battle' has increased over the period 1946-2010 and the period 1989-2010.*
>
> *H1.1b: The yearly ratio of civilian to military casualties from 'battle' has increased more steeply over the period 1989-2010 than over the period 1946-1989.*

Although no single dataset includes the military to civilian casualty ratio, it is possible to exploit different definitions of 'battle deaths' to approximate the concept. More specifically, the COW dataset includes only combatant deaths from battle, whereas the UCDP Battle-Related Deaths dataset and the L&G battle-related deaths dataset both include civilian deaths from battle. Furthermore, the L&G dataset employs a broader definition of 'battle', compared to the COW dataset. If it were indeed true that progressively more civilians die in battle, the ratio of UCDP or L&G battle-related deaths to COW combatant battle deaths should be increasing over time. If this trend has become more pronounced after the Cold War, it should be possible to recognize a structural break in the trend around that time.

To test for a structural break, I will use the following regression model:

$$CASUALTY\ RATIO_t = ß_0 + ß_1 year_t + ß_2 YEAR_t \times POSTDUMMY_t + \varepsilon_t \quad (4.1)$$

Where $CASUALTY\ RATIO_t$ is the ratio of military to civilian casualties over all included violent conflicts in a particular year, $YEAR_t$ is a continuous variable indicating the calendar year and $YEAR_t \times POSTDUMMY_t$ is the year variable interacted with a dummy equalling one if the year is larger than a particular threshold year and zero otherwise. I experiment with different threshold years, most importantly 1989, the end of the Cold War, and all other years in the 1980s.

A second prediction of the 'New War' thesis is that civilians are becoming a relatively more common target for violence. Because some datasets define a conflict as a whole as 'one-sided violence' and others categorize individual events within a conflict, we can add two more hypotheses:

> *H1.2a: The percentage of conflicts classified as 'one-sided violence' has increased over the period 1989-2010.*

H1.2b: The percentage of violent events coded as 'violence against civilians' or constituting a part of 'one-sided violence' has increased over the period 1989-2010.

The reader may notice that the period under investigation is shorter, as event-based datasets and the dataset on one-sided violence do not cover years before 1989. Also note that the period covered by ACLED is even shorter than this. This precludes the possibility to test for a structural break after the Cold War. It should also be noted that currently, event-based data only covers Africa, so H1.2b can only be investigated for this continent.

It should be noted that H1.2a is a fairly rough test of the 'New War' hypothesis. As highlighted before, the 'New War' hypothesis predicts that targeting of civilians *within* wars has become increasingly common. Although the rise in the percentage of conflicts classified as 'one-sided violence' is thus not a necessarily condition, we may still expect this percentage to increase if targeting of civilians is becoming more common. For this reason, and because it has, to my knowledge, not been investigated previously, I will present results on this hypothesis. However, I consider H1.2b a more convincing test of the 'New War' thesis.

Finally, two analogous hypotheses can be formulated with regard to the participation of non-state combatants in conflict.

H1.3a: The percentage of conflicts classified as 'non-state conflict' has increased over the period 1989-2010.

H1.3b: The percentage of violent events coded as not involving a state army or constituting a part of 'non-state conflict' has increased over the period 1989-2010.

A number of caveats again apply. The 'New War' thesis does not propose that state armed forces are completely absent from 'New Wars'. Rather, it argues that state armies engage in different modes of warfare, which may include shedding official uniforms, looting or violence against civilians. However, the 'New War' thesis does hold that the number and diversity of non-state actors involved in violent conflict has increased. By virtue of more non-state actors being present, we may expect the number of conflicts, or, more likely, the number of conflict events not involving a state army, to increase. However, it should be noted that it is not impossible to fail to observe such an increase, even though non-state actors do become increasingly involved in warfare.

Results: has 'New War' become relatively more prevalent?

Ratio of civilian to military casualties from 'battle'

H1.1 concerns the ratio of civilian to military deaths from battle. Only two datasets on war casualties cover the whole period 1946-2010; COW provides numbers on the battle-related *combatant* deaths and the L&G dataset on battle-related deaths, including civilian casualties.

Remember that the latter dataset defines 'battle' broadly to include military attacks on civilians (in the presence of a threat of reciprocal violence), so a comparison between these two datasets approximates the ratio of civilian to military deaths through violence in state-based warfare.

As the units of analysis differ between the two datasets, some work is needed before they can be compared. I manually match the wars in COW to those in L&G by comparing the location, start and end date, and participants to the conflict. Almost all (93 per cent) of extra-state and civil wars recognized by COW are also in the L&G dataset. Those only recognized by COW often appear to be short-lasting instances of violence (for example the overthrow of the Shah of Iran or 'Black September' in Jordan). Conflicts classified by COW as 'Intercommunal' or 'Non-State' are rarely matched, as can be expected since the L&G dataset does not cover these types of war. However, these make up only a small (8 per cent) percentage of the total number of wars in COW. I aggregate the number of deaths for all parties to a conflict, treating missing values as zero, to arrive at the number of *known* combatant battle deaths per conflict. Then, I expand the COW dataset to include an entry for each year the conflict is recorded to be ongoing, and average the total number of deaths over the number of conflict years.[4] In both datasets, all interstate wars are dropped.

Error! Reference source not found. displays the total number of known deaths per year for both datasets. Overall, both seem to display a downward absolute trend, although this is more pronounced for combatant battle deaths than battle-related deaths. As can be seen, the number of combatant battle deaths and the number of battle-related deaths track each other relatively closely until the late 1970s. Hereafter, they diverge, with the difference between the number of battle-related deaths and combatant battle deaths growing, although this gap appears to be growing smaller again in the 1990s and 2000s.

Examining the ratio directly, I divide the number of battle-related deaths by the number of combatant battle deaths per year and subtract one, to arrive at a number that can be interpreted as: "for each military battle death, X civilians die in battle". Figure 2 shows this ratio for each year, along with a fitted time trend and 95 per cent confidence interval. There is clear upward trend, which is statistically significant at the 1 per cent level. According to this data, the ratio has increased from 0.35 on average in the 1940s to over 2 in the 1990s and 2000s (see **Error! Reference source not found.**, column (1)). This would indicate that the ratio of civilian to military casualties from 'battle' was about 1:3 in the 1940s, versus 2:1 in the last two decades. This provides clear support for H1.1a.

[4]It is possible from CoW to calculate the exact number of days that a conflict has lasted, use this to determine the average number of deaths per day and extrapolate to find the average number of deaths per year. However, this has the effect of creating extremely high numbers of average deaths for conflicts that created a substantial number of deaths but only lasted a few days.

Figure 1: Battle Related Deaths versus Combatant Battle Deaths 1946-2010

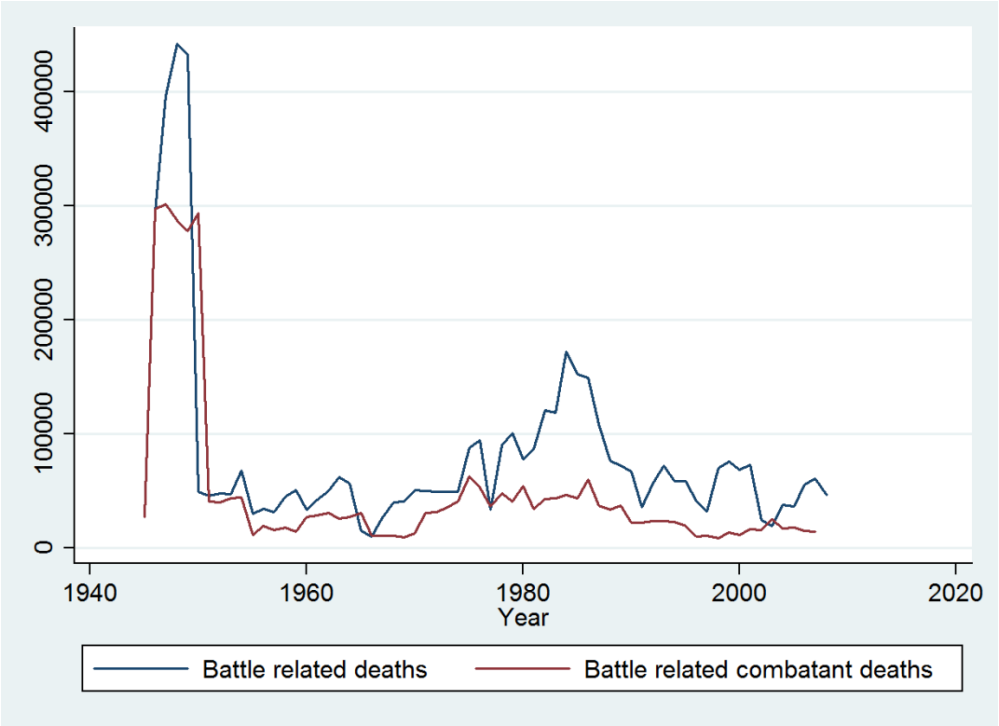
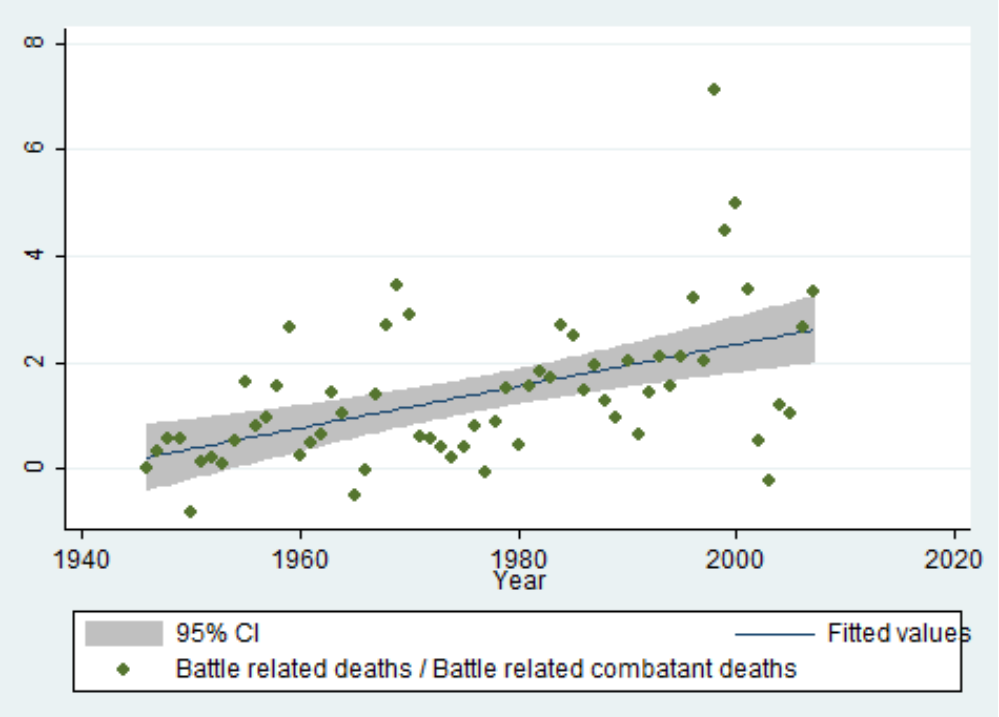


Figure 2: Ratio of Civilian Deaths to Military Deaths from 'battle' 1946-2010



Moving on to H1.1b, both figures do little to convince us that the ratio of civilian to military deaths from battle increased faster over the period 1989-2010 than since the Second World War. If anything, the gap between battle-related deaths and combatant battle deaths appears to be closing

somewhat over later decades. While the ratio appears to have become more volatile, it does not display a stronger upward trend in later years.

Testing formally for a structural break, I run Model (4.1) using the data displayed in Figure 2. First, I test for a structural break in 1989. The coefficient on the interaction term between year and the dummy for post 1989 is not significant at any conventional level, providing no evidence for a structural break in this year. Furthermore, I experiment with other years in the 1980s. However, no significant results are found for any of the other years in this decade, hence providing no indication that there was a structural break in the ratio of civilian to military deaths from battle at any time in the 1980s.

It is tempting to conclude that H1.1a is supported by the data, but H1.1b is not and move on. However, they critical reader may remark that comparing the yearly averages from the two datasets may be misleading. First, the L&G dataset recognizes almost twice as many conflict-country-years as COW. This is because the former has a lower death threshold (only 25 deaths versus 1000 deaths), so a conflict would likely be picked up by L&G in an earlier year compared to COW, and conflicts that never exceed the 1000 deaths threshold would never feature in COW at all. Furthermore, civilian casualties from battle 'count' towards this death threshold for L&G but not for COW. Second, both datasets are marred by a high percentage of missing data (32 per cent and 40 per cent of data on casualties missing for COW and L&G respectively). When aggregating by year, missing data is essentially treated as zero, which may keep the total artificially low.

None of these discrepancies necessarily constitutes a problem. The present analysis examines the difference between the two datasets over time. Hence, any discrepancy would also have to display some time trend for the analysis to be biased. Several possibilities come to mind. If COW is disproportionately missing observations for later years, the number of combatant battle deaths in later years would be artificially low compared to the number of battle-related deaths (although it may also be telling that it becomes harder to establish the number of combatant deaths). This appears possible, as COW has fewer than 15 missing observations for decades before 1980, but 31, 92 and 29 missing observations in the last three decades respectively. Columns (2) and (3) of **Error! Reference source not found.** show the amended results when either dropping wars recognized by COW but missing data on casualties, or imputing 1000 combatant battle deaths (the minimum for inclusion in the dataset) for each missing observation. Both ways of dealing with missing data cause the upward trend in the ratio of civilian to military deaths from 'battle' to become somewhat less pronounced. However, the ratio still shows a significant increase (1 per cent level) over the period 1946-2010.

Imputation seems to be the more reasonable way to deal with missing data; the wars with missing data are recognized as such by COW and dropping disproportionate numbers of observations may introduce its own biases. Therefore, I will continue to impute in further robustness checks.

Table 2: Civilian to Military casualty ration by decade 1946-2010

Decade	Baseline	Dropping missing COW	Imputing missing COW	Only mayor war, imputing COW	Only observations in both datasets, imputing COW
	(1)	(2)	(3)	(4)	(5)
1940s	0.35	0.34	0.35	0.35	0.22
1950s	0.77	0.75	0.72	0.83	1.12
1960s	1.08	0.37	0.81	1.04	0.75
1970s	0.81	0.79	0.73	0.96	0.41
1980s	1.63	1.36	1.45	1.53	1.18
1990s	2.66	0.95	1.22	2.10	1.12
2000s	2.11	1.24	1.44	1.60	1.28

A second concern is that the L&G dataset is increasingly picking up small wars, adding to recent aggregate numbers of battle-related deaths, but not to number of combatant battle deaths drawn from COW. Again, this is a possibility, since the proportion of wars characterized as 'minor conflict' has risen from 32 per cent in the 1940s to over 60 per cent in decades after 1960. However, when only using wars classified as 'major war' by the L&G dataset, we can still see an upward trend in the ratio of civilian to military 'battle' deaths (column (4), **Error! Reference source not found.**) and the trend remains significant at the 1 per cent level.

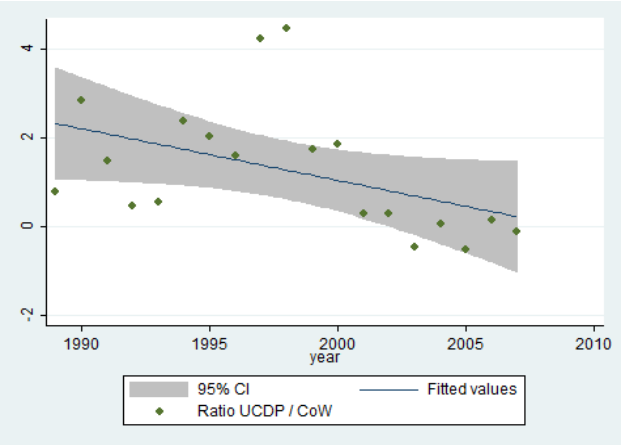
To eliminate any further concerns that the increasing civilian to military battle death ratio is an artefact of different conflicts being included in the two datasets, I rerun the analysis using only country-years that are recognized by both. This results in over two-thirds of observations being dropped. Note also that this sets up the analysis to the disadvantage of the 'New War' thesis; the exact reason why a war may appear in the L&G dataset but not in the COW dataset is because it causes a relatively large number of civilian casualties, yet few combatant casualties. All these wars are now excluded. Despite this, the ratio of civilian to military casualties from 'battle' still increased significantly over the period under investigation, as shown by the final column of **Error! Reference source not found.**, although at a lower (5 per cent) level of significance.

It is worth noting that no evidence was found for a structural break in the trend in 1989 in any of the cases presented in **Error! Reference source not found.**, except in the case of column (2) (dropping wars with missing data recognized by COW). In the latter case, the coefficient on the interaction term was significant and *negative*, which is the opposite of what the 'New War' thesis would predict. No significant and positive results were for any of the other dummy indicators for years in the 1980s.

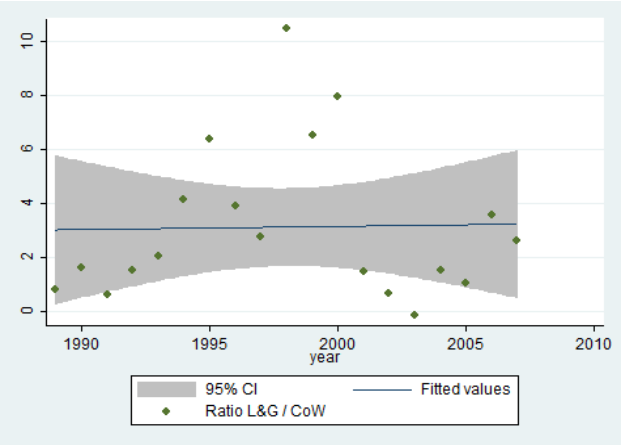
This leads me to conclude that there is robust evidence to support H1.1a for the period 1946-2010, but no evidence in favour of H1.1b.

Figure 3: Ratio of Civilian Deaths to Military Deaths from 'battle' 1989-2010

Panel A: UCDP deaths vs. COW



Panel B: L&G vs. COW



The period 1989-2010 merits some separate investigation, because an additional dataset is available over this period, the UCDP Battle-Related Deaths Dataset. I calculate the civilian to military 'battle' death ratio as described earlier. The results are presented in Panel A of Figure 3. As can be seen, the ratio displays a *downward* trend, the opposite of what is predicted by H1.1a. This downward trend is significant at the 5 per cent level and robust to all variations to the way it is estimated as presented in **Error! Reference source not found.**. For comparison, Panel B shows the analysis over the same period for the L&G and COW data. Over 1989-2010, no significant time trend is recognizable using this data. Again, this conclusion is robust to all presented variations in estimation method. Hence, over the period 1989-2010 there is no evidence supporting H1.1a.

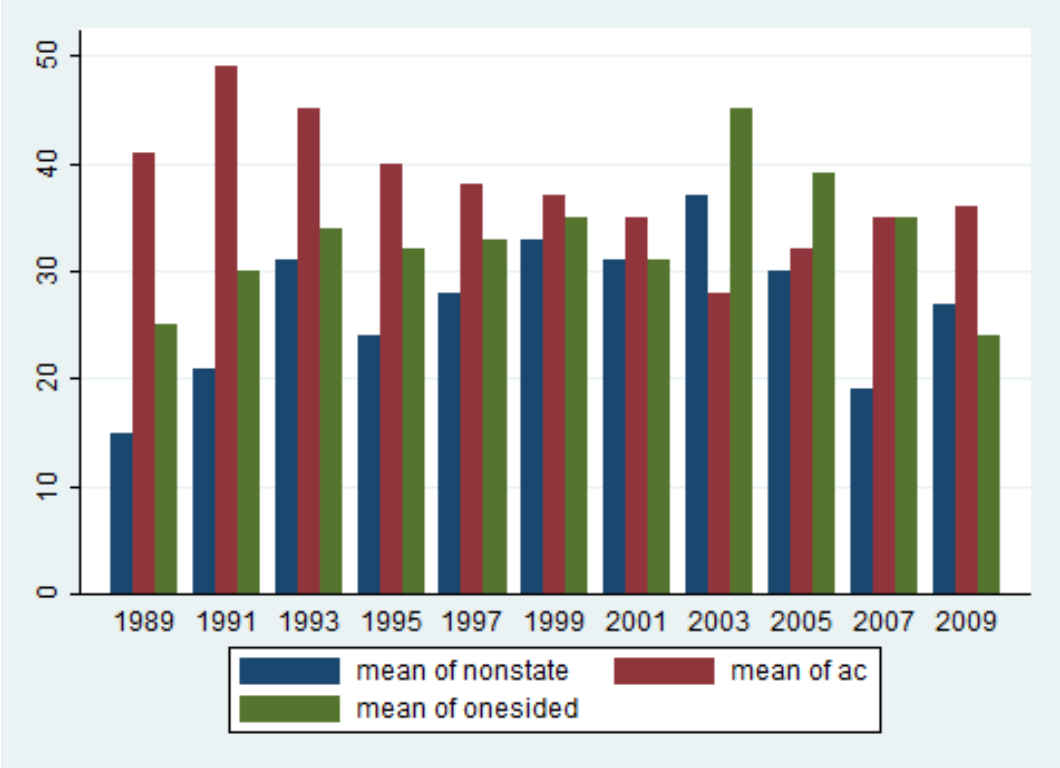
On first sight, the results for the period 1989-2010 completely contradict earlier results. We could speculate that 20 years is too a short time period to recognize any long term trends. However, the results are in accordance with the earlier observation that the gap between battle-related deaths and combatant battle deaths widened in the late 1970s and early 1980s, but that this gap did not continue to widen or even became smaller in the 1990s and 2000s. Also, comparing the average ratio of civilian to military 'battle' deaths in the 1990s and 2000s in **Error! Reference source not found.** provides little convincing evidence of an ever increasing ratio.

Hence, I conclude that when looking at the civilian to military casualty ratio from 'battle', there is strong evidence that the wars after 1980 are systematically different from earlier post-1945 wars. However, there is no evidence that this trend is continuing into the 1990s and 2000s, let alone that the process has sped up after 1989.

Targeting of civilians and fighting by non-state combatants at the conflict level

The remaining 'New War' hypotheses state that targeting of civilians and the participation of non-state combatants have become relatively more prevalent. This section investigates both on a conflict level, examining the share of violent conflicts that is classified as 'Violence against civilians'

Figure 4: Number of violent conflicts per year, by type (UCDP) 1989-2010



(H1.2a) and 'Non-state conflict' (H1.3a), using the various UCDP datasets. The next section explores the counterparts of these hypotheses using event-based data.

As UCDP offers data on state-based armed conflict, violence against civilians and non-state conflict in three separate datasets, I merge the three according to the country and year in which each conflict is recorded to take place. If a conflict is recorded as having taken place in multiple countries, both countries are considered to be in conflict.

Figure 4 displays the total number of conflicts of each type over 1989-2010 (for odd years only, to ensure readability). If we were to disregard the last three bars in the figure, we would see an obvious trend for all categories of violence: a steady decline in the number of state-base armed conflicts, coupled to a steady rise in the number of non-state conflicts and the instances of violence against civilians. However, after 2003 there appears to be somewhat of a reversal in all three trends. Overall however, where state-based armed conflict was the dominant form of conflict throughout the 1990s, it is hard to discern a dominant conflict type for the last decennium.

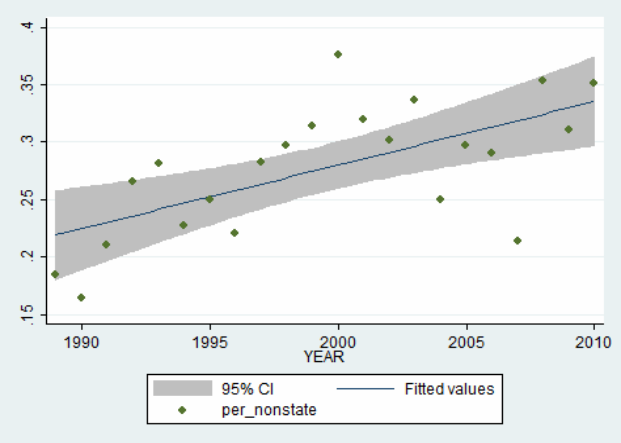
Table 3 and Figure 5 translate this observation into percentages. Table 3 shows that over the period 1989-1994, state-based armed conflicts on average made up close to half of the total number of conflicts each year. In the 2000s by contrast, the total number of conflicts is spread out roughly equally over all conflict types. The downward trend in the number of state-based armed conflicts and the upward trend in the number of non-state conflicts seem most clear, if not overwhelming in magnitude. It is harder to make out a trend in the share of conflicts characterized as one-sided violence. Figure 5, confirms this. The percentage of non-state conflicts as a share of total conflicts has increased significantly (1 per cent level) over the period 1989-2010, whilst the

Table 3: Composition of total number of violent conflicts (UCDP)1989-2010

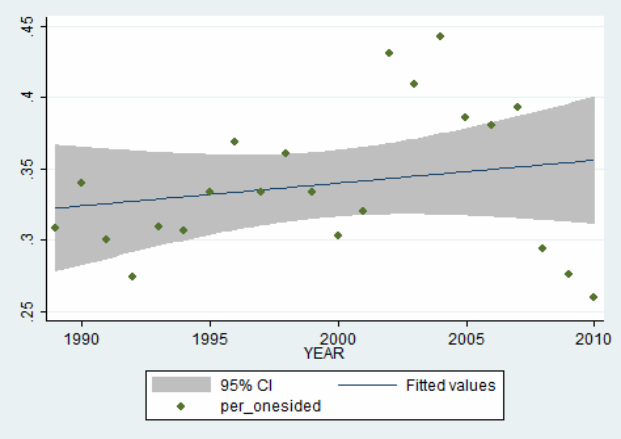
Period	State-based armed conflict	One-sided violence	Non-state conflict
	(1)	(2)	(3)
1989-1994	46.8%	30.6%	22.6%
1995-1999	37.9%	34.6%	27.5%
2000-2004	30.0%	38.2%	31.7%
2005-2010	36.3%	33.5%	30.2%

Figure 5: Non-state conflict and Violence against civilians as a percentage of total conflict 1989-2010

Panel A: Non-state conflict



Panel B: Violence against civilians



trend in the percentage of conflicts characterized as violence against civilians is, although weakly upward, not statistically significant at any conventional level.

In sum, on a conflict level, the data supports H1.3a, indicating that war has changed over the period 1989-2010 to involve non-state combatants more often. No support is found for H1.2a on a conflict level, suggesting that civilians are not increasingly targeted. However, when interpreting these results, the caveats to conflict level analysis should be kept in mind. Although we may expect the percentage of conflicts classified as 'none-state' conflicts or 'one-sided violence' to rise if warfare is indeed increasingly displaying 'New War' characteristics, it is possible that the most pronounced changes take place *within* conflicts not classified as such. Therefore, the next section will examine the participation of non-state combatants and the targeting of civilians at the event level.

Targeting of civilians and fighting by non-state combatants at the event level

Examining event-based data for any trends in the targeting of civilians (H1.2b) and participation of non-state actors in conflict (H1.3b), we have two datasets available: UCDP-GED for 1989-2010 and ACLED for 1997-2010. Note again that both datasets exclusively cover the African continent. As mentioned earlier, UCDP-GED does not distinguish between different types of events as such,

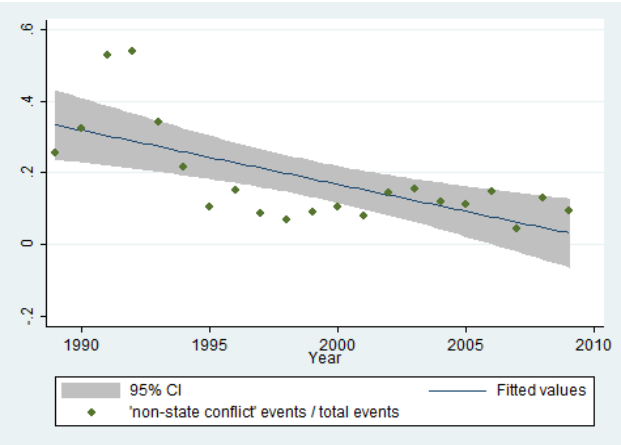
but does include the type of conflict that the event is associated with. Hence, all events associated with 'Non-state conflict' are considered 'non-state conflict events', all events associated with 'one sided violence' are considered 'one-sided violence events' etc. Events in Rwanda in 1994 (associated with the Rwandan genocide) are dropped; including them results in an extremely large spike in instances of one-sided violence in 1994 that overwhelms any other trends over time.

ACLED does categorize individual events by type. I focus on the events 'battle' and 'violence against civilians'. ACLED does not distinguish between a battle in which a government army participates and one which is fought exclusively between non-state combatants, but it does include the actors participating in each event. Hence, all events coded as 'battle' that do not include 'Military forces of [country]' as an actor are considered 'battle involving no state forces'. Events taking place in Ethiopia and Eritrea in the period 1998-2000 are dropped; these events are considered to be associated with the interstate war between these two countries and are therefore outside the scope of the present analysis.

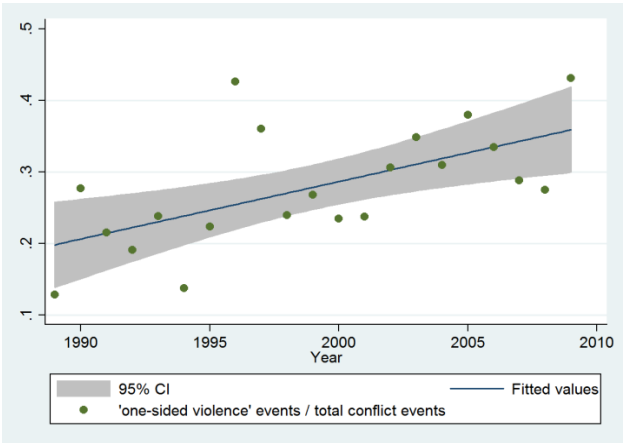
Figure 6 displays the trend in the percentage of events categorized by UCDP-GED as 'non-state conflict events' (Panel A) and 'one-sided violence events' (Panel B). As is evident, there is a clear *downward* trend in the share of non-state conflict events over the period 1989-2010, in complete contradiction with H1.3b. H1.2b, predicting an increase in the percentage of events that are associated with violence against civilians, is clearly supported by the UCDP-GED data for this period, with panel B displaying a significant increase in this percentage. Both trends are significant at the 1 per cent level.

Figure 6: Percentage of non-state conflict and one-sided violence UCDP 1989-2010

Panel A: Non-state conflict events



Panel B: One-sided violence events



The contradiction between the UCDP dataset on a conflict level and the event-based UCDP-GED dataset is striking, especially in the case of non-state conflict. UCDP data simultaneously supports a significant *increase* in the number of non-state *conflicts*, and a significant *decrease* in the number of non-state *conflict events*. This could point to some type of inconsistency in the way that the UCDP applies its own definitions to different datasets. Another explanation is that the sources that underpin the country-level dataset, (which are not explicitly stated but could

include conflict monitoring projects, case studies or consultations with local experts), (increasingly) recognize non-state conflicts, while the media reports that are the source of UCDP-GED data (decreasingly) report on non-state conflict occurrences. Yet another possible explanation is that non-state conflict events are (coded as) lasting increasingly long or that the number of casualties per non-state conflict event is increasing. This would mean that conflicts reach the 'casualty threshold' for inclusion in the conflict-level dataset with a smaller number of events. There is no evidence for increased deadliness of non-state conflict events, but the share of non-state violence events that is coded as a continuous (i.e. multi-day events) has indeed increased significantly (5 per cent) over the period under investigation. However, the downward trend in the percentage of conflict events coded as non-state conflict is not affected when including only single-day events.

Moving on to ACLED data, Panels A and B in Figure 7 show how the percentage of total events in ACLED that can be characterized as 'battle that does not involve a state army' has increased over the period 1997-2010. Significant at the 1 per cent level, this trend provides clear support for H1.3b. Results from ACLED are less robust in the case of violence against civilians (H1.2b). The upward trend shown in Panel B of Figure 7 is weakly significant (10 per cent) level, but is not robust to changes in the specification, such as only considering the number of deadly events.

Again, we are faced with contradictory results, as UCDP-GED data provides evidence in favour of H1.2b, but against H1.3b, while ACLED data firmly supports H1.3b, whilst failing to provide convincing evidence in favour of H1.2b. In the case of violence against civilians, this is most likely due to the period under investigation. To see this, compare Panel D of Figure 7, which also restricts UCDP-GED data to the period 1997-2010. The trends now appear relatively similar: weakly upward when eyeballing, but not robustly statistically significant. This could mean that the upward trend in the targeting of civilians is flattening out in the most recent years, but it is also possible that a thirteen year time span is too short to convincingly identify a long-term trend.

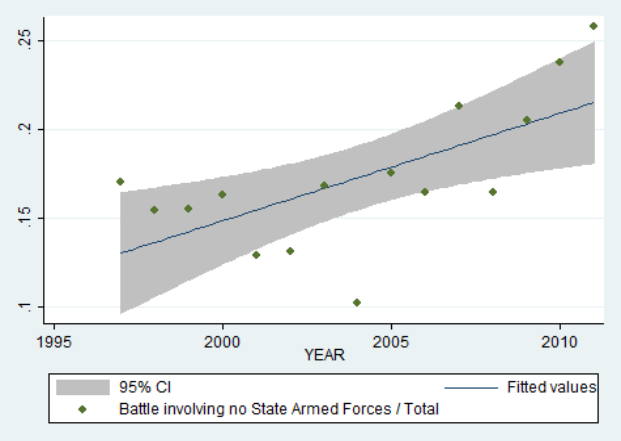
Looking at Panel C of Figure 7, we can see that restricting the UCDP-GED data to 1997-2010 also causes the earlier observed downward trend in the share of non-state conflict events to disappear. However, as may be apparent by the very wide confidence interval, it does not approximate the significant upward trend that ACLED shows in Panel A. A priori, it seems plausible that this difference is somehow an artefact of the differences in the ways that ACLED and UCDP-GED record events. However, the upward trend in the share of events classified as battle with no state army involvement is remarkably robust to changes that we would expect to make the data more similar. The trend is still significant when including only deadly events (5 per cent level), when including only country-years in which ACLED records at least 25 deaths from battle (1 per cent), when dropping all events with a conflict actor unknown, missing or specified as unidentified (5 per cent) and when including only country-years that are also recognized as being in some conflict by UCDP (5 per cent). However, it is not robust to dropping all country-years that are not recognized by UCDP as in 'non-state conflict'. A possible reason is that conflicts that are classified overall as state-based conflicts because the government is an actor in them, increasingly consist of

battles that do not involve state actors. This would be picked up by ACLED because it codes each event individually, but not by UCDP. This is speculative, but resonates with the argument that classifying violent conflicts into a single category may obscure trends in the mode of warfare within conflicts in these categories.

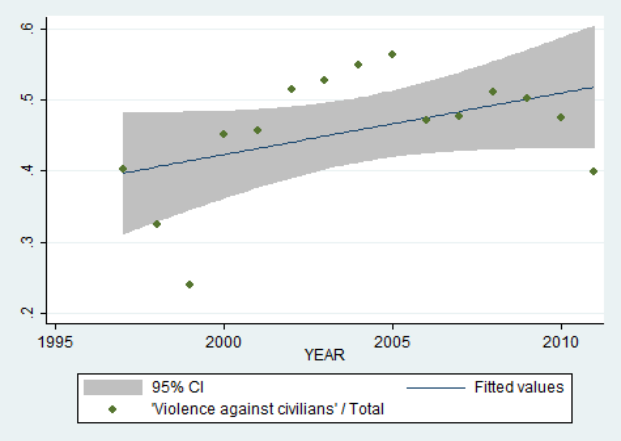
Summarizing, I conclude that there is support, if not definitive evidence, for the notion that civilians have been increasingly targeted in war over the period 1989-2010. This evidence is stronger on the event level than on the conflict level and stronger for the period 1989-2010 than for

Figure 7: Non-state combatants and violence against civilians 1997-2010

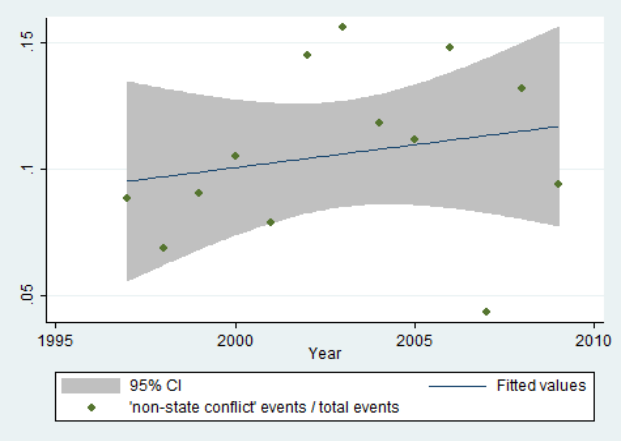
Panel A: ACLED battle without state army



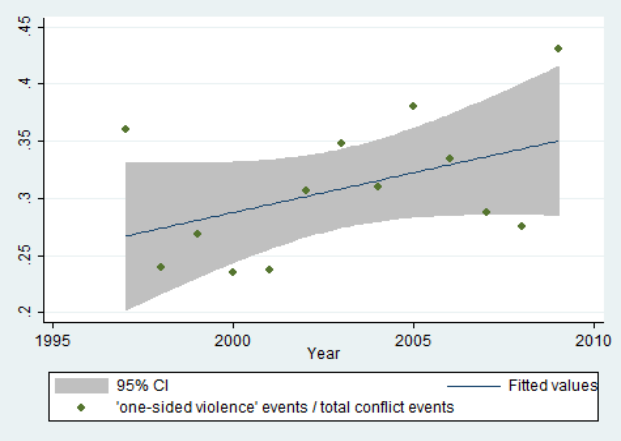
Panel B: ACLED events violence against civilians



Panel C: UCDP events non-state conflict



Panel D: UCDP events one-sided violence



1997-2010. Estimated trends in all datasets are positive, although not (strongly) statistically significant in a number of cases.

With regard to the participation of non-state combatants the picture is mixed. Different UCDP datasets predict opposite trends in non-state conflict, while ACLED does show a clear increase in the share of conflict events that are coded as battle not involving a state army. This precludes a clear conclusion on this point.

Conclusions

This paper has investigated whether the 'New War' thesis is supported by empirical evidence. It interprets the 'New War' thesis as a *relative* statement about the character of war, suggesting that 'New War' characteristics have made up an increasing share of total warfare (regardless of whether the overall *absolute* level of warfare has increased or decreased). Results have shown that there is evidence to support the idea that the character of war has changed since 1946, on at least one aspect. Data show a significant increase in the civilian to military casualty ratio from 'battle' over the period 1946-2010. This trend is robust to various methods of estimation, mitigating concerns that it is somehow an artefact of combining two datasets. Two other 'New War' characteristics are the targeting of civilians and the participation of non-state combatants. Systematic data on these characteristics is limited to the period 1989-2010, making harder to identify long-term trends. Available data nevertheless provides support for the notion that civilians have increasingly become targets of war over the period 1989-2010, although this trend is not (strongly) significant in all datasets under investigations. Furthermore, evidence is mixed on the trend in participation of non-state combatants, with two datasets showing a significant increase over the period 1989-2010 and 1997-2010 respectively and one showing a significant decrease (1989-2010).

Although there is support for the character of war changing after the Second World War, no evidence is found to suggest that there was a structural break in this trend after the end of the Cold War or in any other year in the 1980s. In fact, there is limited evidence that this trend has become less pronounced in later decades.

On balance, the final conclusion of this paper is the following. Although not equally strong for all characteristics, there is evidence that war today is different from war in 1946 in the way set out in the 'New War' thesis. There is no evidence that the end of the Cold War or any other year in the 1980s was a turning point in this.

The evidence presented in this paper has further implications for academic research, both research into the 'New War' thesis specifically and into violent conflict in general. This paper has made apparent that investigating the same question using data at a conflict-level and the event-level can lead to substantially different results. It is possible that classifying each individual conflict, or all events related to a particular conflict, into a single category obscures changed practices *within* individual violent conflicts. This is relevant to those attempting to find factors contributing to violent conflict using cross-country datasets covering a long period of time. In these analyses, violent conflicts in 1946 and in 2012 are considered to be similar, at least to the extent that they could be explained by the same set of variables. In reality however, these conflicts may be sets of highly dissimilar practices, grouped into a superficially similar category, and may not be well explained by a shared set of factors.

The results presented furthermore have implications for policy, specifically for those studying or making IHL. Results indicate that there is an empirical basis to the argument that the

character of warfare has changed, for example since the last Additional Protocol to the Geneva Conventions (1977). To the extent that the changing nature of warfare is a sufficient argument to demand reforms of or changes to IHL, evidence presented in this chapter supports these demands.

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