

Abstract

During a research on the "Returns from the Past" what looks like a "War Cycle" appeared. The periodicity was about 1/3 of 25 years, taking the dates of the outbreak of about ten wars in the 20th century. It was just an intuition that needed to be consolidated. This is how various complementary research has been carried out: more precise measurement of periodicity, verification of this cyclicity in different contexts (Israeli-Arab conflict, Europe, India-Pakistan, World), research into the conditions for the outbreak of wars, forecasts of future wars, analysis of what the authors have already said about the cyclicity of wars and how the "War Cycle" fits in with research already carried out on the same subject. All this research now makes it possible to present results so that we can begin to develop further research and try to understand its origin.

The War Cycle

Introduction

Abstract

During a research on the "Returns from the Past" what looks like a "War Cycle" appeared. The periodicity was about 1/3 of 25 years, taking the dates of the outbreak of about ten wars in the 20th century. It was just an intuition that needed to be consolidated. This is how various complementary research has been carried out: more precise measurement of periodicity, verification of this cyclicity in different contexts (Israeli-Arab conflict, Europe, India-Pakistan, World), research into the conditions for the outbreak of wars, forecasts of future wars, analysis of what the authors have already said about the cyclicity of wars and how the "War Cycle" fits in with research already carried out on the same subject. All this research now makes it possible to present results so that we can begin to develop further research and try to understand its origin.

Introduction

Origins of the research on the "War Cycle".

This research is not part of an objective to find a "War Cycle" by statistical methods, but of a curious observation made during another research. The aim was to identify "Returns from the Past" of about 25 years, i.e. an event that appears similar or contrary to a past event in some other form. It turned out that several "Returns from the Past" were related to wars (e.g. World War II occurring 25 years after the First World War, the 1973 Yom Kippur War which resembles a 25-year return from the 1948 Arab-Israeli War, etc.).

Ending up with several cycles of 25 years staggered by $\frac{1}{3}$ of 25 years, this is how the "War Cycle" was born, whose periodicity at this stage was $\frac{1}{3}$ of 25 years.

1/3 from 25 years to 3085 days

Since $\frac{1}{3}$ of 25-year-olds are not very accurate and not a usable measure, the first task was to measure this interval frequency more precisely. To achieve this, the major wars of the 20th century were selected (about thirty wars). A T0 of the "War Cycle" was defined on the date of the outbreak of the First World War and the values of the cycle were replayed several times, with the only date of outbreak of the wars, varying the periodicity to check the differences between the dates of outbreak of the wars and the dates of the cyclical war peaks. The periodicity of 3085 days appeared to be the best value, with differences distributed more or less evenly (3085 days = 8 years 5 months and 11 days).

This value of 3085 days is considered to be an average value of an as yet unidentified cyclical phenomenon. Since the sinusoid does not exist perfectly in nature, the periodicity of one cycle on the other is probably never the same. The exact average value is estimated between 3070 and 3100.

Further research could change this value found in the spring of 2001. Research conducted since that date has not provided any evidence to justify a significant change in this average value.

For those who would like to redo this calculation and find such a value: It is important to point out that the result could be different if you take 100 wars instead of 30 major wars of the 20th century. The explanation is that the phenomenon is clearly visible when there are few wars with few incidents between wars, and much less visible when one takes simultaneously the wars and the incidents that are considered as new wars. The likely explanation is that the "War Cycle" is a phenomenon that amplifies violence and wars. Taking only the major wars is tantamount to retaining only those that have undergone an amplification that makes them more visible. Further research would consist of taking a list of all the wars and ranking them in order of importance from first to last and doing a statistical replay by taking the 20 most important ranked wars, then the 30, then 50, then all.

The "War Cycle" in different contexts

Why take the dates of the outbreak of the wars?

Why demonstrate the periodicity of wars by the dates of their outbreak and not by the intensity, duration of the war or the successive battles?

There are several reasons:

- A "Cycle" is credible if it is demonstrated over a single type of event. When this is not the case, the demonstration is rarely credible: by mixing any type of event (birth of a great Man, then death of another, without forgetting an important event unrelated to war), one can demonstrate any periodicity quite easily: this is why demonstrations of periodic phenomena are sometimes considered far-fetched.
- The date of the outbreak of wars, as generally recognized by historians and internationally, appeared for this research as an objective data to identify the dates used to demonstrate the relevance of the "War Cycle".
- Gaston Bouthoul, in his Treatise on Polemology^j, judged the periodicity of wars to be legitimate, stressing that it is the point of rupture and outbreak of war that must be taken into account for the periodicity of wars, without taking into account the other characteristics of war (duration, intensity, etc.).

Why different contexts?

It was important to show that this cyclical phenomenon is not unique to a conflict or a region.

The contexts selected were chosen as recurrent conflicts that have provoked several wars (Israeli-Arab conflict or Indo-Pakistani conflict) or regions or countries with a "structural" weakness that regularly provokes conflicts (Europe, Lebanon) and finally a global world vision.

- Arab-Israeli conflict,
- Indo-Pakistani conflict,
- Europe,
- Lebanon,
- World.

There are contexts not presented here that are not significant:

- South America
there are too few wars between Latin American countries to be significant.
- Africa
there are too many wars. To present an African context, one would have to make a choice among all the wars and present only some of them. If the author does so, he will be reproached for holding back only those wars that suit him. The selection of wars should be made according to objective criteria of major wars, criteria which have yet to be defined.

The « War Cycle » in different contexts

Other contexts could be defined and presented.

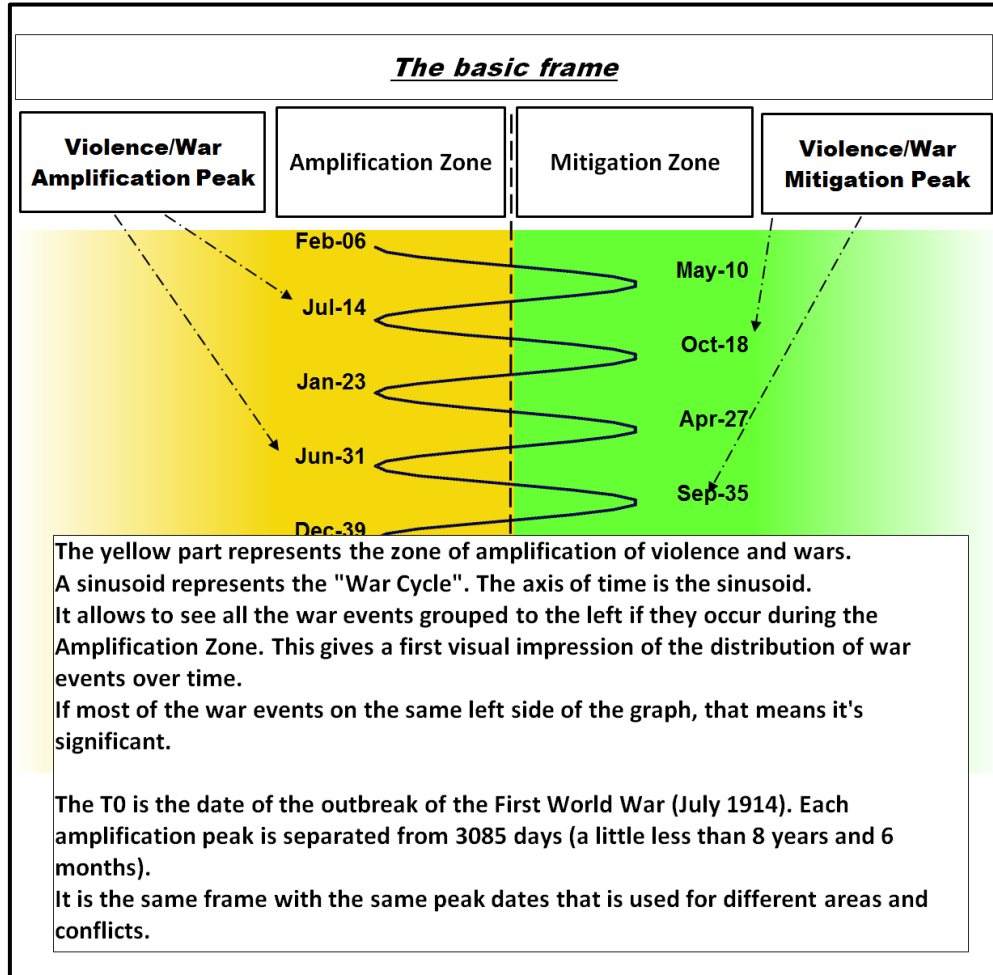
The chosen visual presentation allows both to partially justify the "War Cycle" by showing the past statistical distribution and to extrapolate it into future periods in the form of "forecasts" generally indicated by a "?" ».

In order to understand these contexts, it is recommended that you first read the brief presentation in the following pages.

The « War Cycle » in different contexts

Methodology for presenting the contexts of the "War Cycle".

Graphics - how to read them?



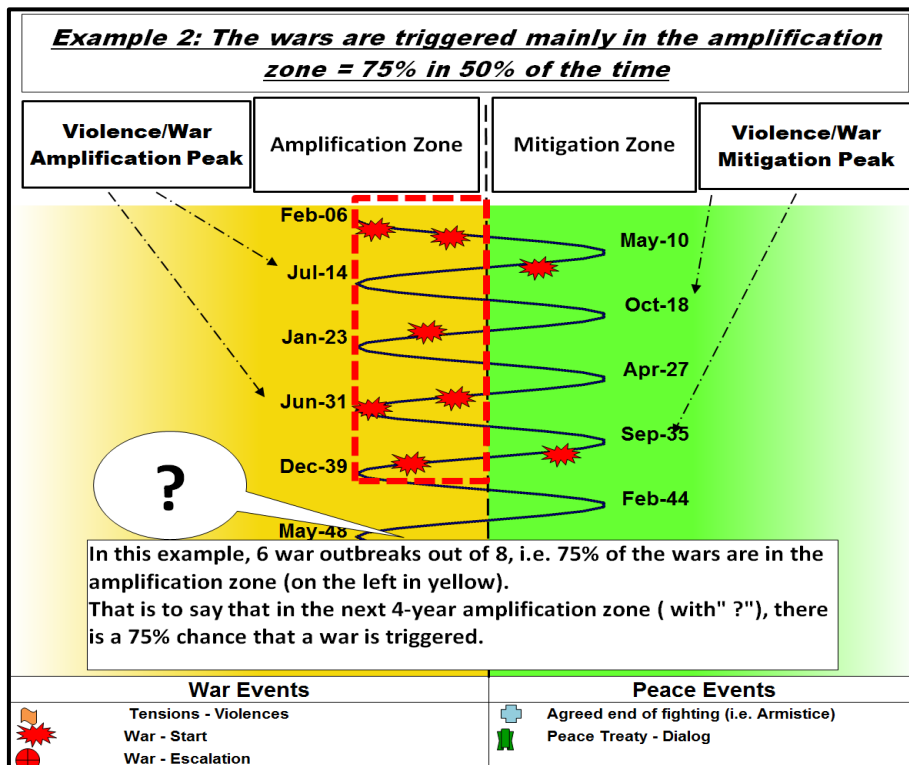
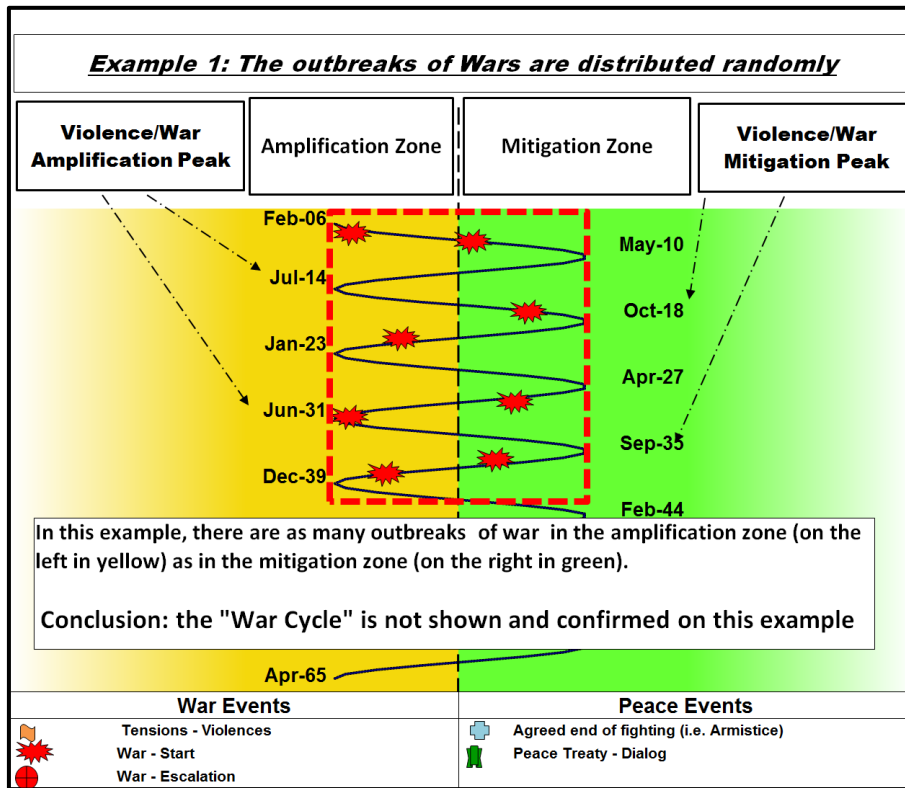
What events are taken into account?

The Graph for each context shows

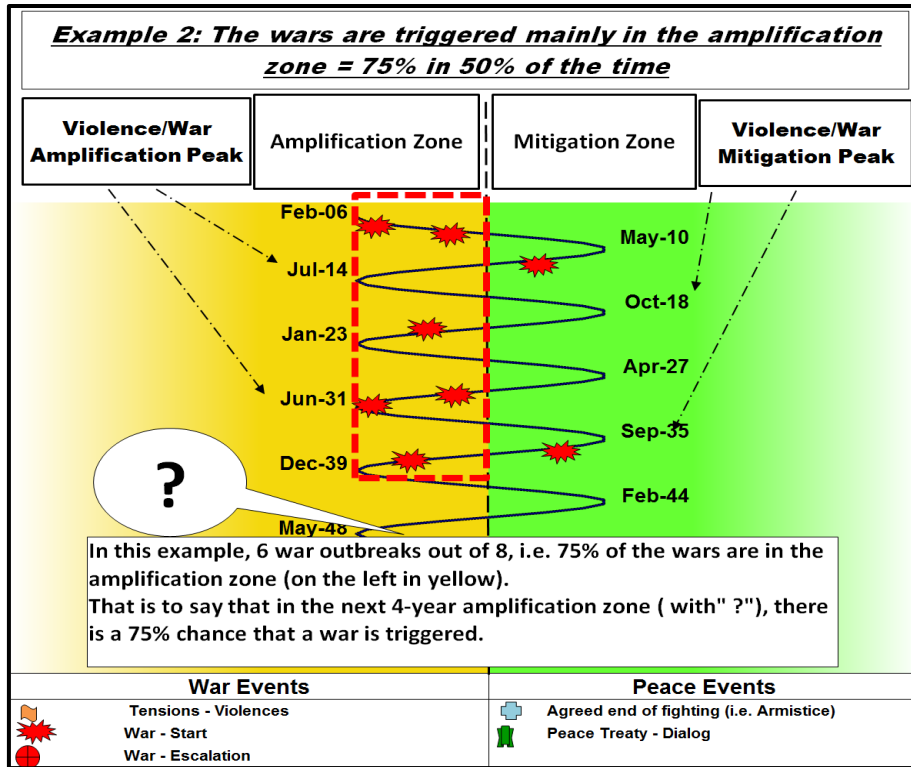
- The dates of the outbreak of the wars,
- Some tensions when the war did not take place but tensions were clearly visible,
- A few other events such as peace treaties are also presented for information. The information provided by these types of events is rather qualitative: they may give the impression that there is also some form of "Cycle of Peace" in the "Cycle of War", but they are too few to be processed in a statistically significant form. These events may provide a trend that other research could confirm in ways not discussed here.

The « War Cycle » in different contexts

Some examples and their visual interpretation



The « War Cycle » in different contexts



The « War Cycle » in different contexts

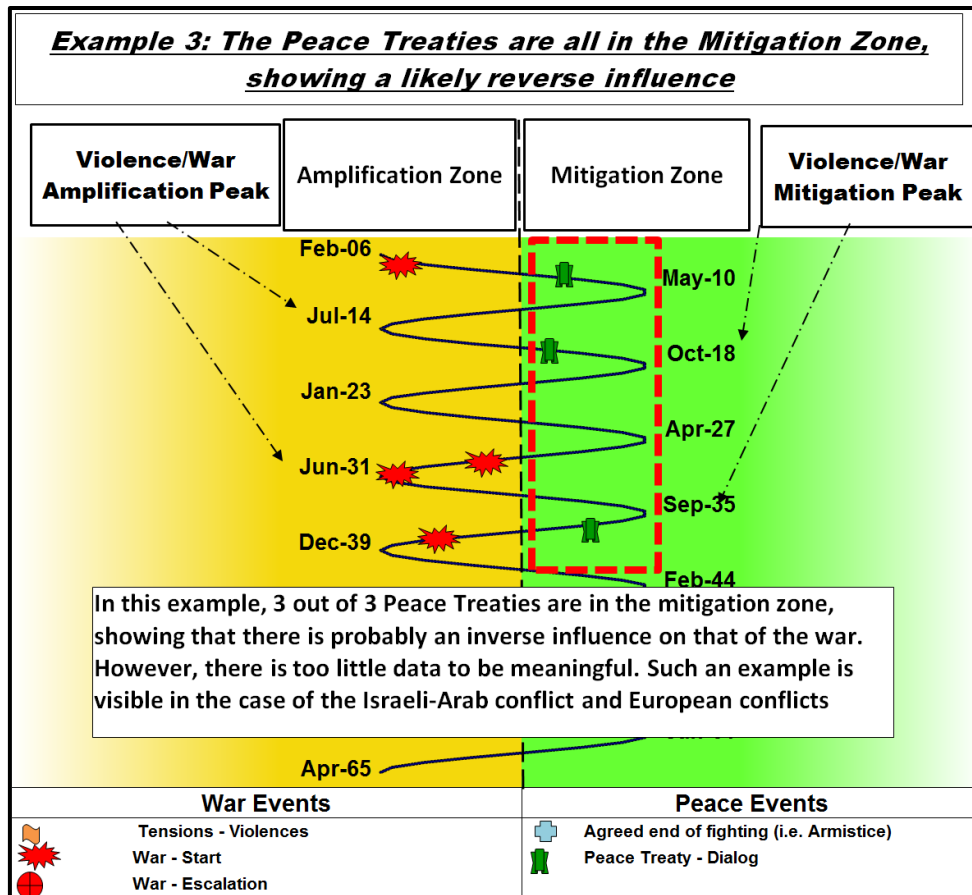
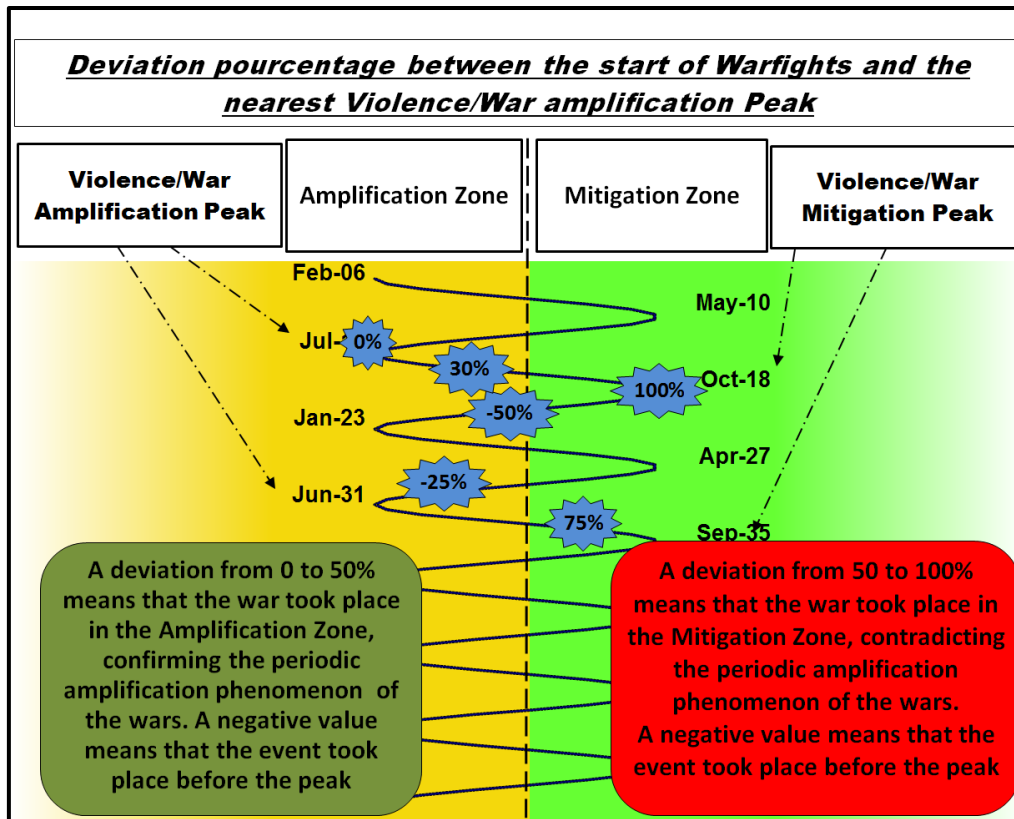


Table of Deviations as % of Context

Each graph is associated in a specific table with measures of the deviation of war-type events.

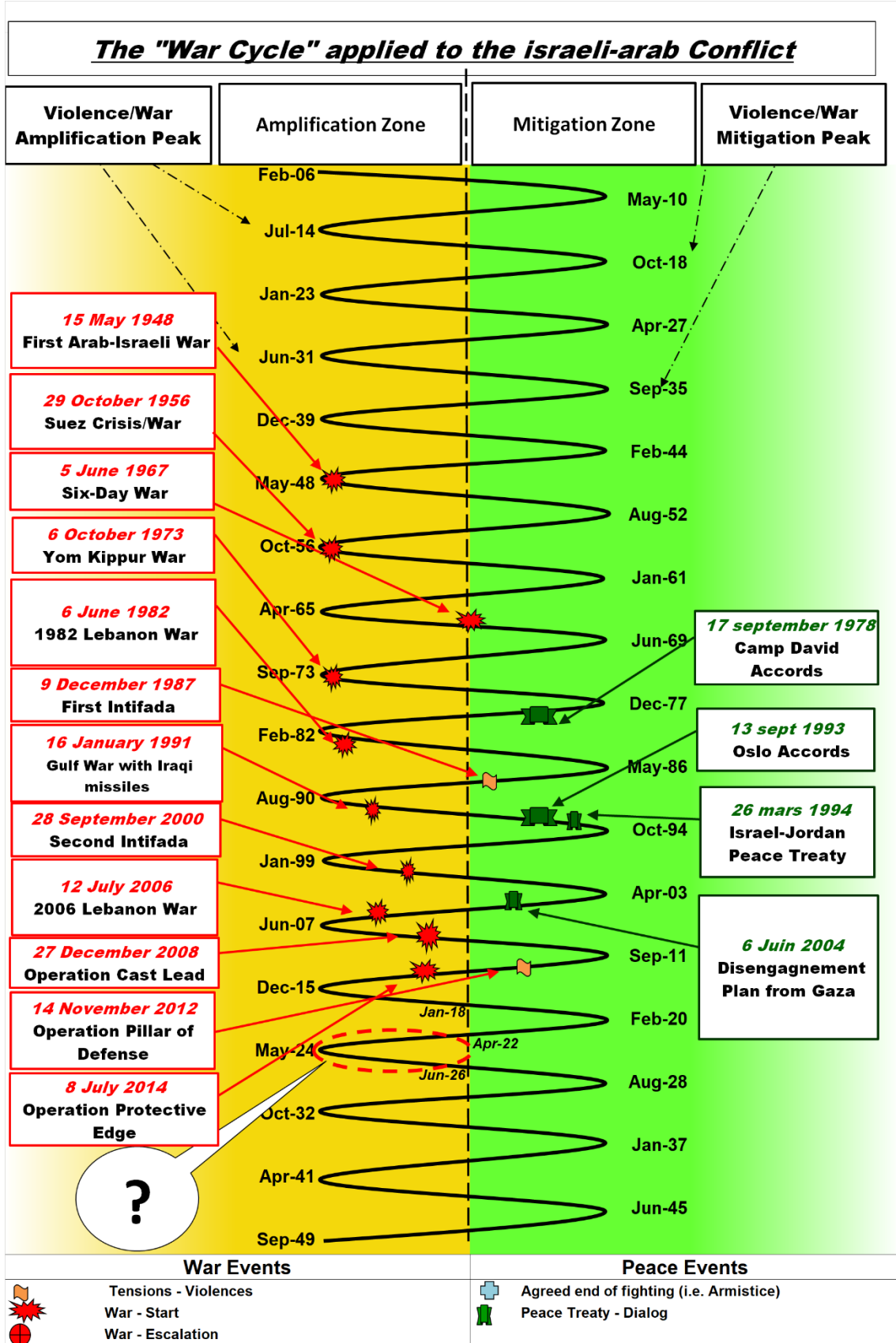
The significance on the graph of these differences indicated in the table is illustrated in the following graph.

The « War Cycle » in different contexts



- 0% means that there is no deviation and that the war started at the time of the amplification peak,
- 100% means that the war started at the most unlikely time according to the "War Cycle", i.e. at the peak of attenuation,
- If wars were started completely randomly, it would mean that they are evenly distributed with random values, i.e. between 0 and 100,
- If all the differences were less than 50%, it would mean that wars all start in 50% of the time (instead of all the time, i.e. 100%).
- If the deviation is a negative value, it means that the event took place before the amplification peak, otherwise it means that the event took place after the amplification peak.

Context Arab-Israeli conflict



The « War Cycle » in different contexts

	Date of the beginning of the event	Deviation in month vs Peak	Deviation (%) vs Peak	Graphical representation of the deviation (from 0 to 100%)
First Arab-Israeli War	15-May-48	0,1	0%	
Suez Crisis/War	29-Oct-56	0,2	0%	
Six-Day War	5-Jun-67	26,0	51%	
Yom Kippur War	6-Oct-73	0,7	1%	
1982 Lebanon War	6-Jun-82	3,4	7%	
First Intifada	9-Dec-87	-31,9	-63%	
Gulf War with Iraqi missiles	16-Jan-91	5,4	11%	
Second Intifada	28-Sep-00	20,4	40%	
2006 Lebanon War	12-Jul-06	-11,5	-23%	
Operation Cast Lead	27-Dec-08	18,0	36%	
Operation Pillar of Defense	14-Nov-12	-36,8	-73%	
Operation Protective Edge	8-Jul-14	-17,0	-34%	

Average absolute value, including tensions

28%

Israeli-Arab Conflict Deviation

If the wars were random, the distribution of the deviations from the amplification peaks of the wars would be between 0 and 100%, in a random way.

90% of the wars (9 out of 10) are in 50% of the time (between 0 and 50%)

1 exception

- the 6-day war, which is 51%,

2 other exceptions presented here as episodes of tension and considered by some authors as wars

- the first intifada which is 63% but which is not considered by all the perpetrators as a war, given its overall peacefulness

- the pillar defense operation considered by some authors as one of the wars

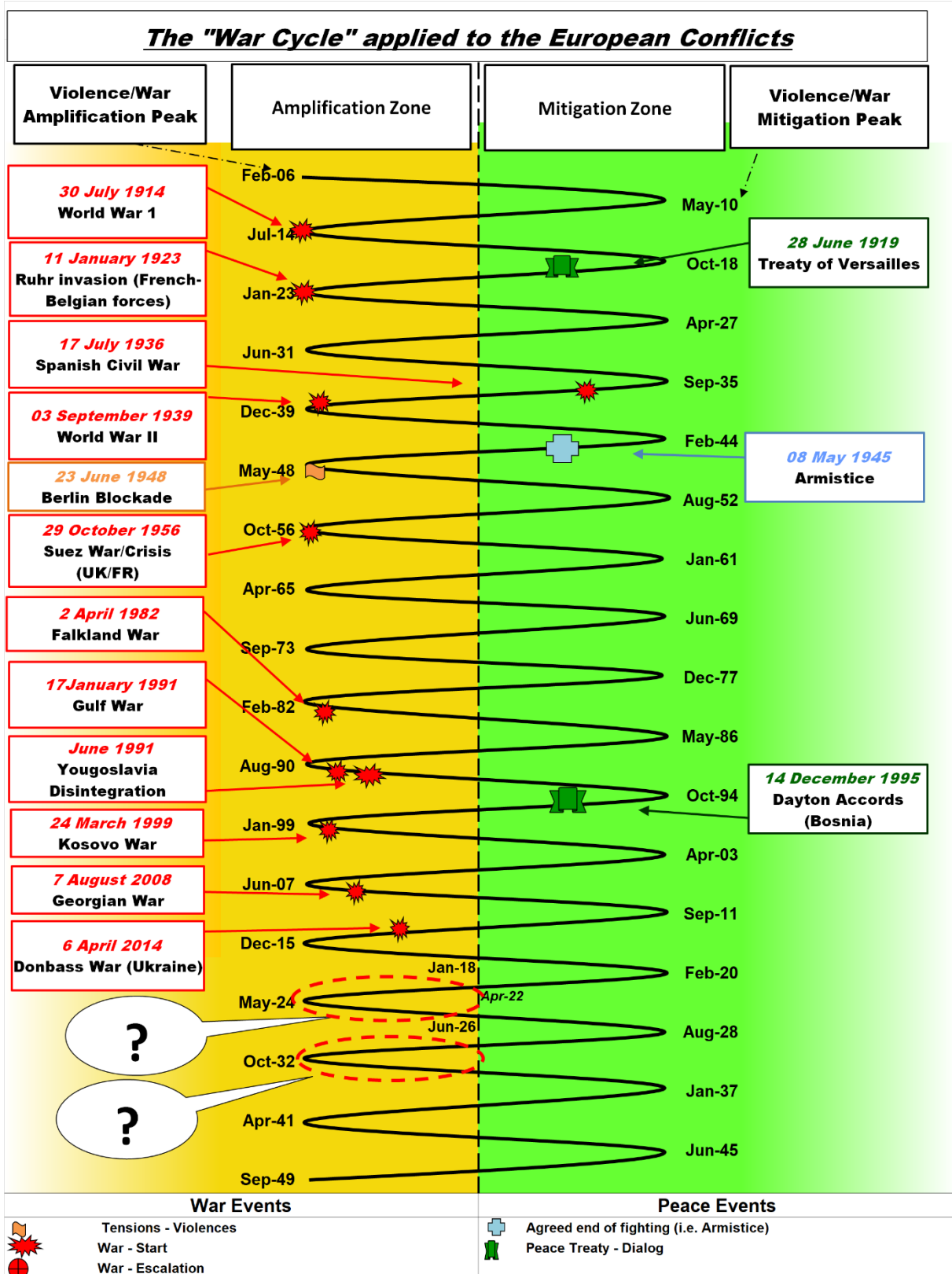
There are many other military operations that are not considered wars, by a very large majority of historians

By adding these two tension episodes as wars,

75% of the triggering dates of wars (9 of 12) are in 50% of the time (between 0 and 50%), which remains statistically significant of a periodic phenomenon influencing this conflict.

The « War Cycle » in different contexts

Context Europe (Europe = from the Atlantic to the Urals)



The « War Cycle » in different contexts

	Date of the beginning of the event	Deviation in month vs Peak	Deviation (%) vs Peak	Graphical representation of the deviation (from 0 to 100%)
World War I	30-Jul-14	0,0	0%	
Ruhr Invasion (French-Belgian Forces)	11-Jan-23	0,0	0%	
Spanish Civil War	17-Jul-36	-40,5	-80%	
World War II	03-Sep-39	-3,0	-6%	
Suez Crisis/War	29-Oct-56	0,2	0%	
Falkland War (UK<-->Argentina)	02-Apr-82	1,2	2%	
Gulf War following Koweit Invasion	17-Jan-91	5,4	11%	
Yougoslavia Disintegration	01-Jun-91	9,8	19%	
Kosovo War	24-Mar-99	2,2	4%	
Georgian War	07-Aug-08	13,3	26%	
Donbass War (Ukraine)	06-Apr-14	-20,1	-40%	

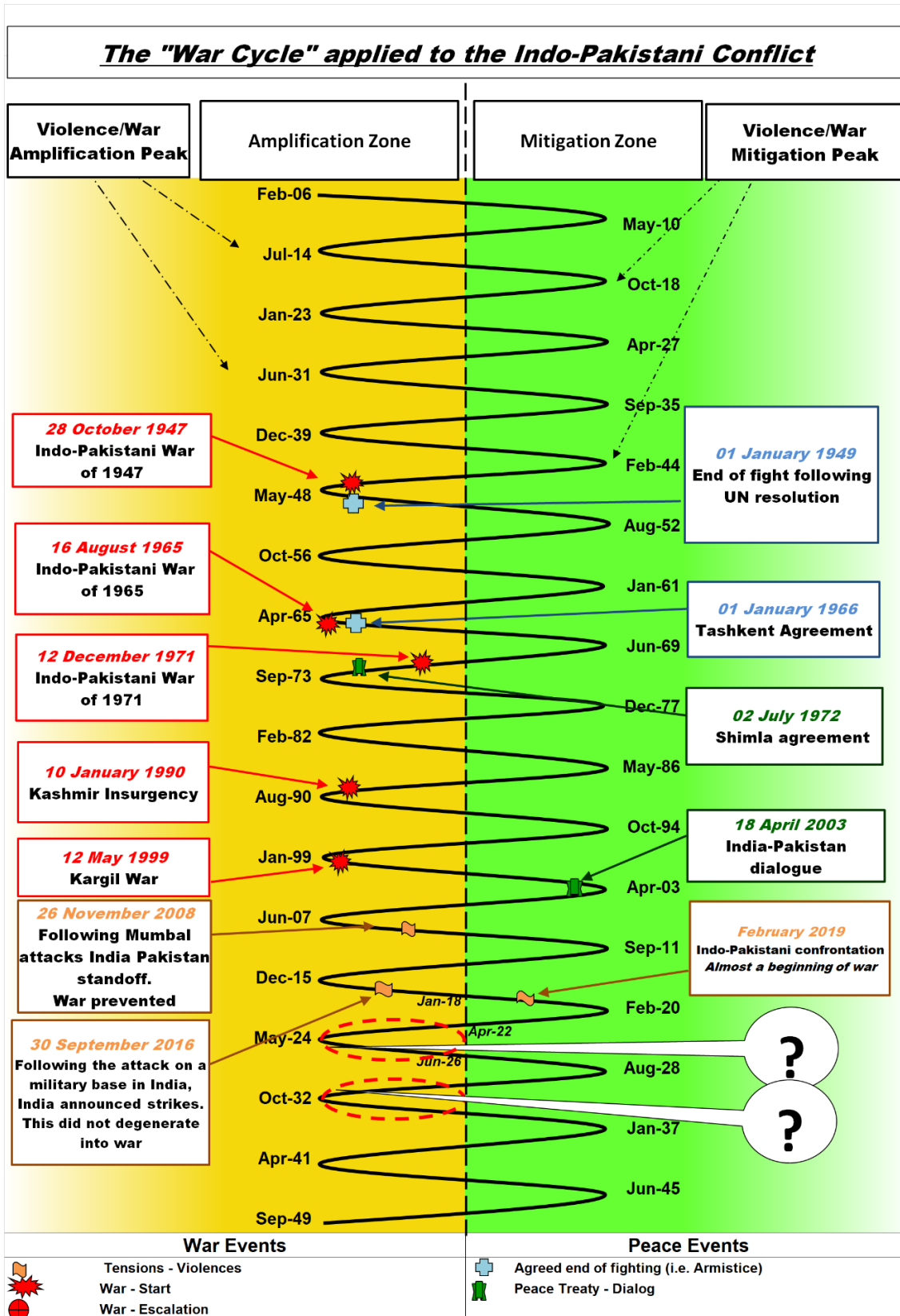
Average absolute value

17%

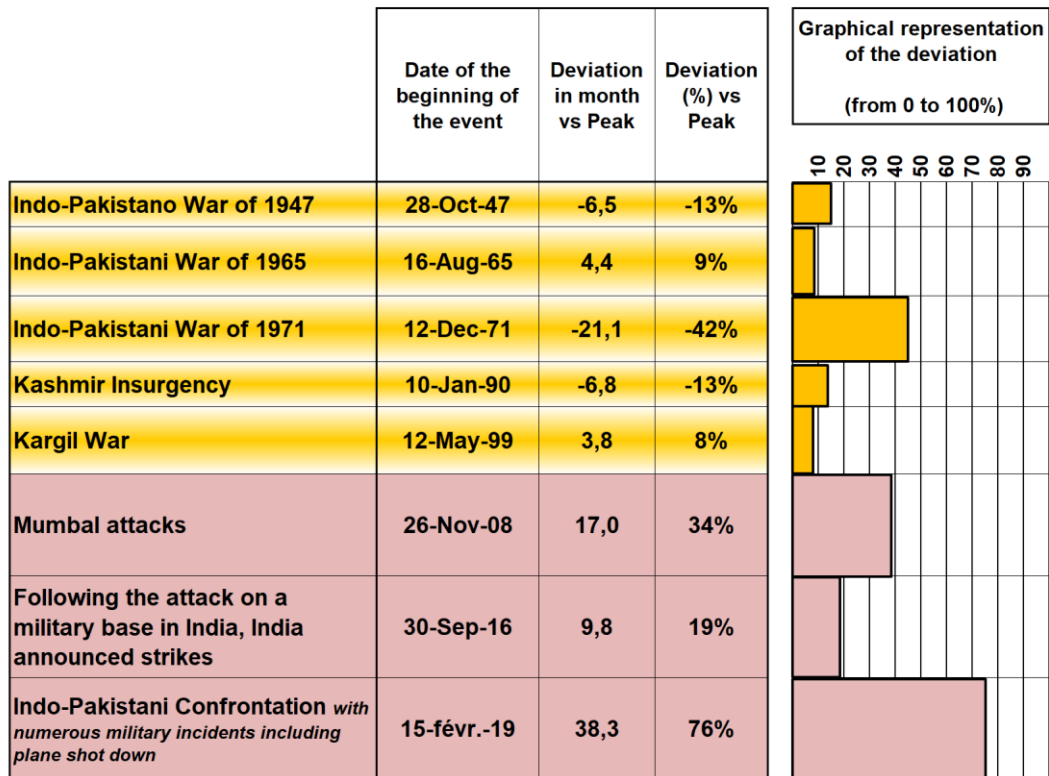
European Wars Deviation

If wars had a random distribution, the deviation would be between 0% and 100%. If the deviation is less than 30% in the most of the european Wars (exception like Spanish Civil War), it means that is is not a random distribution. It demonstrates, on these wars, that there is an amazing cyclical force that favours wars.

India-Pakistan Context



The « War Cycle » in different contexts



Average absolute value

20%

Indo-Pakistani Wars deviation

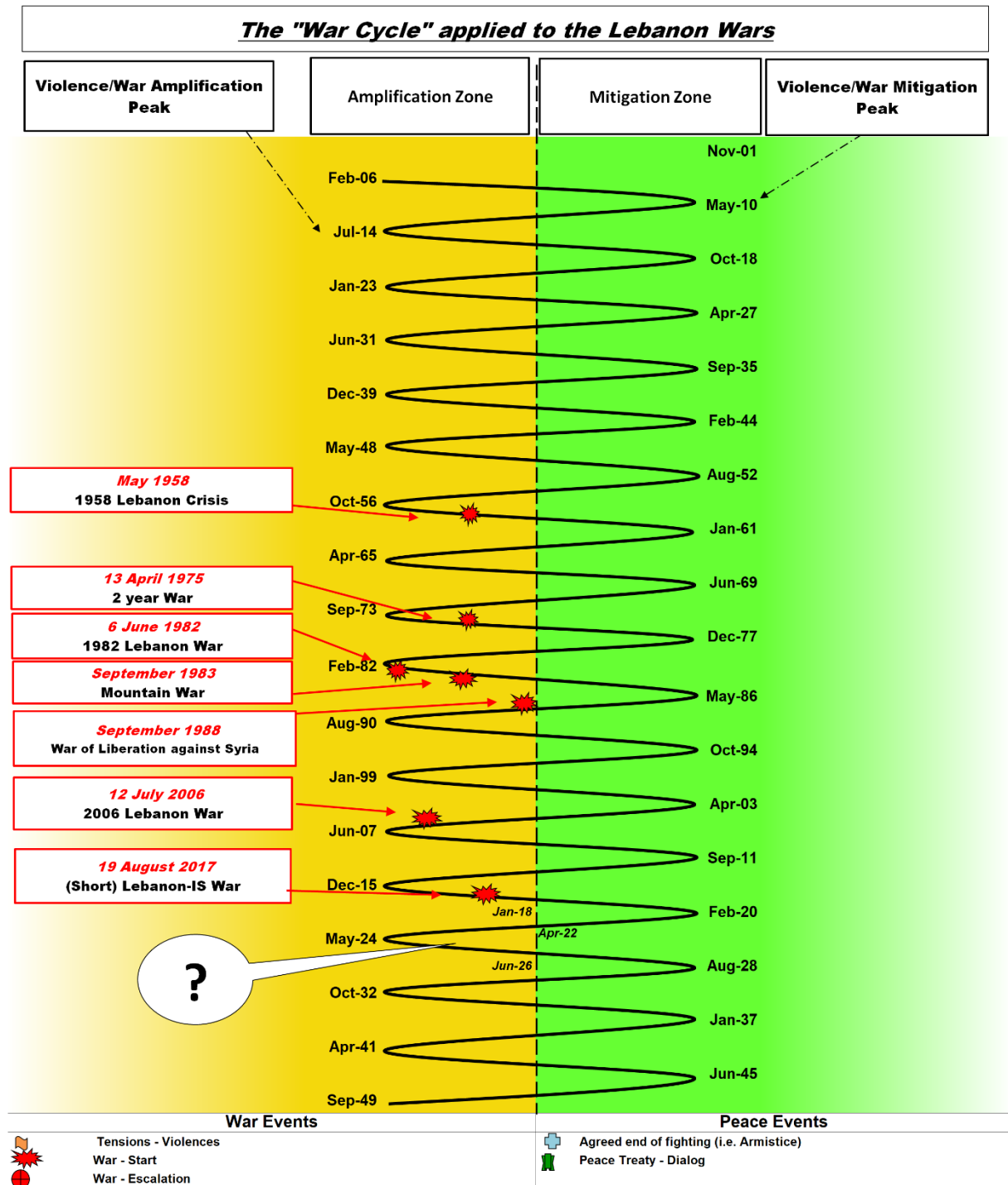
If the wars were random, the distribution of deviations from the aggravated wars would be between 0 and 100%, randomly.

If the difference is always less than 50%, it means that the triggering of the wars is distributed in half the time. It is therefore significant to show that there is a phenomenon which pushes the outbreak of wars during certain periods.

Since the beginning of the 21st century, there has been no war for 15 years. The peaks of amplification simply give rise to tensions without turning into war. This remains significant and continues to be monitored.

The « War Cycle » in different contexts

Context Lebanon



The « War Cycle » in different contexts

	Date of the beginning of the event	Deviation in month vs Peak	Deviation (%) vs Peak	Graphical representation of the deviation (from 0 to 100%)									
				10	20	30	40	50	60	70	80	90	
1958 Lebanon Crisis	May-58	18,7	37%										
2 year War	13-Apr-75	18,9	37%										
1982 Lebanon War	06-Jun-82	3,4	7%										
Mountain War (1983-1984)	Sep-83	18,7	37%										
War of Liberation against Syria	Sep-88	-22,7	-45%										
2006 Lebanon War	Jul-06	-11,5	-23%										
(Short) Lebanon-IS War 17	19-Aug-17	20,4	40%										

Lebanon Wars Deviation

If wars had a random distribution, the deviations would be between 0 and 100%, randomly. For Lebanon by taking the different wars as described under [fr.wikipedia.org/wiki/Histoire_du Liban](http://fr.wikipedia.org/wiki/Histoire_du_Liban), the deviation is always less than 45%.
It demonstrates, on these wars , that there is an amazing cyclical force that favours wars.

The « War Cycle » in different contexts

	Date of the beginning of the event	Deviation in month vs Peak	Deviation (%) vs Peak	Graphical representation of the deviation (from 0 to 100%)
Russo-Japanese War	10-Feb-04	-24,3	-48%	
World War I	30-Jul-14	0,0	0%	
Japanese aggression in Manchuria	13-Sep-31	2,7	5%	
World War II	03-Sep-39	-3,0	-6%	
1947 Indo-Pakistani War	28-Oct-47	-6,5	-13%	
First Arab-Israeli War	15-May-48	0,1	0%	
Korean War	25-Jun-50	25,4	50%	
Crise/Guerre de Suez	29-Oct-56	0,2	0%	
Direct US intervention in Vietnam	01-Dec-64	-4,1	-8%	
Biafran War	30-May-67	25,8	51%	
Six-Day War	05-Jun-67	26,0	51%	
Yom Kippur War	06-Oct-73	0,7	1%	
Lebanon Civil War	13-Apr-75	18,9	37%	
Soviet Afghanistan War (USSR-Moudjahedin)	27-Dec-79	-26,0	-51%	
Iran-Irak War	23-Sep-80	-17,1	-34%	
Invasion of Kuwait by Irak and Gulf War	02-Aug-90	-0,1	0%	
Second Congo War (killed + than 4 millions)	01-Aug-98	-5,5	-11%	
Kosovo War	24-Mar-99	2,2	4%	
Second Afghanistan War (USA - Talibans)	07-Oct-01	32,7	65%	
Second Gulf War	20-Mar-03	50,1	99%	
Russo-Georgian War	07-Aug-08	13,3	26%	
Syrian Civil War	15-Mar-11	44,6	88%	
Donbass War (Ukraine)	06-Apr-14	-20,1	-40%	
Islamic State (ISIS) War	05-Jun-14	-18,1	-36%	

Major Wars (World) deviation

If wars had a random distribution, the deviation would be between 0% and 100%, randomly.

Throughout the 20th century, the distribution is significant from the War Cycle and most wars are in the amplification zone.

The September 11, 2001 attack put the US into a quasi-permanent war with several wars including those against Afghanistan and Iraq that do not follow the War Cycle.

When the war becomes permanent, the phenomenon induced by the War Cycle may be temporarily hardly visible, as was the case from September 2001 and as it has been since the Arab Spring

The « War Cycle » in different contexts

What can we conclude from the different contexts?

To be able to conclude anything, it would be desirable to make some verification by someone other than the author and to confirm that the data presented and used are consistent :

- Are the wars selected those that are generally cited as wars in this context?
- Are there any wars that have been omitted whose absence would distort the presentation?
- Are the dates of the wars really those recognized by historians?

Until this is the case, it is likely that the "War Cycle" is not even seriously considered, and the data presented is not even looked at.

We can notice that:

- There are wars that do not check the "War Cycle",
- The proportion of wars that verify the "War Cycle" is statistically disturbing: there is probably an unknown phenomenon that amplifies violence and wars and increases the probability of war during periods of war amplification,
- The "Cycle of War" is not specific to a region or conflict: it is general.
- At the "World" level, we can see that over the period from 1 October 2001 to the end of 2018, we could consider that there are as many wars in the amplification period as in the attenuation period. This is a major argument against the "War Cycle".

The period following the September 11 attack led to a period of permanent warfare. The phenomenon remains visible in recurrent conflicts (such as the Arab-Israeli conflict) but blurs signals at the global level. When war is permanent, the "War Cycle" is hardly visible. There is another period where we see nothing: from 1789 to 1814 during the French Revolutionary and Napoleonic Wars, there are many successive wars but we do not distinguish what could resemble a "War Cycle".

Provisional Conclusion

An attempt to demonstrate the "War Cycle" by trigger dates alone is insufficient. If the result presented is disturbing, it must be noted that there are periods such as between October 2001 and the end of 2018 when one could seriously doubt the reality of the "War Cycle" if one only took the important wars at the world level as shown in the "World" context. The advantage of presenting contexts is that in the case of recurring conflicts the phenomenon remains visible and usable for forecasting. The paradox is that the "Cycle of War" is no longer visible at the global level but is still usable for context-level forecasting.

Before transforming this provisional conclusion into a definitive one, two elements described in the rest of this document should be taken into consideration:

- How does the "War Cycle" work? page 21
- Materialization of the "War Cycle" by thousands of measurements page 26

Only then can we try to conclude.

How does the "Cycle of War" work?

How does the "War Cycle" work?

The first misunderstanding is that it determines all wars...

Experience shows that this first presentation in "contexts" might suggest that the author is trying to demonstrate that all wars follow this phenomenon.

This creates a major misunderstanding that does not reflect the author's view.

In order to understand how the "War Cycle" works, we must keep in mind 2 phenomena:

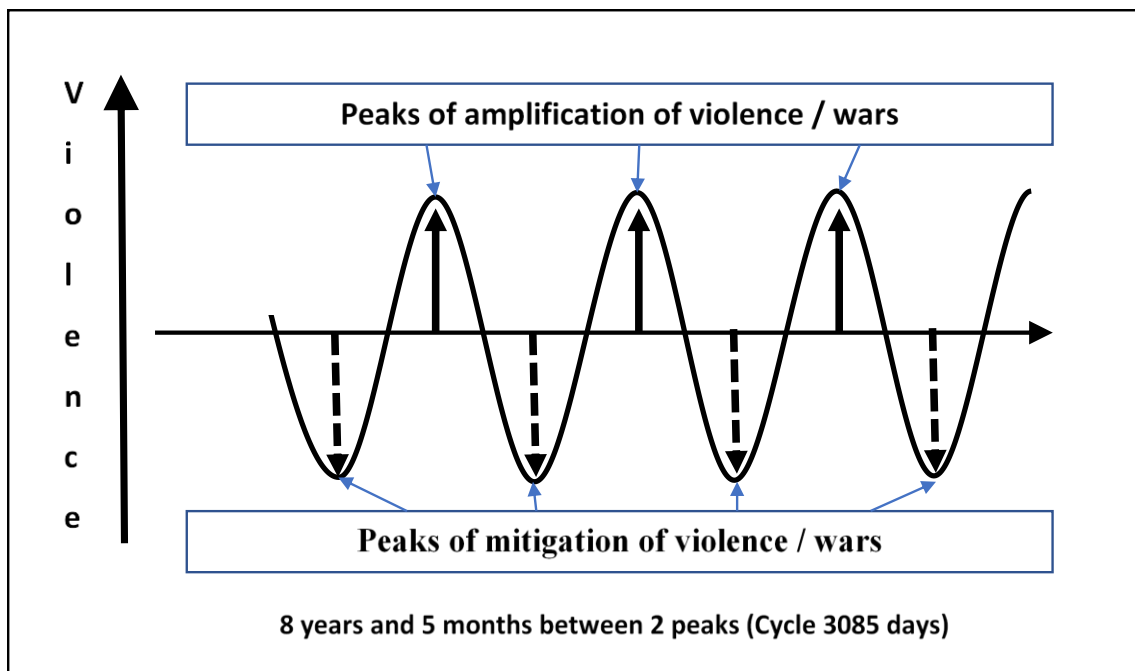
Phenomenon A - a sinusoidal phenomenon that amplifies or attenuates voltages

Phenomenon B - the outbreak of war

And finally, the combination of these two phenomena

Phenomenon A - a sinusoidal phenomenon that amplifies or attenuates voltages

There are times when violence is magnified and times when it is mitigated. The transition from one to the other is gradual.



How does the "Cycle of War" work?

Phenomenon B - The outbreak of war

A war is caused by the accumulation of a set of causes and not by a single cause.

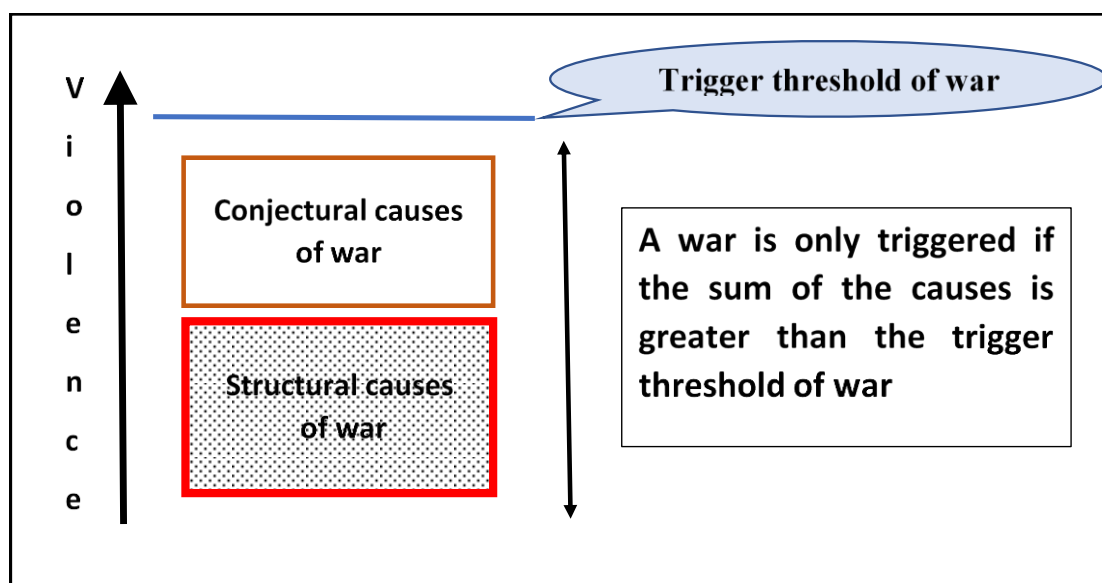
When some say that the 1929 crisis was the cause of the second world war, it would be more normal to say that it was a cause that was added to others such as the Franco-German antagonism of the time, as well as the treaty marking the end of the first world war, which was seen as a vexation to be repaired. These are 3 causes that have cumulated. There are still others like Hitler's personality. And to all these causes was added this sinusoidal phenomenon at the origin of the "War Cycle" which appears as a complementary cause.

This last cause represents no more than 20% of all these causes leading to war, but added to the others it may have been enough to start a war. Polemology (in the journals of the Institute of Polemology in the 1970s) distinguished mainly 3 levels of causes :

- Structural causes that correspond to permanent causes (religious, cultural, racial, institutional differences)
- Cyclical" causes, which correspond to the succession of events that precede the war without being its immediate cause.
- The proximate cause, i.e. the event that triggered the outbreak of the war

The causes are accumulating and may become above a **threshold for the outbreak of war**.

A war will only start if the accumulation of causes exceeds a threshold called the "War Trigger Threshold". This notion of threshold is considered fundamental. Beyond that threshold, there will be an incident that will trigger the start of the war. The build-up of tensions leads in any case to an incident or action that will mark the beginning of the war.



How does the "Cycle of War" work?

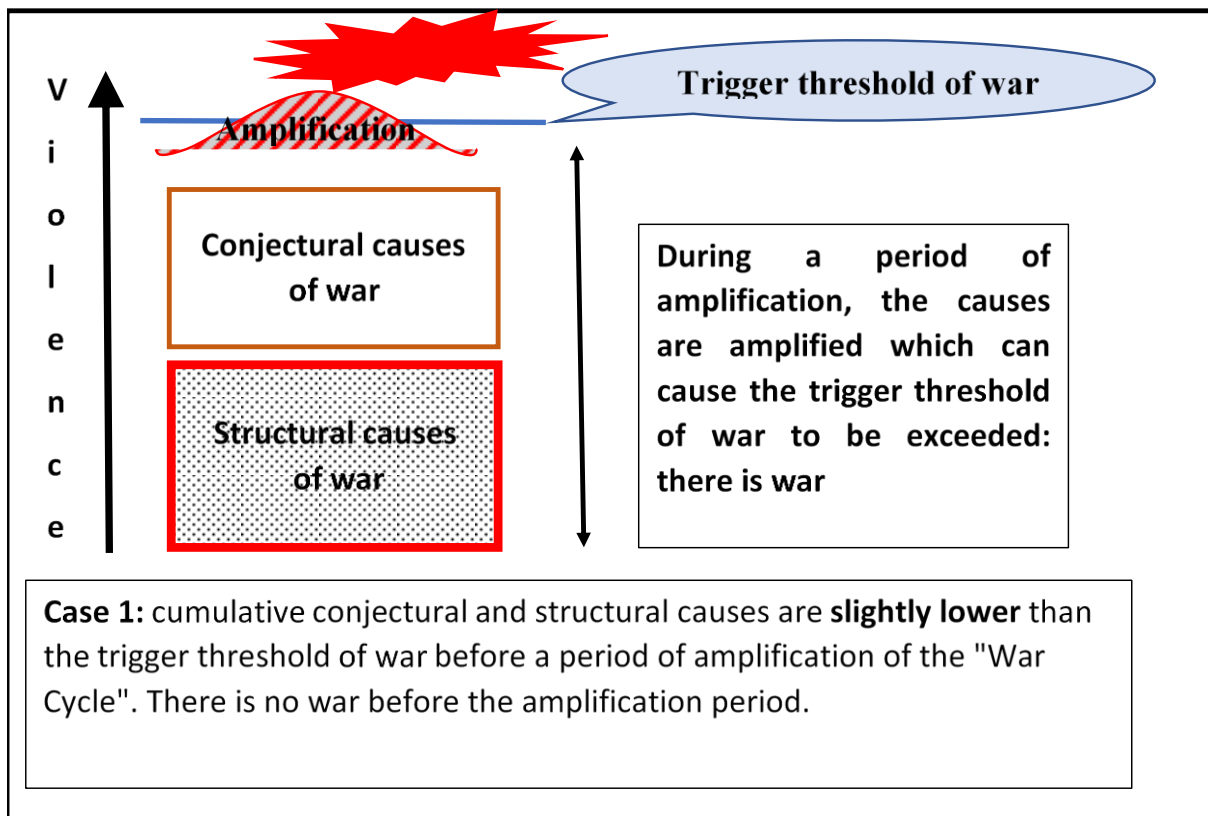
Combination of phenomena A and B on a war amplification peak

Case 1: Cases where the accumulation of causes is slightly below the threshold for the outbreak of war.

In this case, the "War Cycle", during an amplification peak, acts as an additional cause that will cause the threshold of war to be exceeded and will thus transform the permanent tension into war.

This explains the choice of the selected contexts (see page **Erreur ! Signet non défini.**) and why they allow to make some predictions.

By focusing on recurring conflicts (e.g. the Arab-Israeli conflict) which always give the impression of being on the brink of war without going to war, we can determine the probable wars during the next periods of amplification.

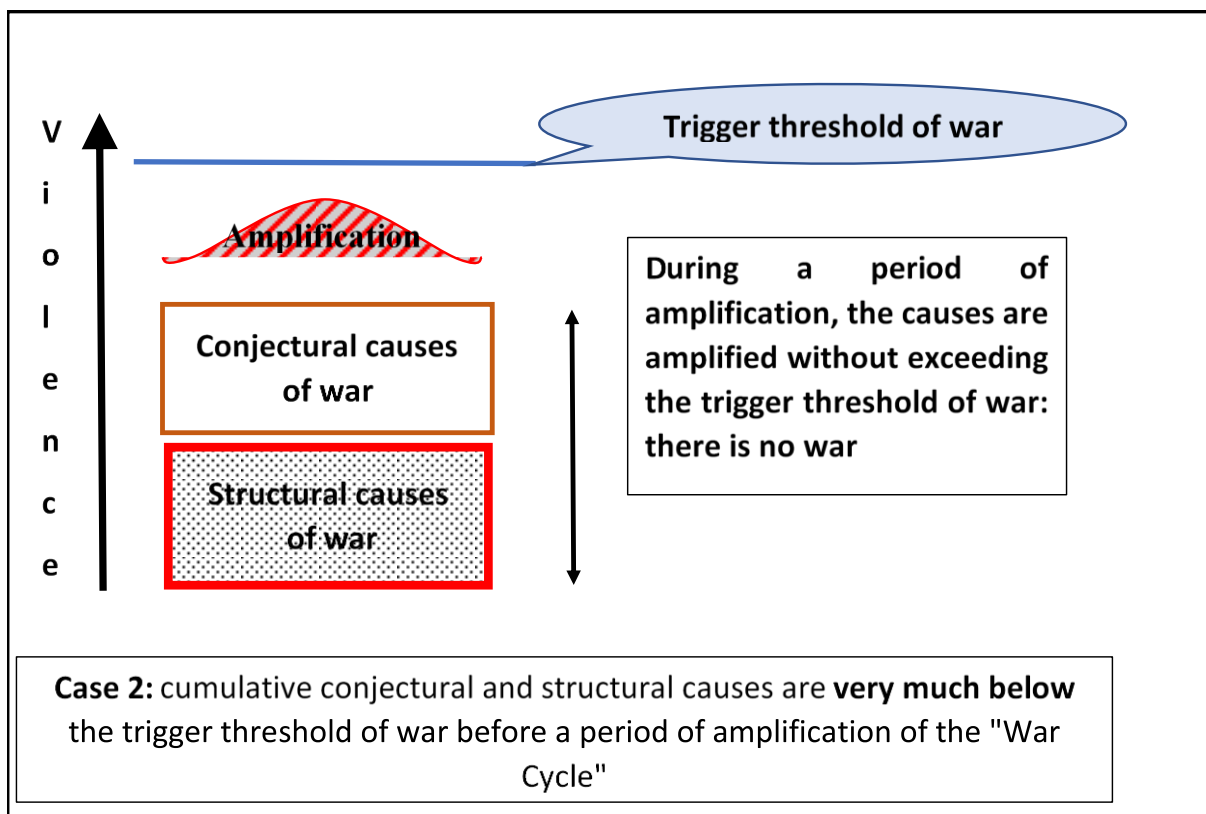


How does the "Cycle of War" work?

Case 2: Cases where the combination of cyclical and structural causes is well below the threshold for the outbreak of war.

In this case the "War Cycle", during a war amplification spike, acts as an additional cause but there is no war because the war threshold is not reached.

It also allows us to imagine ways of taking action. Not knowing the origin of the periodic phenomenon that causes the "War Cycle", we cannot act on this cause. Only known causes can be mitigated. Vigorous conventional negotiations can reduce tensions and the causes of war. If they are carried out before the next amplification period, we can hope to avoid a future war.

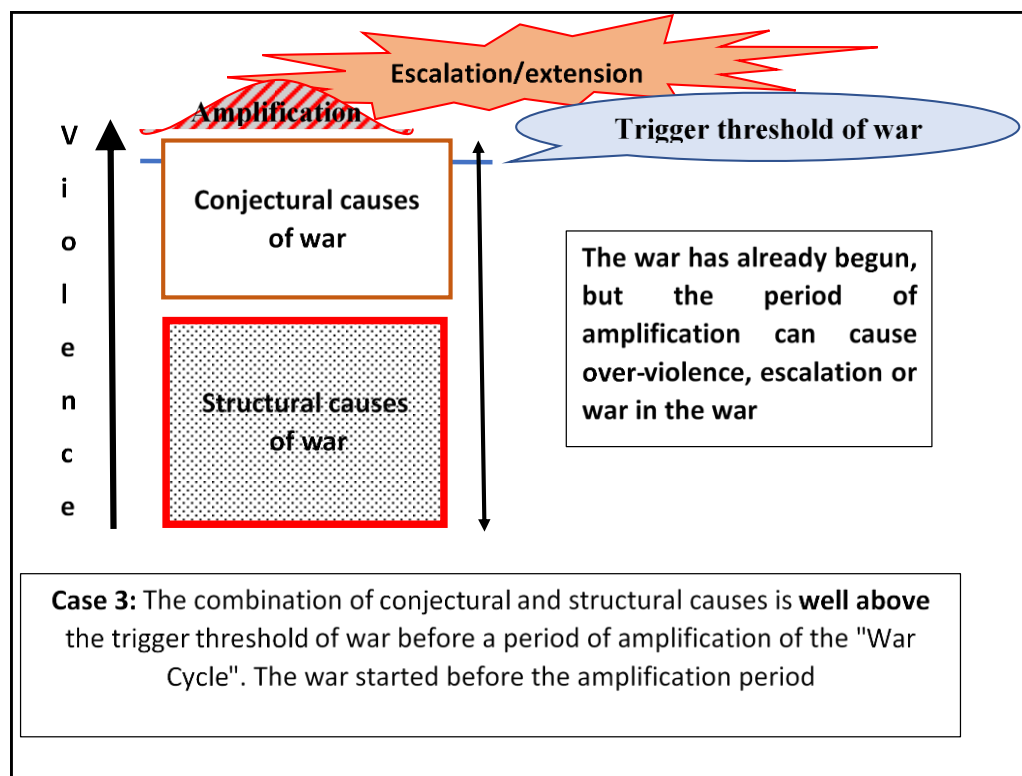


How does the "Cycle of War" work?

Case 3: Cases where the accumulation of the causes is well above the threshold for the outbreak of war, even before the war amplification period.

In this case, there is already a war before the war amplification period. There is no new war since it has already started. The amplification period can encourage visible "over-violence" through military escalation (local, regional, international) or new violence. Several cases support this hypothesis:

- At the beginning of 1964, the bombings in Vietnam marked a military escalation at the time of the amplification peak. The war has officially started some time ago, but the real escalation is happening on this peak.
- The war in Iraq began in 2003, at a time of peak attenuation, the American victory was followed by an Iraqi civil war that coincides well with the war amplification period. See the section "materialization of the War Cycle by thousands of measurements". The internal violence in Iraq increased up to the war amplification peak and then steadily decreased, until it gradually resumed with the arrival of the next amplification peak and the war against the Islamic state.
- The war in Syria began in 2011, at a peak of attenuation, thus apparently contradicting the War Cycle. But knowing this combination 3, I predicted in 2012 that there would be a regional escalation of the Syrian war at the peak of amplification expected at the end of 2015. This extension of the war began in 2014 and continued in 2015 and 2016 before the ebb of the Islamic state began.



Materialization of the "War Cycle" by thousands of measurements

Materialization of the "War Cycle" by thousands of measurements

The civil wars in Iraq have made the "Cycle of War" a reality.

Let's go back to the second Gulf War against Iraq in 2003. Opponents of the "War Cycle" will find a remarkable case against the "War Cycle". The outbreak of this war takes place at the peak of attenuation, exactly as if this cycle made no sense.

What happens in such a remarkable case?

- In principle, this demonstrates that the "War Cycle" is meaningless, since the outbreak of war occurs at the time of a peak in attenuation.
- But if we take into account the Combination 3 described above we should have a form of over-violence visible at the time of the amplification peak that follows

Do you remember what happened after the US intervention in Iraq from March 2003?

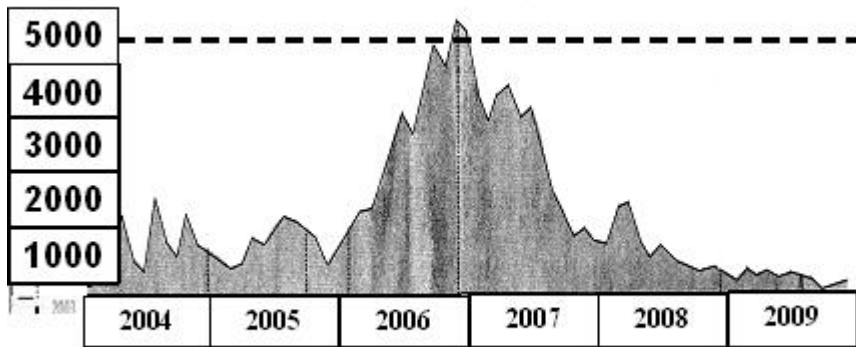
- First the Americans won this battle,
- Then they occupied Iraq,
- **And an Iraqi civil war accompanied by US military repression followed.**

Valuable data from Wikileaks

The U.S. military has done a remarkable internal job in cataloguing all the incidents as well as the dead and wounded.

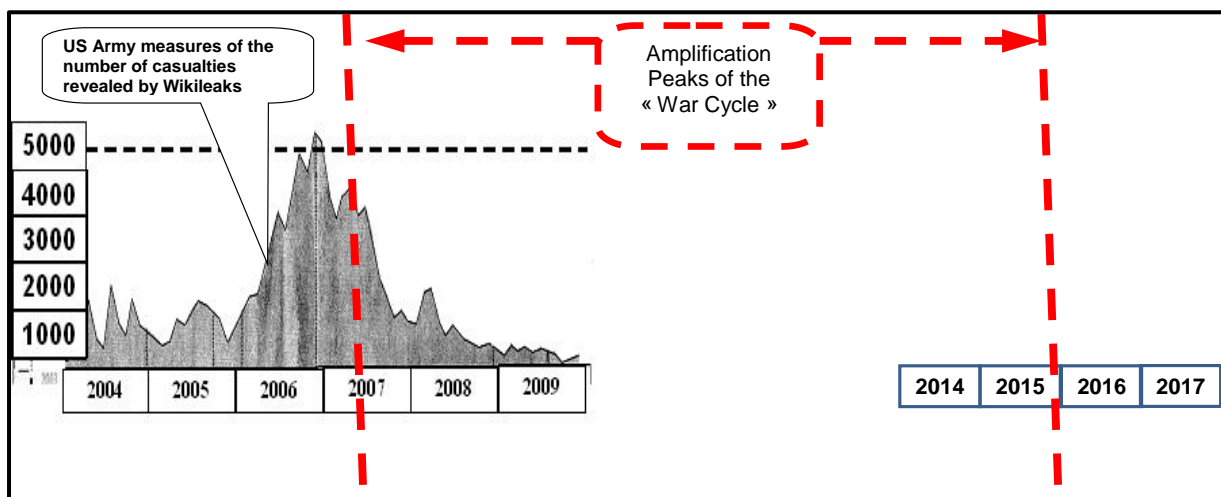
In 2010, following the publication of the US military reports by WikiLeaks, the newspaper "Le Monde" dated Sunday 24 - Monday 25 October 2010 published a graph clearly showing a peak of violence in late 2006. Prior to the publication of this graph, it was accepted that the peak of violence in Iraq was rather in 2007, and the figures put forward were extremely variable depending on the sources. Careful analysis of the reports revealed by Wikileaks provided a measure of the real violence in Iraq from 2004 to 2009. The measure is the number of victims. The source of the original graph published in the newspaper "Le Monde" is "THE BUREAU OF INVESTIGATIVE JOURNALISM" According to US Army reports published by Wikileaks, there were 110,000 deaths between 2004 and 2009. The following graph (whose form has been used to present it), shows the distribution of these victims over time (dead and injured). It is the only reliable measure of violence in Iraq known to date during this period and is based on reports, unlike many other estimates that relied on a few polls extrapolated by statistical methods under very different assumptions from one source to another.

Materialization of the "War Cycle" by thousands of measurements



This curve is based on 400,000 military reports provided by Wikileaks and exploited by the media.

Knowing that the amplification peak was in mid 2007 and the next one is at the end of 2015, you can imagine what is presented in the following graph.



Is the "War Cycle" materialized?

When we look at this graph, we see half a period of the sinusoidal phenomenon that is materialized. Rather than having a single point: the outbreak of war, we see an apparent materialization of the amplification peak by thousands of measurements.

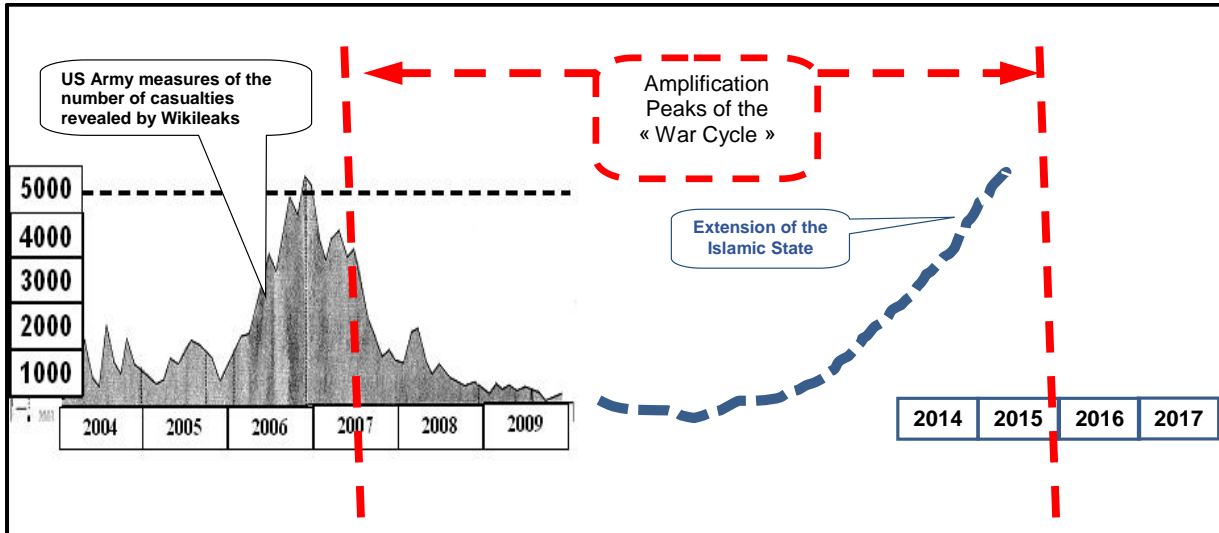
What can anyone who knows about the "War Cycle" conclude before 2014?

He can conclude that the departure of the Americans in 2011 from Iraq is taking place in the calmest period. If this materialization is indeed that of the "War Cycle", in the period of amplification that will follow (2014 to 2017), we will see a component of violence/civil war internal to Iraq regain momentum until 2015 and then a further decline in this violence/civil war. The Americans left Iraq believing the job was done and finished. Had they been aware of

Materialization of the "War Cycle" by thousands of measurements

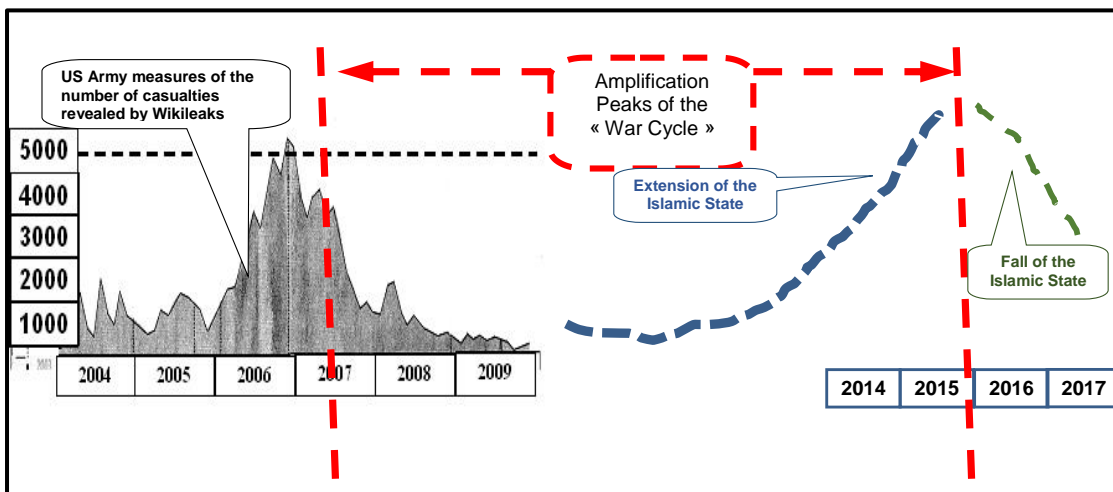
this phenomenon they could have reached the same conclusions and anticipated the period that followed. Everything that happened after that confirmed it.

2014 and 2015



What we see in 2014 and 2015: Since 2012 there has been a rise in violence (dotted line), confirming that the cycle identified by Wikileaks is indeed the materialization of the "War Cycle". The media gradually spoke of a resumption of attacks, then at the end of 2013 spoke of a level of violence similar to that of 2008/2007 and then this new war in Iraq against Daech blew up all the meters.

2016



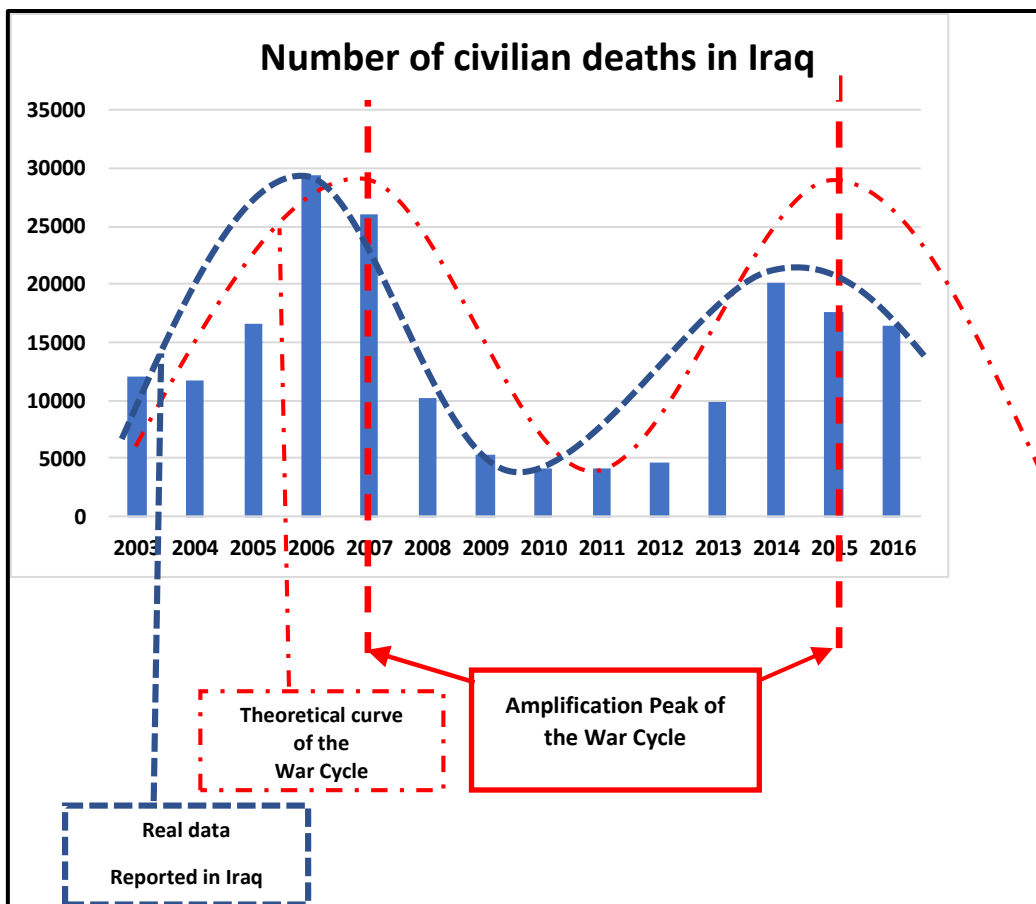
Materialization of the "War Cycle" by thousands of measurements

What we see in 2016: The conflict in Iraq is losing intensity. The retreat of the Islamic State leads to a gradual recovery of the territories initially conquered in 2014. Their action will probably continue in the classic forms of attacks, but with a level of intensity that appears to be less intense. Reliable measurement or estimates have yet to be found to supplement these elements. This is the first time that the cycle could be materialized by thousands of measurement points over a period of more than 10 years. Half of the work is based on hundreds of thousands of reports from the US military. However there is a small flaw: from Wikileaks, there is no more data available through the Americans.

March 2017: new data allowing a materialization of the "War Cycle" over 10 years.

After Wikileaks, the data tap stopped. There was no longer any question of the Americans providing further data. Therefore, other sources of data had to be sought. In March 2017, I came across the site "Iraqbodycount.org". This site provides data on the number of deaths in Iraq. In the following graph (reconstituted from data available on the site), the number of civilian deaths in Iraq is used as a measure of violence, year by year.

It all fits into this graph. Whoever understands this graph holds a key element of the objective demonstration of the "War Cycle"...



Materialization of the "War Cycle" by thousands of measurements

Using the data available on the site "iraqbodycount.org", the phenomenon observed from the wikileaks data was confirmed, but above all it confirmed the period 2012-2016 for which there were no data available.

What can we conclude?

The materialization of the "War Cycle" is confirmed, first with Wikileaks data, then with data from Iraqbodycount.org.

- We note a similar time lag (6 months to a year) between the 2 successive amplification peaks.
- The "observed template" is therefore a few months later than the "theoretical template". If this is confirmed in other cases, it is possible that the amplification peaks may have to be rescheduled in the long term.
- The war in Iraq in 2003, which was a fundamental element of contestation of the "War Cycle" becomes a fundamental element of demonstration and confirmation of the "War Cycle" through the civil wars that followed one another for almost 15 years.

What must be done to confirm this materialization of the "War Cycle"?

Finding another example is necessary. The difficulty is to find a war that lasts long enough (ideally 10 years as in the Iraq civil wars) with enough deaths and injuries for the data to be meaningful.

- Data from the First and Second World Wars are candidates for such an analysis, even if the duration is somewhat short.
- The war in Syria is a good candidate but it is difficult to find reliable data. It seems unlikely that the curve from 2014 to 2017 will not be similar to that of Iraq, but there has been no equivalent work so far.
- Wars in Europe or in the Arab-Israeli conflict are too short with too few victims to draw any lessons from them.

One example is not enough, but the research community should be mobilized to find other examples.

War Forecasts

Forecasts

Logic dictates that when we identify a "Cycle", we know how to predict future events based on knowledge of the "Cycle".

What have we learned that we could use for forecasting?

- Rule A1: Contexts show that in recurrent conflicts there is a probability of war during the amplification period. Since the duration of an amplification period is just over 4 years, we can say that there is a high probability during the two years surrounding the amplification peak and a slightly lower probability during the other two years.
- Rule A2: Understanding how this cyclical phenomenon works and the materialization of the "War Cycle" allows us to understand that when a war has started before the amplification period, there can be an escalation (or a new war within the war).
- Rule A3: If a new conflict emerges during the amplification period, it may turn into a new war, even if it does not correspond to a recurring conflict already identified.

Forecasts made over the period 2005-2009 using the "War Cycle".

At the time we were working with the Israeli-Arab, European and World contexts. We could foresee

- A war in the Arab-Israeli conflict: there have been two,
- A war in Europe: there was the war in Georgia

This was the beginning of the applications of the use of the "War Cycle" in anticipation. The results were good but did not convince before the wars in 2005 or 2006, nor even after the wars in 2008 or 2009, as if the difficulty of the subject favoured a denial of reality: It is reassuring to say that the "War Cycle" is meaningless, especially the forecasts that came out of it. It is neither objective nor rational, but it is intellectually relieving to deny the reality of it. The "a priori" raised by this subject seems to provoke a natural rejection. Is this rejection rational and well-argued? At this stage, I cannot answer for those who were aware of it at the time.

Forecasts made in 2012 for the period 2014-2017 using the "War Cycle".

There will probably be new wars in existing recurrent conflicts (see graphs):

- One (or more) new round of the Israeli-Arab war (according to rule A1)
- A new European war (according to rule A1)
- An episode of Indo-Pakistani tension (following rule A1)
- A war of international proportions

As well as other new wars:

- One or more wars other than the preceding ones (according to rule A3)

And the probable extension of existing wars

- Syria is expected to turn into a regional and/or international war if not resolved by 2012 (according to rule A2).

War Forecasts

Result of forecasts made in 2012

Yes, the amplification period was very marked. Much of this took place in 2014, slightly ahead of schedule, but there were also some significant events in 2015 and 2016.

This gives the impression that the peak expected at the end of 2015 has shifted to 2014.

New wars in existing recurrent conflicts (see graphs) :

In blue, a reminder of the forecasts made, in red underlines what has happened

- One (or more) new round of Israeli-Arab warfare
Gaza war in July and August 2014
- A new European war
Crimean crisis in March 2014 followed in April 2014 by the Donbass War in Ukraine
- An episode of Indo-Pakistani tension
from September 2016
- A war of international proportions
war against the Islamic State

Other new wars :

- One or more wars other than the previous ones
Reawakening of the conflict between Turkey and the PKK from July 2015, Yemen war since 2014

Extension of existing wars

- Syria is expected to turn into a regional or/and international war if not resolved in 2012.
Regional war Iraq-Syria-Turquia-Hezbollah, Russian intervention from September 2015, Western coalition against the Islamic state from August 2014

Authors who have commented on the periodicity of wars

This is a recurring theme in the study of wars. There are some renowned authors who have expressed themselves on the subject, judging the hypothesis of the periodicity of wars to be credible.

Quincy Wright: he structured war studies in the Anglo-Saxon world based on his work "A Study of Warⁱⁱ".

To sum up what he thinks, we can take a simple excerpt:

"The frequency and intensity of warfare has been observed to occur at a certain periodicity in particular states and state systems, but these fluctuations have not been regular enough to allow for accurate prediction" (from the section on "periodicity of crises" in "A Study of War Volume 2").

Quincy Wright certainly would have appreciated the predictions that were made from the "War Cycle"

Gaston Bouthoul: in France he was the founder of polemology. In his "Traité de Polemologie", he considered the periodicity of wars as legitimate and gave a range of periodicity. We can consider the "War Cycle" to be the confirmation of his assumptions.

Edward R Dewey: He has studied every cycle you can imagine, both in the economic world and in wars. "Systematic Reconnaissance of Cycles in Warⁱⁱⁱ" is the most interesting article to summarize the cycles he foresaw. These cycles are the result of a systematic statistical study over a significant period from 1700 to 1913. However, there is one difference from this study: the events selected are the dates of battles, not wars. In what is considered a war, there can be dozens or even hundreds of battles. He identified the cycles of 11.2, 17.4, 23.8, 53.5 and 125.9. It was not possible to find a correlation between the periodicities of the war cycle (8.4 or multiple of 8.4) and the periodicities proposed by E R Dewey. Comparative data analysis and statistical processing would be necessary to understand the differences between the cycles proposed by Dewey and those of the "War Cycle".

Other authors in other countries have also made studies on the periodicity of wars, and may be worth quoting. This listing was limited to those known and consulted and considered to be of direct interest to the "War Cycle". Virtually all of these authors have hypothesized about periodicities of more than a century. Such periodicities were not studied in this study, which was limited to short or medium cycles that would allow us to make forecasts that could be used in the relatively near future.

Conclusion

It is too early for readers to conclude that there is indeed a "War Cycle" that defeats the measure of war and peace on our earth. There is a set of troubling elements that may appear solid to those who evaluate them and may be ignored by others.

In order to be able to conclude, it would be necessary that others other than the author evaluate the content and take a position, be they researchers or academics ... or others, if they feel able to use their common sense and reason.

In practice, there is a great deal of research to be done to confirm and continue this study.

The author has reached the limits of what he can do alone and without any budget other than his own. For this to continue, it is necessary to make this information available to all those who want it and hopefully find a way to restart this research on a larger scale.

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ⁱ Gaston Bouthoul, *Traité de Polémologie*, Paris, Payot, 7 October 1970.

ⁱⁱ Quincy Wright, *A Study of war*, Chicago : University of Chicago Press 1965

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