

# How does the finite pool of attention evolve over time regarding the coverage of the Palestine/Israel war and Ukraine/Russia war?

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## Introduction

In today's fast-paced interconnected world, information is at our fingertips. Thereby, it's crucial to understand how conflicts capture attention. This work aims to explore the dynamics of attention allocation and explain how it changes over time in the context of two complex and multifaceted conflicts: the Palestine/Israel war and the Ukraine/Russia war. The finite pool of attention refers to the limited capacity individuals and societies have to focus on and engage with various issues and events. As these conflicts evolve, the allocation of attention towards them can fluctuate and change over time. The process of the finite pool of attention's evolution regarding the coverage of the Palestine/Israel war and the Ukraine/Russia war is complex and dynamic. Understanding how attention is distributed and evolves over time concerning these conflicts is critical to understanding their global impact and the narratives that shape public perception.

## Data

For the data, we used web scraping to extract the titles and dates of 30 Wall Street Journal articles every day from 2014 to 2023.

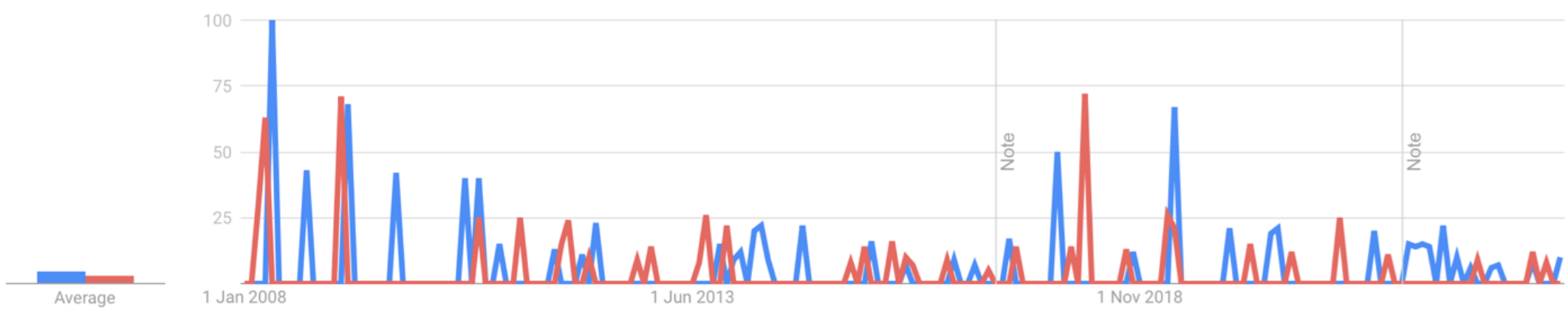
## Methodology

*Web scraping:* The code we used scrapes article titles and dates from the WSJ archive for a specified date range and stores the information in an Excel file. We scraped the archive year by year to speed up the process, and we then appended all databases.

*Sentiment Analysis:* Once we had the complete database, we created two indicators; the first points to all articles mentioning the war in Palestine. The second points to those mentioning the war in Ukraine. Subsequently, we employed a code that conducts sentiment analysis on the titles based on the two indicators and calculates the yearly average sentiment score for each indicator. The results are then stored in Excel files that are used for plotting Sentiment Trends across the years.

Click [here](#) to check out the python code.

## Descriptive Statistics



### Ukrainian-Russian war (in blue)

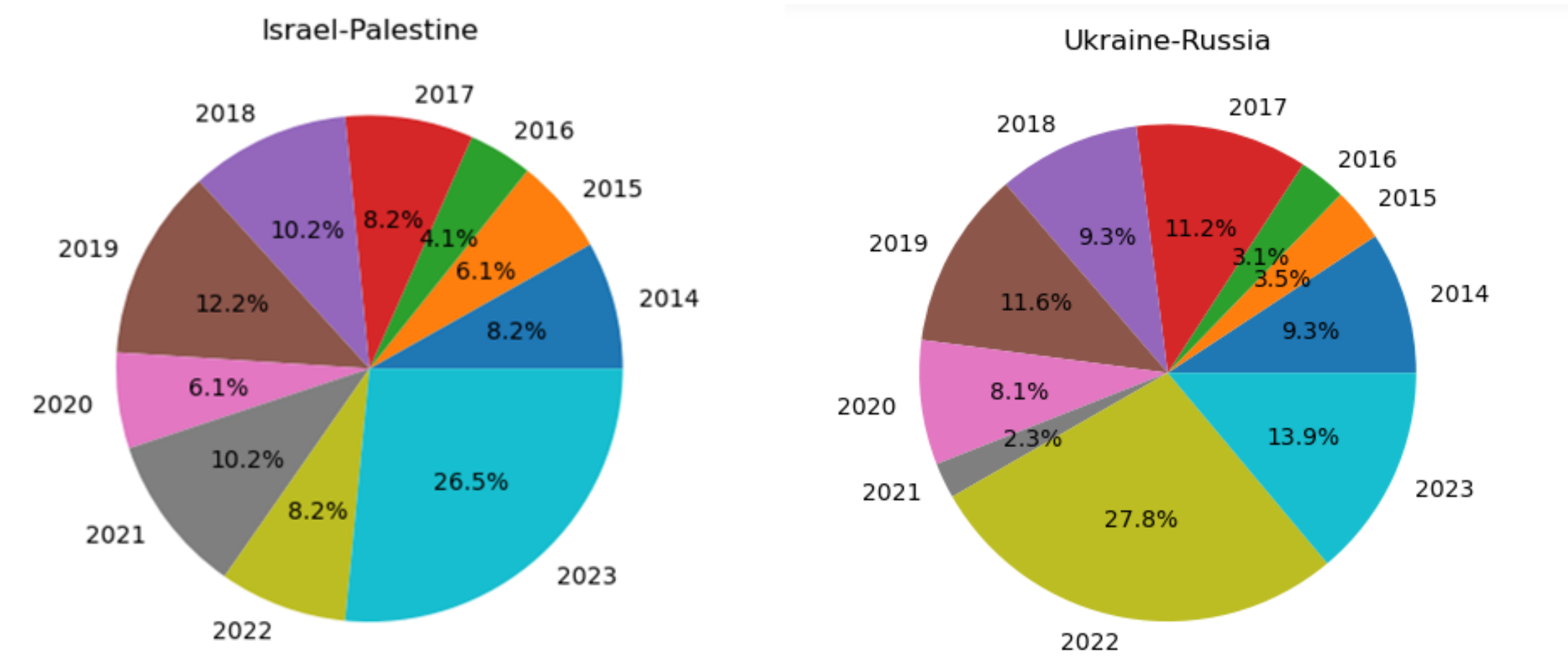
From 2008 to 2023, Ukraine-Russia relations evolved from political upheavals and a gas dispute to significant military conflict. In 2010, Viktor Yanukovich's election as President began a period of pro-Russian sentiment in Ukraine. Tensions escalated with the 2013 Euromaidan protests over Yanukovich's pivot toward Russia. The following year Russia's annexation of Crimea occurred starting the conflict in Eastern Ukraine.

Escalations continued through 2018 and 2019, with incidents like the Kerch Strait confrontation and political developments including Zelensky president election. In 2021, a substantial military buildup at the Ukrainian border led to a full-scale invasion by Russia in 2022.

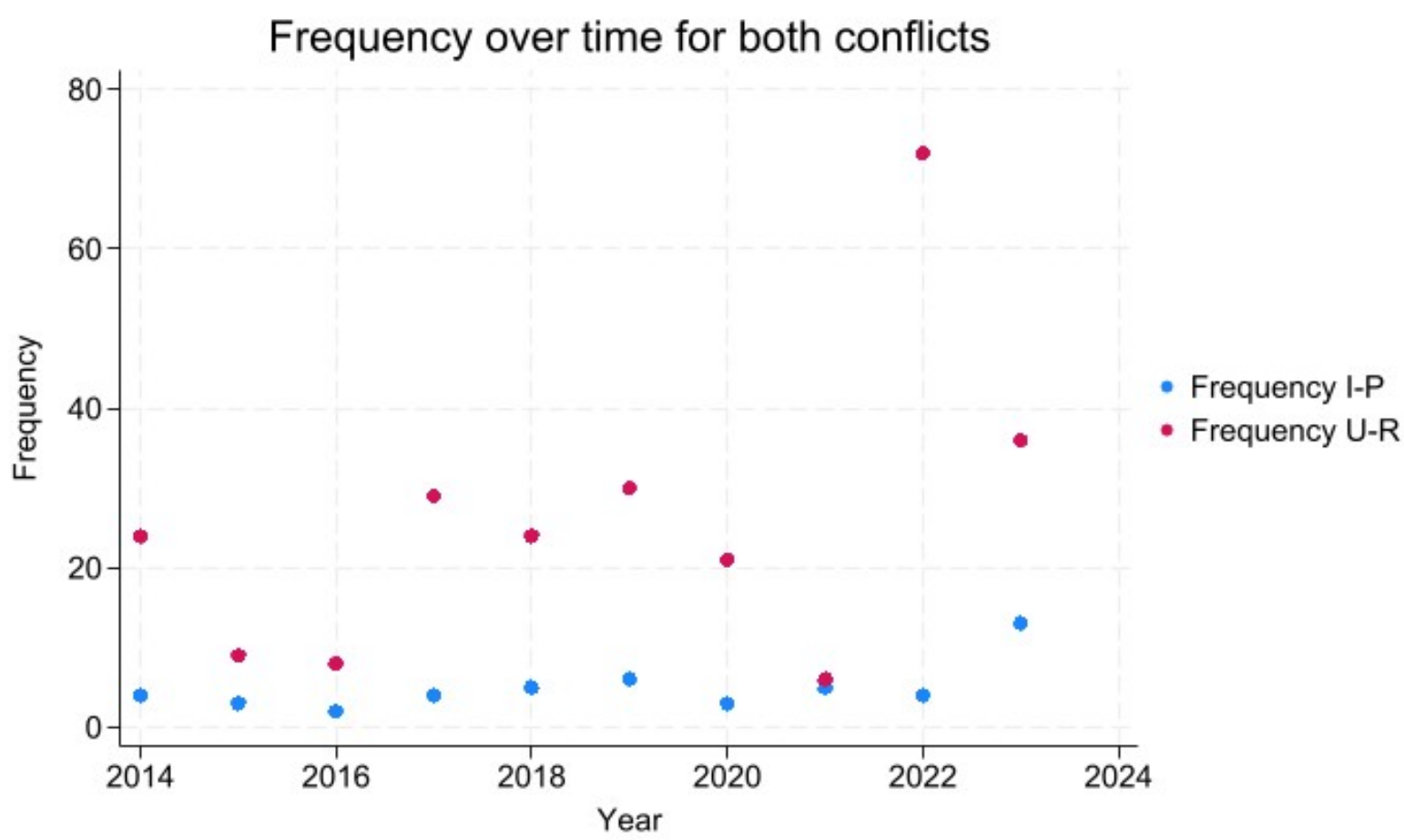
### Palestinian-Israeli War (in red)

From 2008 to 2023, the Israeli-Palestinian conflict saw fluctuating levels of violence and peace efforts. The War in Gaza (Know as Operation Cast Lead) in late 2008 and early 2009, started with Israel's Intention to stop Hamas rocket fire and resulted in significant casualties and infrastructure damage, drawing global attention and controversy. Though peace efforts in 2010 and 2013, including U.S.-led talks, were promising at first, they ultimately failed.

Later in 2018, tensions increased with the Great March of Return and the US Embassy's relocation to Jerusalem. Followed by a political stalemate in Israel and violence escalations in 2019. In 2021 the conflict notably intensified, involving military engagement between Israel and Hamas. Tensions have persisted throughout the years, with a lack of significant progress towards a lasting peace agreement.



Both of these pie graphs represent the percentage of the keyword appearance for each year for their respective conflict, Ukraine-Russia, and Israel Palestine. As mentioned in the introduction, the goal of this project is to study the relationship between media coverage and its relevance to the finite pool of attention. Therefore, with both of these pie graphs, we aim to demonstrate the dates with the most appearance of keywords for each conflict. For the Israel-Palestine conflict, we can see that the year with most titles in the Wall Street Journal mentioning keywords such as "Gaza", "Israel", "Palestine", "Intifada", "Oslo Accords", "Hamas" is 2023. While for the Russia-Ukraine conflict, titles with keywords like "Ukraine", "Russia", "Crimea Annexation", "Donbas", and "Minsk Agreements" were the most prominent in 2022. Just based on this analysis, we can see that the highest percentage of keyword appearance for both conflicts is in the years of the most tension, February 2022 for Russia-Ukraine and October 2023 for Israel-Palestine.



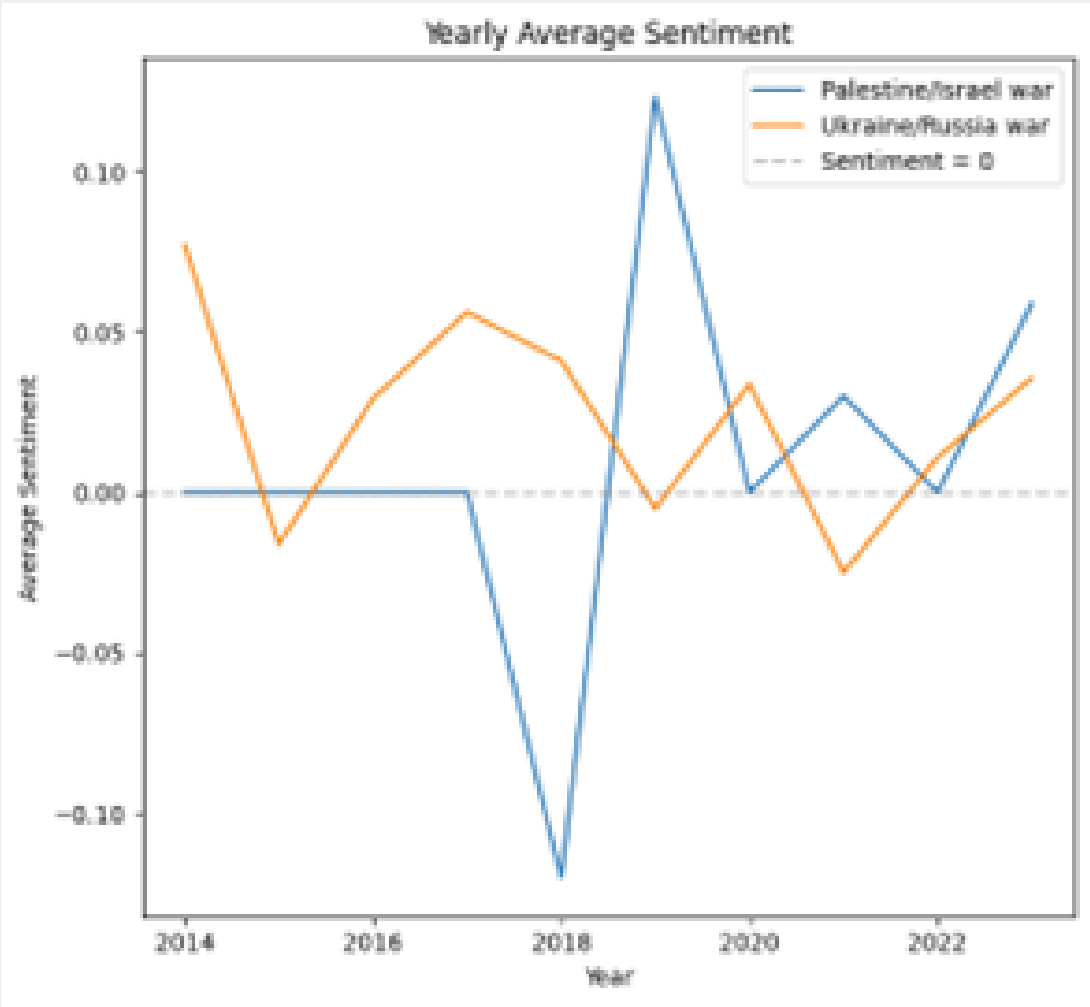
## Descriptive Statistics (continued)

To tie the data with the finite pool of attention theory, we compare the trends of keyword appearance for both conflicts over 10 years. For further research, there are a couple of factors that this study still needs to control to make this analysis more comprehensive. For example, more newspapers could be added from various nations and in different languages to control for a more comprehensive study. Additionally, the automatization of the keyword search could still wrongly miss or add titles to the list of keyword appearance articles. Lastly, would be the political aspect of this project as both of these conflicts have shifted in terms of intensity throughout the years demonstrated through a series of different events. Moreover, despite all of these suggestions for future research, the plot shown above demonstrates a spike in the coverage of Russia-Ukraine relevant papers in 2022 with a significant decrease in 2023 and an increase in 2023 for Israel-Palestine, having nonetheless a lower coverage than the Russia-Ukraine conflict. We tie this back to the idea that there is a finite pool of the public's attention for negative news, newspaper sources focus solely on one negative conflict at a time.

## Results

**Sentiment Trends** The sentiment scale used by TextBlob ranges from -1 to 1, where:

- -1: Represents the most negative sentiment
- Between -1 and 0: Negative
- 0: Represents a neutral sentiment
- Between 0 and 1: Positive
- 1: Represents the most positive sentiment



## Conclusion

The pool of attention may be a credible theory as our 'worries' refuse to be more than one-dimensional. In this case, the western attention remained on the Ukrainian/Russian war instead of jumping to the worst new thing. Furthermore, although the coverage sentiment became more negative at the peak of both conflicts, it was the most negative when referring to the Ukrainian/Russian war. Proving once again that the media's attention and thereby the public's can only be one dimensional.

## References

[1] Matthew R Sisco, Sara M Constantino, Yu Gao, Massimo Tavoni, Alicia D Cooperman, Valentina Bosetti, and Elke U Weber. Examining evidence for the finite pool of worry and finite pool of attention hypotheses. *Global Environmental Change*, 78:102622, 2023.