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Interactive comment on "An Analysis of Conflict and Cooperation Dynamics over Water Events in the Lancang-Mekong River Basin" *by* Jing Wei et al.

Anonymous Referee #2

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This paper uses sentiment analysis of newspaper articles to try to develop a narrative around conflict over a transboundary river. The concept of the paper is interesting, novel, and a good contribution to the field of sociohydrology. However, significant revisions are required before the article can be published.

Major Comments

- The findings are presented in a way that is very matter of fact without explicitly telling the reader about the implications of those findings in a broader context.

- The figures need to be significantly improved. There needs to be more attention to detail in the way the figures are presented and they should be restructured such that

the takeaway message from each figure is clearer. Also, please be consistent with colors, fonts, symbols, and wording across all figures to make it easier for the reader to follow along.

Minor Comments

- Title: Consider adding a reference to "news media coverage" or similar in the title to more concisely describe the paper.

- Introduction- The introduction is through, but I would suggest making it more concise and ending the section with a clear description of what you are going to do in the paper, why you are going to do it, how it is novel, and what you hope to glean from the results/what are the implications of the approach

- Line 129- It would be useful to add this information about each country's desired use of water to Figure 1.

- Line 145-163- Adding this timeline as a new figure or to one or more of the existing figures would be helpful for understanding the events that are later reported in the news articles.

- Line 203- This is a lot of newspaper articles, how many people read through these? Did you do any sort of double checking to make sure that people were coding the articles similarly? Also, did you target any specific newspapers or were these global results?

- Line 225- What is AFINN?

- Line 253- Is this because of certain events? There is no mention of specific political actions, events, or climatic episodes that likely influenced news media coverage spikes and inform the article content. - Line 255-267- what do these results mean beyond just the numeric trends?

- Figure 1- I appreciate the map, but this one could be significantly improved for read-

ability.

- Line 319- Interesting takeaway but what does this mean for water resources management?

- Line 327- Good takeaway which could also be communicated on one or more figures by adding upstream -> downstream labels.

- Line 344- Does China's state-controlled media have anything to do with this? Do other countries have state-controlled media as well?

- Line 347- Why is this?

- Line 354- What value?

- Discussion and Conclusion- This section is very long and would benefit from subsections which highlight the key takeaways. Also, what do these results mean beyond the case study region and what are future research directions for this type of news media sociohydrology research?

- Figure 1- I appreciate the map, but it would be more useful if it were annotated and the colors of the countries matched the rest of the figures.

- Figure 2- This is a very useful figure but please reference it more in text. Additionally, you don't need to list the data visualization software that you used.

- Figure 3a- The way this graph is structured, I cannot tell the differences the magnitudes of the categories.

- Figure 3b- What am I supposed to glean from this figure? On line 257 you write that the number of both negative and positive articles has increased, but this figure shows only the percentage of negative vs. positive articles with no discernable trend or context.

- Figure 4b and 4c- Add "conflictive" and "cooperative" to the figures themselves instead

of just the caption and consider using a data visualization other than pie charts which are hard to compare. Also please be consistent with decimal places.

- Figure 5- This is a very hard figure to understand. Why did you choose these years? What do the colors in the word clouds mean? What am I supposed to take away from this figure?

- Figure 6a- You show the average across all newspapers, but it would be more informative to show as boxplots to understand the distributions. Also, please annotate the y-axis to show positive/collaborative vs. negative/conflictive sentiment values.

- Figure 6b- The colors should match those of 6a. Additionally, the figure is hard to read and I am not sure what the takeaway message is from this plot.

- Figure 7- This is very hard to understand. What do the spikes mean? Are there trends I should be noticing? It is challenging to compare the counties as they are on separate figures with different axes.

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