

Creating resilience through solidarity framing on social media

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From resilience to solidarity and back?

Resilience: a neoliberal mechanism?

Enter solidarity:

Fostering resilience by creating “ties that bind”

Doane, D., & Pugh, S. (2021, March). *Solidarity Playbook: Emerging lessons on resilience and solidarity mechanisms*.

Kelly, U., & Kelly, R. (2017). Resilience, solidarity, agency – grounded reflections on challenges and synergies. *Resilience*, 5(1), 10–28.

<https://doi.org/10.1080/21693293.2016.1228156>

Zebrowski, C., & Sage, D. (2017). Organising community resilience: An examination of the forms of sociality promoted in community resilience programmes. *Resilience*, 5(1), 44–60. <https://doi.org/10.1080/21693293.2016.1228158>

Leap, B., & Thompson, D. (2018). Social Solidarity, Collective Identity, Resilient Communities: Two Case Studies from the Rural U.S. and Uruguay. *Social Sciences*, 7(12), Article 12. <https://doi.org/10.3390/socsci7120250>

Solidarity and resilience on social media

Social media has been used to create community resilience in other contexts, such as COVID-19 pandemic and natural disasters.

How to create “ties that bind” in a context of war and radiation risk?

=> We examine how **time**, **solidarity framing**, and **agents** (types of posters) affect **engagement** on social media

Wang, K., Lam, N. S. N., Zou, L., & Mihunov, V. (2021). Twitter Use in Hurricane Isaac and Its Implications for Disaster Resilience. *ISPRS International Journal of Geo-Information*, 10(3), Article 3. <https://doi.org/10.3390/ijgi10030116>

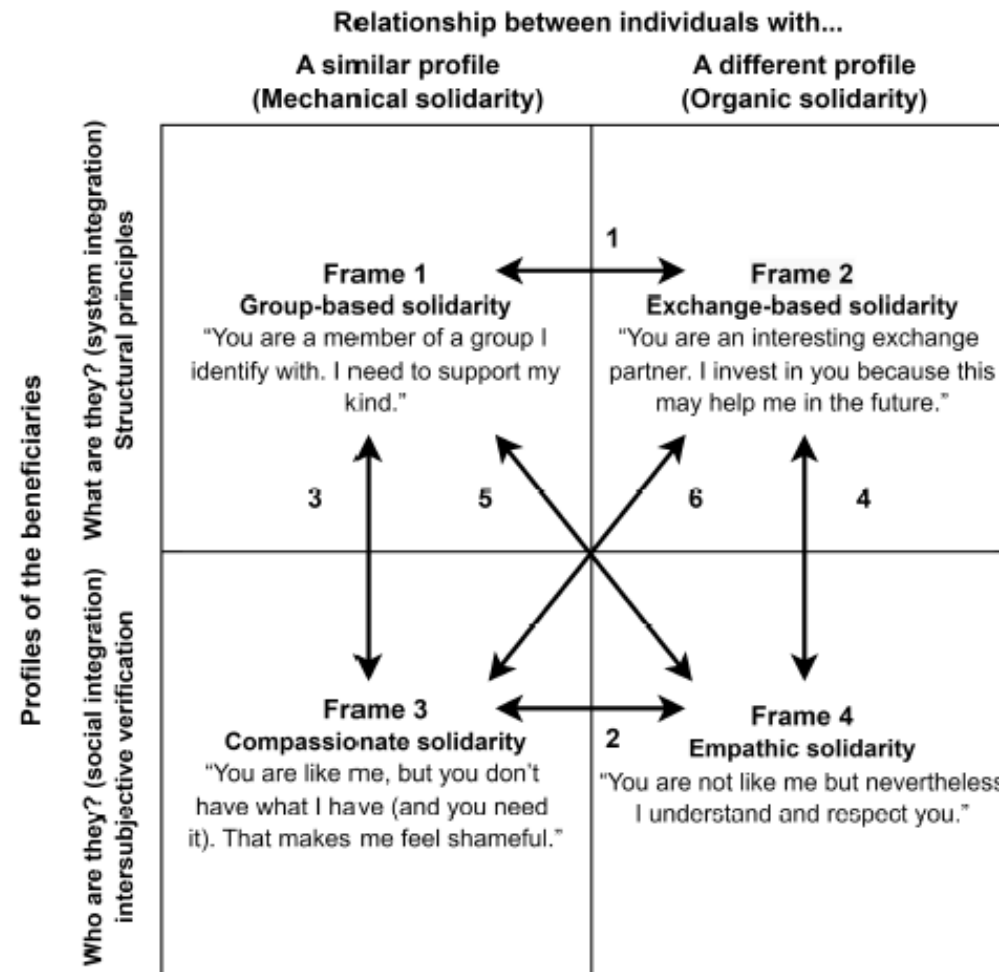
Susan Yell & Michelle Duffy. (2018). Community empowerment and trust: Social media use during the Hazelwood mine fire | Australian Disaster Resilience Knowledge Hub. *Australian Institute for Disaster Resilience*, 66–70.

Huang, F. N., Lim, K., Sidhi, E., & Yuen, B. (2021). Sensing Community Resilience Using Social Media. In *COVID-19 Pandemic, Geospatial Information, and Community Resilience*. CRC Press.

Kalaloi, A. F., Primayanti, A., Dianita, I. A., Mahestu, G., & Dirgantara, P. (2021). Mediated Solidarity and Community Resilience on Twitter During Covid-19 Pandemic in Indonesia. *2021 International Conference Advancement in Data Science, E-Learning and Information Systems (ICADEIS)*, 1–7.

<https://doi.org/10.1109/ICADEIS52521.2021.9702089>

Solidarity frames



Thijssen, P., & Verheyen, P. (2022). It's all about solidarity stupid! How solidarity frames structure the party-political sphere. Luybaert, A., & Thijssen, P. (2024). The comparative politics of solidarity: Political party discourse across three welfare state regimes.

PSF during the Ukraine war

Mechanical solidarity: we are the same Organic solidarity: we are different

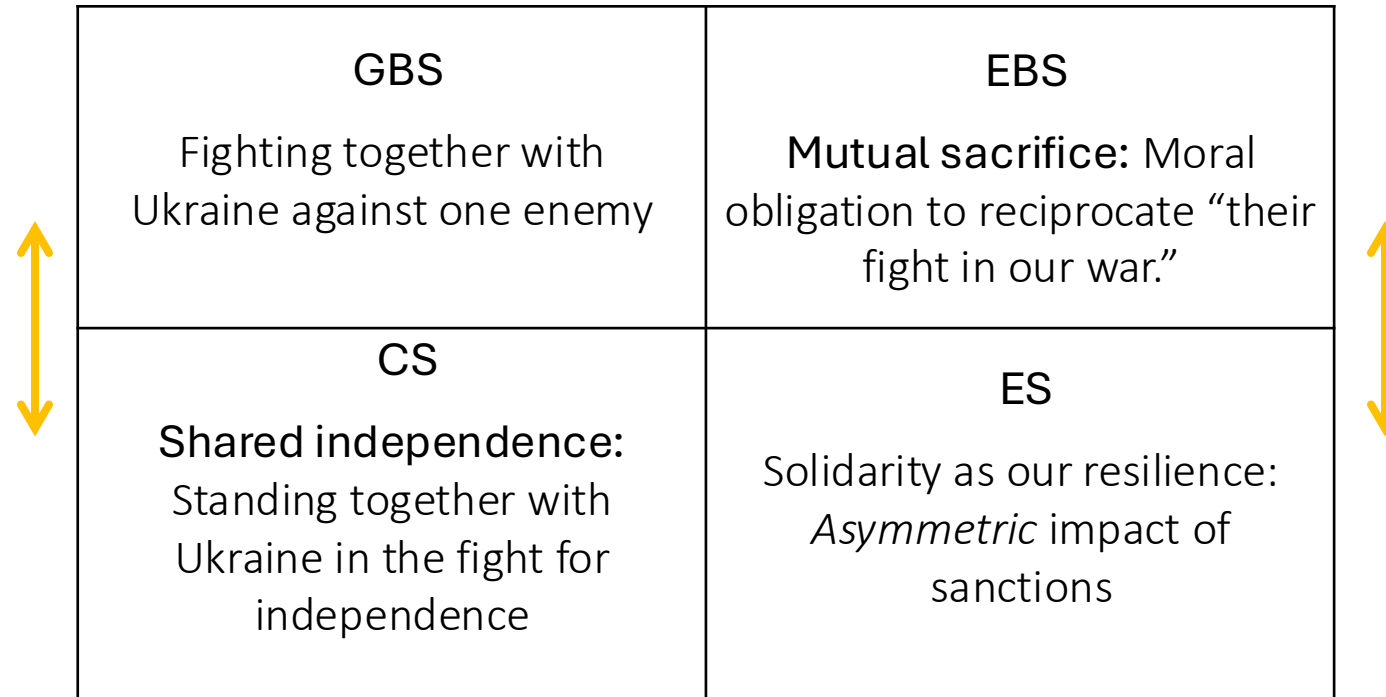
GBS Fighting together with Ukraine against one enemy	EBS Mutual sacrifice: Moral obligation to reciprocate “their fight in our war.”
CS Shared independence: Standing together with Ukraine in the fight for Independence	ES Solidarity as our resilience: <i>Asymmetric</i> impact of sanctions

Narrating Solidarity With Ukraine: 4 narratives (Theiss & Menshenina, 2024)

PSF during the Ukraine war: H1

Mechanical solidarity: we are the same

Organic solidarity: we are different



The diagram consists of a 2x2 matrix with a black border. The columns are labeled 'Mechanical solidarity: we are the same' and 'Organic solidarity: we are different' at the top. The rows are labeled 'GBS' and 'EBS' in the top row, and 'CS' and 'ES' in the bottom row. The cells contain descriptions of solidarity. On the left and right sides of the matrix, there are yellow double-headed vertical arrows indicating a relationship between the top and bottom rows.

GBS Fighting together with Ukraine against one enemy	EBS Mutual sacrifice: Moral obligation to reciprocate “their fight in our war.”
CS Shared independence: Standing together with Ukraine in the fight for independence	ES Solidarity as our resilience: <i>Asymmetric</i> impact of sanctions

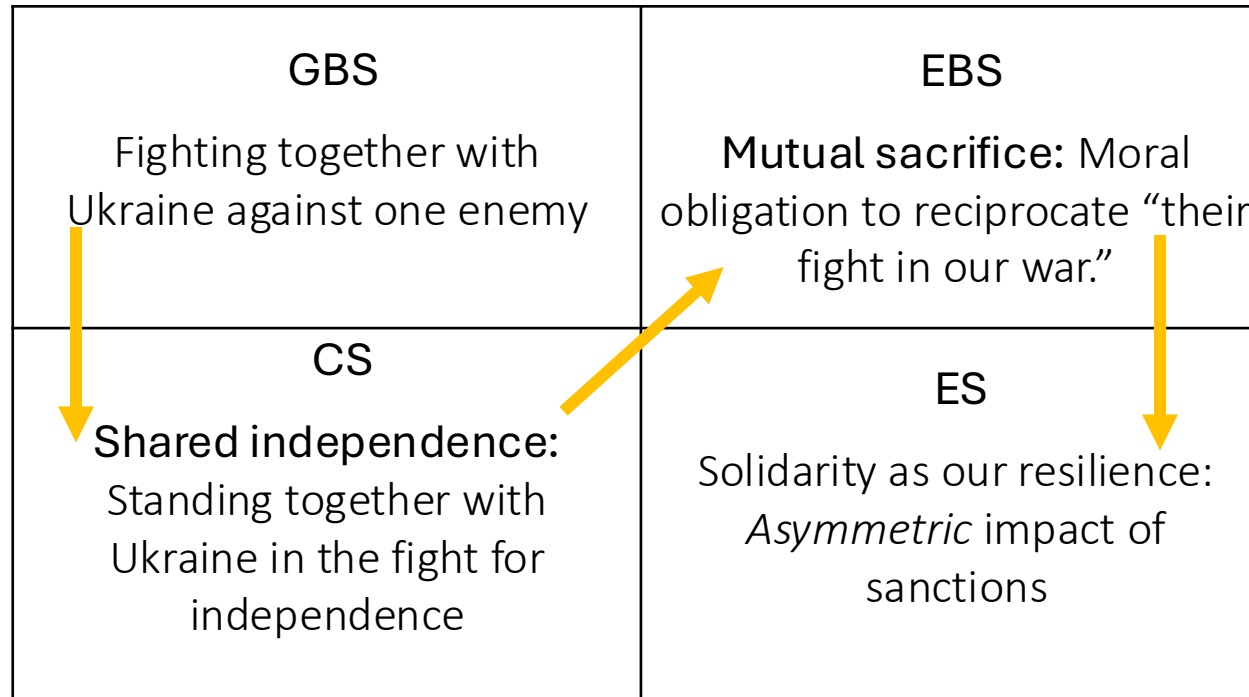
Causal sequence of frames?

Durkheimian view (Somek, 2024)

PSF during the Ukraine war: H2

Mechanical solidarity: we are the same

Organic solidarity: we are different



Causal sequence of frames?

Durkheimian view (Somek, 2024)

Data collection

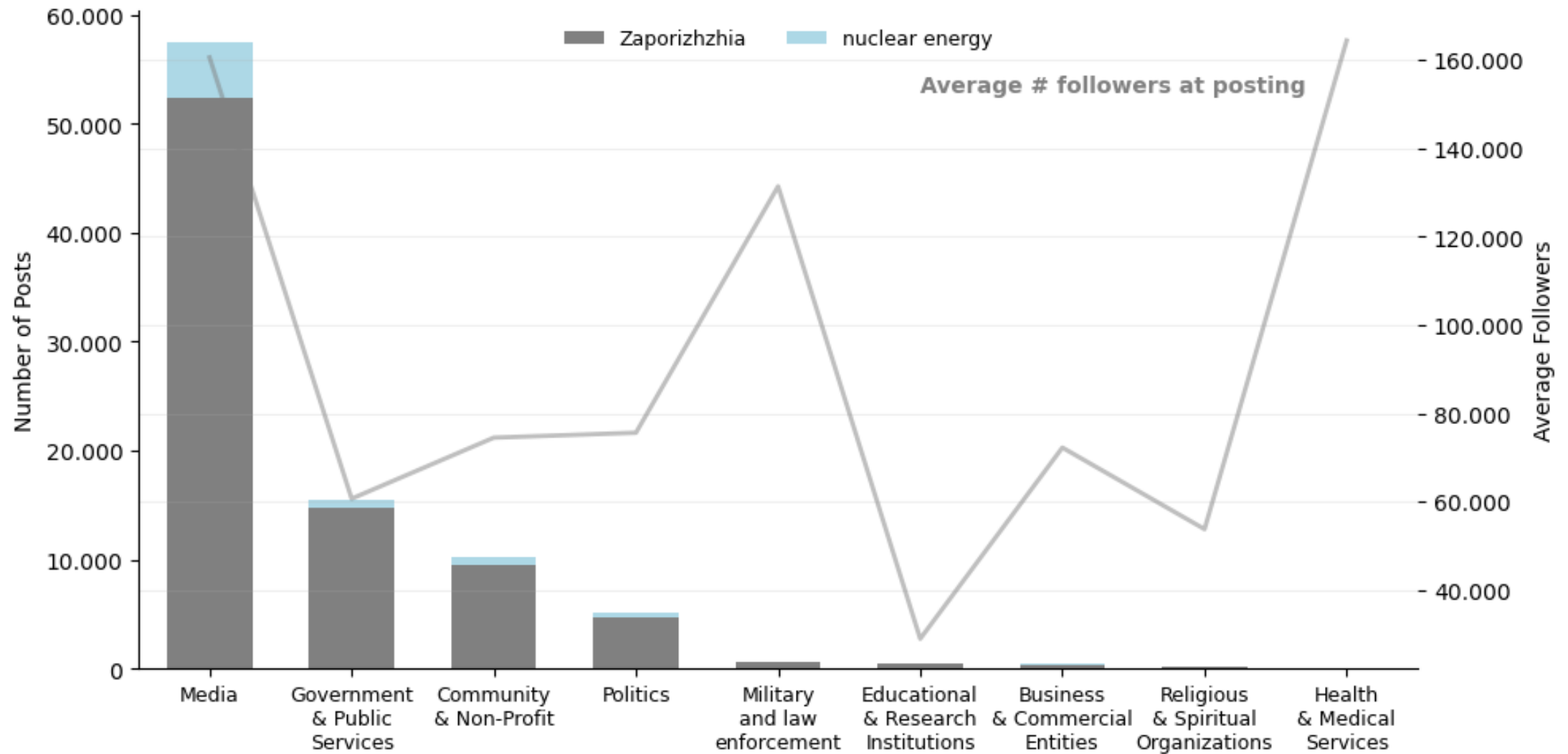
- Facebook posts from January 2021 to August 7th, 2024
- 2 searches:
Nuclear energy: 7.601 posts
Zaporizhzhia: 84.777 posts
- 92.378 unique posts
- 5.182 unique posters
- 110 words per post on average



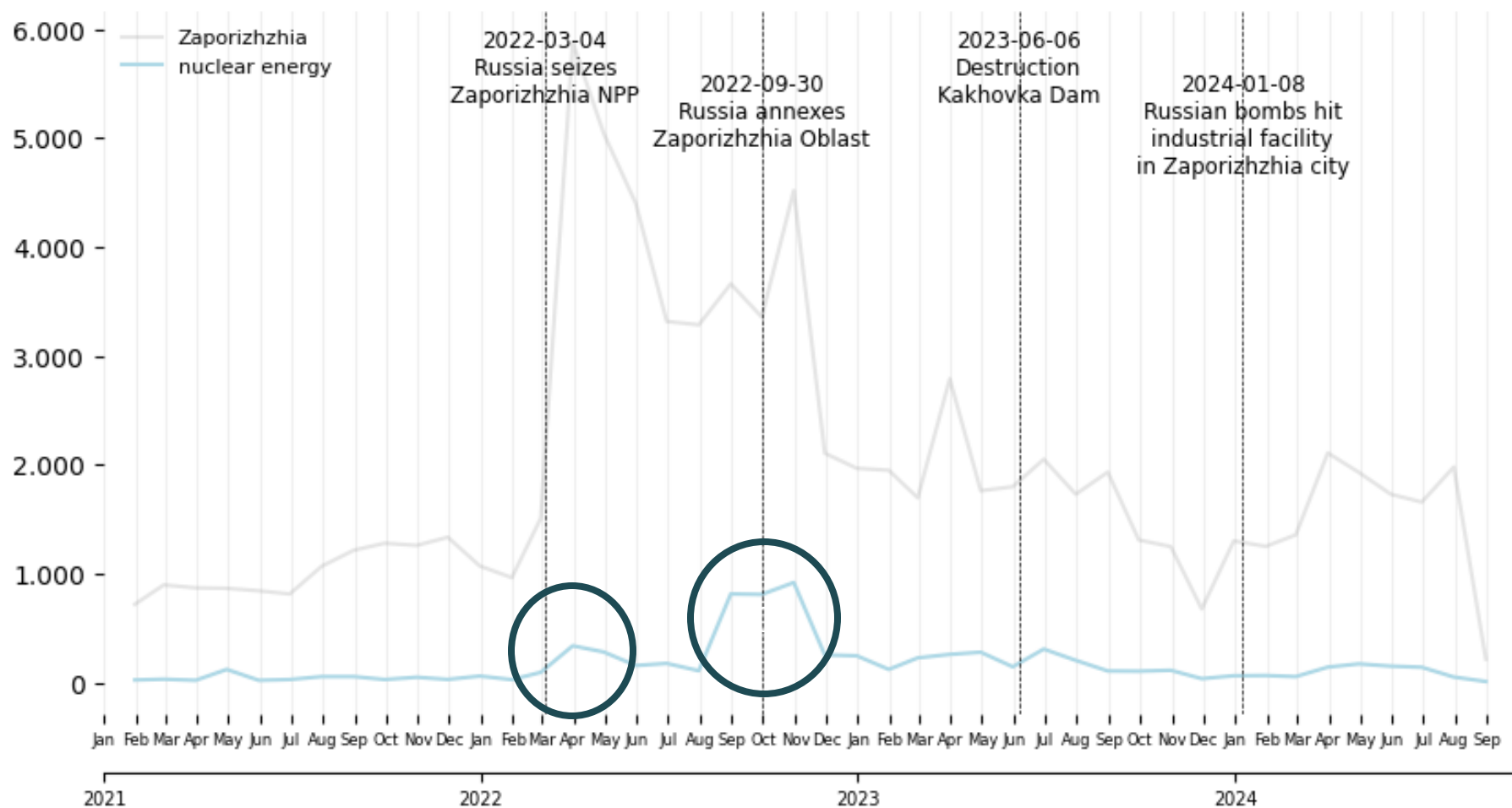
Data annotation

- At sentence level within a post.
- The presence of solidarity within a post is binary, but there can be multiple frames within a post.
- Annotated with OpenAI's gpt-o3-mini, benchmarked against human annotation

9 different user types



First a military issue, then a nuclear energy issue?

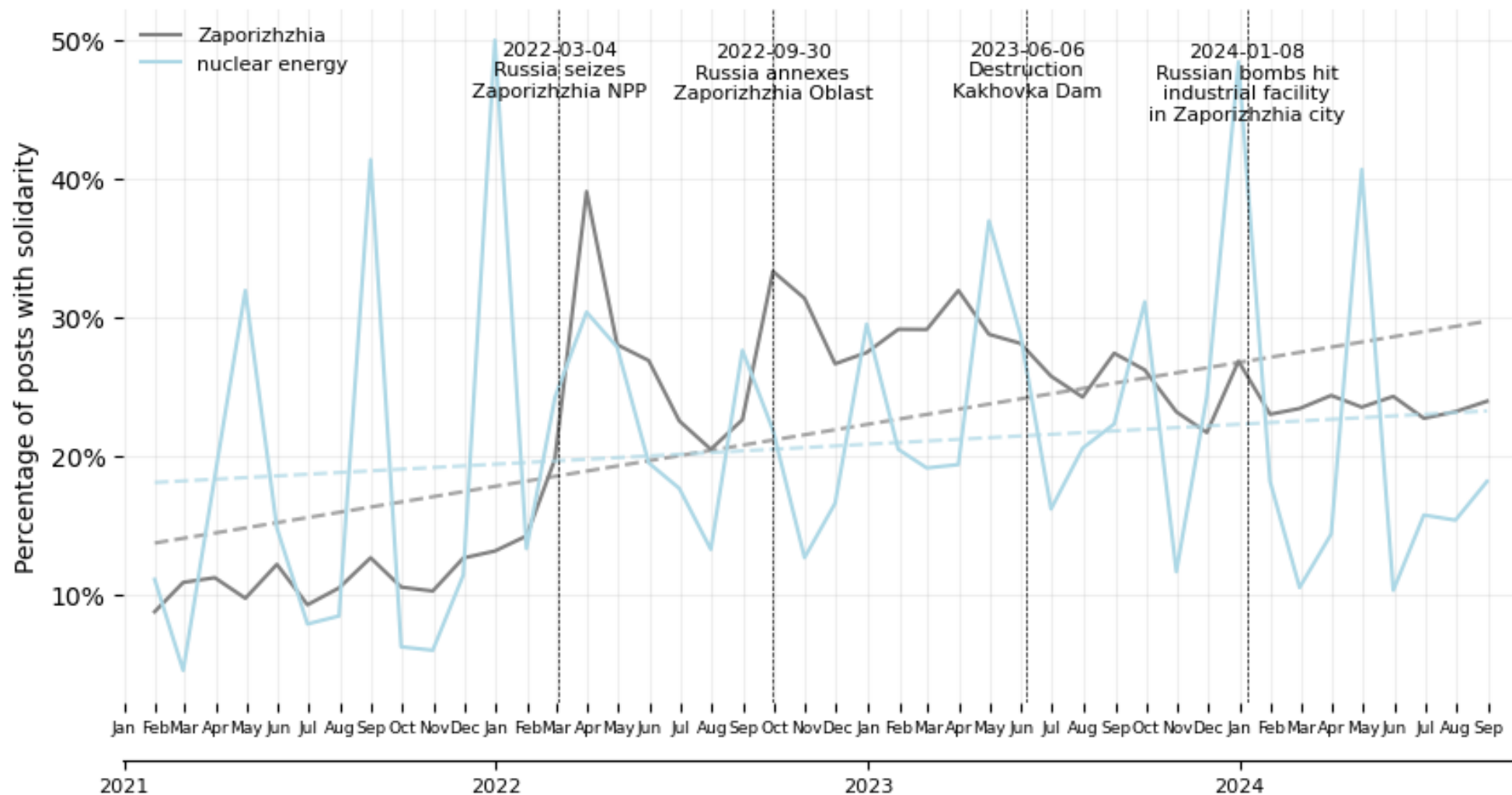


Solidarity (framing)
through time

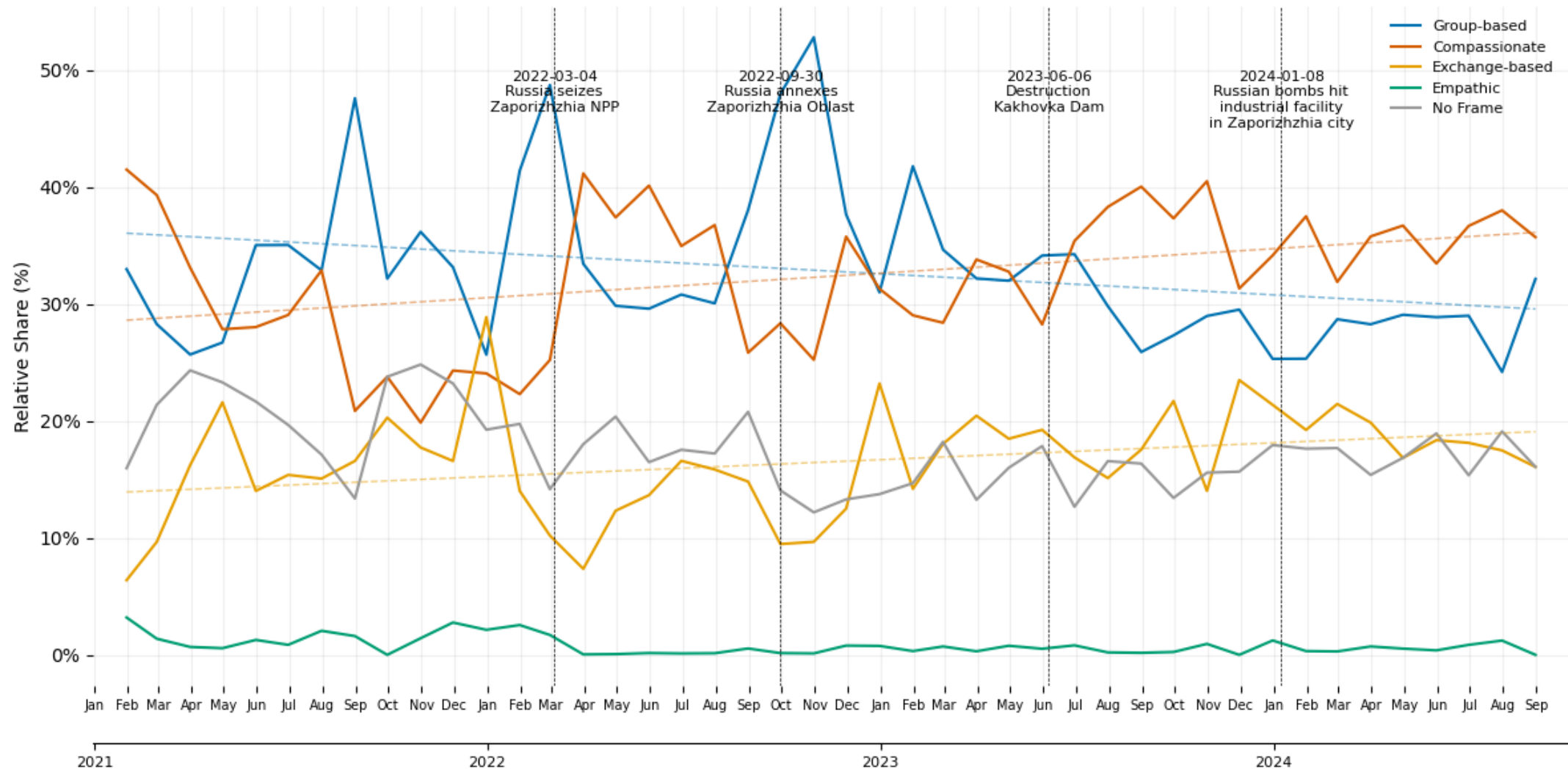
Example posts with a frame

Group-based solidarity	Exchange-based solidarity
In turn, we want to unfurl the yellow and blue flags and demonstrate to the whole world the unbreakable spirit of the Ukrainian people and the bravery of our defenders.	We thank our warriors, who stand like an unbreakable wall for their native home.
Compassionate solidarity	Empathic solidarity
Together with colleagues, we will continue to put effort into helping Zaporizhzhia residents in this difficult time.	The UN Development Program announces a contest of grants for comprehensive support of the population affected by war, with special attention to people with disabilities

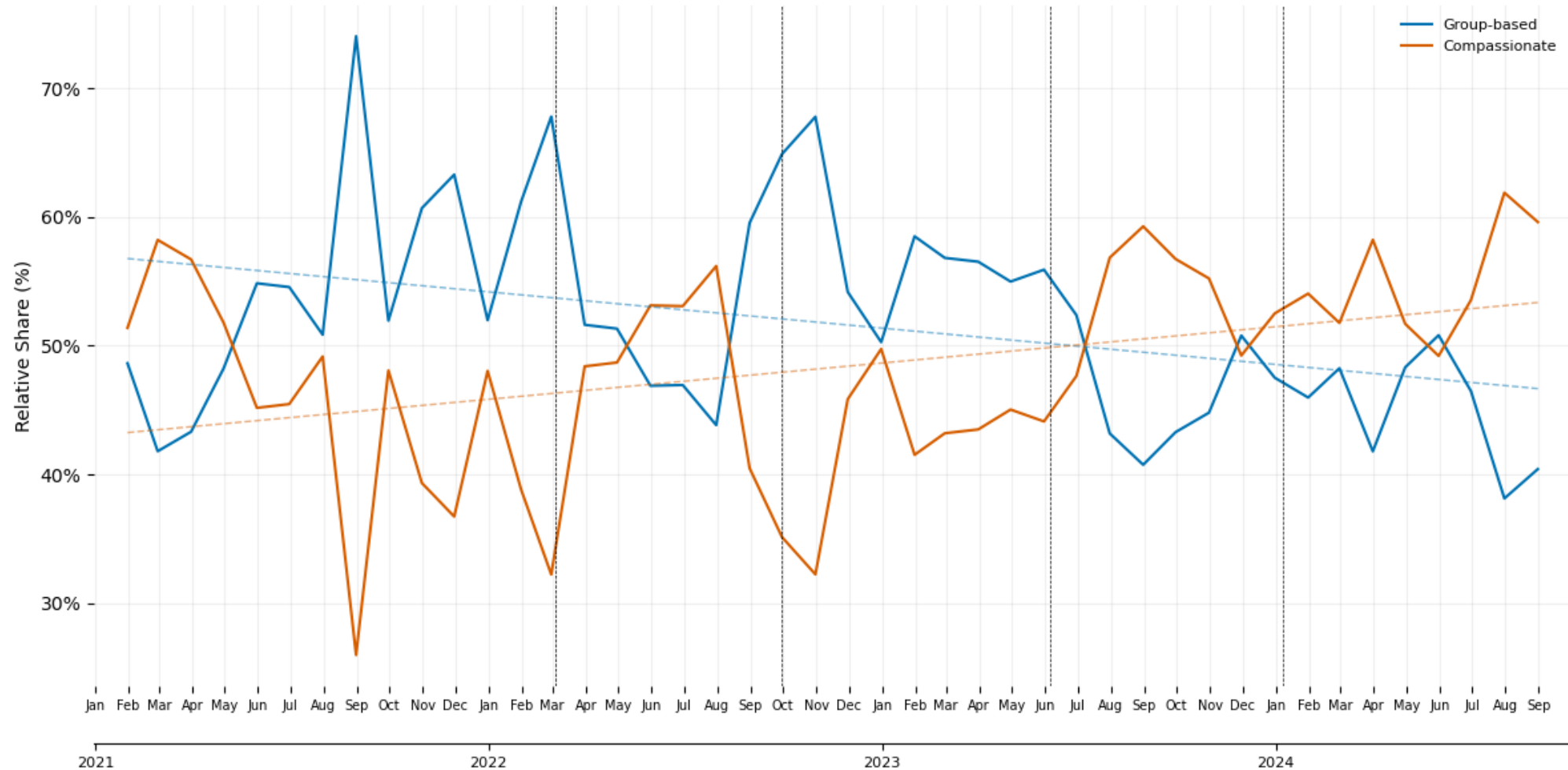
Share of posts with solidarity remains high



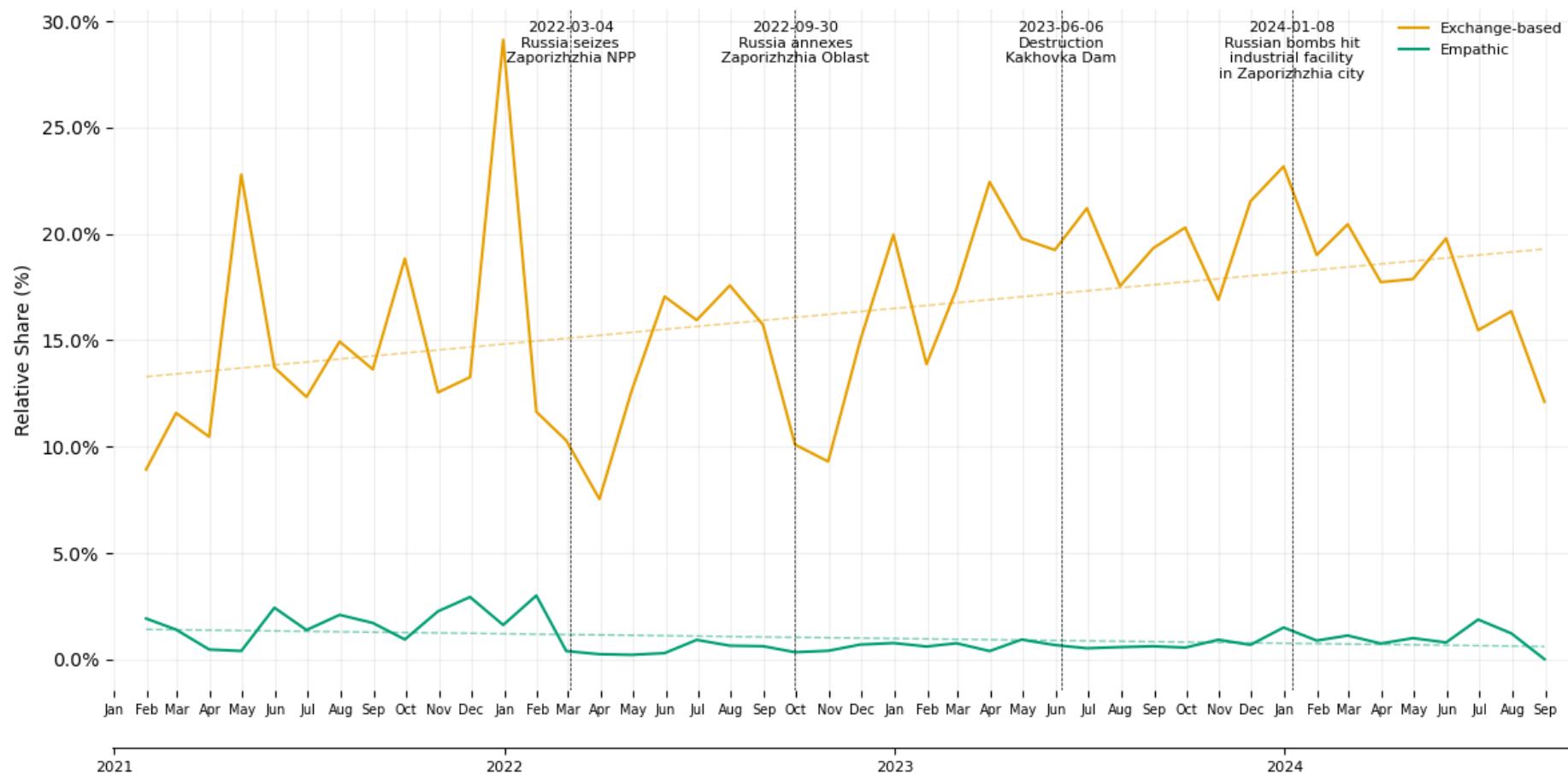
H2: GBS->CS->EBS not confirmed



But H1: Compassion takes over group-based

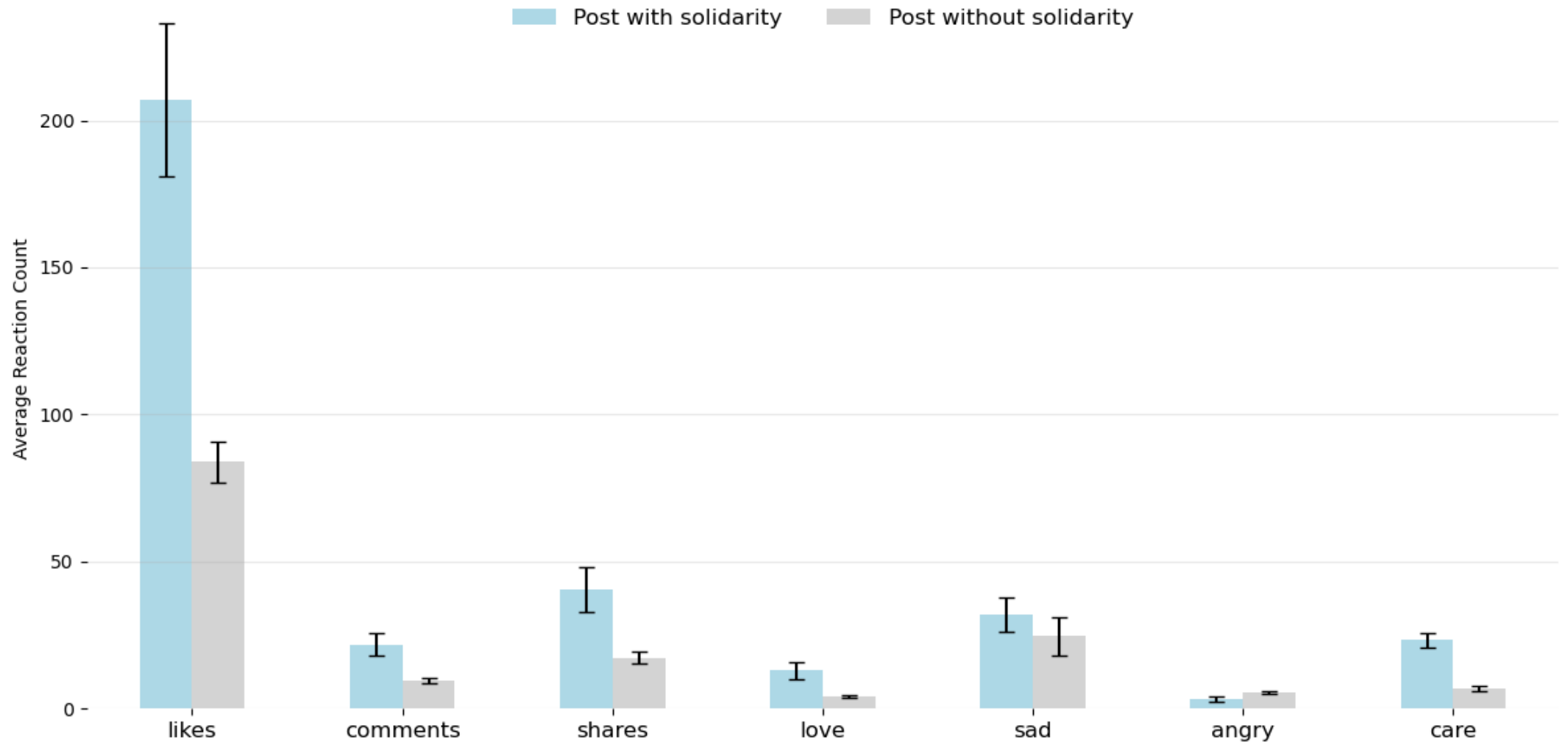


Empathic remains stable (low) during crisis

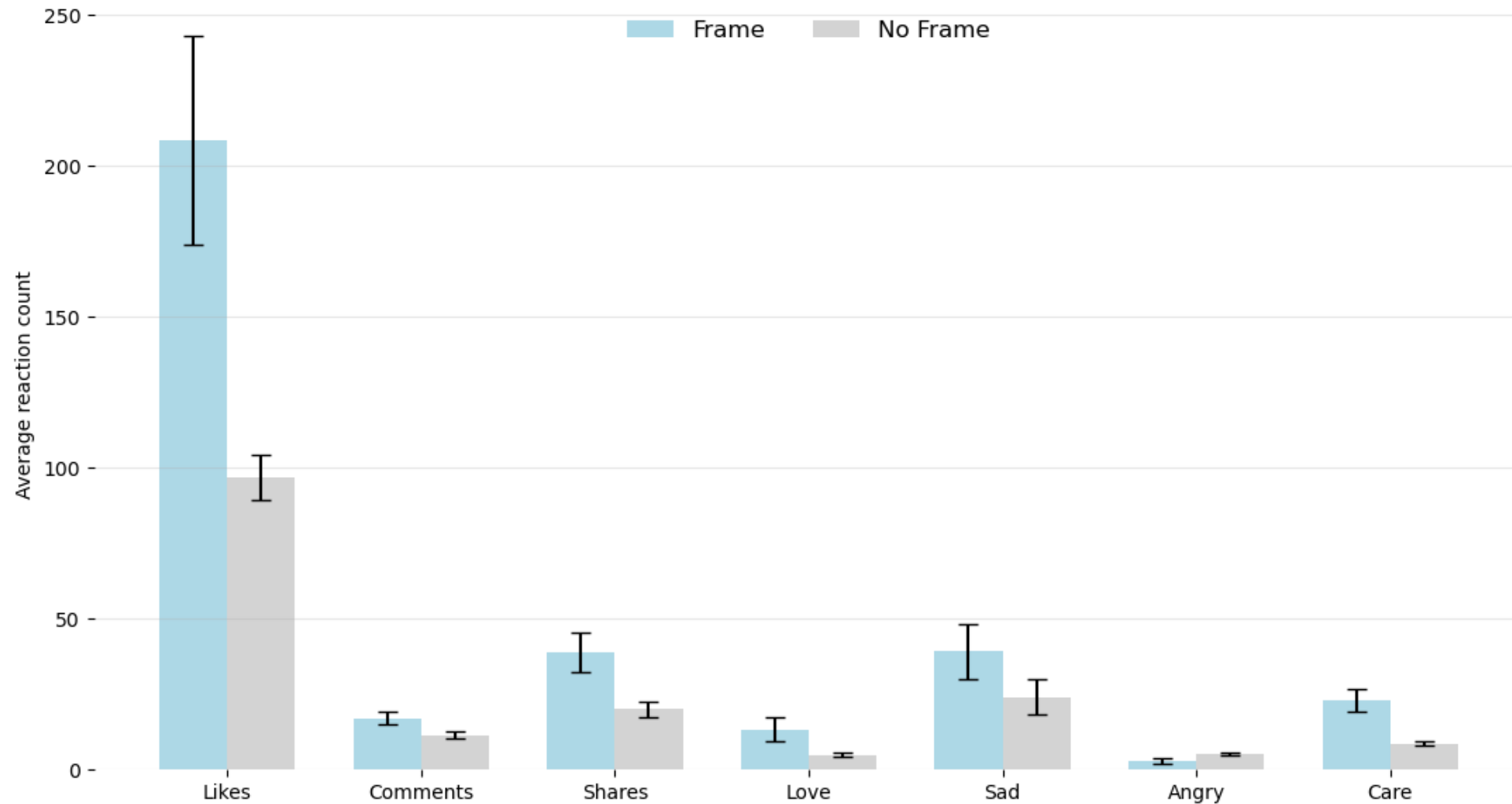


How does solidarity
(framing) impact
engagement?

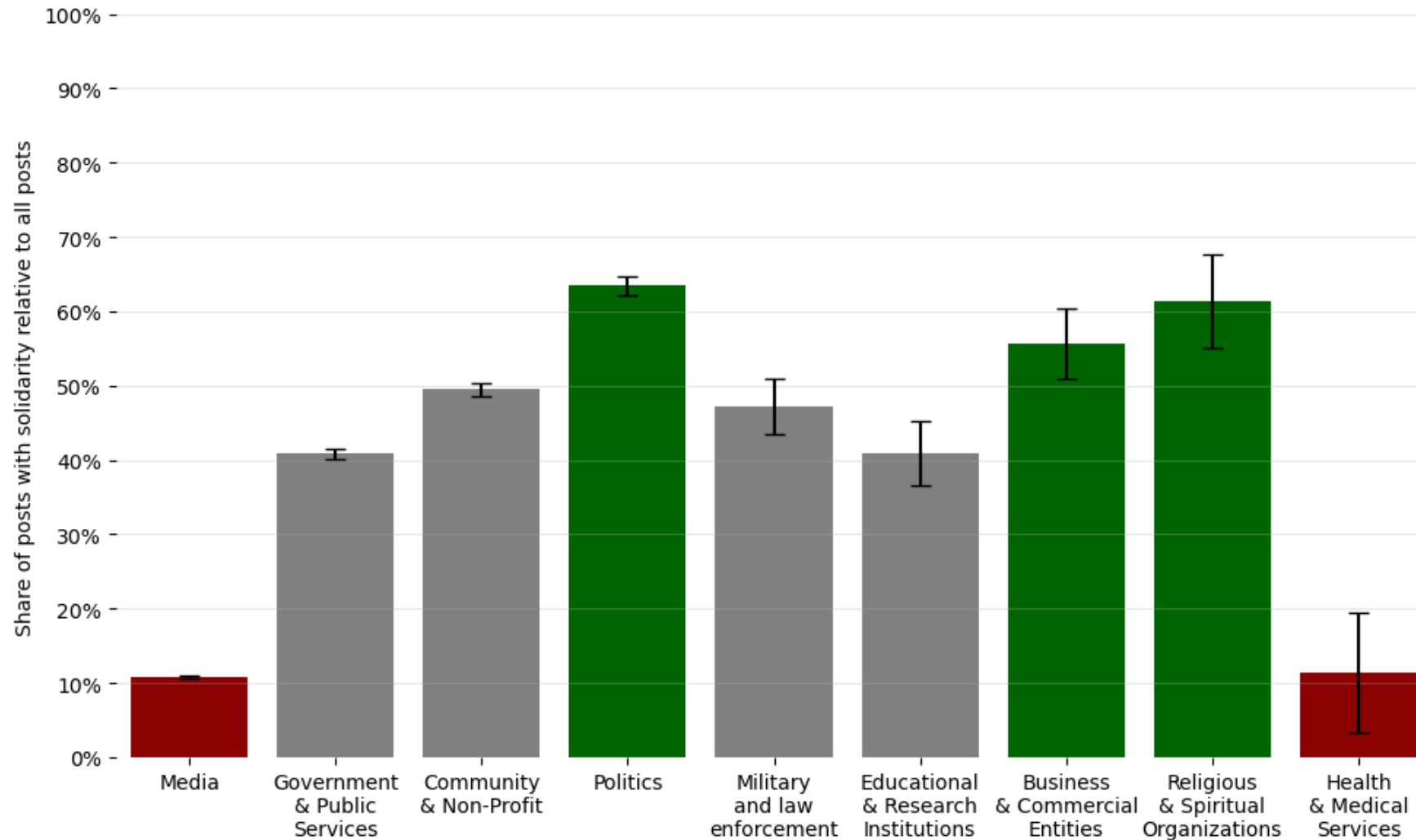
Posts with solidarity have more engagement



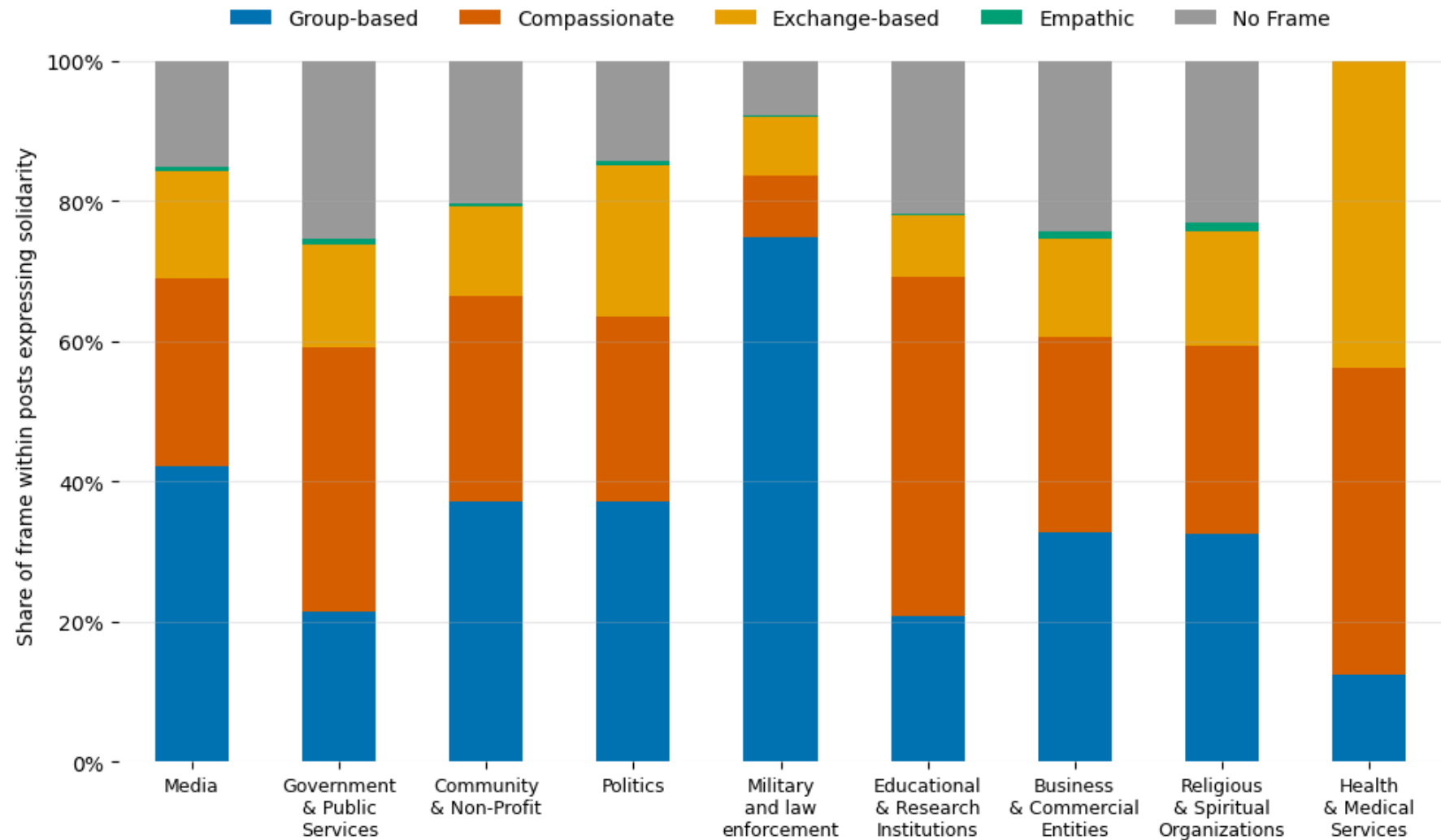
and using a frame matters (at first sight)



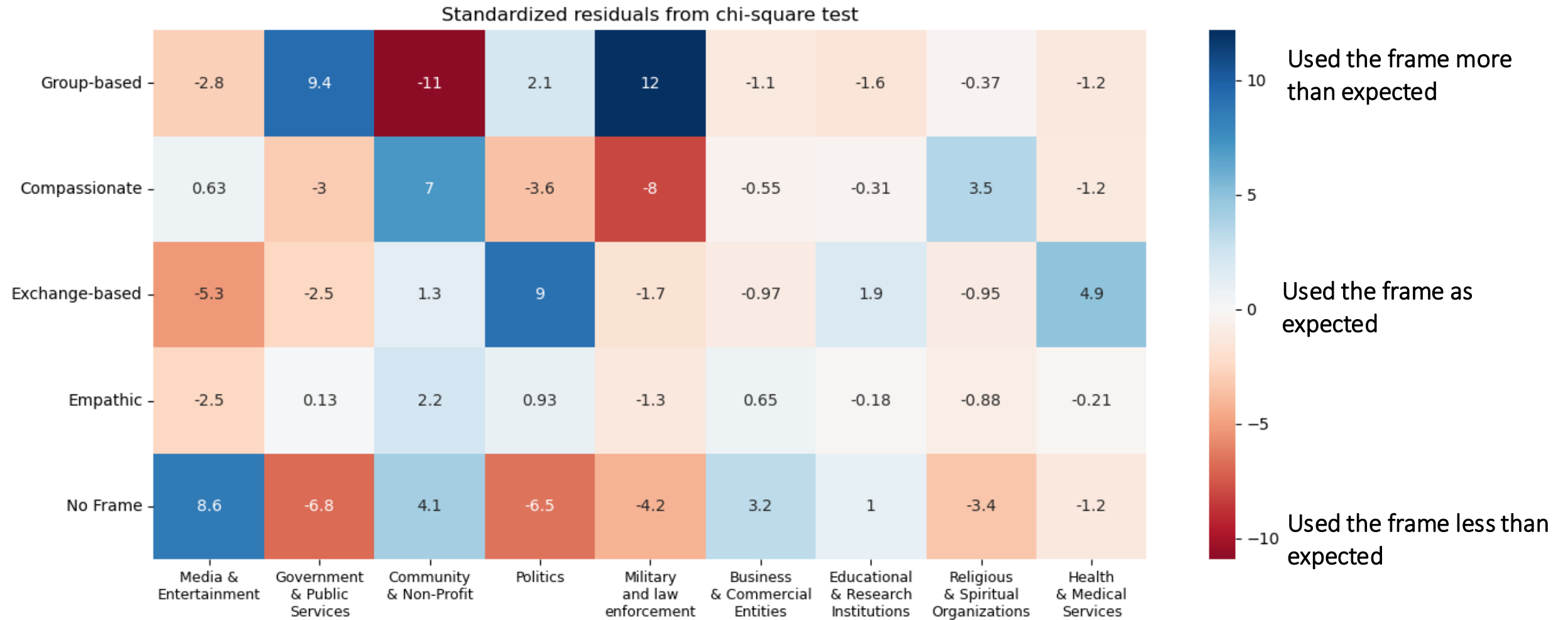
But: not all types of users express solidarity on Facebook



... And they express it differently



... And they express it differently



To be examined: interaction effects

- Do different **types of pages** need to use different frames to create engagement?
- Do users need to change their framing strategy over **time**?
- Different users may also use different **types of post** (video, photo, etc) that may impact (the influence of solidarity framing on) engagement.

=> Regression analyses that control for these variables when looking at the impact of solidarity framing on engagement

A first exploration suggests the effect of solidarity in general remains, even when controlling for post type and number of followers, but the model explains very little variation in general

Questions or advice?

Main points:

- Feedback on impactful events: which ones to take into account?
- Which users to focus on? Should we drop those that do not overlap with the other use cases?
- What do you think about the use of the different frames and how it relates to the events?

Other things we need to take into account?