

Understanding Anti-Democratic Sentiments

Using A Longitudinal Network Approach

Motivation

Anti-democratic sentiments are becoming increasingly prevalent, raising concerns about the **resilience of democratic institutions**. The roots of individual-level anti-democratic sentiments, such as distrust in institutions, support for authoritarianism, and conspiracy beliefs, are complex, involving a **web of psychological and political factors**. This study applies psychometric network analysis, which allows an exploratory examination of high-dimensional data without imposing strong prior assumptions about relationships between variables [1].

RQ: How do psychological and political variables influence the development of anti-democratic sentiments over time?

Methodology [2]

3-Wave Panel Data August 2024 | 624 participants

Theory-Based Variable Selection

Penalized Regression Removal of insignificant paths for model parsimony

Estimation using SEM Cross-lagged and auto-regressive coefficients

Bootstrap Resampling 1000 iterations

Test for Time Invariance

Results

Bootstrapped cross-lagged networks showed **good model fit** between time points:

- T1 → T2: CFI = .96, TLI = .94, RMSEA = .08
- T2 → T3: CFI = .97, TLI = .96, RMSEA = .07

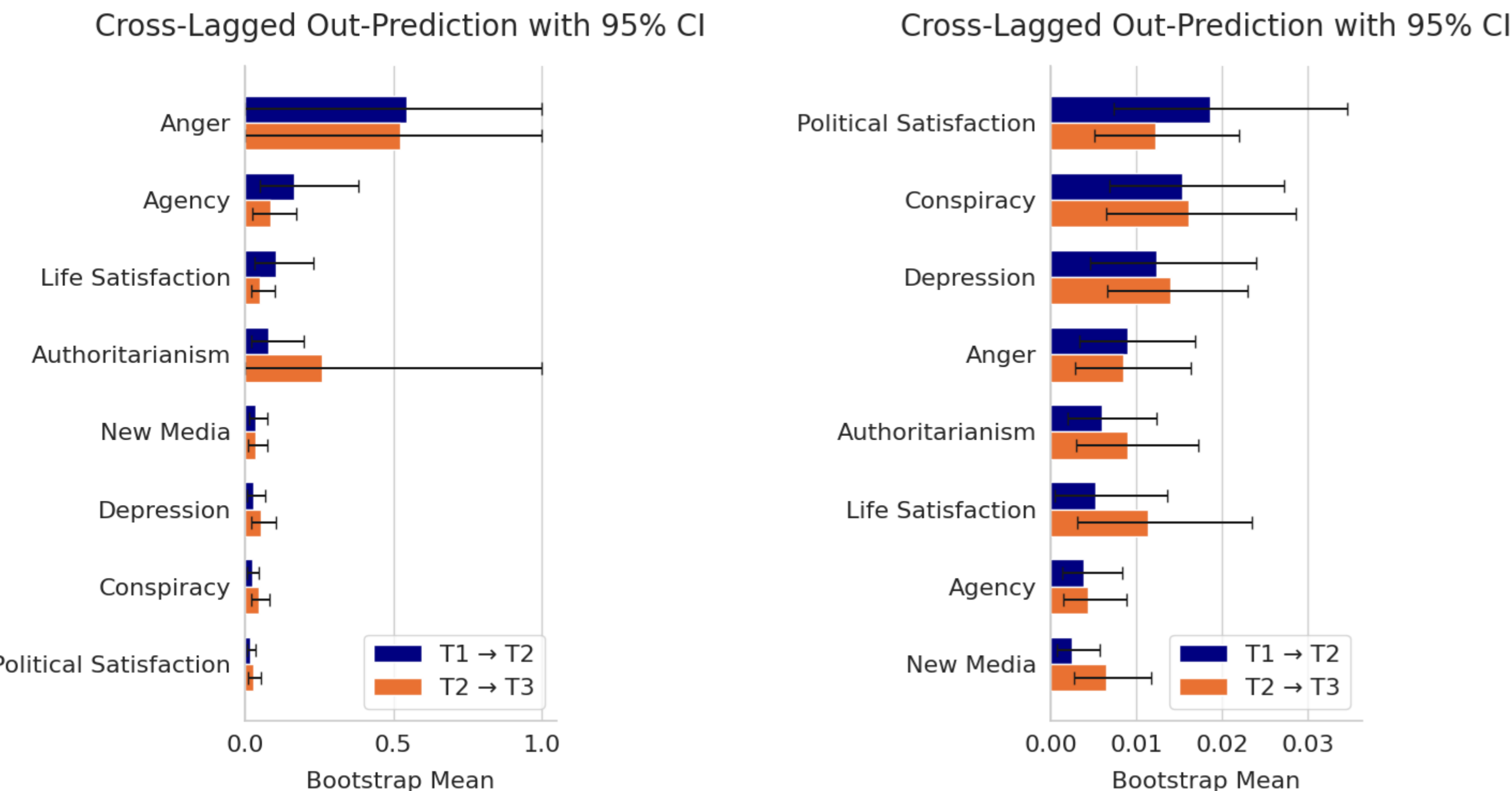
Significant predictive paths ($p < .05$) are visualized in Figure 1. These illustrate how political sentiments influence one another over time, e.g.

- Conspiracy beliefs consistently predicted preference for new media channels (T1 → T2: $\beta = .11$, $p < .001$, T2 → T3: $\beta = .09$, $p < .001$)
- In T2 → T3, this relationship became reciprocal, with new media preference also predicting conspiracy beliefs ($\beta = .06$, $p < .001$) [3]

The network models show the emergence of positive and negative **feedback loops**, indicating **mutual reinforcement of anti-democratic sentiments**.

Overall **network connectivity increased** over time, indicating **stronger and more stable links** among anti-democratic sentiments [4], e.g. as a result of external influences, such as a widely reported political violence incident that occurred between T2 and T3.

Fig. 2: Cross-Lagged Prediction Metrics



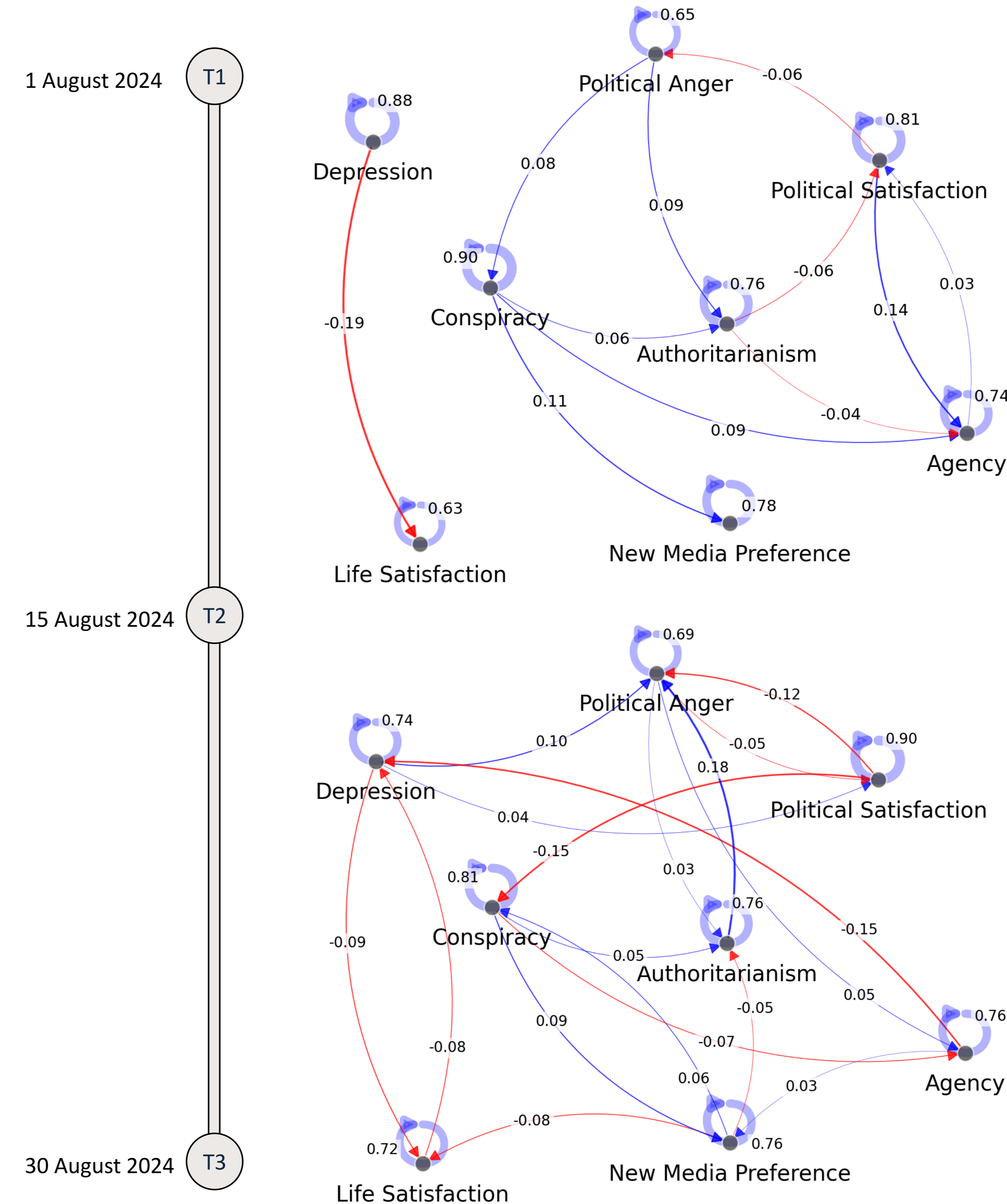
SOSEC Dataset

The data for this study comes from a large-scale panel survey designed to measure **participants' individual feelings, attitudes, and beliefs** about the broader political context during the ongoing polycrisis in Germany. We included responses from **N=624 participants** collected at **three timepoints in August 2024**, with a two-week interval between measurements.

Measurement of Key Variables

Life Satisfaction "All things considered, I am currently content with my life."	Depression "I feel nervous, anxious, or tense."	Political Anger "I feel very angry when I think about the current situation."	Political Satisfaction "I believe that our political leaders are handling the current crises well."
Political Agency "As an individual, you can't change the situation in your own country anyway."	Authoritarianism "Under certain circumstances, a dictatorship is the better form of government in the national interest."	Conspiracy Beliefs "Germany is dominated by a foreign power that is pulling the strings in the background."	New Media Preference Relative preference for new media outlets, e.g. online social networks, compared to traditional media

Fig. 1: Cross-Lagged Networks



Limitations

- Results are **correlational**, limiting causal conclusions.
- Findings may be **sensitive to timing** between measurements.
- High-dimensional temporal network data makes the **interpretation complex**.
- The approach only captures average effects over time and does not differentiate **person-specific variations**.

References

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[2] A. Wysocki, I. McCarthy, R. van Bork, and A. O. J. Cramer, "Cross-lagged panel networks," *advances.in/psychology*, vol. 2, p. e739621, Jun. 2025, doi: 10.56296/aip00037.

[3] A. M. Enders *et al.*, "The Relationship Between Social Media Use and Beliefs in Conspiracy Theories and Misinformation," *Polit. Behav.*, vol. 45, no. 2, pp. 781–804, Jun. 2023, doi: 10.1007/s11109-021-09734-6.

[4] J. Dalege, D. Borsboom, F. van Harreveld, and H. L. J. van der Maas, "A Network Perspective on Attitude Strength: Testing the Connectivity Hypothesis," *Soc. Psychol. Personal. Sci.*, vol. 10, no. 6, pp. 746–756, Aug. 2019, doi: 10.1177/1948550618781062.

Key Takeaways

- Anti-democratic sentiments evolve over time** through dynamic relationships between **psychological and political factors**.
- External events** may reshape the structure of these relationships, highlighting the importance of context-sensitive, longitudinal research.
- The **emergence of feedback loops** suggests that certain sentiments can amplify and sustain other sentiments, reinforcing anti-democratic patterns.