Mapping actor networks in discourses on climate solutions

Although Germany has a high level of declared ambition, the actual climate policy measures are an eclectic mix inconsistent with its climate targets. The question arises what blocks effective and (equal) climate policy measures and the socio-ecological transformation in a broader sense? While many researchers focus on the individual behavior or the structural level, this paper deals with barriers on the actor level.

Within the Sustainable Transition Research the blocking role of incumbent actors is conceptualized in the Multi-Level Perspective (Geels, 2014) but questions of power and politics remains under researched (Roberts et al., 2018). Drawing on the differentiation between material/instrumental, discursive and structural strategies (Geels, 2014) I focus on the opinion and knowledge-shaping of problems and solutions through public media discourses (Sovacool & Brisbois, 2019). The public debate shapes ideas and influences the societal legitimacy of climate policy measures in democracies. Hence capturing the discourse on climate solutions can block effective climate policy measures.

In the us context researchers already identified networks of opposition and found, that organized denialism as well as the influence of conservative think tanks play a major role in coalitions (Brulle, 2019, 2020; Dunlap & McCright, 2012). In the European context delaying the climate discourse e.g. through pushing non-transformative solutions or redirecting responsibility is identified as relevant discursive strategy (Lamb et al., 2020; Vesa et al., 2020). Deeper knowledge of actors (and their networks) delaying discourse (whether intentionally or not) in European countries is lagging.

While common discourse analysis is mainly microoriented, Philip Leifeld's Discourse Network Analysis (DNA) combines qualitative content analysis with network analysis and offers the opportunity to investigate inequalities of power and status of different discourse coalitions ("who speaks"). DNA conceptualizes Problem perception and solution finding as a complex, interpretive and on-going decision-making process between actors, rather than as a simple and objective mechanism based on structural variables such as resources or interests. By connecting actors and shared concepts through an affiliation network, DNA sheds light on the core policy actors, issues and discursive strategies within such a process (Leifeld, 2017, 2020; Leifeld & Haunss, 2012; Schneider et al., 2009, pp. 60–65).

In my Paper I apply DNA on german newspapers within the last two decades and explore the formation of actor coalitions supporting and hindering different climate solutions. I build on Robert Entman (1993) and structure actors' concepts and statements distinguishing between 1) diagnostic, 2) prognostic and 3) motivational *frames* while focusing on the prognostic dimension of policy recommendations. Analyzing the affiliation network of three different time periods I identify actor dynamics, framing trends and delaying arguments within the german climate debate. As the ecological crises increases, so does the importance of effective climate policy measures. Gaining such empirical insights is highly relevant to develop counterstrategies to forces hindering them.

References

Brulle, R. J. (2019). Networks of Opposition: A Structural Analysis of U.S. Climate Change Countermovement Coalitions 1989–2015. *Sociological Inquiry*, *91*(3), 603–624. https://doi.org/10.1111/soin.12333

Brulle, R. J. (2020). Denialism: organized opposition to climate change action in the United States. In *Handbook of U.S. Environmental Policy* (pp. 328–341). https://doi.org/10.4337/9781788972840.00033

Dunlap, R. E., & McCright, A. M. (2012). Organized Climate Change Denial. In *The Oxford Handbook of Climate Change and Society* (pp. 144–160). https://doi.org/10.1093/oxfordhb/9780199566600.003.0010

Entman, R. M. (1993). Framing : Towards Clarification of a Fractured Paradigm Framing. *Journal of Communication*, *43*(4), 51–58.

Geels, F. W. (2014). Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective. *Theory, Culture & Society*, *31*(5), 21–40. https://doi.org/10.1177/0263276414531627

Lamb, W. F., Mattioli, G., Levi, S., Timmons Roberts, J., Capstick, S., Creutzig, F., Minx, J. C., Müller-Hansen, F., Culhane, T., & Steinberger, J. K. (2020). Discourses of climate delay. *Global Sustainability*, *3*, 1–5. https://doi.org/10.1017/sus.2020.13

Leifeld, P. (2017). Discourse Network Analysis: Policy Debates as Dynamic Networks. *The Oxford Handbook of Political Networks*, *July 2016*, 301–325.

Leifeld, P. (2020). Policy debates and discourse network analysis: A research agenda. *Politics and Governance*, *8*(2), 180–183. https://doi.org/10.17645/pag.v8i2.3249

Leifeld, P., & Haunss, S. (2012). Political discourse networks and the conflict over software patents in Europe. *European Journal of Political Research*, *51*(3), 382–409. https://doi.org/10.1111/j.1475-6765.2011.02003.x

Roberts, C., Geels, F. W., Lockwood, M., Newell, P., Schmitz, H., Turnheim, B., & Jordan, A. (2018). The politics of accelerating low-carbon transitions: Towards a new research agenda. *Energy Research and Social Science*, *44*(February), 304–311. https://doi.org/10.1016/j.erss.2018.06.001

Schneider, V., Janning, F., Leifeld, P., & Malang, T. (2009). *Politiknetzwerke - Modelle, Anwendungen und Visualisierungen*.

Sovacool, B. K., & Brisbois, M. C. (2019). Elite power in low-carbon transitions: A critical and interdisciplinary review. *Energy Research and Social Science*, *57*(July), 101242. https://doi.org/10.1016/j.erss.2019.101242

Vesa, J., Gronow, A., & Ylä-Anttila, T. (2020). The quiet opposition: How the pro-economy lobby influences climate policy. *Global Environmental Change*, *63*(April), 102117. https://doi.org/10.1016/j.gloenvcha.2020.102117