

Transformation Skills, Relational Distance and Collective Memory: Wind Power in Germany and Japan

Why are there different pathways of change regarding energy transition?

Motivation



The Fukushima disaster of 2011 could be seen as a potential triggering event, opening up opportunities for transformational change. Interestingly, in Japan, the very place that witnessed the disaster, the actual diffusion of wind power, even the discourse about such a transformation, is still rather limited.

Although the capacity of renewables has also increased continuously over the years in Japan, Fukushima seems to have had a greater impact in other countries such as Germany, where, in consequence, the safety of nuclear energy was questioned even more than before the disaster, and wind power was particularly emphasized as a viable alternative.

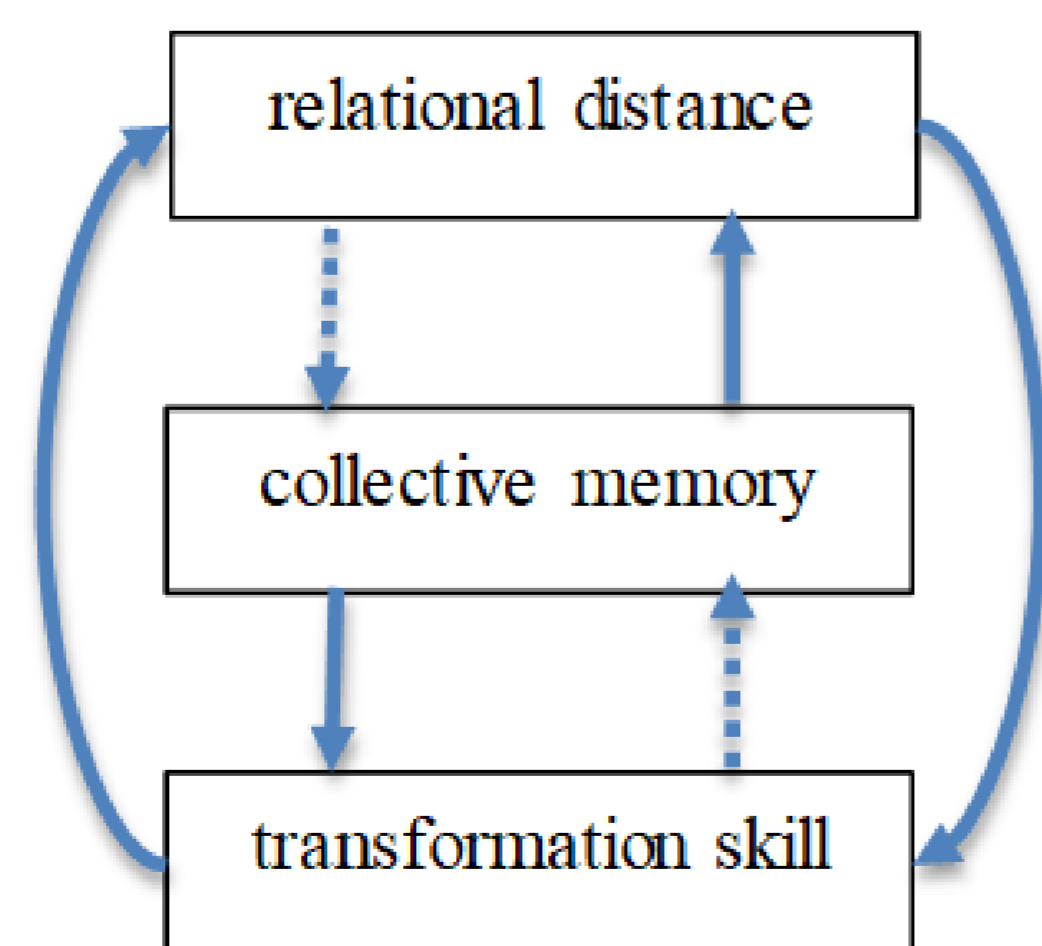
Wind Power in Germany and Japan

Despite the fact that a radical transformation of energy generation from fossil sources is often sought for, the field of energy generation in most countries can still be seen as contested (Rogelj et al., 2015).

In **2015** in **Japan**, renewables (biomass, geothermal and hydropower, photo-voltaics, and – last but not least – wind power) represented 14.5 per cent of energy production and consumption, only **0.5** per cent of which was wind power. In **Germany** the share of renewables was **31.5** per cent, with wind power representing **12.3** per cent.

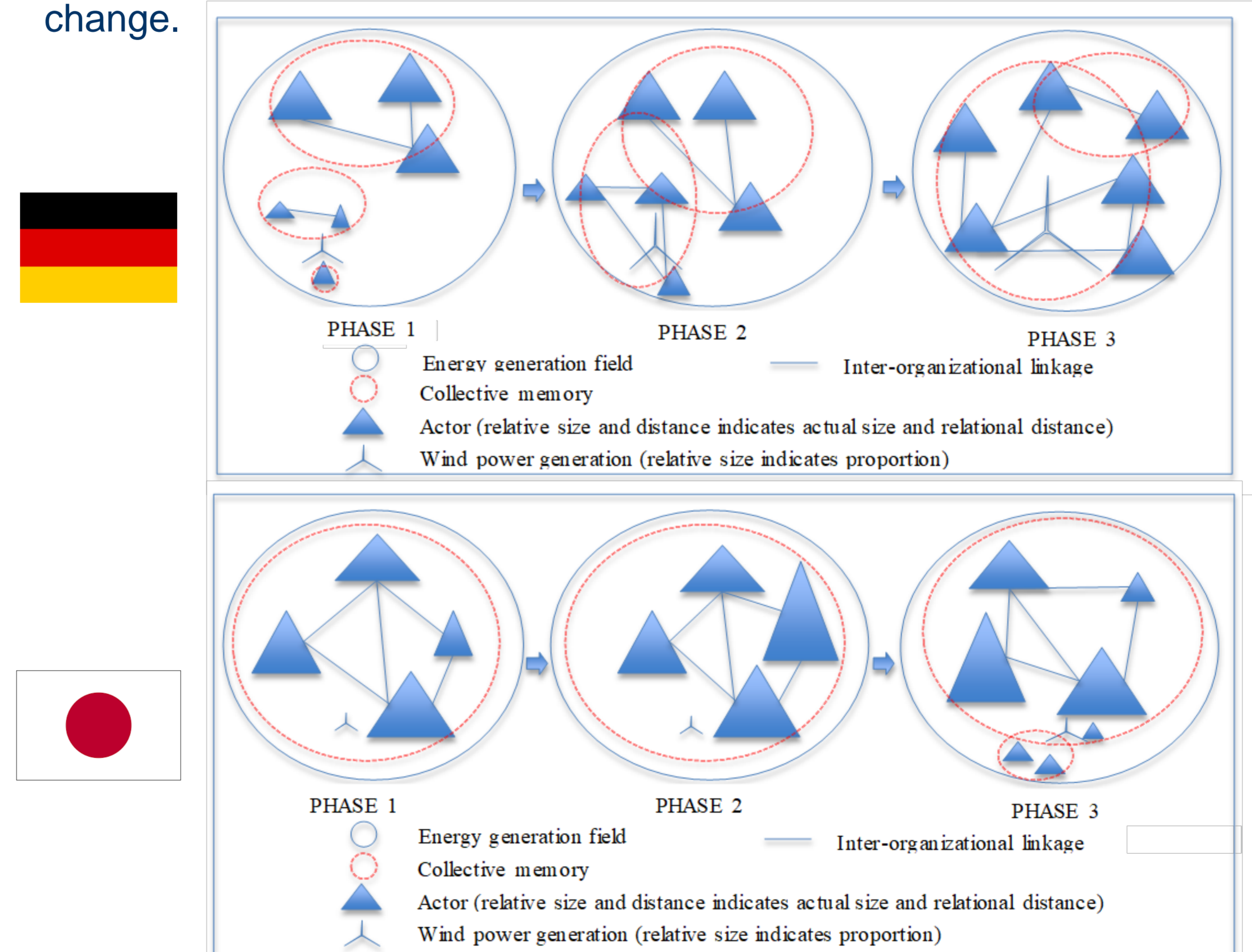
Theoretical claims

- To explain different speeds and scopes of transformation, we draw on theoretical insights from the strategic action field (SAF) approach (Fligstein & McAdam, 2012) which considers structure as much as agency, distinguishing with regard to the latter between new entrants and incumbents. In order to take historic sense-making seriously, we combine this approach with an analysis that emphasizes the role of collective memory (Coraiola et al., 2018).
- By leveraging the comparative context, we aim to reveal that the collective memory generated over time moderates the relation between the actions of incumbents and challengers as well as responses to the triggering event of the Fukushima catastrophe.
- Relational distance captures the degree to which publicly shared values, worldviews, or interpretation schemes diverge among actors while transformation skills are those social skills which are able to trigger and steer the evolution from the status quo, thereby altering the relational distance
- In consequence we shed light on the process of how capable actors treat legacy and make sense of and deal with catastrophes differently across countries.



Results and Comparison

- While the energy generation field in Japan appears to be struggling to transform, the respective field in Germany can be considered as already significantly transformed.
- German collective memory reflects the conflicts and convergence arising from the nuclear catastrophes of Chernobyl and Fukushima, whereas the Japanese memory demonstrates continued heavy reliance on central governmental policy.
- This difference in collective memory relating to energy sources moderates the relational distance between incumbents and challengers as well as affecting transformation skills.
- The collective memory of Incumbents has continued to dominate in the power generation field in Japan, while in Germany one can observe conflictual ways of remembering past, but a renewable-oriented way of remembering events in the field of power generation.
- In particular, one can see a different relationship between incumbents in the field of energy generation and between challengers in the subfield of wind energy, eventually leading to a different path of change.



The research project is a cooperation of three different institutions and involves Freie Universität Berlin (**Prof. Dr. Jörg Sydow**), Friedrich-Alexander-Universität Erlangen-Nürnberg (**Dr. Manuel Nicklich**) and Hitotsubashi University Tokyo (**Prof. PhD, Takahiro Endo**):