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ANNOUNCEMENT

Understanding the embeddedness of individuals within the larger system to support the energy transition

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Short description

Technological innovations are a key part of the energy transition. However, the social sphere as a force to facilitate the energy transition must not be neglected. While the socio-technical transition theory provides a framework to connect the technological with the social sphere, the role of the individuals within the transition process remains limited (Upham et al. 2020). Individuals are reduced to the role of consumers and technology users (Avelino and Wittmayer 2016; Nijhof et al. 2022), and the social sphere is subject to change rather than an instigator of it (Kivimaa et al. 2021).

Potentially alternative concepts need to be developed and employed to understand the role of the individual within the energy transition. With a focus on the energy transition, this special feature is dedicated to compiling scientific contributions that provide insights into how the individual is embedded within the larger system and how individuals are facilitating the energy transition. Thus, the role of the individual is not limited to the *consumer* or the *user* of technology. Rather special feature contributions identify how individuals are agents of change within the energy transition. Furthermore, the seed of change is not limited to technological or market innovations but includes, for example, social innovations contributing to the energy transition. Scientific articles will also provide insights into how individuals are embedded within the larger system. To shed fresh light on interconnections and the role of individuals in the energy transition, alternative approaches to socio-technical or socio-economic transition theory are welcomed.

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Full call text

Humanity is experiencing an unprecedented era, which some call the Anthropocene (Biermann et al. 2016; Olsson et al. 2017; Schill et al. 2019). The Anthropocene is a geological epoch that is characterized by an unprecedented domination of nature's ecosystems by humans (Erlandson and Braje 2013). This domination rather has negative impacts on nature (Steffen et al. 2015), manifesting in biodiversity loss (Seddon et al. 2016; Meng et al. 2021), soil erosion (Poesen 2018), pollution (De-la-Torre et al. 2021; Porta 2021), or climate change (Steffen et al. 2018).

Tackling climate change requires an energy transition. The IPCC reports outline pathways to achieve the 1.5 °C target (IPCC 2021, 2022). These scenarios heavily rely on technological solutions (IPCC 2022). However, the IPCC (2022) also recognizes that new technologies are only part of the solution. Reliance on technological solutions is related to problems such as technology readiness, risks associated with certain technologies, and technology mainstreaming (Creutzig et al. 2021; Kazemifar 2022). Due to the limitations of technological solutions and market-based mechanisms more attention has been placed on the demand-side and behavioral change to achieve the 1.5 °C target (Steffen et al. 2018; Creutzig et al. 2021; IPCC 2022).

Although the topic of human behavior within transition research is gaining momentum, it is still an under-researched field (Bögel and Upham 2018; de Vries et al. 2021; Kaufman et al. 2021; Kivimaa et al. 2021). One of the most used concepts to understand transitions is the socio-technical transition theory (Sovacool et al. 2020). However, some argue that socio-technical transition theory obscures the individual level and might thus not be

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most suitable to understand individual behavior (Upham et al. 2020). Others point out that studies in which human behavior has been connected to socio-technical transition theory mostly frame humans as rationally thinking entities (Bögel and Upham 2018). Bögel and Upham (2018) also point out that another limitation of studies using socio-technological transition theory is it reducing behavior to consumer behavior (Nijhof et al. 2022) and technology acceptance. Furthermore, studies combining behavioral aspects with socio-technical transition theory frame the social side of the transition as subject to rather than as an instigator of disruption (Kivimaa et al. 2021).

Potentially it is necessary to not only find ways to better connect the individual level with socio-technical transition theory (Upham et al. 2020), but to even find alternative ways to frame transitions and the role of individuals therein. Alternative approaches to understanding the embeddedness of the individual within transition may call, for example, for systems approaches (Bögel and Upham 2018; Schill et al. 2019). However, there is a lack of studies providing alternative approaches that help to understand the embeddedness of the individual within the system.

With a focus on the energy transition, this special feature is dedicated to compiling scientific contributions that provide insights into how the individual is embedded within the larger system. The role of the individual should not be limited to the *consumer* being subject to technological change facilitating the energy transition. Rather contributions may identify how individuals are agents of change within the energy transition. Furthermore, change may not be limited to technological or market innovations but may be extended to, for example, social innovations contributing to the energy transition. Scientific contributions should also provide insights into how individuals are embedded within the larger system. How the system is framed is up to the researcher. However, it should go beyond a socio-technical or socio-economic systems perspective. Contributions do not have to take a systems perspective. Alternatively, for example, sociological approaches that focus on the reciprocity between context or structure and the individual are also welcome.

Contributions may be applied research in the form of e.g., case studies or might have a theoretical focus, e.g., providing a conceptual framework for future analysis.

The following questions with a focus on the energy transition should be addressed in this special feature:

- How can we understand the role of the individual within a larger system in the context of the energy transition? E.g. Going beyond the individual as consumer, how do individuals facilitate the energy transition? And how do these individuals connect to surrounding structures or contexts?
- How can the embeddedness of individuals within the system support an upscaling of the energy transition?
- How are individuals making use of surrounding structures or contexts to support the energy transition?
- Are individuals creating new structures to support the energy transition?
- Taking a systems thinking perspective, what leverage points can individuals use to facilitate the energy transition, and how effective are these leverage points?

Submission and review process

Authors are encouraged to submit abstracts (300 words maximum) to the editors of the special feature. Upon acceptance, authors will be invited to submit full-length manuscripts to the editorial team.

After review by the editorial team, authors will be invited to submit revised full-length manuscripts through the journal's electronic editorial management (EM) system, keeping in mind the publisher's formatting guidelines and length requirements. Papers will then go through a blind peer review process. Prospective authors whose institutions do not cover Article Processing Fees (APF) should not consider this an obstacle and are invited to contact the guest editors to discuss options.

Author guidelines: https://www.springer.com/journal/11625?detailsPage=press.

Important dates and deadlines

October 31, 2022: submission of extended abstracts (maximum 300 words) to editorial team: katharina@biely.net.

January 18, 2023: Acceptance of the abstract.

March 31, 2023: submission of full papers to the editorial team: katharina@biely.net.

November 30, 2023: submission of revised papers through the EM system. For submission, please register with the EM system at http://www.editorialmanager.com/sust/mainpage.html and submit your article selecting the "Understanding the embeddedness of individuals within the larger system to support the energy transition" title. There is an author tutorial on the right side of the registration page. Please tag your submission with the tag "Understanding the embeddedness of individuals within the larger system to support the energy transition".

January 2024: Expected publication.

Timeline			
Activity	Window	Month	Year
Call for abstracts	2 months	September–October	2022
Review of submitted abstracts	2 months	November–December	2022
Notification of acceptance	2 weeks	Mid January	2023
Submission of full papers	2 months	February–March	2023
Review period	8 months	April–November	2023
Production	2 months	December–January	2023/2024

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