



## **Tensions between opening up and closing down moments in transdisciplinary water research**

Tobias Krueger (1), Carly Maynard (2), Gemma Carr (3), Antje Bruns (4), Eva Mueller (5), and Stuart Lane (6)  
(1) IRI THESys, Humboldt-Universität zu Berlin, Berlin, Germany (tobias.krueger@hu-berlin.de), (2) School of GeoSciences, University of Edinburgh, Edinburgh, UK (carly.maynard@ed.ac.uk), (3) Centre for Water Resource Systems, Vienna University of Technology, Vienna, Austria (carr@waterresources.at), (4) Governance and Sustainability Lab, Trier University, Trier, Germany (brunsa@uni-trier.de), (5) Institute of Earth and Environmental Science, University of Potsdam, Potsdam, Germany (eva.mueller@uni-potsdam.de), (6) Institute of Earth Surface Dynamics, University of Lausanne, Lausanne, Switzerland (stuart.lane@unil.ch)

Research on water is carried out by many disciplines that do not really talk to each other much, despite critical interactions of multiple social and biophysical processes in shaping how much and what kind of water is where, at what time and for whom. What is more, water has meaning to more than those who are scientists. And scientists are not so removed from the things they study as one might commonly believe. All these observations call for a transdisciplinary research agenda that brings together different scientific disciplines with the knowledge that other groups in society hold and that tries to be aware of its own limitations. The transdisciplinary perspective is especially pertinent to the scientific decade 2013–2022 of the International Association of Hydrological Sciences (IAHS) on change in hydrology and society, ‘Panta Rhei,’ for a balanced conceptualization and study of human–water relations.

Transdisciplinarity is inherently about opening up traditional modes of knowledge production; in terms of framing the research problem, the methodology and the knowledge that is considered permissible. This should open up the range of options for management intervention, too. While decisions on how to intervene will inevitably close down the issue periodically, the point here is to leave alternative routes of action open long enough, or reopen them again, so as to counter unsustainable and inequitable path-dependencies and lock-ins. However, opening up efforts are frequently in conflict with factors that work to close down knowledge production. Among those are framings, path-dependencies, vested interests, researchers’ positionalities, power, and scale. In this presentation, based on Krueger et al. (2016), we will reflect on the tensions between opening up and closing down moments in transdisciplinary water research and draw important practical lessons.

### References

Krueger, T., Maynard, C.M., Carr, G., Bruns, A., Mueller, E.N. and Lane, S.N. (forthcoming in 2016) A transdisciplinary account of water research. Wiley Interdisciplinary Reviews: Water.