

Postnormality of climate science: on the interface of science and society

There is a difference between conventional “normal” sciences such as that of ancient languages or astrophysics, and that of climate or epidemiology. Besides technical differences they are done in “postnormal” societal conditions. In case of climate and epidemiology, society urges clear and speedy answers - but not any, but certain answers. Postnormal conditions make communication between science and society different from that of “normal” sciences. In postnormal conditions, a tendency emerges that it is no longer the scientific rigor and methodology (as covered by e.g., the CUDOS norms) which makes scientific results “good”, but its consistency with a-priori cultural constructions and political preferences. The social process of doing science also changes. Scientific actors become social actors. Media presence and political influence become assets for scientific recognition, careers and relevance. Also, the definition of research programs and the competition of ideas is affected.

As a consequence, scientists should invest more in accepting that they are social actors, and not “providers of truth”, abstain from concepts as “knowledge speaks to power” or “empty vessel”. They should understand how they themselves are conditioned by cultural constructions, and that communication with the public and policy makers takes place in a societal arena of conflicting knowledge claims and interests.

A cursory comparison of the success of climate science and epidemiology in Germany leads to the hypothesis that the latter was more successful in responding to the challenges of postnormality than the former.