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Communicating science to a general audience – the scientist perspective

Public understanding of science is in a crisis. Worldwide we are experiencing a period of fake news, manipulated information, and threatened freedom of speech. Even in a scientifically leading country such as Germany, that is widely viewed as well-educated, fact-oriented and run by a rationally thinking scientist, irrational fears of GMO-food, atomic energy, and vaccinations and adherence to hocus-pocus such as homeopathy, Earth rays and harmony in nature are on the increase. What are the causes of this reversal from the Western values of the Enlightenment? Is story-telling, the narrative, actually part of the problem? A decline in the acceptance of scientific facts among the public seems to go hand in hand with a decline of the acceptance of authority, knowledge and expertise. A scientist’s expertise or findings seems to carry the same weight as the opinion of the proverbial man in the street, or the bought opinions of lobbyists. In discussions of scientific results a postmodern erosion of belief in truth seems to have prepared the way for a situation in which ideology and feelings are given the same attention and weight in the public discourse as scientific facts. Are we scientists part of the problem? At many newspapers, radio and TV stations people from the humanities and social sciences are frequently called on as commentators. Often they tend to extrapolate from easy to tell anecdotes to generalities, and these often show a lack of basic scientific literacy. The few talking heads that did study or even do science are expected to know everything from climate change to alternative energy and extraterrestrial life. The narratives, the stories that are told by such false polymaths, can have a negative impact, rather than being a positive tool to transmit complex scientific findings to a lay audience. These are dangerous developments and more scientists should do their part to help educate the public, stand up to un-founded anecdotes and irrational narratives, put them back into the places where they belong – in Grimms’ Fairy Tales.