Telling the truth, uniting behind the science – Climate coalitions and science's place in society

In recent years, a new wave of climate activist groups, such as Extinction Rebellion, Fridays for Future and the Sunrise Movement have reshaped public debates on climate action. In so doing they refer to scientific evidence. But, how exactly do they understand science's relationship to society? Drawing on documentary evidence, **Simone Rödder** *argues that the use of evidence by these groups, especially the reports of the Intergovernmental Panel on Climate Change (IPCC), reflects an effective form of science communication, albeit one that leaves hierarchies of scientific knowledge largely intact.*

"Unite behind the Science!"

"Tell the Truth!"

Are among the familiar slogans of the school-striking young activists inspired by Greta Thunberg and Extinction Rebellion. The new climate movements' call to listen to science has become almost emblematic; it was printed, for example, on the sailboat Greta Thunberg used to cross the Atlantic in September 2019. But what do they actually mean by "science"?

This question was the starting point for our study of how new climate movements have successfully mobilised by invoking science. Grounded in a narrative analysis of documents, such as press releases, blogposts and media coverage of the three most frequently cited movements in a sample of German and US media in 2019, namely Fridays for Future (FfF), Extinction Rebellion (XR) and the Sunrise Movement, we wanted to explore how these movements relate to and utilise science.

Frustration with political inaction and ever-increasing levels of greenhouse gas emissions are the starting point for the new climate activism. Especially among XR protestors, it is popular to speak of society and its economic order as a 'system rotten to

its core', which needs to be transformed by a major system change. However, science and associated technologies, such as modelling and climate engineering, are not narrated as part of this system. In their initial phase of mobilisation in 2019, the movements predominantly relied on science and science-driven decision making for their legitimation. They join the problem framing of the mainstream climate discourse – itself derived from science – including a lack of consideration of scientific evidence in political action. Science is referred to as the authoritative knowledge source from which the right climate policy can be directly derived and Fridays for Future refer to themselves as "the mouthpiece of science".

The movements' future imaginaries depict mainly negative futures loosely based on the science and rhetoric of the Intergovernmental Panel on Climate Change (IPCC, e.g., carbon budgets, feedback mechanisms, deadlines and tipping points). They entail few positive imaginations about specific socio-ecological futures and their social and political arrangements – while a 'liveable' future is desired, how such future society might look like, is left open. Notably, while the protest's goal is social transformation or system change, social science expertise does not feature prominently in the movements' documents.

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However, there are also differences. While XR and FfF in their initial phase actively refrain from advocating for specific political solutions beyond timelines and targets, Sunrise is built around a political demand developed by politicians. The movement narrates the climate problem foremost as a political controversy, while still grounding a sense of urgency in climate science. Sunrise also actively endorses politicians as their 'champions' for introducing Green New Deal policies in electoral campaigns. While Sunrise views party politics and winning a political fight as the way to achieve intersectional climate and social policies under a Green New Deal umbrella, FFF and XR try to go 'beyond politics' by framing the climate problem as a non-partisan, consensual issue with ready-to-implement scientific solutions that just need to be taken up by politics. In their role as science communicators, the movements act as advocates for both the natural environment and climate science.

Interestingly, this attitude of doing science outreach departs markedly from how environmental movements traditionally related to science. In the 1970s and 1980s, the then new environmental movements aimed to challenge and reorient technoscientific developments, such as nuclear energy and genetic engineering, putting forth alternative framings of technoscientific options. The conditions under which movements treat scientific evidence as 'facts' and when they treat it as starting point for critique, moralisation and controversy remain poorly understood. However, our study points towards a better understanding of "green ambivalence" (the observation that environmental groups both rely on and mistrust scientific authority) and its disappearance in the climate case by arguing that the IPCC and its institutional programme of 'making facts authoritative' has resolved some of the problems that traditionally made science a poor and unreliable ally for environmental activists:

First, research proceeds in specialised disciplines that put a premium on answering the pressing questions of the field, rather than integrating and synthesising bodies of knowledge for contexts of application such as scientific policy advice. Secondly, this disciplined knowledge often does not directly speak to specific questions of policy

concern, such as how exactly climatic change will affect a certain city or region 30 years from now. Thirdly, scientific knowledge is preliminary and uncertain in principle. Based on this problem definition, we can conclude that the IPCC has addressed and successfully resolved all three of these issues. Specifically, the Panel employs different "technologies of trust" to make climate facts authoritative, including material technologies such as models, literary technologies such as assessment reports and the social technology of orchestrating the scientific consensus on climate change.

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It is both the authority of the IPCC as an institution (legitimised by the very politicians that the movements – to varying degrees – do not put any hope in) and the power of the majority (as in references to 27,000 scientists) that are invoked to legitimate the movements' demands. In many countries, scientists then support the activities of the movements that are legitimised through the scientific evidence the supporting scientists produced in the first place. The enthusiasm of "Scientists for Future" and "Scientists' Rebellion" for new climate activism and the establishment of a climate coalition of activists and scientists (including activist-scientists) thus comes as no surprise.

We recognise the major impact of the new climate movements on how the media reports on this issue, for the engagement of many in affiliated "for Future" or "Rebellion" groups, and on the way scientists are currently rethinking their responsibilities to society. However, our research suggests that there is still a way to go from chanting "another world is possible" to become "possibilists". A first step is to be clear not only about what these protests are against, but also what they stand for politically and beyond science advocacy, such as Sunrise already does. Such an approach should include a position on the rightful place of expertise, as well as the rightful place of protest, in political constructions of climate futures. It is possible to base arguments and calls for urgency on scientific facts, but without claiming that everything has already been said once 'the science' has spoken.

This post draws on the author's recent co-authored paper, Rödder, Simone; Pavenstädt,

Christopher Niklas (2022) "Unite behind the Science!" Climate movements' use of scientific evidence in narratives on socio-ecological futures, published in Science and Public Policy.

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Image Credit: Extinction Rebellion, London Bridge 2019, Editor's own.