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Environmental Humanists Respond to the World Scientists' Warning to Humanity

Political, Ethical, and Societal Aspects of Issuing Warnings to Humanity

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by Steven Yearley

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Abstract

The scientific community has a sustained history of issuing warnings to society's leaders and policy-makers. In such cases, scientists take on the task of alerting those in power to issues they may not notice or not wish to see. A distinctive thing about environmental warnings authored by leading scientists is that they are addressed to "humanity." This paper argues that attempts to "speak truth to humanity"—despite the undoubted quality of the data and analyses—face three sorts of problem. There is firstly the difficulty that humanity is not a unified entity in the way that is often assumed and that, in practice, citizens may not be in a position to act in the way that is presupposed by those who issues the warnings. Secondly, though the declaration of a climate emergency may appear to be a desirable corollary of speaking truth to humanity, there are good reasons from political science to think that such declarations will be made for messier and complex reasons. Finally, even the more technical aspects of the warning documents may contain normative or social scientific components; they are not exclusively technical. Together these points argue for the engagement of humanities and socials sciences scholars in future attempts to offer compressive, integrated warnings to humankind.

Keywords: population, model of the actor, climate emergency, negative emissions, panic

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About the Author

Steven Yearley works at the University of Edinburgh where he is Director of IASH—the Institute for Advanced Studies in the Humanities—and also Professor of the Sociology of Scientific Knowledge. His research is chiefly focused on the sociology of science and on environmental sociology. Steve is particularly concerned with areas where these specialisms overlap; for example, in environmental controversies with a pronounced scientific element or attempts to foster public engagement in technical decision-making in environmental areas. He has also been closely involved – primarily through his role as Director of IASH—with aspects of the environmental humanities.

Political, Ethical, and Societal Aspects of Issuing Warnings to Humanity

Steven Yearley

The scientific community has a sustained history of issuing warnings to society's leaders and to policy makers, whether over diseases and infections, the unintended consequences of nuclear war, inadequately controlled innovations, or environmental harms. In such cases, scientists are taking on the role of those who can speak truths to the powerful, alerting those in power to issues they may not notice or to things they would rather not see. Scientists' ability to act in this way is usually said to arise from the fact that the academic scientific community is disinterested—that is free of vested interests—in relation to the matters under consideration, and that the community has mechanisms such as peer review, replication and (relatively) open publication that secure a high degree of robustness and impartiality for scientific claims (Yearley 2005, 160–65). There is a large and engaging literature on this topic, but it tends to focus on those occasions when scientists advise governments and policy makers. A distinctive thing about the warnings issued by Kendall (1992) and by Ripple et al. (2017) is that they are addressed to "humanity." This extension of the usual recipient seems to be driven by two considerations: first, that the problem is globally urgent so that action cannot be left to governments alone, and—second—that everyone has a stake and some form of involvement in the phenomena so that each of us can become part of the solution. In this paper I propose to examine, from a social scientific and humanities point of view, three aspects of issuing warnings from the scientific community to humanity.

The Conception of the Audience

The first point here is very clear to social sciences and humanities scholars but is none the less worth stating: it cannot be taken for granted that "humanity" has a unified outlook on global environmental problems. This is, in part, a relatively straightforward empirical observation. Some individuals may have lives that feel so intolerably

disadvantaged that they are not convinced that environmental change will truly make them worse. Everyday difficulties may simply outweigh the in-principle severity of environmental threats. Steps to reduce their environmental impacts may simply be too onerous for them. Alternatively, many religious believers will regard their current life as much less important than their fate after death, giving rise to less concern for environmental conditions than for one's relationship to the Deity. This was, after all, the official Christian position for centuries. Believers will regard sacred obligations as more powerful than injunctions from scientists and may even construe environmental change as an aspect of a fundamentally religious reality.

But one does not need to focus on extreme examples to identify problems with the way the audience is being imagined or understood. Clearly, in the wealthier parts of the world, individuals do have some of the kinds of freedom presupposed by the authors of the warnings. Consumers in Europe who are buying cars do have a choice, for example, between vehicles driven by fossil fuels or by electricity, and the environmentally less harmful choice would seem to be clear (though not having a car or carpooling would likely be yet more preferable). Even in this case, however, car-buyers do not necessarily have a choice about how the electricity they would use for their car is generated. This is the key point: the warnings imagine the actor as an independent, informed chooser who can select between options. However, as has been highlighted for example in the work of Shove (see 2003), there are significant areas of people's lives where they are very limited in their ability to choose. In principle, for example, one could opt for a dwelling with very high environmental performance (in terms of insulation and heating/cooling, re-use of rainwater and forms of waste-water, and so on). In the USA and the UK and in parts of Continental Europe and widely within South America and South Asia, for example, this is simply not an available choice for the majority of citizens. Houses already exist and it is hard and expensive to retrofit them to comply with high environmental standards. Most consumers know little about the options and are dependent on architects and heating engineers to act for them in these matters. In practice citizens do not resemble the kind of autonomous actor implied in the warnings. These communications from scientific bodies may make people feel guilty about the choices embodied in their houses, but citizens may not be in a position to alter very much.

There is one other key aspect of citizens' lives that relates to these warnings: their reproductive behavior. There has recently been a good deal of popular discussion about the morality of having children. For example, in 2019 the Democratic, rising-star US Representative Alexandria Ocasio-Cortez shared on Instagram her thoughts on whether it is acceptable to have children from a climate point of view.[1] Ripple et al.

(2017) are clear that rising population levels are part of the problem that concerns them, just as they are worried by the rising numbers of ruminants. Certainly, moving away from ruminant-meat diets is something that individuals can opt to do and it fits the individual decision-maker model well, but the parallel with reproduction is troublesome. Limiting the right to bear children seems to have an unavoidable political dimension since it allows some within a society to reproduce while others are denied the chance (Crist 2020); it almost certainly has implications for the ethnic composition of populations. It seems tantamount to the political management of the make-up of the population.

What Constitutes an Emergency?

In Ripple et al.'s later paper (2020) they gave notice of a climate emergency. Clearly, calling for its designation as an emergency is designed to reflect deep seriousness and urgency—indeed Lenton et al. (2019, 595) explicitly define emergency as the mathematical "product of risk and urgency." A very similar theme is famously associated with Greta Thunberg, who told the World Economic Forum in 2019 that it is as though "our house is on fire." Her point was that, if people are not panicking, then that can only be because they have not understood how bad the problems are.

All the same, the question remains about what exactly should follow from the problems being declared an emergency. One interesting trope here relates the current climate-change problem to war-time levels of urgency. If manufacturing economies can, at times of military threat, be transformed towards armaments or aircraft production, then why not take a similar approach to the climate threat? This line of thinking has been embraced by Australian environmentalist Paul Gilding who authored an opinion piece for *Nature* explaining "Why I Welcome a Climate Emergency" (Gilding 2019). He sees genuine acknowledgement of an emergency as offering to kick-start transformative economic, political, and industrial change.

There are, however, grounds for caution here. On the other side, many policy makers (especially those of an economics bent) suggest that panic—as desired by Thunberg—is exactly to be avoided. Policy options adopted in haste are often ineffective or wasteful and may result in perverse outcomes. This is reported to have been the case with Europe's flight from carbon, which led polluting industrial manufacture to relocate to East and South-East Asia, where it may well have provoked more CO_2 emissions per ton of output than the original plant would have caused since energy inputs were more carbon intensive than they would have been in Europe (Helm 2012, 67–71; 2017). Furthermore, there is an interesting party politics and international relations dimension to the willingness to declare a climate emergency. In many

countries, declaring a condition of emergency has particular implications in terms of freedom of action by the executive, or limitations on the customary rights or freedoms of citizens, or the authorities' liberation from specific financial constraints. These issues became very clear in the response to the COVID-19 pandemic, where citizens in France lacked *liberté* and had to print out written justifications for leaving the house during lockdown; and where even right-wing European governments were frantically borrowing and spending in a frankly left-wing manner. In the case of the climate emergency, it is unclear what specific legislation or powers would be introduced to handle the crisis and for how long. In some cases, politicians seem to have declared climate emergencies for relatively mundane or even tendentious political motivations. It is in danger of becoming a form of "virtue signaling" or an attempt by parliament to appear environmentally committed without necessarily undertaking much action to overcome the emergency. Countries declared climate emergencies to show that governments were engaged with the issue or, in some cases, to show that regional authorities were more responsive to citizen concerns and environmental needs than central governments (or vice versa).

Humanities and Social-Science Aspects within the Scientists' Warnings

The scientists' warnings are not only interesting for the audience they presuppose and for the political consequences which they postulate, but also for some sociological and philosophical aspects of the technical, scientific work itself. For example, in a recent social scientific study of the technical communities working on decarbonization pathways in the UK, it was found that technical experts differed in their assessments of which kinds of changes were necessary and practicable. Even within policy communities committed to decarbonization, there are competing visions: for example, between an emphasis on substituting current approaches (swapping electric or fuel-cell cars for diesels) and a demand for radical socio-technical transformations, in this case away from private vehicle ownership (Winskel and Kattirtzi 2019). Among researchers working with essentially the same data, there are different conclusions, all of them claiming predominantly technical justifications.

In a similar way there has been a lot of focus in discussions of recent IPCC publications on the role of "negative emissions" (see Anderson and Peters 2016). The IPCC has sought to provide projections into the future which show feasible pathways for large-scale emissions reductions and possibly even for carbon sequestration from the atmosphere—in other words, preventing future temperature rises by removing CO_2 from the atmosphere. These possibilities are shown among the range of future scenarios. To achieve a specific future temperature (within the 1.5° ambition, for

example), one can either begin to cut emissions drastically in the immediate future or allow small rises in the short term provided these are balanced by complete cuts and some CO_2 removal later on (in two or three decades for example). Anderson and Peters raise objections to this approach since they point out that we do not currently have proven CO_2-removal techniques at sufficient scale. They worry that scenarios which depend on "negative emissions" may amount to false assurances. Such techniques are technically imaginable, but whether they can be included in future pathways is not a matter of technical fact; rather it is a judgment.

There is finally an issue about the way in which the whole discourse is shaped. In the last fifteen years or so, decarbonization has come to eclipse sustainable development as the overall policy framing. However, it is evident that ideas related to the circular economy are now being promoted by governments, industry bodies, and some research funders, notably in the EU and the UK as a major new frame. Key here are the ways in which these rival constructions may conflict. For example, a recent UK projection from the Committee on Climate Change (the government's official independent climate advice body) anticipated electric vehicles displacing current road transport as a pivotal part of the UK's decarbonization over the next ten to fifteen years. However, rival calculations from a materials and earth science background suggested that this ambition would place an insupportable demand on minerals needed for the batteries: Herrington (2019) calculated that just to supply the UK vehicle fleet's batteries would consume the entire global cobalt production. Since most vehicles are only used for a fraction of the day on average, having the cobalt sitting unused most of the time could be seen as a misuse of cobalt stocks, an unnecessary exploitation of the mineral wealth of the Democratic Republic of Congo, and of the energy needed to extract the metal in the first place. On this view, a change in the business model for vehicle provision (where the market is for "drives" or "rides" rather than for vehicles) is central, but this insight arises from focusing on circularization rather than on decarbonization *per se*.

Concluding Discussion

In this short paper, the key argument has been that attempts to "speak truth to humanity"—despite the undoubted quality of the analyses and the accuracy of underlying data—have faced three sorts of problem. There is firstly the difficulty that humanity is not a unified entity in the way that is often assumed and that, in practice, citizens may not be in a position to act in the way that is presupposed by those who issue the warnings. Secondly, the declaration of a climate emergency may appear to be a desirable corollary of speaking truth to humanity. But there are good reasons from

political science to think that such declarations may be made for messy and complex reasons, leading to inconsistent responses to emergency conditions. Finally, it was argued that even the more technical aspects of the warning documents may contain normative or social scientific components; despite their appearances, the warnings are not exclusively technical. Together these points argue strongly for the close engagement of humanities and social sciences scholars and investigators in future attempts to offer comprehensive, integrated warnings to humankind.

Notes

[1] On her post, see Matthew Taylor's (2019) response titled "Is Alexandria Ocasio-Cortez Right to Ask If the Climate Means We Should Have Fewer Children?"

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