
Essay om formidling af forskning

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Under sit ophold på Danmarks Miljøundersøgelses Afdeling for Atmosfærisk Miljø har Joshua Nash arbejdet sammen med forskere, der beskæftiger sig med menneskers udsættelse for luftforurening, og har deltaget i arbejdet vedr. formidling af videnskabelige resultater.

Air Pollution and Danish Society: What are the means for an understandable communication?

By Joshua Nash, Department of Atmospheric Environment, Danish National Environmental Research Institute, <mailto:jna@dmu.dk>.

The Department of Atmospheric Environment (ATMI) at the Danish National Environmental Research Institute (NERI) in Roskilde has been researching air pollution and its effects on human health for a number of years. This research has been very wide ranging; from the so-called "hard science" of atmospheric pollution models to the more socially based inquiry into human exposure to air pollution and its possible effects on development in childhood and quality of life. It is the social aspects that will be the focus of this brief essay.

The research undertaken at ATMI is generally Danish-based research, yet it is research that could and can be potentially extrapolated to any country. This is more likely in the case of European countries considering their geography, climate and building formations, especially when referring to urban-based research. Lifestyle and health are high priorities in Denmark, so ATMI is attempting to understand the various relationships between the pollution which originates on Danish roads and the various degrees of exposure to this pollution and subsequent health effects. The

question to be posed here is though, "How can ATMI's research information be made available to the Danish public in a way that is relevant and understandable?"

Communication of Scientific Information

From the point of view of environmental linguistics, the most important function of a communication medium is its ability to inform and enable its users to acquire knowledge about both general and specific phenomena (Harré, Brockmeier & Mühlhäusler, 1999). The discourse of science and environmental science is certainly a communication paradigm that attempts to offer distinctive modes of analysing and endeavouring towards solutions to various environmental problems.

The voice of science brings with it its own words, jargon, expressions, metaphors and ways of speaking. Noted for its "objectivity", science is a discourse in itself but not necessarily one everyone can participate in. A well-known linguist in the field of environmental linguistics has estimated that a mere five per cent of the population is able to participate in and understand the discourse of science (Mühlhäusler, 2000). Therefore, how can the issue of communication difficulties within science and the providing of scientific information be rectified and/or made lesser so as to enable a more fluid and understandable communication between and within the two parties involved? In the current case, the two parties are 1) scientists at ATMI who produce documents/ information to be distributed and read and 2) the Danish, and potentially the European, public.

Communicating Air Pollution Information to the Danish Public

It is the opinion of the author that the information relevant to the Danish people is the information concerning risks involved during exposure to various types and sources of air pollution. As argued above, the majority of people cannot take part in a scientific discussion of these matters. Therefore, the language used to

describe the relevant phenomenon must as a general rule be simple, accessible and understandable.

Furthermore, air pollution risk and hazard information must be directed to the specific targeted groups for maximum efficiency. For example, people driving buses, which DMU has demonstrated are exposed to high levels of air pollution for extended periods of time, must be made aware of the risks that accompany such work. Effective communication between research results and practical application is needed in this regard.

Developing some of the fundamental ideas presented above relating to language, if possible, it would be desirable to have information provided to people in languages other than Danish and English. Denmark is quite a multicultural country with people of varying ethnic backgrounds. It could also be speculated that these various ethnic minorities are more at risk to exposure to higher levels of air pollution due to their respective work situations. For example, factory worker numbers may tend towards a majority of non-Danish nationals and therefore their reading knowledge of Danish may not be at a level to understand or grasp presented Danish information. However, this is a relatively minor concern compared to the above named areas of concern.

NERI'S "TEMA rapporter"

Attempting to address the issue of making scientific information available and accessible to the general public, NERI publishes four to five topic reports per year. These reports aim to popularise and give a perspective of the scientific research being conducted at NERI. Their goal is to pass on information and to make the public aware of current work being undertaken. The target groups are high school students, students at technical schools and other interested people.

NERI's topic reports make an effort to use a more popular and common language and they

are edited and read through by public relations experts in order to make them more understandable to the general public. Much effort is put into making these reports appealing and effective communication tools in terms of layout and graphics. At the time of writing there are 36 reports published since 1994.

Conclusion

This brief essay has argued that as exposure to air pollution is a serious health concern for the people of Denmark, it is important to inform people regarding these risks and other associated problems. It has discussed the research and communication methods used by NERI's department, ATMI. These considerations, however, are applicable to all Danish ministries and authorities where the public or society at large wish and need to be informed. That people must be informed in a way that is applicable and understandable to them is not only rudimentary but otherwise renders the process of information presentation meaningless.

Science and scientific information can be hard to understand even by those "in the know". "Non-scientists", that is, the majority of the Danish population, need to be educated and informed in a way understandable to them and on a level relevant to them. NERI's topic reports are attempting to address this gap of communication. Only with a flexible use and means of communication incident on various levels and strata in Danish society will there be a general understanding of the vital work ATMI is doing at NERI and the methods they use to express this information. This holds true for other Danish ministries, authorities and departments where communication of information is required or sought after.

Bibliography

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