

## Supplementary written evidence submitted by Soapbox Science (COM0122)

This document provides further evidence relevant to the Science Communication inquiry by the Science and Technology Committee. Answers to the questions received are as follows:

- *Is science communication culturally neutral? Should science communication consider different cultural perspectives? How can you adapt the science you communicate to take into account particular communities' traditions and outlooks?*

Communication is inherently not neutral. Communication can best be summarized as the transmission of a message from a sender to a receiver in an understandable manner. As such, (1) the cultural background of the receiver and sender can influence how the message will be interpreted and delivered; and (2) the level of commonalities in e.g. cultural or socio-economic background between the receiver and the sender is likely to influence the impact of the message on the receiver.

For science communication to reach all segments of society and be effective, it's of paramount importance that a diversity of senders gets to participate in science communication initiatives. This is by far the best way to insure that the science communicated takes into account the variety of communities' traditions and outlooks found in the UK. By providing a diverse range of role models who get to share their passion for science with the general public, science communication initiatives have a real opportunity not only to engage more people with science, but also to ultimately help increase the cultural and socio-economic diversity within the scientific community.

- *How might a science communicator's cultural background and world-view influence the way science is communicated? Does that matter?*

Science communication activities (should it be articles in the press, or use of photographs and illustrations during talks) make use of artifacts, which are both physical (like props) and conceptual (like an idea developed during a conversation), and these commonly reflect the cultural orientations and assumptions of the science communicator. These artifacts are correlated with cultural differences in ways of thinking. An obvious case (relevant to my work as a conservation biologist) relates to how people define their relationship with nature: most (Western) images of ecosystems do not include human beings, while for many indigenous tribes, humans are seen as a part of nature. Another example is captured by maps (which are used a lot in science communication): maps reflect different views or representations of reality corresponding to different notions of what will be relevant to their users, and so can become irrelevant to some while highly interesting to others. Because of this, a science communicator's cultural background and world-view can influence the effectiveness of the communication, if his/her world-view does not much overlap with the one of his/her audience.

Pre-conceptions about gender, race or socio-economic background can also strongly alter the impact of the message on the receiver, as well as the presentation of the argument by the sender. Political views, religious background and systems of beliefs can particularly matter when scientific consensus on a given issue is not reached; if not carefully considered, these views can alter the objective presentation of the science and alienate a proportion of the audience. These can ultimately damage the trust that the general public will put in science and scientists.

Science communication must definitively pay attention to culture and the corresponding different ways of looking at the world: one way to account for these issues is to insure that a diversity of

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science communicators (in terms of gender, age, seniority as well as cultural and socio-economic backgrounds) gets to participate in science communication initiatives, while having clear guidelines provided to science communicators when it comes to the presentation of culturally sensitive scientific issues.

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