Science Communication as chance to shape research perception

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News from science and about research has become a regular part of today's mediascape, and public outreach is considered an important component of universities' and research institutions' communication strategies. Hinting at the peculiar importance of science communication thus must seem like a platitude. Yet still there is quite noticeable debate about the question whether or not scientists should actively participate in the communication of (their own) research. It would be absurd and surely counterproductive to construct 'communication pressure', but the benefits (for both sides) of active science communication are worth pointing this out again.

In archaeology our work and research are enjoying particular and remarkably large public interest – as proven by a quick glance into any newspaper stand and bookstall or respective TV shows. The market for popular scientific contributions to archaeological and historical topics has become almost unmanageably large. However, all too often next to this interest in archaeology in general, lots of clichés and stereotypes seem to dominate these popular accounts. The public image of archaeology and archaeologists is characterized by object-focussed treasure hunt, romanticized adventure, and bravado.

It seems that there is no lack of communication of archaeological subjects. It is just not necessarily coming from the researchers themselves and not always covering the topics we would prioritize or emphasize. Of course it is absolutely reasonable and most welcome to have journalists covering matters of science and reporting on the work of researchers. Actually, this is explicitly desirable. But journalists are very much depending on the willingness of said researchers to cooperate – and to communicate.

This is where active science communication starts. It is absolutely legitimate (and sometimes even necessary) to leave this task of translating research results into comprehensible language to professional communicators. Concisely conveying complex topics (especially those occupying a significant period of one's time) can be a challenge – to scientists as much as to everybody else. Problems arise when specialists start drawing back from public discourse, leaving depiction and discussion of research data to others completely. This creates a gap. A gap that is then being bridged by others.

Interest in and demand for information remain – indifferent of an active communication offer coming from science itself (or not). Research data will still be mediated and interpreted … but now without the active reflection and (where necessary) correction of those who produced these data. If this is the case, science and researchers are voluntarily and incautiously giving up relevance in shaping the perception of their own research narratives.

Archaeology may be looking back into the past, but it never seems to lose relevance for present topical debates – as repeated coupling of archaeological / historical data and

current events in daily media reporting suggests. Yet monocausal models proposing essential impact of, for example changing climate, on social systems up to (allegedly) failure of past cultures are reducing complex data to occasional single occurrences. Or the correlation of current discussions about migration with the results of ancient DNA analyses from a limited number of prehistoric burials which are – often not further commented – brought up to provide historical depth to an otherwise momentary debate, but leave out many other relevant (and from case to case rather individual) factors. Instead this conjunction revives nationalist images of a 19th century archaeology, narratives the discipline believed to have abandoned long ago. Narratives of this kind are often based on over-simplified explanations, but once more they also emphasize the general interest in such reporting. And there always remains a chance to correct such narratives.

More serious than ideas going back to deficient information are those blank spaces which are seized by communicators with a specific agenda. In the worst and most extreme case the partial, uncommented, and out of context emphasis of single cultural phenomena or hyper-diffusionist analogies establishes and deepens pseudoscientific narratives. Narratives for instance, claiming that (pre)historic or indigenous cultural achievements were not coming from these peoples themselves, but from mythical super races of the past or from extra-terrestrial beings – as was proposed for the Neolithic megaliths of Stonehenge, the Egyptian pyramids, or the colossal Moai sculptures at Rapa Nui to just name a few. The subtext of all this mystification in the end always leads to racism; 'Alternative' explanations would be the only logically right ones since such 'primitive' cultures hardly could have been able to accomplish these achievements.

Such made-up theses are particularly dubious from an ethical point of view, since they can be, and actually are, used to justify and legitimize political-extremist positions. This was illustrated for instance recently with a revival of the (highly controversial and problematic) 'Solutrean Hypothesis' among the US Alt-Right movement. According to this hypothesis the first human occupation of the American continent during the Upper Paleolithic about 13,000 years ago was emerging from Europe and not from Asia via the Bering Strait – thus ethnically white Europeans were the real Native Americans, including all related rights to land etc. Of course, such claims can hardly withstand a scientific examination, but the narrative exists and is being spread.

Replacing the vague concept of 'white European' with Vikings or Germanic people or Aryans in other variations of this lore opens up an even larger canon of related examples – effectively illustrating that scientists are not relieved from their obligation of publishing and delivering raw data, but that there also is need for an interpretational framework to provide these data with some context.

Science communication means social responsibility, science communication means to help avoid misunderstandings, to counter unknowingly, but also especially purposefully, misleading narratives. The public does have an interest in our work. Which is not only good, but essential for legitimizing research – which, at least in the humanities, is often paid for from public funds. Naturally this means that the public also has a right to be informed about this research, that science and scientists on the other hand have the obligation to inform, to communicate about their research. If not directly to a public audience, then necessarily through mediators like journalists.

It is time to understand science communication as a genuine part of research, and to plan research staff and projects accordingly. Science communication is not a chore, it is a chance. The chance to shape and change the perception of our work, of research in general and archaeology in particular – and its relevance for society.

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