

SHORT COMMUNICATION

Polar Research in public discourse – setting the stage

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Received 27 October 2019; accepted 9 March 2020

Available online 8 April 2020

KEYWORDS

Polar Research;
Public understanding
of science;
Science
communication

Summary Polar Research gained bigger than ever extent and support, both on the state-political and the wide public level. We want to start the discussion on how the public concern is formed, and what are the inspirations that drive researchers to choose this type of career. It seems that in the non-Arctic country like Poland the sentiment, associated with the historical polar events together with widely accessible and attractive documentary films, was essential in shaping the societal support for spending public money on polar studies.

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1. Introduction

The majority of scientific research is being funded for its usefulness, application or commercial perspective. Even the ‘basic research’ needs to be motivated with its relevance to the gaps in knowledge and strength our understanding of the physical world. The natural and very much anticipated curiosity of the scientist alone, will not bring the necessary financial and technical support for doing the re-

search. Presently most of the research funds come from the taxpayers, hence the public acceptance for spending is essential.

Since its start to the present day, Polar research belongs to the most expensive, logistically demanding type of scientific activity – next to the Space and Marine studies. During the heroic era of polar exploration, the most difficult part of the enterprise was the fundraising (Bown, 2012; Huntford, 1979, 1997). Usually, rich merchants (companies) or state authorities (Kings, Governments) were the main sources of support. Even at that time, the public support was critical – explorers were routinely on the long raids for lecturing and fundraising themselves, and the media (newspapers) were essential in keeping the interest alive (Capellotti, 2016; Riffenburgh, 1994). On one hand, the public interest was raised by the sporty and nationalistic character of early explorations, on the other hand, there were many important, critical voices claiming that polar exploration brings nothing better than suffering, human and material losses with no return (Todd, 1961). The role of the Arctic territories for the defence was rapidly growing with the technological

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Peer review under the responsibility of the Institute of Oceanology of the Polish Academy of Sciences.



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Table 1 Most common motivations for the support of polar research in public and state domains

Motivation for support	Example	Need for public support	Material support from
Sport – game	Race to the Pole, extreme sports	Very high	Private donations
National pride, the flag	Territorial claims, priority rules	Very high	State, government
Commercial use of resources	Oil, gas and biological resources extraction	Moderate	State, companies
Tradition, national identity	Native populations, first nations	High	NGO, state education
Defence, military	Early warning system, concealed military infrastructure	Low	State, defence ministry
Technology and innovation	Space-like technology tested in ultimate conditions	Low	Companies
Culture and art	Local communities	Moderate	NGO, state ministry for culture
History and sentiment	Early exploration, forced migrations	High	NGO, state ministry for culture
Basic science, curiosity	Understanding the Earth-Biosphere system	High	International and governmental research units
Global responsibility	Common concern about climate change	Very high	International and governmental research units
Peer pressure	Everyone else is doing it, so we shall too	High	Public

advancement of submarine and rocket installations and still remains high, even more so with the melt of the pack ice cover (Richardson, 2019). Nowadays almost all EU countries have their own activity in polar regions (both Antarctic and Arctic). Here I want to answer the questions:

- (1) Where is public support needed?
- (2) What are the main motivations behind the interest in polar research in the broad public?

There was little interest in economic use of the polar regions until the early XX century, as the fur trade and whaling were losing its original economic importance, typical for XVIII–XIX centuries. The navigation routes were of interest (search for the shortcuts between Europe and Asia), yet the technology before the era of nuclear icebreakers was not suitable to meet the challenge of transpolar navigation.

Land claims were always important, yet the remote islands and coasts of polar regions were not a subject of serious conflict. Almost all potential conflicting cases were resolved peacefully – either by money (Alaska sold to the US in 1867), international negotiations (East Greenland and Norwegian claim) or harmless direct action like possession of Franz Josef Land by the Soviet Union in 1926 (Barr (Ed.) 1987, Barr, 1995). In Antarctica, the original territory claims were frozen by the international treaty, and practically the continent is under the international control (Antarctic Treaty Documents, 2019). Research, as an excuse for the state presence or argument for the land

claims, was commonly used and here the scientists were supported by the high-rank political decisions (Arctic Council, 2019). The development of technology, the discovery of mineral resources in the Arctic and political tensions of the mid-XX century, lead to the massive interest in setting the infrastructure – from the research stations to radar and military installations. Since that time the defence sector was involved in funding the polar research, like massive nuclear submarine cruises to measure the sea ice thickness (Sambrotto et al., 2013).

The new era of support for the polar research started with the common notion that for understanding the global climate change polar regions are critical. In this context, large international research programs were funded, and a number of researchers involved in polar research is higher than ever before (ACIA, 2006).

There are obvious differences between countries that are connected with territorial claims or actual settings in polar regions – members of the Arctic Council. There is also a historical- and tradition-based motivation for polar research. Here the UK, Netherlands, Germany and Poland to name just a few EU countries, use to call examples of historical events, where their citizens were struggling to explore or simply survive the polar regions.

Different sectors of the community (administration, companies, NGO's, wide public) may support the Polar Research for various reasons. Author's personal observations after participating in a number of national and international

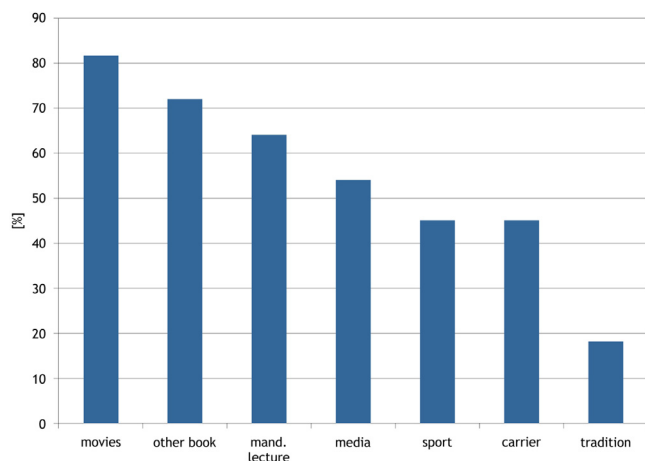


Figure 1 Declared sources of inspiration for undertaking polar research (active polar researchers in Poland, age 30 to 65, PhD) – a percentage of answers YES (n=23). The expression ‘mand. lecture’ states for the obligatory books in early education schools.

polar research meetings are summarized in Table 1. For the wide public, the sporty and peer pressure motivation seems to be of importance, along with history and sentiment.

In Poland in particular public education plays a significant role in shaping the public opinion about polar regions. As a non-Arctic country, Poland provided massive education about polar regions and research in 1950–1980 in the form of mandatory lectures in public schools (e.g. Centkiewicz and Centkiewicz, 1966). A couple of authors (Alina and Czesław Centkiewiczowie) wrote several books for school children about Arctic and Antarctic, presenting both the historical heroes (Nansen and Amundsen) as well as the cold-war actors (Soviet expeditions in both polar areas). To a smaller extent, the Inuit presence was shown in the form of short novels, known to every school kid at that time. The effectiveness of this period of education is reflected in the results of public opinion polls, in which the older generation points at the school required reading as the main source of knowledge and inspiration about polar areas, while for youngsters, the movies and other books were more important (Kotyńska-Zielińska et al., 2019). The author conducted a small scale study during the annual meeting of Polish polar scientists associated with the Center for Polar Studies at Silesia University in 2018. There were full-time employed professionals with the PhD plus degree in the field of environmental and earth sciences, aged between 35 and 65. Twenty-three members of that gathering (about 30 people) agreed to answer the simple, anonymous (age and sex were not revealed) questionnaire about their source of

polar inspiration. The documentary movies and books were named as the key inspiration for choosing this type of career (Figure 1). Besides fulfilling the political and commercial needs, the public interest in polar research may also support building the modern, concerned society and, for the common good, environmental literacy among citizens. Communication of polar science via professionals in an attractive way may reduce the amount of fake believes, and be regarded as the first-hand respected expert information. The open question is how and if, the interest in polar research will upgrade the citizens’ climate and environmental concern?

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