

Public confidence in science – what does it mean?

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Introduction

Since 2002, the Swedish non-profit organisation Vetenskap & Allmänhet, VA (Public & Science) has, in collaboration with the SOM Institute at the University of Gothenburg, been conducting an annual attitude survey to measure the Swedish public's views on science and researchers in the framework of the *Science in Society* project. Through the years the project has contributed to new knowledge on, among other things, factors that influence public confidence in science and the correlation between the public's confidence in science and its willingness to invest public funds in different research fields.

The National SOM survey has been conducted annually since 1986 and addresses three areas – society, opinion and mass media. It consists of several parallel surveys, involving between 10,000 and 20,000 respondents in total. Each partial survey is nationally representative and includes a sample of 3,400 individuals aged 16–85. VA has been contributing to the *Science in Society* part of the survey since 2002 through questions about research, such as the public's confidence in researchers and in different scientific fields and specific subjects, e.g. linguistics. In addition, as part of a *Science in Society* project, a number of additional surveys have been undertaken by VA and the SOM Institute in order to investigate the relationship between media and science in more depth as well as to make use of existing longitudinal data.

The Swedish public's confidence in research and researchers is generally high and confidence has overall remained relatively stable during the last decade². However, it is unknown what exactly relating to research it is that people have confidence in; whether it is individual researchers, in a specific field or academia in general terms? What does public confidence in science actually mean?

In order to investigate this further, a qualitative study into factors that influence public confidence in research is currently being undertaken. The focus of this paper is the preliminary findings from the first part of this study. In 2015 a series of focus group interviews were conducted with members of the Swedish public in order to explore their views in more depth and from a qualitative perspective. Emphasis was put on the concept of confidence in science and researchers in different fields, what

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² Vetenskap & Allmänhet (2016) VA report 2016:2 Vetenskapen i Samhället – Resultat från SOM-undersökningen 2015

Annerstedt L, Bergström A, Ohlsson J (2014) SOM-rapport 2016:14 Vetenskapen i samhället
http://som.gu.se/digitalAssets/1579/1579837_vetenskapen-i-samh--llet-2015.pdf

the factors are that affect it, and what the concept means to different groups within the general public.

The focus group study will be complemented with in-depth interviews with researchers and journalists during 2016.

Methodology

The study has been co-designed by VA (Public & Science) and Ylva Norén Bretzer, senior lecturer at the University of Gothenburg, specialised in research on confidence. VA is undertaking the data collection and actual analysis and the study will be written up together.

The study consists of two parts: focus groups with the 'general public' and in-depth interviews with researchers and journalists (to be undertaken).

Eight focus groups were undertaken in two different cities and in total involved 44 participants. Four focus groups were held in Stockholm, the capital city of Sweden, and four in Gävle, a medium-sized city.

The aim was to select participants that represented the 'Swedish general public' and an external company undertook the recruitment to be as objective as possible. The main selection variable was level of education and, within each group, the widest possible diversity in terms of age, gender, but also ethical background, media consumption, and personal experience from different scientific fields, if applicable. In practice, four groups consisted of people with a tertiary degree, or at least university-level education, and four groups were composed of people with secondary or upper secondary education (20 low level of education and 24 high).

Level of education was selected as the main variable as our previous survey data³ has shown that this is one of the most important factors affecting public confidence.

Emphasis in the discussions was put on the concept of confidence in research and researchers in different fields, what factors affect it, and what the concept means to different groups. A theme, which was particularly prominent in the discussions, was the media coverage of research, in particular, the participants' sources of research news, the role of the media, whether and how researchers should communicate their results. Other topics discussed included whether the participants would be interested in participating in research themselves, the funding of research and applied vs. blue skies research.

Results

The focus groups generated many interesting results, a number of which are briefly outlined below.

Confidence is high

Overall, confidence is high, both in research and in researchers, with slightly higher confidence in research in general, than in individual researchers.

³ Vetenskap & Allmänhet (2012) VA Report 2012:2 Vetenskapen i samhället under ett decennium – en analys av SOM-undersökningarna 2002–2010

At the beginning of each focus group, participants were asked to indicate their confidence in research and in researchers on a slip of paper, on a scale from very high to very low confidence. Interestingly, when asked at the end of the group whether they would put their tick in the same box, in several cases, especially in the low educated groups, the confidence in researchers had declined during the focus group.

Common explanations were that the discussions had made them more aware of the fact that researchers are human beings, and thus prone to make occasional errors; and that they could be driven by personal agendas like everyone else.

Medicine = research

Participants were then asked to say the first thing that comes to mind when thinking about research. There is a distinct focus on, and high confidence in, medical research, especially in groups with lower education levels. These groups also tend to have a vague conception of, and lower confidence in, the social sciences, compared to the others.

This focus on medicine was expected and has been seen in a number of surveys that investigate confidence in different scientific fields, including the national SOM survey.

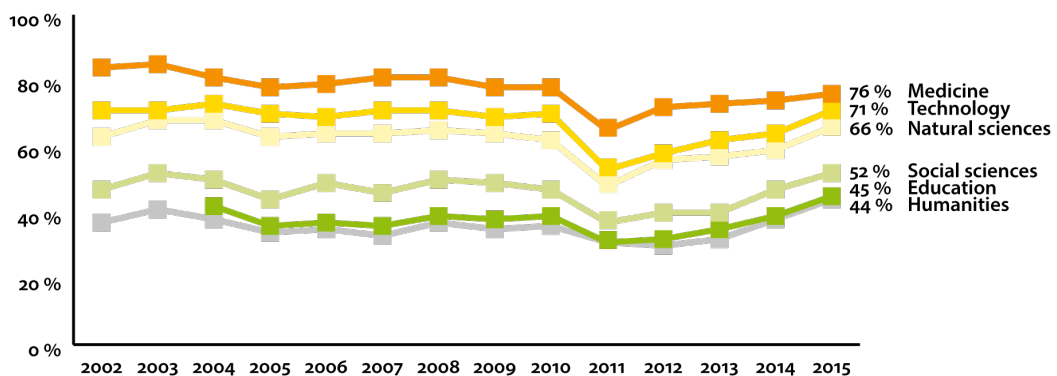


Fig. 1: Percentage of respondents that have fairly or very high confidence in different scientific fields 2002–2015 according to results from the SOM Institute’s *Science in Society* annual survey.

Trust levels are the lowest for nutritional research, in part due to news fatigue, caused by frequent and contradictory media reports of scientific dietary advice. Nutritional research aside, trust levels are generally higher for research areas that people feel that they can relate to and understand.

In addition, “useful” research, interpreted as more applied research, is perceived as more trustworthy. However, there was in parallel a strong feeling among participants that research needs to be free.

The role of the media

The role of the media as a major source of information about research was a topic that was also brought up spontaneously by the participants and acknowledged as important. Overall, participants had higher trust in research news associated with public services news providers, which they considered as more trustworthy, less biased and having more time to investigate whether the research is credible. Participants expressed lower confidence in nutrition research and cited contradictory media reports on scientific dietary advice and scare stories, as examples. Social media was also viewed as an important source of information.

I believe what I (don't) understand!

Two contradictory themes that were prominent in the focus groups were that participants either felt "They believe because they can understand it" and are familiar with it or that "They believe because they cannot understand". The latter one was more visible in groups with a lower education level.

Next steps

In-depth interviews with researchers and journalists will be undertaken during the autumn and winter of 2016. Two further studies are planned as part of the 2015–2017 *Science in Society* project, in addition to participation in the annual SOM survey. In 2016 a quantitative study of Swedish media coverage of research will be initiated. In 2017 a more detailed investigation into the researchers' role in media reporting is planned, using the quantitative material coded for the study of media coverage, to look more in detail into researchers' role in media reporting.

About VA

Vetenskap & Allmänhet, VA, (Public & Science) is a Swedish non-profit organisation that promotes dialogue and openness between researchers and the public.

VA works to create new and engaging forms of dialogue about research. VA is also developing new knowledge on the relationship between research and society through surveys and studies. Its members consist of some 80 organisations, authorities, companies and associations. In addition, it has a number of individual members. www-v-a.se