



## Panel on Future Science Policy

By Archbishop Dr Antje Jackelén

If we want to communicate science to a broader audience – which I think is part of the vocation of a scientist – we need to understand the dynamics of society. Obviously, this is important when we focus on transformative roles of science in society, but also if we want to understand the transformative roles that society can have on science. In my contribution to this panel, I would like to start with the issue of trust.

### Trust

It has been said several times throughout this meeting that trust in science is decreasing. If that is true, at least Sweden seems to go against the tide. Swedish society still has high levels of trust in general. When it comes to research and researchers, Sweden last year displayed the highest levels since monitoring started 20 years ago.[1] 61% of Swedes have high or relatively high trust in universities and university colleges.

When it comes to disciplines, it turns out that we find the highest levels of trust in research in medicine. The Macchiarini affair at Karolinska Institute in 2016 entailed a dip, but the usually high levels of trust were quickly restored. Even technology and natural science enjoy high levels of trust; whereas the social sciences, education science and humanities rank significantly lower.

Highly educated and younger people show higher levels of trust than less educated and older people. The closer you live to a university or university college the more likely you are to have high trust. Hence there are notable differences between urban and rural populations.

When it comes to political interest the survey shows that Greens hold the highest levels of trust in research (83% have high trust). Right wing populists hold the lowest (45% have high, 14% little or very little trust).

Research in heart and lung disease and in the environment were deemed to be the most urgent. Least urgent were philosophy and space science. Nanotechnology scored highest on “no opinion” – possibly indicating that its applications are not so well known to the broader public.

One may interpret the results in general as follows: trust depends to a certain degree on closeness to a university or university college; moreover it is related to what one experiences as one’s own concern or interest. There seems to be a “this-is-about-me factor” in rating heart and lung disease, as well as the environment, high, and space science low.

I would not say that it is some fuzzy irrationality or subjective feelings that are guiding principles when people think about their trust in science. Rather, it seems to be about perceived relevance and the possibility of getting involved. It may also be about the dynamics of “me-bubbles”, amplified by the culture of social media. It seems likely that the scourge of “bubblication” (rather than publication) affects science as well.

In the results of the World Values Survey, we find Sweden almost off the charts – way up in the right corner of the diagram, indicating a maximum of secular-rational values and self-expression in Swedish society.[2] Nevertheless, the package of populist opinions has its vigorous supporters even in Sweden. It manifests itself in an unholy trinity of nationalism, climate scepticism and misogyny: anti-migrants, anti-climate and anti-gender justice. This package tends to be accompanied by “alternative facts” and anti-science attitudes. In social media, climate engagement can be portrayed as a kind of sectarian behaviour, based on blind faith rather than facts, and as oppression of alternative views. Even regarding public service media, claims are raised that supporters and deniers be provided with equal space – as if (climate) science were a sporting game between two teams, and as if questions of mitigation and adaptation were nothing but propaganda. Similar claims for equal treatment have surfaced in discussions around immunizations.

If the difference between science and pseudo-science disappears, the discussion and communication of scientific theories and data will be severely hindered. It is not just that data are trivialized by claiming that they represent subjective opinions rather than facts. It is also about the politicization of science “from outside”. In light of the populist pattern of politicizing, science and theology find themselves in the same boat. As much as

the scientific data that are disliked are said to be politics or a dubious expression of political correctness, as much as the theological facts that do not fit the populist agenda declared to be politics, and not theology.

This can have dire consequences. Attention is effectively diverted from discussion of facts and from a shared informed view of reality. Initiative is successfully taken away from the proponents of science and theology. Mainstream media is picking up on the suspicion of politicization. And instead of being able to share facts and engage in discussions that may further development in society, scientists and theologians need to put their energy into defending themselves and their disciplines against fabricated allegations.

A conclusion that might be drawn from the data and ensuing reflections on trust: High levels of formal and theoretical trust in science do not necessarily translate into practical trust in the processes and results of scientific research. This impacts the communication of science and the transformative roles that science can have in society.

So what's the problem?

### **The problem is: The world is drunk**

In all too many countries, people are constantly drinking from a cocktail made of five dangerous ingredients, five poisonous P's: polarization, populism, protectionism, post-truth and patriarchy. This poison affects science, religion and society. Polarization tears apart what should belong together and work together. Populism pits people and so-called elites against each other. Protectionism puts one's own country, one's own people and one's own interests first, at the expense of the common good. Post-truth is the contempt of truth that disfigures the vital triad of the true, the good and the beautiful, without which we cannot live. Patriarchy continues to deprive the world of the full flourishing of women and children, and in the end it dehumanizes women as well as men.

I do not know a panacea that will make this drunken world sober and whole. However, literacy certainly is a key element in countering the worst consequences. We need literacy in science, philosophy (hermeneutics!) and theology (factual knowledge as well as spiritual practice and experience). We know from history how much literacy has meant for the development of societies, especially the literacy of girls and women.[3] In his contribution to this session of the Pontifical Academy of Sciences, Professor Lutz spoke of the subspecies of *homo sapiens literata*. I would like to add that we need to think about the subspecies: *homo sapiens literata digitalis*. The digital revolution and digital literacy will change life and work dramatically for billions of people. What does it mean to work with digital natives? What are the implications of digital divides? What are the effects of digitalisation on human brains?

A second key requirement is that we appropriately attend to the basic and crosscutting dynamics of fear versus hope. The five Ps are driven by fear. Behind them, the question of hope looms large. We need to acknowledge and understand the fears that are present in individuals as well as in communities and societies – be it fears of loss of security, of economic status or of cultural identity. What does permanent exposure to stressors, especially in small doses, do to collective nervous systems? At least two reactions stand out as reasonable. Either externalization in terms of scapegoating, with increasing polarization as a consequence. Or internalization, with the typical behaviour of a traumatized person of blaming oneself. Either way, the dynamics of sustained fear tends to make us defensive, opposed to change, prone to rigidity – a behaviour that directly feeds into a new loop of the five Ps. We end up with a vicious circle. One might say that this requires trauma-sensitive communication.[4]

In dealing with a world drunk with the five P's, we need to foster the ability to engage constructively with alterity, complexity, empathy and accountability. This is a prerequisite for effective communication, also for science.

In doing so, we will be better off in our attempts to create a framework for effective and positive transformation of society, scientifically sound and with enlightened humanism. For this framework, I suggest three key terms:

### **Resilience, co-existence and hope**

Because:

With a framework of resilience, we will be able to make sense of the fights of women and men for the health, wellbeing and future of their children. We will be able to make sense and meaning of necessary sacrifices. With a framework of resilience, we will be able to confront the trends and powers that impede our constructive engagement with the greatest challenges of our time. We will be able to confront polarization. We will be able to resist populism. We will be able to counteract protectionism. We will be able to fight against post-truth. And we will be able to overcome patriarchy.

With a framework of co-existence, we will be able to revisit some of the borders that are harmful to our working and living together. We will be able to foster more adequate views of nature and will listen to the groaning of

creation and we will be in a much better position to address climate change in a holistic way. With a framework of co-existence, we will be more eager to hear the stories of those who are suffering and will be suffering from the degradation of their environments and livelihoods. We will be better at listening to the voices of indigenous peoples.

With a framework of hope, finally, there is reason to expect change. Hope is one of the theological virtues in Christian tradition and hence a theological category. It is more than optimism. Optimism extrapolates from that which is already known. Hope reaches farther than that: it looks for promise and builds up its strength in trusting in that which is not yet. Optimism rests on what the past has brought about, hope looks to what the future can bring. Hope energizes our desire for truth, love and justice. It has a sister in courage. Together, they insist that change must be possible.

Changing minds, *metanoia*, must still be possible! Both our own minds and those of others.[5] With a theology of hope, we will be able to counter narratives of hate and fear with narratives of love and hope. The world is crying out for credible words of hope and for the works of love that faith compels us to carry out, together with people of good will from many traditions.

[1] Survey from 2017. Based on 3,400 individuals aged 16-85 and living in Sweden. 55% responses. [https://v-a.se/2018/06/varapport2018\\_3/](https://v-a.se/2018/06/varapport2018_3/)

[2] <http://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=Findings>

[3] Cf the paper by Professor Wolfgang Lutz, "World Population Change – Future Dynamics", delivered at this session of the Pontifical Academy of Sciences.

[4] Cf Jennifer Baldwin, *Trauma-Sensitive Theology: Thinking Theologically in the Era of Trauma*. Eugene OR: Cascade. 2018.

[5] A point in case can be found in Matthew 15:21-28, the story of the Canaanite woman who asks Jesus for help for her sick daughter. He turns her down twice, even comparing her to a dog who is unworthy to receive help. Yet, she persisted and made Jesus change his mind. Jesus changes the sense of his own mission and hence the mission of the whole church. If one woman was able change Jesus's mind, changing minds, *metanoia* must still be possible!