

The role of Scientists and researchers in Society

A summary of the Keynote address given by S Beernaerts; Head of Unit; DG Education and Culture; European Commission, Salamanca; Spain in March 2017 at the 3rd AGM of the Marie Curie Alumni Association¹

You as scientists are the gatekeepers to Science; and must strive to engender the same level of trust with society at large as say a physician or a judge. Science is at the origin of all technological progress, insofar as that is a key enabling cause of what we understand as social 'progress'.

Additionally (and increasingly these days) the perception of science and the expectation from many of our fellow citizens is that it should be the producer of truths. That is a huge responsibility. So science today has been given a great portion of the political and moral responsibility of exposing falsehoods, and offering truths and certainties in place of fakes.

Why is knowledge, or truth, so important?

Historically, knowledge was venerated through dissemination during the enlightenment period, after centuries of religious, royal, feudal or imperial authority and dogmatism. This gave rise of ideas of political freedom, emancipation, revolution; in other words, the rise of rationality coincided with the changing the fabric of society and gaining social and political rights, increasing equality and an expanding list of freedoms, developing into a political system of parliamentary democracy based on universal franchise; regular elections, transparency and a clear separation of powers.

The connection between the rise of respect for science and socio-political emancipation is undeniable. They were concomitant, and they both consciously challenge tradition; they both question the long-established truths and institutions, and they change them.

So scientists are perceived as the truth holders and the truth creators for society. This makes them the centre of attention, of scrutiny and of criticism. Science has become venerated, because nowadays:

- Policy has to be supported by (scientific) evidence and "experts".
- Global and insurmountable problems appear to be solvable thanks to scientific understanding and technological developments: climate change, disease, sustainability for example.
- Future peace and prosperity is an expectation and linked to improvements in economic efficiency, health, communications, new materials, management of natural resources and ecosystems, and so on.

Science fiction has promised for a long time², and since the 1960's computer revolution it seems possible, that peoples' hope for unlimited social and economic prosperity through technological innovation produced by scientific research maybe just around the corner.

These are huge but pivotal expectations.

The capacity of various sciences to influence society is not equally distributed among them. Those sciences which express views about how we should live, organise our societies,

¹ Edited by Dr M W Rogers; Hon Member, MCAA who takes all editorial responsibility for errors and omissions

² [Sebastian Buckup](#) Head of Programming, World Economic Forum Geneva 1§ June 2016

legislate, and take the big political decisions, appear to be much more influential. The highest public profile today is economics. It plays a prominent role in in our shared lives.

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air are distilling their frenzy from some academic scribbler of a few years back.

J. M. KEYNES, The General Theory of Employment, Interest and Money

All economies have been increasingly using mathematical tools. In such mathematical clothing, it treats the certainty of its truths as natural sciences. But it is not. As J.K. Galbraith observed "*the only function of economic forecasting makes astrology look respectable*³". Yet, when ministers of economy or central bankers speak, their words have an impact: immediate and large, and often self-fulfilling .

But why is economics' record less impressive than that of natural sciences? I think that the reason is that, as a subject of scientific study, society is very complex and very dynamic, even chaotic, reinventing itself all the time and economics is, after all, just a series of indicators of human behaviour. Yet social science as a research area is often allocated magnitudes of funding less than the "hard" sciences. Many do not class Economics as a science even. We do.

Nevertheless, we live by trusting each other; and our elected representatives. This is how it is to live in a society, to be human. We learn to trust because we benefit from scientific expertise all the time. Our trust is frequently unquestioning. But is it good for a society to fully trust all experts? How good is their record? In truth, it is mixed. We need to interpret expertise critically. All the more that we are going through another period of rising "populism", in which 'fake news' and 'alternative truths', are becoming more commonplace and very influential.

What do, and what should we expect from science today?

- Part of the answer is that **we expect scientific progress**, to lead to a better, longer life, assisted by technical innovation.
- We also **want to better understand our world**, our environment, especially at a time during which taking nature for granted seems very unwise, if not suicidal.
- We **look for greater wisdom** about how to live in a sustainable way.
- We **expect humility**, especially from the social sciences and economics, when they express opinions.
- We want **science to help us distinguish facts from fiction**, lies from truths; in the age "information overflow".
- And most crucially perhaps, we expect scientists to **voice their concerns**.

As Salamanca's Miguel de Unamuno once said "*At times, to be silent is to lie. For silence can be interpreted as acquiescence*".

³ Quote from JK Galbraiths [The Ashes of Capitalism and the Ashes of Communism \(1986\)](#) but also attributed to Ezra Solomon, in Psychology Today, March 1984

Science should oppose the simplified messages of the emerging populist extremism by encouraging society to embrace and debate complexity, accept doubt.

What can scientists do then?

Scientists must be involved as active democratic citizens, as they are respected social actors and role models. They cannot do this barricaded inside their areas of specialisation. Scientists today are not consulted as citizens; they are consulted as experts, not about important things but about minutiae in order to give, often unwillingly and unknowingly, sometimes unethically (as in the case of the climate change denials), their support to pre-established political dogma. They must not sell their expertise to any one purpose or to any one employer – public or private.

Technology or pure scientific knowledge has no moral compass. But the Social Sciences can develop a compass from and for society by being engaged with it, by confronting ideas with people who might think differently, and by providing a framework for Society to articulate.

Where does the EC, the MSCA fit in?

The MSCA programme is a very special programme, which we are proud of, for the following reasons:

1. Unlike many others, ours is a bottom-up programme, and this means that we support researchers on the criterion of excellence. Unlike for targeted research, we understand that can't presume research to do; so we take an open approach.
2. We impose a simple rule which is one of the foundational freedoms of the EU, namely, movement of people, researchers in our case. It helps people move and live, breath and raise families in countries other than their original place of residence. Thus they expose themselves and learn from different societies. If there is a possibility in the future of creating a European people, a European identity, those Europeans who live or have lived abroad are naturally expected to lead the way. MSCA researchers have the opportunity to live anywhere in the world and bring their experience back.
3. Our 100,000 fellows engage in research in all areas. Insofar as research produces knowledge and wisdom and truths, especially in the areas of social sciences, we have an interest to know what the science is and how society could benefit from it.

What can MCAA members do?

Become engaged in local, regional and national and European policy making and help us, in the European Commission, to shape and implement better policies. Become involved citizens at all levels.

The great problems facing our world today are enormously complex: no one person, discipline, government or even continent, has the resources to solve them alone. Researchers need to connect with other people – and other researchers - to tackle problems with interdisciplinary solutions.

Engage in 'open science'. Make public the knowledge born out of publicly funded research. This may conflict with the interest of the private sector to benefit financially. We believe there is a balance to be found. Open science requires sharing research results and data.

We value and strongly encourage the participation of MSCA fellows in public engagement activities, such as the European Researchers' Night, press articles, presenting themselves as models and explaining their research to students from

primary and secondary schools or universities in order to develop understanding. Be a role model. Stand up to be heard.

Science is universal – free of gender and race. The MSCA have a strong track record in equal opportunities for all researchers, including those whose careers have been interrupted for any reason. The MSCA have a specific presentation in Arabic and English explaining that the programme is open to all nationalities.

The communicating science prize funded by the Commission is particularly judged on coverage in mainstream media. Professor Shane Bergin, who won the prize in 2014 went on to become one of the authors of the Bratislava Declaration of Young Researchers. In its conclusions on the Declaration, the Council "*Invites early stage researchers to be the ambassadors of the .transformations that scientific development brings to society and to actively contribute to the buy in of European citizens to those changes*".

This is an extract what happens in the area of our MSCA programme, with its obvious limitations and in recognition that we ALL need to do a lot more.

Back to the Experts

The Athenians revered specialisation, and practical as well as theoretical wisdom very much. But inventors of democracy did not like decisions of political character to be made by experts. They assigned specific responsibilities to experts, such as building a temple, leading armies or building ships. But when it came to making political decisions, they did not delegate that crucial role.

What we effectively do today is that we assign this role to people we elect as members of parliament. The views about their wisdom are wide ranging. But as we have witnessed lately with the rise of extremism and populism, this democracy which is now under attack.

In order for it to survive it has to improve and here is the most difficult part of what we call *innovation*. We need institutional innovation in order to protect democracy and succeed with the project of European Unification. We need *educational innovation* to help create responsible involved citizens. We expect and hope scientists, especially social scientists, will illuminate the path by telling us their views about how society can change and become freer, autonomous, more democratic and unified. They should help to discredit the simplified messages of extremism; they should help their fellow citizens to accept, embrace and live with the complexity of human existence in its various societies.

Today, we are at crossroads, for sure.

The president of the European Commission, Jean-Claude Juncker, has launched a few days ago a consultation about the Future of Europe. I urge you to be active, involved, engaged as scientists, as citizens - and set an example for others to do the same. The MCAA will provide you a platform to do this on their web site.

Europe wants your feedback, your ideas, and your involvement and engagement. Even if the ideas exist, they need to be repeated, explained, challenged and assembled into policy

proposals. We need to create a new European Demos, which after after 60 years of effort needs to be reinvented to be future proof. This need is very urgent if not overdue.

I will finish my speech on a last Marie Curie quote "*..., each of us must work for his own improvement, and at the same time share a general responsibility for all humanity, our particular duty being to aid those to whom we think we can be most useful.*"⁴

Be a hero for a better world.

Thank you for your invitation and opportunity to address you.

⁴ *Autobiographical notes by Marie Curie* (1923), Editions Musée Curie/Institut Curie 2017