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Science Diplomacy in search of a purpose in the populist era

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Abstract

Science Diplomacy as a practice has a long past but only a short history. It became a policy concern of Foreign Affairs only recently. This article points to the strengths and weaknesses of Science Diplomacy as a soft power instrument aimed at improving International Relations. It also lists a number of threats coming from populist and protectionist forces that hinder the further development of Science Diplomacy. At the same time, the current situation also bears opportunities such as the potential to develop a scientist-driven Science Diplomacy aimed at safeguarding the values of science and at strengthening the input of science in humanity coping with global problems. This can best be realised by establishing mission-driven networks of state policy-makers, scientists and relevant stakeholders.

1. The long past and short history of Science Diplomacy

The notion of Science Diplomacy has been used in policy documents and scholarly writings ever since 1990, when J. Nye introduced the notion of 'soft power' to indicate that states can, next to their military and economic power, also exert power through their cultural assets, including their science systems¹. Today, Science Diplomacy is regarded as a policy tool by several governments, and it is becoming a topic of research as well²³. It is part of a wider movement that is gradually opening up the practices of diplomacy. The current state of diplomacy has indeed changed dramatically: it is no longer only a matter of national diplomats being sent to other countries, the missions have expanded from politics to economy and other issues such as environment or nuclear weapons. This makes the diplomat "an

¹ NYE, Joseph, *Soft Power: The Means to Success in World Politics*. Chapter 1: The Changing Nature of Power, New York: Public Affairs.

² FLINK, Tim and SCHREITERER, Ulrich, Science diplomacy at the intersection of S&T policies and foreign affairs: toward a typology of national approaches, *Science and Public Policy*, vol. 37, no. 9, 2010, pp. 665-677.

³ LÓPEZ DE SAN ROMÁN, Alea and SCHUNZ, Simon, Understanding European Union Science Diplomacy, *Journal of Common Market Studies*, 2017, pp. 1-20.

expert in negotiation, **regardless** of the areas concerned"⁴. Proof of this is the rich vocabulary regarding 'new' forms of diplomacy that has emerged this past decade: **economic diplomacy, energy diplomacy, nuclear diplomacy, environmental/green diplomacy, cultural diplomacy** and **digital diplomacy**.

The academic and policy interest in Science and Technology only came after decades of practices that already involved scientists in international relations endeavours. As early as 1956 for instance, the U.S. State department and its counterpart in the U.S.S.R. facilitated links between American and Soviet virologists, to collaborate in producing the oral polio vaccine⁵. But it is only in the first decennium of the 21st century that Science Diplomacy became an established concept in policy documents. A key milestone was the 2009 statement of Hillary Clinton, then U.S. Secretary of State, who stated that "**science diplomacy and science and technology and cooperation (...) is one of our most effective ways of influencing and assisting other nations and creating real bridges between the United States and counterparts**"⁶. Another milestone was the publication of the American Association for the Advancement of Science (AAAS) and the Royal Society report in 2010 that set the scene by introducing three forms of Science Diplomacy: Science for Diplomacy, Science in Diplomacy, Diplomacy for Science. This typology places these three distinct practices under the umbrella of the more general concept Science Diplomacy. It also paved the way for a wide acceptance of Science Diplomacy as a policy concern. A year earlier, President Obama had announced in his Cairo speech that the U.S. would start sending science envoys to the Middle East and would seek a more comprehensive engagement with Muslim-majority countries or countries with significant Muslim populations, and their people by expanding partnerships in areas like education, economic development, science and technology, and health, among others, while continuing to work together to address issues of common concern.

As a result, a growing number of practices are today labelled as Science Diplomacy. Interestingly, this is also being done retrospectively, and some practices of the past that were not labelled as Science Diplomacy when they took place, are now presented as Science Diplomacy. A classic example is the Soviet and American joint space explorations in the 1960s and 1970s. Also, several countries have started using the concept of Science Diplomacy when referring to their already existing international RTD policies such as support to exchange programs or the creation of posts of science attachés in embassies. As a consequence, there now exist several policy tools and instruments that are labelled as Science Diplomacy (see Van Langenhove, 2017, for an overview of such tools in Europe⁷). The EU, which is one of the biggest science funding authorities in the world, also embraced the concept in its policy declarations regarding RTD and their 'open to the world' policy. And more and more countries seem to be jumping on the bandwagon, be it sometimes only to use their scientific resources as promotional material for projecting a country's reputation and influence. Science is increasingly becoming an object of strategic communication and governmental public relations.

2. A SWOT analysis of Science Diplomacy

The interest in and practice of Science Diplomacy has considerably expanded over the past years as is demonstrated by its more prominent role in policy discourses and academic interest. This can be related to its perceived strengths for the modern diplomatic toolkit. Nevertheless, the concept is not without problems. Not only are there some weaknesses inherent to the concept as a policy tool, there are also some societal developments that might threaten to jeopardise its further ascent. But on the other hand, there might be opportunities as well.

⁴⁴ RUFFINI, Pierre-Bruno, Science and Diplomacy: A New Dimension of International Relations, *Springer International Publishing*, 2017. Translation from the French language edition: Editions du Cygne, Paris: 2015.

⁵ SWANSON, William, Birth of a Cold War Vaccine, *Scientific American*, vol. 306, no. 4, 2012, p66-69.

⁶ Quoted in THE ROYAL SOCIETY and AAAS, New Frontiers in Science Diplomacy: Navigating the changing balance of power, *The Royal Society*, London: 2010.

⁷ VAN LANGENHOVE, Luk, *Tools for an EU Science Diplomacy*, 2017, <https://publications.europa.eu/en/publication-detail/-/publication/e668f8cf-e395-11e6-ad7c-01aa75ed71a1> Retrieved 2 December 2017.

The major perceived **strength** of Science Diplomacy is that scientists' engagement in international cooperation is regarded as something that could be beneficial to build trust and thus better relations between states that are in dispute or conflict. Often this goes with an idealistic discourse of scientists speaking all the same language of science, which puts science in a position of being able to bring people, even in conflict zones, together. As such, Science Diplomacy is often portrayed as a tool towards peace-building and conflict reconciliations. But all of this is difficult to prove, although there are some success stories of how science has contributed to solving or mitigating international conflicts. A classic example is the involvement of nuclear physicists in the nuclear deal with Iran.

However, there are **weaknesses** as well. As the notion of Science Diplomacy is vague and multi-faceted, scientists will tend to be rather sceptic towards governments that want to 'use' them whilst pursuing their foreign affairs policy. Reversely, foreign governments could react equally wary and reluctant when cooperation in science is suddenly framed as a foreign policy, and thus diplomacy, initiative. Meanwhile, on the other side of the spectrum, most governments lack a clear strategy regarding Science Diplomacy and for others, it even seems just a buzzword to label their policy of nation-branding and self-promotion.

The concept of Science Diplomacy covers many different aspects, as is exemplified in the widely-used definition put forward by AAAS that distinguishes between science in diplomacy, science for diplomacy and diplomacy for science. But across these different takes is a tendency that the main supporters and investigators of Science Diplomacy are mostly located in policy communities. As such, one of the main drivers for Science Diplomacy are policy makers in states or intergovernmental organisations. This poses the question of the extent to which scientists are actually involved in Science Diplomacy. Do they take this seriously? Are they pushing their own agendas?

On top of that, the current era of populism poses new **threats** to the science system at large and to Science Diplomacy specifically. Some governments prefer to present 'alternative facts' to counter 'scientific facts' or try to limit access to scientific data that do not support what governments want to hear. Populism is often accompanied by nationalism and protectionism, which stand to the opposite of the ideals of the scientific community. The risk of protectionism for science is that governments will increasingly attempt to keep scientific findings within the boundaries of their own country. These developments not only endanger the whole endeavour of science but also the practice of Science Diplomacy as it puts the 'open to the world' worldview of science at risk.

Scientists can also be asked to provide advice to ministries and the government and are in this way involved in evidence-based policy-making. This practice is traditionally called **science in diplomacy** and was already brought into life in 1933 by president Roosevelt under the name **Science Advisory Board**, under president Obama called the **PCAST- the President's Council of Advisors on Science and Technology**⁸. Since the coming into office of president Trump, the PCAST hasn't had any formal meetings or published any formal documents⁹. Also, many scientists advising the government have resigned. Understandable, as it is difficult to give advice to a president who apparently had doubts about recognizing climate change as a scientific fact. Maybe one of the most exemplary actions was the resignation letter of professor Kammen, where he stated that "It was sadly easy to step down because I view what the President is saying as inconsistent with what's in the best interests of the country and my mandate as science envoy"¹⁰.

⁸ WHITE HOUSE, *About PCAST*, 2010, <https://obamawhitehouse.archives.gov/administration/eop/ostp/pcast/about> Retrieved 17 November 2017.

⁹ NITRD, *President's Council of Advisors on Science and Technology (PCAST)*, 2017, <https://www.nitrd.gov/pcast/Index.aspx> Retrieved 17 November 2017.

¹⁰ CNN, *US science envoy steps down, spells out "impeach" in resignation letter*, 2017, <http://edition.cnn.com/2017/08/23/politics/science-envoy-impeach-resignation-letter/index.html> Retrieved 17 November 2017.

Describing how **diplomacy for science** (diplomatic initiatives for the sake of science) has looked like this past year under the Trump government, would be downright depressing. UNESCO membership has been withdrawn, the Iran nuclear deal –arguably one of the biggest diplomatic breakthroughs these past years, made possible by physicists! - heavily criticised. More recently, senior representatives of the National Science Foundation (NSF) in Europe and China have been recalled to the U.S. Although a skeleton crew will be left behind at the NSF missions in Brussels and Beijing, such a move has the potential to seriously damage crucial networks of scientific collaboration which have been build up over the years.¹¹ Top-down support for Science Diplomacy in the U.S. seems to be scarce these days.

Finally, there are also **opportunities** to further develop Science Diplomacy. The most important one lies in the growing awareness of global problems. Almost all of today's pressing global problems such as climate change or energy security have a scientific component. Hence the need to link global governance with scientific evidence. On 25 September 2015, the United Nations adopted a set of ambitious goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. For these, different actors need to do their parts: governments, the private sector, civil society and also the scientific communities. Science Diplomacy might therefore just be the required tool to realise these goals¹².

Another opportunity lies in the increasing networked organisation of governance.¹³ In this context, Denmark has recently done something no country has done before- delegating a direct ambassador to the -stateless! - private sector.¹⁴ The digital ambassador was appointed to GAFA (Google, Apple, Facebook, Amazon)- a world without borders, but wherein each enterprise generates as much capital as an average country- Apple would easily fit within the G20. France was first in this practice, as it had discreetly appointed a “special representative of France to international negotiations on the information society and the digital economy”¹⁵. This is undoubtedly a turning point for practices in diplomacy. These companies can trace everyone's actions, and their active cooperation with the security services has helped a great deal in fighting and tracing radicalisation and cybercrimes.

The most important opportunity is perhaps that the growing ICT interconnectedness of the world gives scientist the possibility to deepen their global networks. And some governmental actors seem to take the values of science serious. The EU for that matter seems to be on the forefront. Not only is the 'open to the world' policy of the EU's science policy encouraging, so is the fact that that the EU currently supports several research projects that study Science Diplomacy. This can only strengthen the 'ownership' of Science Diplomacy by the scientific community.

Conclusion: finding a purpose for Science Diplomacy

Since the 2010 joint report of AAAS and the Royal Society, it is commonly accepted that Science Diplomacy has three interwoven strands: science for diplomacy, science in diplomacy and diplomacy for science. This view has certainly contributed to putting Science Diplomacy on the agenda of policy-makers across the world as well as bringing many different practices under one umbrella. The

¹¹ KELLY, Éanna, *US science agency quietly recalls senior officials in Europe, Asia, citing staff shortfalls*, Science Business, 2018, <https://sciencebusiness.net/news/us-science-agency-quietly-recalls-senior-officials-europe-asia-citing-staff-shortfalls> Retrieved 27 February 2018.

¹² VAN LANGENHOVE, Luk, Global Science Diplomacy for Multilateralism 2.0., *Science & Diplomacy*, vol. 5, no. 4, 2016, <http://www.sciencediplomacy.org/article/2016/global-science-diplomacy-for-multilateralism-20>.

¹³ SLAUGHTER, Anne-Marie, *The Chessboard and the Web*, New Haven: Yale University Press, 2017.

¹⁴ GOULET, Nathalie, *The world's first Ambassador to the giants of the web is Danish*, 14 February 2017, https://www.huffingtonpost.com/entry/the-worlds-first-ambassador-to-the-giants-of-the-web_us_58a2dd73e4b0cd37efcfed04 Retrieved 17 November 2017.

¹⁵ Ibid.

downside has been that Science Diplomacy has become a catch-all concept that is used for different purposes and leaves both policy-makers and scientists confused about what it is all about.

In a report commissioned by the European Commission, Van Langenhove¹⁶ has advanced a proposal to distinguish between three areas that are a mix of state self-interests and aspirations to have a positive impact on the world. These areas are: (i) Science and Technology contributions towards enhancing regional security in a state's neighbourhood and (ii) Science and technology contributions towards improving the economic position of a state in the world and (iii) Science and Technology contributions towards tackling global problems. As for the latter, Van Langenhove¹⁷ also called for an increased involvement and ownership of the agenda by scientists themselves.

More recently, Turekian et al (2018) have echoed these three categories by pleading for three new categories for Science Diplomacy: promote national interests, address cross border issues or tackle global challenges.¹⁸

This emerging consensus between scholars and practitioners to rethink the practice of Science Diplomacy is encouraging. But it should be complemented by an acknowledgment of the fact that states do not have a monopoly on Science Diplomacy. There is space for a scientist-driven Science Diplomacy as well.

Recommendations

1. Science Diplomacy as a practice needs to be both science-driven and state-driven. This implies that states need to incorporate science diplomacy in their Foreign Affairs policy and that science organisations need to put science diplomacy on their agenda.
2. State-driven Science Diplomacy needs to be organised as three distinct endeavours focusing on promoting national (trade) interests, addressing regional cross border issues and tackling global challenges.
3. Science-driven Science Diplomacy needs to be organised around the defence of science against populism, the contribution to tackling global problems and the involvement in building peace between conflicting states.
4. Both states and scientists should act together and form mission-driven networks as tools to deal with resilience, execution and scale problems they encounter in realising recommendations 2 and 3.

¹⁶ VAN LANGENHOVE, Luk, *Tools for an EU Science Diplomacy*, 2017, <https://publications.europa.eu/en/publication-detail/-/publication/e668f8cf-e395-11e6-ad7c-01aa75ed71a1> Retrieved 2 December 2017.

¹⁷ VAN LANGENHOVE, Luk, Global Science Diplomacy as a New Tool for Global Governance, *Federació d'Organitzacions Catalanes Internacionalment Reconegudes*, vol.3, 2016, 82 p. http://cris.unu.edu/sites/cris.unu.edu/files/FOCIRpensament3_LukVanLangenhove_ScientificDiplomacy.pdf

¹⁸ TUREKIAN, Vaughan C., et al., Science Diplomacy: A Pragmatic Perspective from the Inside, *Science & Diplomacy*, vol. 6, no. 4, 2017, <http://www.sciencediplomacy.org/article/2018/pragmatic-perspective>.

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