

Mandate of the Special Rapporteur in the field of cultural rights

**CALL FOR SUBMISSIONS ON
THE RIGHT TO ACCESS AND TAKE PART IN SCIENTIFIC PROGRESS**

Answers by

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Questions

General definitions

1. How is the notion of scientific diversity understood?

Scientific diversity can be understood in various ways. A relevant one in this legal context on the right to science concerns varieties of ways of knowing that fall under the umbrella term “scientific knowledge”. From the point of view of philosophy of science, a possible way of understanding and facilitating conversations on scientific diversity involves:

- i. *Recognising that scientific knowledge is not from nowhere but it is always situated and perspectival, i.e. it is always knowledge produced by communities that are historically and culturally situated —see (Wylie 2003), (Haraway 1988), (Massimi 2022).*
- ii. *Emphasising the reliability of situated practices as opposed to the testability / falsifiability of theories, acknowledging that knowledge production is not just about theories but also about experimental-technological tools, know-how (written and oral one), and often artisanal craftsmanship that tends to be left out in discussions about scientific diversity (e.g. from technicians to glassmakers to other artisanal expertise that is often instrumental to the*

production of scientific instruments and development of methodological practices).

- iii. *Relocate the object of scientific knowledge from theories / information to reliably identified and re-identified phenomena from within a plurality of situated practices. Beekeepers know about the phenomenon ‘pollination peak’ as much as particle physicists know about the phenomenon ‘decay of the Higgs boson’. An emphasis on practices and reliably identified phenomena (not spurious, dubious, or bogus ones) levels the playing field for discussion about scientific diversity and the contribution of different epistemic communities to knowledge production —see (Massimi 2022), esp. Ch 8 and Ch 11; and (Massimi 2023).*

Main obstacles to access and participation in scientific knowledge and its applications

2. **What are the main obstacles to ensuring the right of all persons to access scientific knowledge and its applications, within and between countries? Please provide an example.**

There are a number of obstacles in ensuring that ‘everyone’ does indeed exercise their right to enjoy the benefits of scientific progress and its applications—some are glaring ones, others are more subtle but nonetheless equally formidable.

- i. *Starting with the glaring one, often there is a basic problem with accessing scientific knowledge. Many countries especially in the Global South often lack the institutional funding and infrastructures (from laboratories to access to peer-reviewed scientific journals). The movement of Open Science has long been addressing these long-standing problems.*
- ii. *Relatedly, a cognate problem concerns the privatization of knowledge where scientific discoveries and innovations are often protected by patents and private corporate interests that make it impossible for ‘everyone’ to genuinely benefit from them (see problems with TRIPS and the call during the COVID-19 pandemic for a People’s Vaccine:
<https://peoplesvaccinealliance.medium.com/open-letter-former-heads-of-state-and-nobel-laureates-call-on-president-biden-to-waive-e0589edd5704>)*
- iii. *There is then a more profound and structural problem with images of science (and narratives about science) that are exclusionary, namely that do not allow room for varieties of ways of knowing (especially when dealing with indigenous and local knowledges that are oral, artisanal rather than certified, passed on from generations rather than codified in a scientific canon). The net outcome of this structural problem is that there are epistemic injustices that affect the right to science and pose genuine hurdles to the ability of everyone to benefit from scientific progress in a more substantive sense of ‘participating’ in science. There are forms of indigenous and local knowledges that are ‘severed’ from scientific narratives where particular bodies of knowledge are often epistemically ‘trademarked’ as the exclusive repository of well-defined epistemic communities in the Western and Global*

North—for a discussion of epistemic severing and epistemic trademarking as two kinds of injustices in scientific narratives, see (Massimi 2022) Ch 11, Section 11.5.

Participation in science

3. How is the right of every person to participate in scientific progress and in decisions concerning its direction understood and implemented? What are the challenges? How are lack of representativeness of marginalized groups and inequalities in participation addressed?

There are at least four different ways of understanding the right of every person to participate in scientific progress, some more obvious than others, and all laying somehow on a continuum.

- i. To start with, the right in question can be understood as the right that States as duty-bearers owe to their citizen in giving them access to science, its innovations and the benefits resulting from it within well-established legal boundaries (Donders 2015)(Donders and Tararas 2021). Among other things, this means right to access scientific journals, scientific data, and information in a way that is genuinely open to everyone. The challenges in this case concern socioeconomic barriers faced by countries where libraries for example do not have funding for paying publishers and research institutions may lack funding for supporting authors to publish open access in peer reviewed journals held by large corporations in the Global North.*
- ii. Then, there is another way of understanding the right in question as the right to ‘aspire’ to participate in science, see (Shaheed and Mazibrada 2021), and (Bideault 2021). In this sense, the right to science is the right of every child everywhere in the world to aspire to a life in science and technology and not to be prevented from pursuing their right to a scientific education that can fulfil this human rights-based aspiration. The challenges in this context can be found in many countries where access to scientific education is restricted on the basis of gender, race, religion and in the endemic problems of accessing education and social mobility for the most disadvantaged.*
- iii. A third way of understanding the right in question is in terms of participation in science qua a global public good, see for example (Besson 2023), and (Boulton 2021). Without entering into the merit of discussions about the difference between the economist’s notion of ‘public good’ and the more philosophical notion of ‘public good understood qua participatory good’, it suffices to say that in this context the right to science is the right of everyone to benefit of a good (science) that by its nature is meant to be ‘shared’. The challenge here is to come up with policy models for access and benefit sharing of a public good (science) that are indeed equitable considering the tangle of private and public investments in science.*
- iv. A fourth way of understanding the right in question is by reconfiguring the centre/periphery dichotomy—i.e., scientists’s work / the public’s ability to benefit from it — around which the formulation of the right seems to be built. This means addressing the underlying ‘deficit model’ of scientific knowledge*

which reinforces exclusionary mechanisms, see (Collins and Evans 2002), (Turnhout, Tuinstra, and Halfmann 2019). But it also means addressing epistemic injustices in how ‘science’ is portrayed in narratives and public discourse. The challenge ahead is then to reinstate epistemic communities (especially IPLC, indigenous people and local communities) that are often ‘epistemically severed’ (Massimi 2022), Ch 11 from scientific canons and recognise the importance of their interspersed expertise (Massimi 2024) and ways of knowing for scientific knowledge production (Harding 2015).

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