



SERRC
Social Epistemology
Review & Reply Collective

<http://social-epistemology.com>
ISSN: 2471-9560

Not-So-Well-Designed Scientific Communities

Inkeri Koskinen, University of Helsinki

Koskinen, Inkeri. "Not-So-Well-Designed Scientific Communities." *Social Epistemology Review and Reply Collective* 6, no. 10 (2017): 54-58.

<http://wp.me/p1Bfg0-3PB> (provided by WordPress)

The idea of hybrid concepts, simultaneously both epistemic and moral, has recently attracted the interest of philosophers, especially since the notion of epistemic injustice (Fricker 2007) became the central topic of a lively and growing discussion. In her article, Kristina Rolin adopts the idea of such hybridity, and investigates the possibility of understanding *epistemic responsibility* as having both epistemic and moral qualities.

Rolin argues that scientists belonging to epistemically well-designed communities are united by mutual epistemic responsibilities, and that these responsibilities ought to be understood in a specific way. Epistemically responsible behaviour towards fellow researchers—such as adopting a defense commitment with respect to one's knowledge claims, or offering constructive criticism to colleagues—would not just be an epistemic duty, but also a moral one; one that shows moral respect for other human beings in their capacity as knowers.

However, as Rolin focuses on "well-designed scientific communities", I fear that she fails to notice an implication of her own argument. Current trends in science policy encourage researchers in many fields to take up high-impact, solution-oriented, multi-, inter-, and transdisciplinary projects. If one can talk about "designing scientific communities" in this context, the design is clearly meant to challenge the existing division of epistemic labour in academia, and to destabilise speciality communities. If we follow Rolin's own argumentation, understanding epistemic responsibility as a moral duty can thus become a surprisingly heavy burden for an individual researcher in such a situation.

Epistemic Cosmopolitanism

According to Rolin, accounts of epistemic responsibility that appeal to self-interested or epistemic motives need to be complemented with a moral account. Without one it is not always possible to explain why it is rational for an individual researcher to behave in an epistemically responsible way.

Both the self-interest account and the epistemic account state that scientists behave in an epistemically responsible way because they believe that it serves their own ends—be it career advancement, fame, and financial gain, or purely epistemic individual ends. However, as Rolin aptly points out, both accounts are insufficient in a situation where the ends of the individual researcher and the impersonal epistemic ends of science are not aligned. Only if researchers see epistemically responsible behaviour as a moral duty, will they act in an epistemically responsible way even if this does not serve their own ends.

It is to some degree ambiguous how Rolin's account should be read—how normative it is, and in what sense. Some parts of her article could be interpreted as a somewhat Mertonian description of actual moral views held by individual scientists, and cultivated in scientific communities (Merton [1942] 1973). However, she also clearly gives normative advice: well-designed scientific communities should foster a moral account of epistemic responsibility. But when offering a moral justification for her view, she at times seems to defend a stronger normative stance, one that would posit epistemic responsibility as a universal moral duty. However, her main argument does not require the strongest reading. I thus interpret her

account as partly descriptive and partly normative: many researchers treat epistemic responsibility as a moral duty, and it is epistemically beneficial for scientific communities to foster such a view. Moreover, a moral justification can be offered for the view.

When defining her account more closely, Rolin cites ideas developed in political philosophy. She adopts Robert Goodin's (1988) distinction between general and special moral duties, and names her account *epistemic cosmopolitanism*:

Epistemic cosmopolitanism states that (a) insofar as we are engaged in knowledge-seeking practices, we have general epistemic responsibilities, and (b) the special epistemic responsibilities scientists have as members of scientific communities are essentially distributed general epistemic responsibilities. (Rolin 2017, 478.)

One of the advantages of this account is of particular interest to me. Rolin notes that if epistemically responsible behaviour would be seen as just a general moral duty, it could be too demanding for individual researchers. Any scientist is bound to fail in an attempt to behave in an entirely epistemically responsible manner towards all existing scientific speciality communities, taking all their diverse standards of evidence into account. This result can be avoided through a division of epistemic labour. The general responsibilities can be distributed in a way that limits the audience towards which individual scientists must behave in an epistemically responsible way. Thus, "in epistemically well-designed scientific communities, no scientist is put into a position where she is not capable of carrying out her special epistemic responsibilities" (Rolin 2017, 478).

Trends in Science Policy

Rolin's main interest is in epistemically well-designed scientific communities. However, she also takes up an example I mention in a recent paper (Koskinen 2016). In it I examine a few research articles in order to illustrate situations where a relevant scientific community has not been recognised, or where there is no clear community to be found. In these articles, researchers from diverse fields attempt to integrate archaeological, geological or seismological evidence with orally transmitted stories about great floods. In other words, they take the oral stories seriously, and attempt to use them as historical evidence. However, they fail to take into account folkloristic expertise on myths. This I find highly problematic, as the stories the researchers try to use as historical evidence include typical elements of the flood myth.

The aims of such attempts to integrate academic and extra-academic knowledge are both emancipatory—taking the oral histories of indigenous communities seriously—and practical, as knowledge about past natural catastrophes may help prevent new ones. This chimes well with certain current trends in science policy. Collaborations across disciplinary boundaries, and even across the boundaries of science, are promoted as a way to increase the societal impact of science and provide solutions to practical problems. Researchers are expected to contribute to solving the problems by integrating knowledge from different sources. Such aims have been articulated in terms of systems theory, the Mode-2 concept of knowledge production and, recently, open science (Gibbons et al. 1994; Nowotny et al. 2001; Hirsch Hadorn et al. 2008), leading to the development of solution-oriented multi-, inter-, and

transdisciplinary research approaches. At the same time, critical feminist and postcolonial theories have influenced collaborative and participatory methodologies (Reason and Bradbury 2008; Harding 2011), and recently ideas borrowed from business have led to an increasing amount of 'co-creation' and 'co-research' in academia (see e.g. Horizon 2020).

All this, combined with keen competition for research funding, leads in some areas of academic research to increasing amounts of solution-oriented research projects that systematically break disciplinary boundaries. And simultaneously they often challenge the existing division of epistemic labour.

Challenging the Existing Division of Epistemic Labour

According to Rolin, well-designed scientific communities need to foster the moral account of epistemic responsibilities. The necessity becomes clear in such situations as are described above: it would be in the epistemic interests of scientific communities, and science in general, if folklorists were to offer constructive criticism to the archaeologists, geologists and seismologists. However, if the folklorists are motivated only by self-interest, or by personal epistemic goals, they have no reason to do so. Only if they see epistemic responsibility as a moral duty, one that is fundamentally based on general moral duties, will their actions be in accord with the epistemic interests of science. Rolin argues that this happens because the existing division of epistemic labour can be challenged.

Normally, according to epistemic cosmopolitanism, the epistemic responsibilities of folklorists would lie mainly in their own speciality community. However, if the existing division of epistemic labour does not serve the epistemic goals of science, this does not suffice. And if special moral duties are taken to be distributed general moral duties, the way of distributing them can always be changed. In fact, it must be changed, if that is the only way to follow the underlying general moral duties:

If the cooperation between archaeologists and folklorists is in the epistemic interests of science, a division of epistemic labour should be changed so that, at least in some cases, archaeologists and folklorists should have mutual special epistemic responsibilities. This is the basis for claiming that a folklorist has a moral obligation to intervene in the problematic use of orally transmitted stories in archaeology. (Rolin 2017, 478–479.)

The solution seems compelling, but I see a problem that Rolin does not sufficiently address. She seems to believe that situations where the existing division of epistemic labour is challenged are fairly rare, and that they lead to a new, stable division of epistemic labour. I do not think that this is the case.

Rolin cites Brad Wray (2011) and Uskali Mäki (2016) when emphasising that scientific speciality communities are not eternal. They may dissolve and new ones may emerge, and interdisciplinary collaboration can lead to the formation of new speciality communities. However, as Mäki and I have noted (Koskinen & Mäki 2016), solution-oriented inter- or transdisciplinary research does not necessarily, or even typically, lead to the formation of

new scientific communities. Only global problems, such as biodiversity loss or climate change, are likely to function as catalysts in the disciplinary matrix, leading to the formation of numerous interdisciplinary research teams addressing the same problem field. Smaller, local problems generate only changeable constellations of inter- and transdisciplinary collaborations that dissolve once a project is over. If such collaborations become common, the state Rolin describes as a rare period of transition becomes the status quo.

It Can be Too Demanding

Rather than a critique of Rolin's argument, the conclusion of this commentary is an observation that follows from the said argument. It helps us to clarify one possible reason for the difficulties that researchers encounter with inter- and transdisciplinary research.

Rolin argues that epistemically well-designed scientific communities should foster the idea of epistemic responsibilities being not only epistemic, but also moral duties. The usefulness of such an outlook becomes particularly clear in situations where the prevailing division of epistemic labour is challenged—for instance, when an interdisciplinary project fails to take some relevant viewpoint into account, and the researchers who would be able to offer valuable criticism do not benefit from offering it. In such a situation researchers motivated by self-interest or by individual epistemic goals would have no reason to offer the required criticism. This would be unfortunate, given the impersonal epistemic goals of science. So, we must hope that scientists see epistemically responsible behaviour as their moral duty.

However, for a researcher working in an environment where changeable, solution-oriented, multi-, inter-, and transdisciplinary projects are common, understanding epistemic responsibility as a moral duty may easily become a burden. The prevailing division of epistemic labour is challenged constantly, and without a new, stable division necessarily replacing it.

As Rolin notes, it is due to a tolerably clear division of labour that epistemic responsibilities understood as moral duties do not become too demanding for individual researchers. But as trends in science policy erode disciplinary boundaries, the division of labour becomes unstable. If it continues to be challenged, it is not just once or twice that responsible scientists may have to intervene and comment on research that is not in their area of specialisation. This can become a constant and exhausting duty. So if instead of well-designed scientific communities, we get their erosion by design, we may have to reconsider the moral account of epistemic responsibility.

Contact details: inkeri.koskinen@helsinki.fi

References

- Fricker, M. *Epistemic injustice: power and the ethics of knowing*. Oxford: Oxford University Press, 2007.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. & Trow, M. *The new production of knowledge: the dynamics of science and research in contemporary societies*. London: Sage, 1994.

- Goodin, R. “What is So Special about Our Fellow Countrymen?” *Ethics* 98 no. 4 (1988): 663–686.
- Hirsch Hadorn, G., Hoffmann-Riem, H., Biber-Klemm, S., Grossenbacher-Mansuy, W., Joye, D., Pohl, C., Wiesmann, U., Zemp, E. (Eds.). *Handbook of Transdisciplinary Research*. Berlin: Springer, 2008.
- Harding, S. (Ed.). *The postcolonial science and technology studies reader*. Durham and London: Duke University Press, 2011.
- Horizon 2020. Work Programme 2016–2017. European Commission Decision C (2017)2468 of 24 April 2017.
- Koskinen, I. “Where is the Epistemic Community? On Democratisation of Science and Social Accounts of Objectivity.” *Synthese*. 4 August 2016. doi:10.1007/s11229-016-1173-2.
- Koskinen, I., & Mäki, U. “Extra-academic transdisciplinarity and scientific pluralism: What might they learn from one another?” *The European Journal of Philosophy of Science* 6, no. 3 (2016): 419–444.
- Mäki, U. “Philosophy of Interdisciplinarity. What? Why? How?” *European Journal for Philosophy of Science* 6, no. 3 (2016): 327–342.
- Merton, R. K. “Science and Technology in a Democratic Order.” *Journal of Legal and Political Sociology* 1 (1942): 115–126. Reprinted as “The Normative Structure of Science.” In R. K. Merton, *The Sociology of Science. Theoretical and Empirical Investigations*. Chicago: University of Chicago Press, 1973: 267–278.
- Nowotny, H., Scott, P., & Gibbons, M. *Re-thinking science: knowledge and the public in an age of uncertainty*. Cambridge: Polity, 2001.
- Reason, P. and Bradbury, H. (Eds.). *The Sage Handbook of Action Research: Participative Inquiry and Practice*. Sage, CA: 2008.
- Rolin, K. “Scientific Community: A Moral Dimension,” *Social Epistemology*, 31, no. 5 (2017), 468–483.
- Wray, K. B. *Kuhn’s Evolutionary Social Epistemology*. Cambridge: Cambridge University Press, 2001.