

EDITORIAL

The emphasis in this number of *Science Studies* is on issues in research evaluation. We also introduce a new idea of editorial policy. As the international literature of science and technology studies is scattered and diffuse, some old articles have not received the attention that they deserve. Stephen Hill's analysis on "The Formation of Identity as Scientist", originally published in 1979 in Australia, is an example of an article which is still novel and current interest.

Today evaluation has become the magic word of science policy. There is a rise of simplistic pragmatism. Accordingly, external evaluation of research institutes, units, and individual scientists is supposed to provide science policy makers exact means to realize various kinds of concentration programmes. It is also expected to help the scientific community to understand the rationale of scientific progress and to provide criteria for high quality research.

In this number Elzinga and van der Meulen discuss research evaluation from a contextual perspective. In this way important forces and actors of the research system are uncovered. Elzinga argues strongly for the, often negative, influence of contextual forces on research and new epistemologies. He uses six cases to convince the reader that research evaluation can be viewed as a struggle between actors (stakeholders) in the academia world, in the bureaucracy, and in economic and civic policy groups. Actor interests may be expressed in policy documents or doctrines, which have steering effect on research evaluations goals and methods and indirectly on research itself. Policies may influence the choice of peers and how the decision is based on the evaluation results. Research evaluations also affect university research when it comes to immediate change and the boundaries between disciplines and between science and society. Furthermore the culture of research practices and reputational structures may be changed.

Elzinga identifies some of the dangers which he has called epistemic drift when actors outside the research community, by means of the more and more common large-scale research evaluations, conquer some of the academic terrain in the development of new knowledge. This problem is also approached by van der Meulen when he discusses research systems in transition. Research evaluation repertoires have emerged from the traditional peer review at the individual level to the large-scale evaluations of disciplines or programs using bibliometrics and, lately, also judgments of research users. The development of quality control mechanisms with various actors has the effect that the research quality concept takes on a relational character. The evaluator's frame of reference and the object of the evaluation are the basic determinants, although there are others present when peers judge research quality. What is interesting, although left open-ended, in van der Meulen's article is that we might have a research system which is transformed by research

evaluations using new quality aspects, such as the attraction to users outside the academic community. The new production of knowledge and quality control mechanisms will probably lie outside or at least at the boundary of the university research system. Much of the new knowledge production takes place within the service sector supported by the new information technologies.

Foss Hansen analyses the evaluation of a research in the light of six organization theories. Her main and crucial question is: what makes an effective research organization? Using organization theories, research evaluations may adopt different perspectives on what characterizes a high quality organization. One of them, the constituency perspective is a theoretical idea, claiming that organizations are constituted by different actors within and outside. This view of a research system come very close to the one used by Elzinga, characterized by stakeholder's competitive and conflicting interests. Another perspective described by Foss Hansen is called 'symbolic' because it highlights the organizational ability to communicate, which also is a striking feature of a research organization: great emphasis is put on publication as the most important organizational (and individual) research product. There is also the paradox perspective that Foss Hansen puts as a new and valuable organizational view. Research organizations have contradictory demands, e.g. elitism and egalitarianism, which give rise to the release of energy and creativity. Of course, this is an apt description, and one that shows a striking resemblance to the dialectic view opposing forces trigger the development of new knowledge. In her conclusion, the author suggests that the ideas of organizational effectiveness referred to, be empirically tested in research evaluations aiming at learning about rather than controlling, research organizations.

Hemlin's paper is written on these lines. Being an empirical descriptive study, which is concerned with a small-scale research evaluation: the peer review protocols of grant proposals. However, the criteria used by peers in this study are consistent with criteria of scientific quality in general.

Three notions on research evaluation are apparent from the contributions to this issue. First, research evaluations are likely to stay with us whether we like it or not, since science and technology have such an impact in society. Secondly, research evaluations bring to the field of science and technology studies valuable knowledge about the actors and the functioning of the research system. Thirdly, research evaluations as a field highlights the relational character of research quality, be it a discipline, a research department, a manuscript or a grant proposal that is inspected.

The evaluation issues as a background, Hill's analysis on the formation of the identity of a scientist reflects the basic elements of scientific activity, the importance of which have mostly been neglected today. Even the scientific community has adopted the argumentation of policy makers and forgotten that it is absurd to discuss quality indicators without paying attention to the socialization and education processes in science. By studying the conditions for active synthesis in the creation of knowledge and for avoiding pragmatic normal science activity from becoming the main model for the students, Hill points to the need to teach to the next generation of researchers the elements of scientific reality which is free, alive, and creative.

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