

## Lecture 14

### Counter Norms

**Communism norm:** Scientists openly share new findings with colleagues.

**Secrecy counter norm:** Scientists protect their newest findings to ensure priority in publishing, patenting, or applications.

**Universalism norm:** Scientists evaluate research only on its merit, i.e., according to accepted standards of the field.

**Particularism counter norm:** Scientists assess new knowledge and its applications based on the reputation and past productivity of the individual or research group.

**Disinterestedness norm:** Scientists are motivated by the desire for knowledge and discovery, and not by the possibility of personal gain.

**Self-interestedness counter norm:** Scientists compete with others in the same field for funding and recognition of their achievements.

**Organized skepticism norm:** Scientists consider all new evidence, hypotheses, theories, and innovations, even those that challenge or contradict their own work..

**Organized dogmatism counter norm:** Scientists invest their careers in promoting their own most important findings, theories, or innovations.

#### *The Alternative Definition of Social Studies of Science*

The Mertonian conception of sociology is a pure, coherent, but exclusionary conception. It is based on the deployment of important sociological concepts (social structure, function, norm, value, social actor, social role, anomie, and the like) as defined by the classic studies of the field. These concepts are tools for classifying social relations and mechanisms of integration or disintegration. They go hand in hand with a set of predominantly “quantitative” methods that suitably support these concepts. Yet in choosing this paradigm, sociology had proposed a division of labor with other disciplines – for example, with history, linguistics, ethnography, or philosophy. The cognitive content, discourse, cosmology, and ontology of modern institutions were left to these fields. Stimulated by Kuhn, the new studies of knowledge proposed a more inclusionary definition. They rejected the special epistemic status of science and came to believe that cognition, discourse, cosmologies, and ontologies are also socially constituted. The inclusionary definition mirrors developments in sociology in general, where such subfields as ethnomethodology, discourse analysis, and micromethods, formerly left to historians and anthropologists, have taken hold.

Yet within social studies of science, the move toward an internalist sociology of scientific knowledge raised further issues, which dominate the discussion in the field today. These are the issues of reflexivity and of the redefinition of sociology itself.

The concept “reflexivity” developed by new studies of knowledge sees scientific (and technological) reality and “facts” first and foremost as the outcome of a process of construction. “Truth” is seen as a consequence rather than a cause of this process. But if natural scientists' results are not unproblematic representations of natural reality,

what about *social* scientists' representations? It is easy to see that the constructionist thesis applies equally to the “findings” of sociologists of science themselves. This awareness has led to a self-reflexive discussion of the “methodological horror” of reflexivity (e.g., Woolgar 1988), and to its further exploration through the study of the methods through which social scientists learn about science (e.g., Mulkay et al. 1983). To a certain degree, the exploration of reflexivity has promoted a problem of shift in science studies: it has mingled the original problems on the research agenda of the field (e.g., the problem of understanding the practice of natural science) with methodological and epistemological questions, and has thereby contributed to a further alienation between sociology of science as it once existed and its current developments. But the point I want to draw attention to is the weakening of social analysis that follows from the discussion on reflexivity. Traditional, Mertonian sociology applied the belief in the edge of objectivity of science to itself. It remained secure enough in its knowledge of the positivist foundation of science to carry the Mertonian research programme through until today. The new sociology of scientific knowledge, on the other hand – since it cannot shirk the duty of confronting reflexivity – more easily lends itself to discussions that lead away from, or continually redefine, a coherent research agenda. If the turn away from the Mertonian programme has contributed to opening up the definition of science and nature for sociology, reflexivity has contributed to opening up the definition of sociology itself.

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