Abstract
This paper discusses some ways of understanding scientific rationality as practical rationality. Firstly, instrumental models of the rationality of science are rejected. The instrumentalist can hardly establish the independence and goodness of certain ends. In the case of science, determinate ends with respect to which the normative force of our reasons is established do not seem to exist. A false identification of ends with values is what causes many of the confusions. Secondly, a model of practical rationality based in the mastery of tacit knowledge and skills is criticized. Any model of scientific rationality should take into account three constraints about what a “good reason” in scientific matters is, constraints that shape the practical identity and the normative face of science: the constraints of publicity, reliability and reflective authority.

Keywords
Scientific rationality, instrumental rationality, values, ends.