## Studies in the Rhetoric of Science

## Introduction



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Rhetoric of science and technology is a branch of rhetoric of inquiry. It is growing field in which the principles of rhetorical theory and the practices of rhetorical criticism are brought to bear on two sorts of issues: public sphere controversies about scientific and technological issues and, conversely, controversies within the scientific and technical sphere that have either overt or unacknowledged public sphere presuppositions, biases, or implications. The Association for the Rhetoric of Science and Technology (ARST) is a site for exploring the specifically rhetorical approach to such issues. Its work stands in a complementary and collaborative relation to social scientific approaches to what are now called "science studies."

This issue of *POROI*: An *Interdisciplinary Journal of Rhetorical Analysis and Invention* presents four contributions to the rhetoric of science.

It is a well-known feature of rhetorical discourse that it treats examples as more than mere illustrations. It allows them to guide inquiry and, if they are compelling, to count as proofs. Rebecca Scott's *Meat My Hero* explores a funny but telling example of a child's mistake to explicate and commend Donna Haraway's approach to science studies. Scott's close analysis of the example makes the main points of Haraway's approach clearer than they sometimes are in academic paraphrases, or, truth be told, her own writings. In its very clarity, Scott's explication constitutes an argument on behalf of Haraway's insights into the institutional folkways and value-laden commitments of science, especially its masculinist gender bias.

Haraway is not the only influential student of the institutions that produce what counts in our world as scientific knowledge. Michel Foucault is another. In his contribution, Hamilton Bean presents a detailed study of a text written by a military officer who commends Foucault's insights and relevance to his colleagues: officers who are involved in military intelligence work. In this odd and unexpected use of Foucault, we learn how, in addressing this

audience and projecting his own ethos, this officer involuntarily, but perhaps necessarily, distorts Foucault's thought. In the course of Bean's inquiry, accordingly, we learn more both about Foucault's theory and about the institutional practices of contemporary military intelligence.

Lynda Walsh's contribution is especially timely. Recently, the unauthorized publication of backstage e-mail communication among some of the scientists who contributed to the Fourth Assessment Report of the United Nations Intergovernmental Panel on Climate Change—a document that has been widely credited with shifting the burden of proof to climate change skeptics—handed a rhetorical weapon to its authors' opponents. The scientists explicitly appear in these e-mail exchanges as rhetoricians who are as concerned about the effect of their words on audiences as any politician might be. They seem willing to manipulate data or the way its implications are expressed in order to be persuasive. In doing so, they appear to be departing from the ethical norms (in both the moral-philosophical and ethos-rhetorical sense) that make scientific discourse and its methods of inquiry so authoritative in our society. Walsh's study of the Fourth Assessment Report provides valuable background to this so-called "Climategate" controversy. The ethos of policy scientists, she argues, including those who helped write the Fourth Assessment Report, is by their very nature rhetorically unstable. It positions its practitioners on both sides of the is-ought, fact-value divide. Using the resources of classical-rhetorical stasis theory, which distinguishes the various kinds of issues that rhetors address—issue of fact, for example, or of definition, or of quality, or of proper forum--Walsh argues that the authors of the Fourth Assessment Report straddle the line between these issues by relying heavily on visual presentation of data to establish their authority. Unsurprisingly, it is these very representational devices that have drawn fire.

Matt Drebek's contribution examines of the way in which the philosopher Ian Hacking demarcates the natural from the social sciences. The difference lies between forms of inquiry whose discourse, by its very circulation, affects what is to be said about the objects studied and forms of inquiry that do not have such effects. Drabek points out that Hacking powerfully shows how one can be as social constructionist about the natural sciences as, for example, Haraway or Andrew Pickering, but must still presume that the objects one is talking about--quarks for example—are not affected by what one says about them. The problem lies on the other, social scientific side. By dwelling in detail on differences between and interaction among acts with members of the same sex, classification by others as homosexual, heterosexual, or bisexual, and, not least,

performative self-declarations of one of these categories, Drabek shows that Hacking's analysis of the feedback loops in social science must be greatly complicated.

The authors of these essays come from a variety of disciplines: Communication Studies, Philosophy, English, and Sociology. They thereby illustrate the interdisciplinary thrust of the conversation that *POROI: A Journal of Interdisciplinary Rhetorical Analysis and Invention* seeks to encourage.

Another point about the journal. Among the many advantages of peer-reviewed electronic publication is that complex visual data, including the use of color coding, can be accommodated easily and without cost. This advantage is evident in several of the essays published here. Readers are invited to submit their work in any and all fields to the journal by using the on-line portal on the website of the Project on the Rhetoric of Inquiry (<u>ir.uiowa.edu/poroi</u>).