
The publication of Charles Alan Taylor's book, bringing the clear light of rhetoric to a protracted philosophical muddle, should mark the coming of age of rhetorical investigations into science. It doesn't; or, if it does, the *toga virilis* is less fetching on rhetoric of science than many of us hoped it would be.

We have several promising first-generation monographs in the field (Bazerman; Gross, 1990, 1997; Moss, Prelli, and especially Myers). But, for all their virtues, kairos made them largely programmatic. We have many, many essays in the field, some extremely rewarding. But, for all their scattered insights, the articles continue mostly to pile up, rather than to stack up (as Gross, 1993, has complained; though see Gross and Keith, Harris, and Selzer, for collections which attempt various stacking techniques). The time is surely here, if rhetoric of science is to develop beyond promises and scattered insights, if rhetoric is to legitimate the role it has adopted as commentator on science, for distinctly focussed, solidly rhetorical, theoretically mature investigations of scientific discourse. Enter Taylor's *Defining science: A rhetoric of demarcation*, a second-generation monograph. It is focussed, and it is rhetorical.

The focus, as Taylor's title nicely communicates, is on the question of circumscribing science, and on the question of motive such circumscription,—bounding science off from other pursuits with overlapping goals, or methods, or even practitioners. The question is not an innocuous one; demarcation exercises in and around science, though ostensibly about the meat and potatoes of method, are really about who gets the gravy, the
epistemic prestige, institutional glory, and filthy lucre that comes with being on the right side of boundary. The question is also intensely ripe for rhetorical plucking. Demarcation consumes scientists in some of their most prototypically suasive moments, their major clashes with one another or with competing ideologies. Indeed, almost the only use to which scientists ever put the immense philosophical literature on their pursuits is demarcational,—drawing definitional lines between their own work and that of their opponents, in order to reserve all the significant attributes of true science for their side.

Demarcation is an issue that has worn many prior pencils to the nub, and Taylor begins his study by surveying them from the perspective that definitions of science "proceed not from ontological foundations but from symbolic inducements" (15). He is concerned chiefly with philosophers and sociologists, with a nod at historians, but (despite they’re having had little to say directly about boundary issues in science) Taylor also examines some representative rhetoricians through this lens. In part, this simply allows him to bring the rhetoric-of-science literature into his survey; in larger part, it allows him to stake himself out with respect to other scholars in the field. (He also folds the somewhat related spheres-of-discourse literature into this discussion.)

Rhetoric of science, as Halloran advised early on, is a critical enterprise, and therefore must moor in "the particular case" (70). Taylor's moorage, in fact, is in two particular cases, both of which gained prominence in the 1980s: the creationist biology dispute, and the cold fusion controversy. He does justice to both, and the strength of his book is in its thorough charting of the various sides' convenient definitions of science. The creationist debates exemplify how
Scientists, consciously otherwise, rhetorically construct operative definitions of science which serve to exclude what they take to be nonsciences or pseudosciences, in order to enhance their relative cognitive authority and to maintain a variety of professional re-/sources, such as limited funding or control of school curricula. (222-223)

The cold-fusion dust-up underscores how demarcation is also accomplished when competing research communities within traditional science construct working definitions of appropriate science in order to advance proprietary interests over particular research domains and/or control of limited material resources" (223)

The book, again, is distinctly focused and it is solidly rhetorical. It is not, however, theoretically very mature. Almost all of the lengthy survey material, for the most glaring instance, is shallow and opportunistic, and, although Taylor is charmingly frank about his shallow opportunism, glibness can rarely sustain a book. It wears especially thin here during his dealings with other rhetoricians, ignoring much of the best work and using demarcation primarily as a stick with which to cudgel those he does take up. But, also, his decidedly partial treatment of other fields often seems merely a substitute for understanding.

Take Sociology of Scientific Knowledge (SSK). Taylor apparently admires its depth and sophistication. But, while he précís SSK rather ably, he seems not to have learned much from it. Several scholars in the field, for instance, have dealt very sensitively with the issue of truth in the discourses they probe, coming to the compelling position (one with a Protagorean petigree that SSKers don't seem to notice, though Taylor might have) that a truly revealing analysis must be agnostic as to where truth, virtue, and righteousness lie.
Taylor blows by these matters with barely a backward glance, and then, in his case studies, repeatedly aligns himself with the scientific winners, treating the creationists and cold-fusion researchers with consistent disdain. When he is obliged to acknowledge a successful argument from one of those camps, he promptly insists that his acknowledgement doesn't signal any level of agreement with those losers. His attachment to the received views is unseemly to the point of obsequiousness.

Most seriously, the integration of Taylor's analyses and his conceptual musings (theory, muddy as that word is, would still be too precise) fails almost completely. We get the surveys, the case studies, and a very anemic postscript. They are all unified by the focus on both demarcation and the general background of discourse as fundamentally suasive, but not by any coherent programme.

Which brings me to the most admirable aspect of the book, and also the most disappointing, Taylor's proclaimed presiding metaphor: science as ecosystem. It is brilliant, illuminating, extremely suggestive. Here's Taylor's epitome:

[The notion of] an ecosystem recognizes the primacy of certain species within their ecological niches. That primacy, however, comes not as a function of one species' isolation from others, but from the ecosystem's profound interconnectedness. Just as American upper-class taste for ivory accessories was tied inextricably to the near extinction of entire species of elephants in the nineteenth century, so decisions of congressional committees to make possible (or impossible) particular research ventures are tied to eventual judgments regarding the potential facticity of the phenomena under investigation.
. . . For example, the recent identification of the so-called breast cancer gene might be read as one particularly fortuitous interaction of research scientists, federal granting agencies, pharmaceutical industry concerns, and women's health advocates, constrained as well by individual rivalries and institutional alliances within biomedical research communities. (7 – 8)

The very unfortunate side to this wonderful metaphor is that it plays a minor role at best in the analyses and arguments Taylor marshals in his examination of demarcation issues.

--Randy Allen Harris

Author of Linguistics wars (Oxford, 1993); editor of Landmark essays in rhetoric of science: Case studies (Erlbaum, 1997); Associate Professor of Linguistics, Rhetoric, and Professional Writing, at the University of Waterloo, Canada

Work cited


