Alan G. Gross: Floppy Eared Rhetorical Rabbit, Redux

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David Beard has asked me if POROI might reprint my critically celebratory *Perspectives on Science* review article on Alan Gross from five years back (Harris, 2009). I am happy to oblige. Johns Hopkins University Press, which holds the copyright, has kindly licensed a few pages of the article without charge, so I have selected some bits and pieces of it, stitched them together, with some slight emendations, and—five years is a long time in the career of the extraordinarily productive Alan Gross—added a few extra patches here and there to bring it somewhat up to date. I have made additions to the Works Cited list as relevant, but no deletions (so it’s a Works Cited Plus list). I have not used a different indexing scheme between original endnotes and new ones. On the editors’ recommendation, I have placed the excerpts from my 2009 article in brackets, with elision-dots to indicate substantive cuts (minor cuts and additions are unflagged). Please note that the cuts are considerable; in deference to JHUP’s wishes, I refer the interested reader to the original review article, to reward JHUP’s generosity as well as for further and deeper commentary on the remarkable career of Alan G. Gross.

[“The rhetoric of science? C'est moi.” That’s what many of us took Alan G. Gross to be proclaiming with the title of his 1990 book, *The Rhetoric of Science*, when the subfield was barely underway (Harris, 1991; Myers, 2003, 374). Sure, Gross had published a flurry of significant articles in the late 80s exploring the suasive dimensions of scientific discourse, but several other rhetoricians had as well—Charles Bazerman, Greg Myers, Lawrence Prelli—and their resulting books had considerably more modest titles. Prelli’s *A Rhetoric of Science* made a particularly instructive contrast (Prelli, 1989; see also Bazerman, 1989; Myers, 1990). And some of the more influential scholars—John Lyne, Carolyn Miller, John Angus Campbell—had not published books at all. Most gallingly to others in the field, Gross barely noticed any of this parallel work in
his book, attending rather more closely to the work of philosophers, sociologists, and historians. But now, nearly twenty-five, highly productive years later, it’s almost true. Alan G. Gross? C’est rhétorique de la science,—presque.

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Gross’s (1990a) *The Rhetoric of Science* is easily the best known book in the field—widely reviewed, widely cited, widely taught, widely attacked. Its first iteration (1996a) included a long preface, in equal parts feisty and inclusive, responding to criticisms and broadening his notice of other rhetorical research, but was otherwise unchanged. Now there is the major reconfiguration under review here, *Starring the Text*, altered not just in content and structure (by about fifty percent) but in creed as well; one of the more radical early theorists, Gross is now among the more reactionary (Gross, 2006). (We can quite coherently talk of Gross₁, to characterize his radical period, and Gross₂, to characterize his reactionary period, with one text in particular marking the dividing line, *Rhetorical Hermeneutics* —Gross and Keith, 1997.) In the prolific interim between the first and third renderings of his signature monographs, Gross engineered a watershed event, for his own work and for the field generally, including known provocateur Dilip Parameshwar Gaonkar in a session (co-organized with John Lyne) on rhetoric of science at a major conference. Gaonkar’s long, unremittingly censorious essay on the hermeneutic assumptions underlying rhetorical analyses of science was quickly published, with several similarly polemical responses, in a special number of a national journal (Keith, 1993). Gross then published Gaonkar’s essay as the opening chapter of *Rhetorical Hermeneutics: Invention and Interpretation in the Age of Science* (Gross and Keith, 1997), following it with more responses and capping it all with another lengthy essay by Gaonkar responding to the responders. In the wake of *Rhetorical Hermeneutics*, Gross collaborated with Joseph E. Harmon and Michael Reidy on *Communicating Science: The Scientific Article from the Seventeenth Century to the Present* (2002), which is also under review here, with a sketchy history of rhetorical criticism of science foregrounding what Gross sees as a second-wave paradigm for rhetoric of science. He collaborated with Harmon again on an exhibit of scientific texts and images held at the University of Chicago’s Joseph Regenstein Library, an exhibit which grew into *The Scientific Literature: A Guided Tour*, the third book presently under review. With Laura Gurak, he edited a special journal number on *The State of Rhetoric of Science* (Gross and Gurak, 2005). Over the same period, Gross also produced an important
collection of essays reexamining the wellspring text of rhetorical theory, *Rereading Aristotle's Rhetoric* (Gross and Walzer, 2000) and a superb little book on one of the 20th century's major argumentation scholars, *Chaïm Perelman* (Gross and Dearin, 2003). Both of these books were largely independent of his rhetoric of-science research—along with more than fifty articles and book chapters, some of which have been folded into the books under review, many of which have not.]

Gross has now taken up more fully his long interest in visual semiotics, generating several compelling papers and the soon-to-be-classic book on the topic, again with Joseph E. Harmon, *Science from Sight to Insight: How Scientists Illustrate Meaning*, on which, more below (Gross and Harmon, 2014). A collection with Jonathan Buehl entitled *Science and the Internet: Communicating Knowledge in a Digital Age* is currently in press, and a related book manuscript, with Harmon again, is in the final stages, *The Future is Already Here: The Internet Revolution on Science and Scholarship."

[Combine that textual fecundity with his conference attendance, his visiting fellowships, his teaching, and his tireless intra- and inter-disciplinary conviviality, and the conclusion is inescapable: Alan Gross has influenced rhetoric of science as has no one else. There are certainly other productive, front-rank scholars in the discipline, but Gross has lapped the field, as all of them would no doubt cheerfully acknowledge. He is universally admired and beloved. Alan G. Gross? *C'est rhétorique de la science,—presque.*

That *presque*, 'almost,' is razor thin, from the side. But, rotate our angle of vision ninety degrees, and it is also unavoidably wide, for two reasons. First, there is Gross’s curious, continuing indifference to the research of many other rhetoricians of science. Second, and surely related, there is the distinctive, if not idiosyncratic, direction he has taken his own primary research. He is by far the largest pike in the pond, but Alan G. Gross is not swimming with the school. There are many factors contributing to the separate and increasingly conservative course he is plotting, but the most obvious reason is the Gaonkar Episode, which reaches directly into the workings of Gross's first book.

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Gross's critical methods in *The Rhetoric of Science* betray an unease about the analytic power of rhetoric not shared by most other practitioners. Aristotle gets an introductory gesture, and is put to sporadic, mostly superficial, work in the book; Chaïm Perelman has a minor presence; there is a glance at Kenneth Burke;
and that's pretty much it for the rhetorical tradition. Gross appears more comfortable in the book with the work of Jürgen Habermas, and Victor Turner, and Donald Davidson, and John Searle than with the work of Cicero, or Quintilian, or Hermogenes, or Erasmus, or Melanchthon, or Vico, or George Campbell, or Richard McKeon, or Wayne Booth. Indeed, his eagerness to traffic in the theories of sociologists, anthropologists, and especially philosophers might be one of the factors that has led scholars from those fields to see rhetoric of science as imperialist and Gross as a self-styled conquistador, even though Gross meant his use of such work as a compliment not as an expropriation.

Dilip Parameshwar Gaonkar exploited Gross’s unease with his own field with his charges of hermeneutic ‘thinness’ against him and others in the field. But Gross proved to be alone among rhetoric of science practitioners in his anxiety over this alleged flimsiness of the critical vocabulary. [“Gaonkar is clearly good for our business,” John Angus Campbell said in his role as the 1998 president of the American Association of the Rhetoric of Science and Technology: "[S]o little are Gaonkar's charges against us believed, and so useful are they in garnering us attention, that we boast of an impressive array of new recruits particularly among younger faculty and graduate students" (Campbell 1999, 101; see also Selzer 1998, 448). Gross found the widespread and forceful rejection of Gaonkar's arguments distasteful, calling the ensuing debate “fruitless [and] ... best forgotten” (Gross and Gurak, 2005, 242.).] But the Gaonkar episode marks a sea change in his own work. He characterizes Gaonkar’s case as an “admonition” (Gross, 1997, 153) to rhetoric of science, and it would be fair to describe his own subsequent work as “admonished.” Also, frankly, in its critical focus and reach, it would be fair also to describe that work as “better.”

1Gross believes that “ignoring [Gaonkar] … was the big mistake [by rhetoricians of science]” (Gross [with Beard] 2013, 11:30). But Gaonkar was as far from being ignored as it is possible to be. Most of the major figures responded in one way or another. Gross and Keith (1997) was widely read, widely discussed, widely reviewed. Gaonkar was in the eyes of most us refuted, not ignored.
[Communicating Science examines more than 2,000 articles, representing over three and a third centuries (1665-1995), in three languages (English, French, German), covering the five major branches of science (astronomy, physics, chemistry, biology, and geology), and the five main genres (methodological, experimental, observational, theoretical, and review articles). From this data (drawn, under a random protocol, from a list of elite journals, as identified by Gascoigne 1985 and Garfield 1976), Gross and Harmon read 430 articles, top to bottom, and examined short passages (10 contiguous lines, randomly selected), from around another 1,800, seeking to answer questions about style (lexical and syntactic choice), presentation (arrangement, layout, graphics), and argument (appeals, evidentiary strategies, structure). As Bazerman has noted, the study remains quite preliminary, given the great sweep of the topic, and there are ways the sample might be further mined for the effect of factors such as scientific discipline, genre and arrangement (Bazerman, 2004, 342), but the Communicating Science project is very impressive, the accomplishment substantial. On both counts, it amounts to Gross meeting, full on, the challenge Gaonkar raised for him.

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Gross’s next book with Joseph Harmon (sans Reidy), The Scientific Literature, has no heavy lifting to do. It is a wonderfully light complement to Communicating Science. Again, the coverage is admirable—not so much in general terms, and every science scholar will find at least a few favorites overlooked, but in terms it shares with Communicating Science, well-thought-out sampling criteria. While all of the excerpts are in English, French and German literature is again represented. All of the major sciences are represented, both in overall distribution and in specific sections. There are sections which sample from scientific controversy, with brief series of back-and-forth pieces, and from exemplars of argument structure, and from chronological periods, and from historically important journals, and from different national contexts, and from different reasoning patterns. One section that all readers will turn to eagerly is "Scientific Writing Style: Norms and Perturbations." The pieces illustrating norms highlight features like caution, impersonality, clausal simplicity, lexical density and phrasal complexity. The perturbation pieces demonstrate unusual outbreaks of undisguised belligerence, playfulness, or self-conscious eloquence. There is a charming diagram of an experimental apparatus that appeared in the Journal of the American Chemical Society in 1955, which was in almost
every respect typically scientific (abstract, precise, accurate), except that there was a small stick-figure man fishing in one of the flasks (containing a 1% suspension of the algae, *Scenedesmus*, in a 4 mg. KH₂PO₄/liter solution). Another piece, from a 1935 issue of *Science*, by ichthyologist Hugh M. Smith is a splendid example of *ploche*, *polyptoton*, and *incrementum* in the natural history of fireflies.

The focus of *The Scientific Literature* is the article, in its various subgenres. This makes the book an excellent source of specimens, with useful side trips, embodying the results and arguments of their more scholarly (one is tempted to say the more scientific) collaboration, *Communicating Science*. It is also, aided by Harmon and Gross’s very careful (but breezy and elegant) framing, a primer for scientists looking for styles and structures to emulate in their own work. They will be entertained and educated, reading Robert Hooke and James Hutton and Sewall Wright, but they will also find useful models by reading Edwin Hubble and Oswald Avery et al. and Murray Gell-Mann, and important lessons on the incorporation of tables, and equations, and images, in reading Dimitri Mendeleev, Albert Einstein, and Richard Feynman. They will find inspiration in reading almost any selection; and they will find, as will you, a very wide-ranging, illuminating, and rewarding explication of the scientific literature, reading the very fine commentaries on these articles by Harmon and Gross.

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In *Starring the Text*, Gross returns to establishing the unique contributions rhetoricians can make to science studies. In fact, he returns to *The Rhetoric of Science* to remove barriers other science scholars might encounter, starging with the belligerence, but much else goes as well. About half of the previous chapters are gone, replaced by newer material. All of the retained chapters are significantly altered, line-by-line and the whole is placed in a very different frame. Gaonkar accelerated the shift, but Gross had started to back away from his constitutive and ubiquity claims within a year of the publication of the first version (e.g., Gross, 1991a, 36), suggesting that he had pushed his claims, and certainly his phrasing, to extremes in a calculated play for the interdisciplinary hearing he did in fact gain. Now, he “excise[s] the radical epistemological inferences that were designed to provoke thought,” while also claiming that his “philosophical position” survives intact (ix), a highly curious stance for a rhetorician to take, and one that *Starring the Text* does not support.
The new title may strike readers unfamiliar with literary studies or semiotics as somewhat peculiar, and certainly it doesn’t have the marketing panache of the original title. It derives from Roland Barthes’s argument that the first move of semiotic analysis is to feature the text, put it in a starring role, catch it in the spotlight (Barthes, 1974, 13; more particularly, Barthes means dismembered pieces of the text, chunks he calls lexias). Gross uses Barthes’s notion prominently in the first edition, adopts it for the title of the third version, and prefaces that version with a sketch of its implications (Gross, 1990a, 4). The notion is pivotal to him in the way it clears a space for rhetoric among the disciplines of science studies. Recall the full title of the recent rendition: *Starring the Text: The Place of Rhetoric in Science Studies*. Here is how Gross frames rhetoric in the preface:

> Is rhetoric a master discipline, encompassing all others? Of course not. The claim that rhetoric is an intellectual tool useful in explicating the sciences rests on an alternate epistemological vision: an insistence that science is just one way of knowing. This claim in turn rests on a fundamental federalism about the domains of knowledge. In accordance with this federalism, rhetoric produces a knowledge different from that of science, different though not inferior: knowledge of science insofar as science is persuasive communication. Rhetoric "stars" the texts, tables, and visuals of science, that is, it makes their hermeneutic unraveling central. This is its role in science studies as one discipline among many joined in a common enterprise, a confederation of equally sovereign intellectual states: history of science, philosophy of science, and sociology of science. (Gross, 2006, ix; see also Gross, 1990a, 9-10).

Even more than methodological looseness, Gross is anxious in his current work to repudiate the strong epistemological positions for which his early work became emblematic, deploying his first-generation/second-generation schema to that end. He associates the strong view, that rhetoric is constitutive of science, with the earliest rhetoricians of science—Campbell, Bazerman, Myers, Gross—(Gross, 2006, 5)—and the restraint to “not [to] engage epistemic issues” (Gross, 2006, 17) with two texts he regards as virtually definitional of the “new phase” (Gross et al. 2002, 17): Celeste Condit's *Meanings of the Gene*, and his own
Communicating Science.² And, with Starring the Text, he literally rewrites his own legacy, erasing his notorious "[science is] rhetoric ... without remainder" passage (Gross, 1990a, 33; 1992; Gross and Keith 1997, 6; see also McGuire and Melia 1989, 1991, 1995).

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While Gross is an excellent critic and a careful thinker, that is, while he has a deep appreciation for the power of rhetoric, while he is a pioneer in rhetoric of science and its best known, most dogged proponent, neither his views nor his approach are entirely representative. And his picture of the field is decidedly lop-sided. Rather than demonstrating the limitations of early work, or the effectiveness of Gaonkar’s castigation, works like Ceccarelli, 2001, 2013; Condit, 1999; and Fahnestock, 1999—along with several others, like Atkinson, 1999; Bazerman, 1999; Waddell, 2000; Locke, 2002; Harris, 1997, 2005; Scott 2003; Segal, 2005; Shea, 2009; Keränen, 2011; Wynn, 2012, Walsh, 2013, demonstrate the continuing health of the field, its methodological richness and its relevance to apparently recalcitrant fields of discourse like those of the sciences.

In the time since this review article first appeared in Perspectives on Science (Harris, 2009), Gross has continued effacing the rhetorical quotient of his work, still in close collaboration with Harmon, almost to the point of invisibility. They have published a style guide for scientific rhetors (Gross and Harmon, 2010), a rich study of scientific illustration (Gross and Harmon, 2014), and have completed the “Internet Revolution” manuscript (see Gross and Beard 2013, 27:15), as well as a couple of papers (Gross and Harmon 2009; Harmon and Gross 2009). Gross has also published a variety of articles on his own (Gross 2007, 2009a, 2009b, 2010, 2011), as well as co-edited a collection on the internet and science (Gross and Buehl, in press). I have no doubt missed a dozen or so, not to mention the dozen or so more that will surely appear between my completion of this piece and your reading of it.

²As a curious candidate for the Annals of Lumping and Splitting, it is worth noting that in Gross’s 1996 entry for the Encyclopedia of Rhetoric and Composition, Prelli and Bazerman are lumped together, split away from Gross; they are conservative, he radical, about epistemological issues. In Starring the Text and Communicating Science, all three, including Gross₁, are lumped for their strong epistemological concerns, with the split now at Gross₂ as the conservative.
I will directly address only Gross and Harmon’s groundbreaking *Science from Sight to Insight* (2014), both for its considerable scholarly merit and for the diagnostic value it offers on the career trajectory of Alan G. Gross.

Recall that when *The Rhetoric of Science* appeared many of us complained that, as exhilarating as it could be, its critical approach was highly scattershot—some Davidson here, a little Barthes there, some folkloric morphology for this analysis, a helping of sociology for that one, a side order of Geertz with your Turner. It’s not that any of us felt the rhetorical tradition was hermetically sealed off from other disciplines; quite the opposite. No field has been more catholic than rhetoric, and rhetoricians of science have been notably interdisciplinary. Prelli (1989) prominently adapts Merton, Myers (1990) significantly deploys Woolgar and Latour, Bazerman (1988) blends Vygotsky and Fleck; and everyone annexes Kuhn’s pre-rhetorical insights, often with gestures to kindred suavely inflected science scholars such as Polanyi, Hanson, and Feyerabend. Rhetoric of science, indeed, was born when rhetoricians noticed that philosophers, sociologists, and historians of science were talking, in their various dialects, about symbolic inducement. It is, like most subfields of rhetoric, inherently hybridized.

But where Prelli, Myers, Bazerman, and others, built integrated hermeneutic frameworks angled from a rhetorical perspective, Gross skipped from outside theorist to outside theorist in *The Rhetoric of Science* with repeated rhetorical invocations but little attempt at overall coherence. Habermas gave him the ideal-speech-community frame for peer review, and then was gone; Propp showed up to provide a reading of the narrative structure of Watson’s *Double Helix*, and then was gone; Turner loaned his social-drama frame for priority disputes, and then was gone; there was no serious attention to cognate concerns or terminologies among these approaches, and minimal effort to accommodate them to the rhetorical tradition. In retrospect, it is easy enough to see this patchiness— despite the accompanying aggressive rhetoric-without-remainder talk—as a symptom of Gross’s discomfort with rhetoric as an architectonic art. Indeed, Gross was frank about his disciplinary insecurities at the time, saying the rhetorical tradition

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3Gross (1991a, 35) uses the disciplinary openness of the earliest rhetoricians of science to defend his own approach against the accusations that it was a poorly integrated pastiche of exogenous sources. But the accusations did not concern the use of exogenous sources, just the poverty of the integration.
was full of second-rate minds and calling his neo-Aristotelian framework in the book “pretty thin gruel” (Gross, 1991a, 35). This characterization—“thin”—was soon echoed by Gaonkar, and in the limiting case, Gaonkar is certainly right. The rhetoric in The Rhetoric of Science is thin. This does not mean, however, despite what both Gross and Gaonkar believe, that the rhetoric in the rhetoric of science is thin. As a subfield, it is equally as thick as philosophy, sociology, or history of science (all disciplines which have been known to borrow widely—from each other, from linguistics, from psychology, from computer science, even from rhetoric). One need only look at the work of its finest practitioners—Fahnestock, Ceccarelli, Condit—to see how critically thick rhetoric of science can be. We don’t all measure up to the standards they set, but not every philosopher of science is Nancy Cartwright or Peter Galison either, nor is every sociologist of science Harry Collins or Michael Mulkay, or every historian of science Martin Rudwick or Steven Shapin; yet those subfields are getting along fine.

Rhetoric remains thin in Gross’s work, but not as gruel-thin as in The Rhetoric of Science—trowelled-sparsely-over Searle on one page, Quine on another. Starring the Text lost some of the vigor of its earlier incarnations, but it gained corresponding rigor. Gross’s work with Harmon is better consolidated yet. The rhetoric in his books and articles now is thread-thin, almost imperceptible in the fabric of his work, but present warp and weft. He has a much more cogent science-studies project now, informed throughout by a rhetorical sensibility familiar from the Burkean mantra, “something of the rhetorical motive comes to lurk in every ‘meaning,’ however purely ‘scientific’ its pretensions. Wherever there is persuasion, there is rhetoric. And wherever there is ‘meaning,’ there is ‘persuasion’” (Gross, 1969 [1950], 172). But Gross elides that middle step. Maybe he even forgets it. The word rhetoric is increasingly rare and perfunctory in his recent work, and the machinery of the tradition (with the exception of metaphor and a few other tropes) is absent. The word persuade, however, can be found in key locations, and the word argument (in a distinctly New Rhetoric cast) is ubiquitous. Listen to Gross and Harmon on the goal of scientific communication, for instance—“the end point is always persuasive argument”—and recall that their motivation is to explicate the routes scientists and their genres take to reach that goal (Gross and Harmon, 2014, 14).

Gross and Harmon’s Sight to Insight has a tightly charted framework for that explication, illustrated efficiently as a kind of reception process model:
Readers of scientific tables and visuals perform the following tasks: by means of Gestalt patterning they perceive structures and their components; by means of regimes of scanning and matching, they identify the components of these structures; by means of semiotics, they interpret them; finally, by argumentative and narrative means, they integrate these meaningful structures and components into semiotic wholes (Gross and Harmon 2014, 12).

Most cognitivists would be skeptical about the implied sequentiality here; one ‘reader’ might well move in something like a step-wise way through these stages while another might come with basically pre-formed semiotic wholes she maps against the visual, perhaps as a function of indwelling (Polanyi, 1958). A fuller picture of assessing and understanding visuals would see interpretation from the outset, continuously recalibrating as the visual is ‘read.’ Indeed, interpret is a much better verb for the overall activity of ascertaining a visual than read. It would see scanning and matching as ongoing and revisionary, with various Gestalt dispositions at play throughout and semiotic impressions as emerging piecemeal out of a cyclic, contingent, hermeneutic encounter.

What is important about Gross and Harmon’s “synoptic midlevel theory,” though, is not the cognitive realism of its process realization, but the capacity it has for “exegetical enlightenment,” which is greater than any other approach to scientific visuals I know (Gross and Harmon, 2014, 10). Each ‘stage’ of their model is crucial to the exegetical encounter. The Gestalt propensities for construing lines of association and dissociation are indispensible for understanding abstract visuals and likely for the fundamentals of realist visuals as well. Scanning and matching optical activity is a material fact that any theory of visuals needs to accommodate. Pierce’s indexical-iconic-symbolic categories neatly parcel out the necessary semiotic landscape. Scientific visuals serve as arguments—or, rather, as encapsulated sub-routines within larger arguments—that build or reinforce (or corrode) causal stories.

Again, however, Gross and Harmon don’t just inventory these components as areas of analysis, or, as the earlier Gross might have, adopt a different approach for each component. They enmesh these components in a coherent matrix of theory, keyed particularly to a dual-coding framework in which visual meaning is not derivative of verbal meaning (or vice versa), which provides a specific mapping of, in Gross and Harmon’s Heideggerian terms, scientific en-framing. They put this model to very good work (taxonomically,
historically, analytically), and while they neither use the r-word very much or very nobly--they like the phrase “hollow rhetoric” so much that they recycle it on pages 15, 162--nor provide any obviously rhetorical readings, they spade up very fertile ground for such readings. The considerable exegetical enlightenment they afford is rhetorically ripe. When Gross and Harmon say, for instance, adopting Lipton 2004’s terminology, that “loveliness trump[s] likeliness” (Gross and Harmon, 2014, 133), they are making a deeply traditional rhetorical observation, namely, that aesthetic style is more persuasive than ‘reasonableness’ when there is a conflict.

I have a story to tell about Gross’s antipathy to rhetoric (see Harris, 2009, 372). In 2004, my *Rhetoric and Incommensurability* was in press (Harris, 2005). It is a volume of which I remain shamelessly pleased because of the extraordinarily strong articles I was lucky enough to attract from the reigning heavyweights in rhetoric of science—Bazerman, Campbell, Ceccarelli, Fahnestock, Lessl, Miller, Prelli, Simons, and Gross. While it was in press, Gross published his “Why Hermagoras Still Matters.” The article appeared in *Rhetoric Review*. Written for an audience of rhetoricians, it featured one of the progenitors of the rhetorical tradition and focused on a foundational framework of the field that remains highly relevant. It is *about rhetoric*. Gross’s argument is not just about why Hermagoras matters, but about (1) why rhetoric matters, (2) why it matters in the analysis of science, and (3) why it should therefore should take its place in science studies alongside history, philosophy, and sociology of science. These are also the precise objectives of my book. There’s more: The fulcrum of Gross’s argument is that incommensurability is a testing ground for the position of rhetoric in science studies. It is *about incommensurability*. In short, Gross’s article—to be as redundant as redundant can be—is *about rhetoric and incommensurability*. Let’s recall name of my book again: *Rhetoric and Incommensurability*. Here’s where it gets troubling: one would search in vain in Gross’s article for any mention of *Rhetoric and Incommensurability*.4 I know. I did.

4Most egregiously, Prelli’s chapter, which offers an elaborate case for the relevance of stasis theory to scientific incommensurability, is not mentioned (though his 1989 book gets a wave). Nor do Fahnestock and Secor get the courtesy of an acknowledgement for their 1988 “Stases in Scientific and Literary Argument.”
Now, Alan Gross is by no means allergic to self-promotion. Yet he could not bring himself to mention a volume including his work—work, in fact, which put him in the rather heroic role of rejecting the view shared by almost everyone else between those covers. Alan and I exchanged some brief unsatisfying notes about the omission, but a few years later, when he finally did bring himself to mention the book (albeit in a paralipsis), his reasons for that omission became inescapably clear. Like the tasteless jokes of ill-mannered and daffy relatives, some of the things other rhetoricians of science say in public embarrass him. He dismisses the consensus the book expresses over incommensurability—iterated with considerable evidence, sophistication, and force throughout, by the field’s major figures—as “a view so extreme it can safely be ignored” (Gross, 2006, 181). In short, a group of scholars who virtually invented rhetoric of science are, for Gross, a radical fringe; this, we note, from the one-time bad boy of Rhetoric Unbound, the self-styled champion of “Rhetoric of Science without Constraints” (Gross, 1991c; see McGuire and Melia, 1989, 1991).

But that was Gross1, the Radical Rhetorician. If Gross2 is the Reluctant Rhetorician, perhaps we now have a Gross3, the Null Rhetorician. I once defined rhetoric of science narrowly as the study of science by scholars “who pledge … allegiance to rhetoric” (Harris, 1997, xvii). By that measure, Gross has left the fold. There is evidence of residual allegiance, but there is no pledge. Quite the opposite. Maybe the pledge was ‘mere’ rhetoric from the start.

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5Maybe what he says embarrasses us as well. I certainly wouldn’t include myself in that us. I am proud to engage in a scholarly enterprise that includes such a smart, principled, challenging, instructive, erudite, kind, and cantankerous practitioner as Alan G. Gross. But the ARST oral history project expurgates his interview—

http://www.youtube.com/watch?v=KXCZiYVroLc, linked in this issue as "Alan Gross in His Own Words: An Interview in the Association of Rhetoric of Science and Technology Oral History Project." In the original, available at http://jas.umn.edu/2013/09/01/gross/, Gross makes some contentious remarks about scholars central to the rhetoric of science and to the identity of ARST (Gross [with Beard] 2013, 12:30-13:00).

6Aside from the pervasive interest he shows in persuasion, if one reads his and Harmon’s introduction for point of view, one can detect an identification, albeit loosely, with rhetoricians. “[W]e have concluded that our object of study has been seriously distorted by a bias we have shared with our colleagues in philosophy, sociology, and history,” they say, “a bias in favour of the verbal” (Gross and Harmon, 2014, 18). The “we” certainly includes Gross and Harmon, but it is a collective “we.” Who else does it enfold? Their articulation of the “State of the Field” evokes Aristotle, Cicero, Perelman and Burke before surveying Bazerman (1988),
But the last thing rhetoricians should take from the erasure of the rhetorical lexicon in Gross’s work is a reason to put him aside. Virtually everything Gross has written (excepting perhaps pre-1990 work like Gross and Stacy, 1984) belongs on the shelves of rhetoricians, and this latest book may be the most important of the oeuvre. Gross is openly dismissive of ‘visual rhetoric’ (Gross [with Beard], 2013, 13:40-13:50), again displaying either remarkable negligence of, or remarkable discourtesy toward, his colleagues’ work,7 and in his visual work with Harmon, they prefer a foundational dependence on that famous traditional repository of visual analysis, philosophy, than on the available frameworks in rhetoric, because “classical works in rhetorical criticism paid little heed to the visual element” and “neither Chaim Perelman nor Kenneth Burke ... addressed this issue” (Gross and Harmon, 2014, 6-7). But again, make no mistake, he and Harmon go a very long way toward enriching and anchoring a potent visual rhetoric of science.

Nearly twenty years ago, [Gross commented on the intellectual balance-of-trade gap affecting rhetoricians in science studies: "While they readily cite other disciplines, other disciplines rarely cite them." (Gross, 1996b, 627) (Note the antimetabole-antithesis merger here, epitomizing the logic of negated reciprocity). If it does improve, as all of us practicing rhetoric of science believe it should, the new balance will owe a great deal to the tireless, wide-ranging, scrupulous efforts of Alan G. Gross, *la rhétorique de la science.* Presque.] But, we must now add, he is not especially proud of that association, and has abandoned those efforts. Meanwhile, we have

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Ceccarelli (2001), Fahnestock (1999), Myers (1990), Moss (1993), Pera (1994), and Scott (1996). Gross, Harmon, and Reidy (2002) are also included. (Mostly, these scholars and their works are brought in to cite their inattention to visuals, and establish a scholarly mandate, though sociologists, philosophers and historians have been largely inattentive to visuals as well.) It is instructive, that is, to see the company Gross and Harmon put themselves in; our peeps.

7Just within rhetoric of science, for instance, see Fahnestock’s important work on visual figures (1999, 65-67, 82, 98-102, 108-112, 137, 144-147, 174-177; 2003), and such work as Gibbons (2007), Jack (2009), and Walsh (2010). Indeed, see Gross himself, in a slightly better mood, staking a claim for the importance of rhetoric for a full-blooded analysis of visuals (2009b, 150, 156n4), and staking it in *Rhetoric Society Quarterly*, which seems to suggest a willing investment in the visual-rhetoric enterprise. (He does take on the hobby horse of “traditional rhetorical theory,” which commits the 4th C BCE sin of not forecasting the suasive dimensions of copper engraving, phototypesetting, vector graphics, and the like; see also Gross and Harmon, 2014, 6-7.)
such exemplary works as Condit (1999), Fahnestock (1999), and Harris (2005) helping to reduce that disciplinary trade deficit, each with growing exogenous citations; and we can look forward to such impressive recent work as Wynn (2012), Walsh (2013), and Cecarelli (2013) to continue reducing the deficit.

**Reference List**


------ “Preserving the Figure: Consistency in the Presentation of Scientific Arguments.” *Written Communication* 21 (2004): 6-31.


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