



Critical Response / The Value of Nonscience

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Critical Response

I

The Value of Nonscience

Christopher Newfield

There is much to like about John Guillory's essay, "The Sokal Affair and the History of Criticism" (*Critical Inquiry* 28 [Winter 2002]: 470–508). He offers a helpful account of some aspects of science studies. He is unusually candid about the humanities' second-class status in the university, where its intellectual effects attract too little attention. He asks us to be at least as busy generating and explaining our own knowledge as we are criticizing other people's. And he calls for the further development of an "interpretive human science" that isn't limited to one side of the traditional split between "naturalistic and interpretive methodologies" (p. 507).

The question of the relationship between C. P. Snow's two cultures is a venerable one. Guillory traces it back as far as the cultural criticism of the nineteenth century, and others find its modern form a century before that.¹ Almost everyone calls for a better relationship, but there is always the thorny issue of what *better* means. In my view, *better* would include relative equality based on mutual respect for the genuine differences between scientific and cultural orders of knowledge. I was therefore disappointed with Guillory's analysis, for I think it obscures the uniqueness and quality of humanistic knowledge in favor of the stereotype of a faulty, politicized pseudo-realism that stands in need of deep correction. In making his argument, Guillory exaggerates the antagonism that literary and cultural studies (LCS) feels for science and exaggerates LCS's philosophical incompetence about its forms of knowledge. He leads us towards a false choice in which LCS must either "stand in opposition to science" or "recognize

1. See, for example, Raymond Williams, *Culture and Society, 1780–1950* (New York, 1958), chaps. 1 and 2.

literary and cultural studies as sciences too” (pp. 507–8). I’d say neither, thank you, and don’t understand why we have to “develop a knowledge of culture” in these terms (p. 501).

We all have reductionist capabilities that can yield powerful though usually partial insights. Mine incline me to treat Guillory’s giant dissing of the field for its allegedly pandemic “spontaneous philosophy”—its skepticism—as an attempt to revive not realist theory per se but the theory-*function*, which supposedly incarnates methodological rigor as a base for disciplinary unity. The piece is awfully intent on a public chastising of “cultural criticism” on the grounds of its undisciplined, “enthusiast” (p. 503) eagerness to take the whole world as its subject; the piece seems biased against Left versions of political criticism, including the identity politics that have expanded LCS while necessarily increasing its complexity. English departments have for decades been multidivisional organizations, a fact much lamented by many of their members, and a restored methodology may seem an apparently neutral unifier, a manager of diversity.²

Yet Guillory’s explicit argument is intellectual, not institutional and political, and I think it’s important to take it on its own terms *and* to affirm a different picture of LCS. I’ll suggest that what he laments as a spontaneous philosophy of skepticism or antirealism actually expresses distinctive features of valid cultural knowledge. I’ll object to his polarization of realism and antirealism, his reduction of nonrealist epistemological claims to “politics,” and his indifference to the real stakes of postmodernism—the protection of cultural knowledge from market optimization. I’ll suggest that

2. Guillory’s essay made me feel more than ever a part of the posttheory generation; see Jeffrey Williams, “The Posttheory Generation,” in *Day Late, Dollar Short: The Next Generation and the New Academy*, ed. Peter C. Herman (Albany, N.Y., 2000), pp. 25–44. Williams describes “big theory” as the dream that theory could “form a consistent system through which to describe the world.” “Posttheory,” he writes, “takes a more adaptive and less contestatory tenor, borrowing from various theoretical camps in a way that previously would have been inconceivable.” Williams associates this pluralism with “identity studies” and notes that posttheory is “conceptually less dramatic, but on the other hand, more amorphous than big theory” (*ibid.*, pp. 33–34). In my experience, LCS scholars show a high variability in their tolerance for this amorphousness, Guillory perhaps having less, Williams (and I) perhaps having more. I don’t know whether or not this is truly generational because the posttheory generation (obtaining their doctorates and first professional jobs in the late 1980s and after) houses plenty of methodologists and unifiers, but the contrast between Guillory’s perspective and those in the Herman collection inspires speculation.

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improved contact between the humanities and the various sciences, which Guillory rightly seeks, should proceed from heightened rather than reduced differences between them. LCS grasps many features of the human world that science, for all its strengths, cannot, and improving this work will require independence *and* confidence in our ways of knowing the world, ways that are interpretive, narratological, identity-based, antireductionist, holistic, relational, political—in short, nonscientific and yet accurate, powerful seeings of the otherwise unseen.

Three Problems

Guillory claims that the Sokal affair brought to light several widespread and typical problems with LCS. The first problem is the prevalence of “antirealist” epistemology and the second is its “necessary” link to progressive politics. “The [Sokal] hoax,” Guillory writes, “had the salutary effect of making the ‘spontaneous’ entailments of this axiom very clear, namely, that an antirealist epistemology (alternatively expressed as anti-foundationalism or relativism) is a requisite for any progressive politics and, conversely, that realism, foundationalism, or universalism underlie . . . all that is regressive in our society” (p. 476; see p. 474). These critics, he claims, generally rejected realism, which in science debates has often referred to the idea that valid knowledge accurately represents a reality that is independent of both the language of representation and its social context. Guillory borrows a term from Louis Althusser to describe this situation. “The spontaneous philosophy of the critics,” he writes, “consisted not simply in antirealism per se but just as much in the assumption that epistemological positions have a *necessary* relation to political positions” (p. 475). LCS epistemology is antirealist *and* it thinks that antirealism is politically progressive.

Guillory associates LCS antirealism with postmodernism *and* cultural studies. The former was Sokal’s whipping boy and has borne the burden of standing for nearly any kind of doubt about truth, reference, consciousness, or stable identity that an attacker might dislike. The latter has acquired something of a leadership role in *interdisciplinary* LCS work, that which seeks to comment on “the human world”; it has borne the burden of standing for any cultural commentary with social implications. The one thing that has seemed clear about postmodernism is that cultural studies tried to supersede its epistemological wrangling about stable meanings and the like with empirical research. But, for Guillory, cultural studies can be reduced to textualist skepticism: “Cultural studies raised the stakes of epistemic conflict in the disciplines by extending the interpretive techniques of literary criticism to the social world” (p. 482; see p. 485). Cultural studies does this in part because it is the “reincarnation” of nineteenth-century “cultural

criticism" (pp. 481–82) and thus reincarnates a "recurrent antagonism to science" (p. 483) while having "adopted an implicitly adversarial relation to social science" (p. 482). This situation has led cultural studies to a third, interrelated mistake: it uses literary textualism as a "holistic conception of interpretation" in which all things—Kant, Shakespeare, welfare policy, and quarks—can be given the same "postmodern" treatment (pp. 498–99). As far as I can tell, Guillory thinks postmodernism and cultural studies have almost completely isolated LCS from an epistemological mainstream comprised of the sanctioned and influential academic methods of the natural and social sciences. If we can suppress our politicized epistemology, maybe we can reenter the kingdom of valid knowledge.

Guillory makes his case less convincing by working with stereotyping terminology. He defines the key term of *postmodernism* through Sokal's politically motivated and decontextualized pastiche of it (see pp. 472, 493–94, 499). This is not such a good procedure—it's a lot like letting Lynn Cheney's attacks on multiculturalism stand for a history of ethnic studies. His description of antirealism is similarly imprecise. Guillory may not actually believe that LCS scholars uphold the naive antirealism that the media came to associate with LCS, that is, "a lunatic disbelief in the physical world" (p. 474). But throughout his essay he allows this nonexistent position to echo through his uses of the concept of antirealism that he names as the starting point for LCS's bad epistemology. Instead of building a definition through the established practice of citing repeated appearances of postmodernism or antirealism in important work by influential critics, Guillory alludes to a general tone not attributable to any particular writer. At other points, he simply retreats. "Let us stipulate," Guillory writes late in the essay, "that postmodern *thought* probably cannot be defined adequately as interpretive holism; my concern is rather with postmodernism, as it circulates in the American academy" (p. 499). It is not too hard for Guillory to show the shallowness of an unattributed view he has already isolated from its "thought," but this doesn't tell us much about intellectual history. He takes a further step back in the footnote attached to this sentence: "The name *postmodernism* is crucial to my argument only in the sense of being the latest in a series of names—theory, poststructuralism, New Historicism, deconstruction, cultural studies—behind which one can discern spontaneous philosophy" (p. 499 n. 67).³ Guillory's postmodernism turns out to be the headwater of virtually every branch of LCS, including longstanding antagonists. Similarly, in the passage I cited above, Guillory's implausible amalgamation of antirealist epistemology with the actually distinct traditions of

3. See the similar assimilation on p. 506.

antifoundationalism and relativism does not explain some crucial aspects of their history, such as Levi-Strauss's and Thomas Kuhn's use of relativism as a comprehensive brand of realism.⁴ There is, in short, nothing particularly realist about Guillory's definition of *antirealism* or of its supposed cognate *postmodernism*.

The Failure of Classical Realism

Guillory's essay trades on the possibility that postmodernism has betrayed a realism associated with rigor and professionalism, but what would this realism be? Should LCS be more positivistic, or more quantitative, or more uncritical of the referential capacities of literary language, or simply more respectful of science? If we look beyond Guillory's stereotypes, we can see that LCS has been working within the familiar epistemological parameters of the human sciences.

The concept of realism displays a great complexity in every field. Realism's nineteenth-century promise was that it might offer accounts of an ultimate reality whose objectivity is unaffected by its human contexts. The promise was incarnated in early positivism, but by the turn of the twentieth century this promise had already faded.⁵ In the Planck/Mach debates of the early century, realism came to represent less an accepted philosophical foundation than the pursuit of knowledge unfettered by social needs.⁶ Not much later, Rudolf Carnap and other Vienna Circle positivists granted increasingly important roles to the sign systems in which reality was described. "Observation languages," for example, seem to describe a fixed, empirical reality only because they are, in Carnap's phrase, "used by a certain language community as a means of communication."⁷ In 1950, the logician Willard Van Orman Quine, hardly a Left critic of science, dealt the culminating blow to empiricist claims that signs correspond to sense-data

4. See Steve Fuller, *Thomas Kuhn: A Philosophical History for Our Times* (Chicago, 2000), especially chap. 3. I will say more about comprehensive realism below.

5. For example, Ernest Mach's theory of elements was unable to avoid giving a substantial role to consciousness in the construction of reality. As Jürgen Habermas tells it, granting any role to sensation meant that "the basis of the immediately given as the authentic reality sought by positivism would slip away. The elements of reality would be not sensations but the consciousness in which they are connected. The facts would once again have to be grounded in a construction *behind* the facts; in other words, they would have to be interpreted metaphysically" (Jürgen Habermas, *Knowledge and Human Interests*, trans. Jeremy J. Shapiro [1968; Boston, 1971], p. 83).

6. See Fuller, *Thomas Kuhn*, pp. 103–39.

7. Rudolf Carnap, "The Methodological Character of Theoretical Concepts," *Minnesota Studies in the Philosophy of Science* 1 (1956): 40; quoted in Paul Feyerabend, "Consolations for the Specialist," in *Criticism and the Growth of Knowledge*, ed. Imre Lakatos and Alan Musgrave (Cambridge, 1970), p. 225. Feyerabend adds his own layer when he says that "the choice of an observation language or of an older theory as a basis for interpretation is due to the fact that they are 'antecedently understood,' it is due to their *popularity*" (*ibid.*, p. 225).

“term-by-term.” Rejecting the “dogma” of “radical reductionism,” he argued that single terms and statements cannot be verified, for verification can occur only in the context of “the totality of our so-called knowledge or beliefs.” We cannot draw a clear line between language and experience in a given instance; validity, in short, is always “underdetermined” by the data.⁸

When Thomas Kuhn came along with his famous notion of the dependence of validity on an experiment’s theoretical paradigm, he was codifying skeptical ideas that had been in circulation for decades. This made him a kind of antirealist, but one who remained concerned with successful representations of reality. At one point, identifying an epistemological common ground, Kuhn wrote,

Sir Karl [Popper] and I are united in opposition to a number of classical positivism’s most characteristic theses. We both emphasize, for example, the intimate and inevitable entanglement of scientific observation with scientific theory; we are correspondingly sceptical of efforts to produce any neutral observation language; and we both insist that scientists may properly aim to invent theories that *explain* observed phenomena and that do so in terms of *real* objects, whatever the latter phrase may mean.⁹

8. Willard Van Orman Quine, “Two Dogmas of Empiricism,” *From a Logical Point of View: Nine Logico-Philosophical Essays* (Cambridge, Mass., 1953), pp. 42, 38. It might be worth reminding ourselves in LCS that it was not Derrida or Lyotard but Quine who wrote the following:

The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric which impinges on experience only along the edges. Or, to change the figure, total science is like a field of force whose boundary conditions are experience. A conflict with experience at the periphery occasions readjustments in the interior of the field. Truth values have to be redistributed over some of our statements. Reevaluation of some statements entails reevaluation of others, because of their logical interconnections—the logical laws being in turn simply certain further statements of the system, certain further elements of the field. Having reevaluated one statement we must reevaluate some others, which may be statements logically connected with the first or may be the statements of logical connections themselves. But the total field is so underdetermined by its boundary conditions, experience, that there is much latitude of choice as to what statements to reevaluate in the light of any single contrary experience. No particular experiences are linked with any particular statements in the interior of the field, except indirectly through considerations of equilibrium affecting the field as a whole. [*Ibid.*, pp. 42–43]

For a later post-classical realism that emerged in relation to Quine’s tradition, see Hilary Putnam, *Realism and Reason* (Cambridge, 1983), for example, “Why There Isn’t a Ready-Made World,” pp. 205–28.

9. Thomas S. Kuhn, “Logic of Discovery or Psychology of Research?” in *Criticism and the Growth of Knowledge*, p. 2. For other examples of a moderate position, see Margaret Masterman’s linking of “Kuhn’s sociological notion of a paradigm” to cognitive psychology (Margaret Masterman, “The Nature of a Paradigm,” in *Criticism and the Growth of Knowledge*, p. 59) and Lakatos’s attempt to defend science against Kuhn’s possible “irrationalism” with “sophisticated falsificationism” (Lakatos, “Falsification and the Methodology of Scientific Research Programmes,” in *Criticism and the Growth of Knowledge*, p. 116). For a recent description of Kuhn

In the Kuhnian compromise, one sought real objects without making strong claims about their independent reality and without forgetting the enormous difficulties posed by the presence of language and consciousness. In other words, if *realism* refers to classical realism, Kuhn was an antirealist. But he did not so much oppose realism as expand it to reflect the reality of the mediations of language, institutions, and the mind itself.¹⁰

By midcentury, in short, *classical* realism had regressed to a kind of “spontaneous philosophy of the scientists”;—it underwrote everyday practice but lacked philosophical justification.¹¹ Antirealism in the human sciences emerged from the same broad philosophical traditions that gave realism such a haircut in the philosophy of science: Ernst Mach and Jacques Derrida were both readers of Husserl, Popper read Heidegger and Planck, Kuhn owed the concept of scientific revolution in part to the philosopher of science Alexandre Koyré, who was initially Alexandre Kojève’s colleague in the French rereading of Hegel.¹² The antirealisms of the human sciences are not inherently different or more extreme than those of the philosophy of science. Given even this simplified philosophical history, what kind of realism is Guillory really calling for? And how could this realism *not* be mingled with antirealism or skepticism?

If we set aside *classical* realism, we can see that LCS and cultural studies already rest on what we might crudely call antirealist realism, or post-realism, a late twentieth-century mixture of objects and representations and negotiations about the precise meaning of the natural and the cultural worlds.¹³ Cultural studies in particular is a constructivist practice, and as such it is as realist as it is antirealist.¹⁴ If forced to work on Guillory’s level

as a cold war establishment figure, see Fuller, *Thomas Kuhn*, esp. chap. 5, “How Kuhn Unwittingly Saved Social Science from a Radical Future.”

10. This is how I’d describe the general outcome of an important antirealist account of knowledge that was read across the U.S. human sciences; Richard Rorty’s *Philosophy and the Mirror of Nature* (Princeton, N.J., 1979).

11. Althusser, the source of this phrase, actually preferred the “materialist and objectivist” beliefs of working scientists (the “internal” or “intra-scientific” spontaneous philosophy of the scientists) to the critiques of objectivism mounted by “idealist-critical ‘philosophies of science’” (Louis Althusser, “Philosophy and the Spontaneous Philosophy of the Scientists,” trans. Warren Montag, *Philosophy and the Spontaneous Philosophy of the Scientists and Other Essays*, trans. Ben Brewster et al., ed. Gregory Elliott [London, 1990], pp. 132–33). Althusser is in this essay a classical realist, a view that coexists with his more influential state- and ideology-based constructivist analyses of various social realities.

12. On this last pairing, see Fuller, *Thomas Kuhn*, p. 62.

13. For another interesting candidate, postpositivist realism, see *Reclaiming Identity: Realist Theory and the Predicament of Postmodernism*, ed. Paula M. L. Moya and Michael R. Hames-García (Berkeley, 2000).

14. One of Guillory’s science studies scholars, Randall Collins, says as much: “Social constructivism is sociological realism; and sociological realism carries with it a wide range of realist consequences” (p. 490 n. 43).

of generality, I would also call it historicist and contextualist. Its major developments have rested on constructivisms that draw on the nonreferential language philosophy of Ludwig Wittgenstein and Richard Rorty, or the contingency theory of Barbara Herrnstein Smith, or the standpoint theory of Sandra Harding, or the social identity matrices of ethnic studies, among others. Such work has supported a kind of contextualist empiricism in which differences between, say, literary texts and quantum mechanics can be granted without rendering context irrelevant for either. Rather than categorically opposing the social sciences, British cultural studies emerged from them in a series of attempts to find multidimensional representations of complicated sociocultural forces.¹⁵ In the U.S., cultural studies was preceded by ethnic studies, women's studies, and American studies, all of which have always combined humanistic and social science methods from institutional bases on both sides.¹⁶ Rather than generalized close reading, cultural studies has supported a wider range of techniques than is sanctioned in literary studies proper. One obvious example is ethnography, on display in work like Andrew Ross's *The Celebration Chronicles*. Cultural studies' cousin, American studies, has always linked the study of literature, thought, history, and society and has had to use a range of methods to do it.¹⁷ We

15. For good brief overviews of the British tradition, see Lawrence Grossberg, "Formations of Cultural Studies: An American in Birmingham," *Strategies* 2 (Fall 1989): 114–49, and Stuart Hall, "Cultural Studies and the Centre: Some Problematics and Problems," in *Culture, Media, Language: Working Papers in Cultural Studies, 1972–1979*, ed. Hall et al. (London, 1980), pp. 15–47. For another non-U.S. tradition, see John Frow and Meaghan Morris, introduction to *Australian Cultural Studies: A Reader*, ed. Frow and Morris (Urbana, Ill., 1993), pp. vii–xxxii. Hall offers one good example of the tangled disciplinary webs of what Avery Gordon calls *social studies*. Hall has linked political science, race theory, communications, and organizational sociology and has coedited books with management theorist Paul du Gay. See Paul du Gay et al., *Doing Cultural Studies: The Story of the Sony Walkman* (Thousand Oaks, Calif., 1997), and *Questions of Cultural Identity*, ed. du Gay and Hall (Thousand Oaks, Calif., 1996).

16. The *Science Wars* issue of *Social Text* was a case in point. It published three anthropologists (Sarah Franklin, Emily Martin, Sharon Traweck), three sociologists (Stanley Aronowitz, Steve Fuller, Dorothy Nelkin), three quite different scientists (Ruth Hubbard, Richard Levins, Alan Sokal), three social studies writers (Les Levidow, Joel Kovel, Hilary Rose), one political scientist (Langdon Winner), one philosopher (Sandra Harding), one American studies scholar (Andrew Ross), and one literary critic (George Levine). Most of these thinkers have crossed so many disciplinary boundaries that these labels do little justice to their work.

17. These conjunctions were already well developed in the work of Vernon Parrington and Charles and Mary Beard in the 1920s. They persisted through decades in which the ratios of literature to society varied from relatively more literary (F. O. Matthiessen, *American Renaissance: Art and Expression in the Age of Emerson and Whitman* [New York, 1941]; Ann Douglas, *The Feminization of American Culture* [New York, 1977]; or Michael J. Colacurcio, *The Province of Piety: Moral History in Hawthorne's Early Tales* [Cambridge, Mass., 1984]), to relatively more social (Edmund Wilson, *To the Finland Station: A Study in the Writing and Acting of History* [New York, 1940]; Henry Nash Smith, *Virgin Land: The American West as Symbol and Myth* [Cambridge, Mass., 1950]; or Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* [New York, 1964]). Most recent work in American studies assumes a continuous interaction

could call LCS postrealist if that helps capture the field's general sense that effects and consequences are real without having causes and origins outside of time or history.¹⁸

None of this is meant to praise postrealism or bury skepticism, which has been indispensable in improving epistemology. But it might help us avoid a false opposition between realism and antirealism that has more institutional than intellectual use. If we do this, it becomes easier to see that LCS has long been producing nonscientific and yet realist knowledge, knowledge that should be neither severed from nor reduced to politics.

The Meaning of Political Criticism

Guillory's criticism of "spontaneous philosophy" affirms exactly this kind of reduction. This philosophy, he says, not only advocates antirealist epistemology but sees a "*necessary relation*" between epistemology and politics. Guillory makes this fusion central to the modern history of LCS: the humanities was overrun by the Left in the 1960s (p. 503), paving the way for what he calls "politically motivated cultural studies" (p. 485), a field in which analysis and political motives are apparently inseparable.

Guillory uses the term *politics* as a commonsense word, but its meaning is ambiguous. When applied to academic knowledge, *politics* most often refers to the personal opinions and social agendas that cloud objectivity and compromise research. But *politics* also refers to the social, historical, and psychological contexts in which knowledge is generated and is then little more than an alarmist synonym for *human context*. This does not mean that "everything is political"; it means that human knowledge must be interpreted in a situational way that cannot be categorically shunned as anti-

among these elements and specifies their relations in particular places at particular times (George Lipsitz, *Dangerous Crossroads: Popular Music, Postmodernism, and the Poetics of Place* [New York, 1994]; Robin D. G. Kelley, *Race Rebels: Culture, Politics, and the Black Working Class* [New York, 1994]; Janice A. Radway, *A Feeling for Books: The Book-of-the-Month Club, Literary Taste, and Middle-Class Desire* [Chapel Hill, N.C., 1997]; Rachel C. Lee, *The Americas of Asian American Literature: Gendered Fictions of Nation and Transnation* [Princeton, N.J., 1999]; and Matt Garcia, *A World of Its Own* [Chapel Hill, N.C., 2001]).

18. This is a fairly common position in the humanities that has not always been controversial. See, for example, Henry Louis Gates, Jr.: "I want us to remark the treacherous non sequitur that moves us from 'socially constructed' to essentially unreal. We typically go from 'constructed' to 'unstable,' which is one non sequitur, or to 'changeable by will'" (Henry Louis Gates, Jr., "Critical Remarks," in *Anatomy of Racism*, ed. David Theo Goldberg [Minneapolis, 1990], p. 324). For a more precise definition of scientific realism and its antirealist critiques, see Fuller, *Thomas Kuhn*, esp. chap. 1 sect. 4, chap. 6 sect. 2, and chap. 7 sect. 3. Identifying several dimensions of antirealism, Fuller says he seeks "a contingent universalist stance, whereby I deny the independence of reality [of human perception and place] without denying its potential universality: in short, a *nonrelativist constructivism*" (p. 341 n. 47). Describing the relation between nonrelativist and relativist constructivism would require quite a bit of empirical research and would probably not undermine the concept of postclassical realism in the broader sense.

realist. *Politics* is a straightforward accusation only for the classical realist, the person who believes that objectivity is indeed attained by stripping the discovery process of its contexts. If one is not a classical realist, but the kind of mixture of realist and antirealist envisioned, as we have seen, by the main strains of twentieth-century epistemology, then seeing politics in Guillory's categorical way serves to stigmatize valid discussions of that knowledge's social environment. If Guillory had used a phrase like *socially oriented cultural studies* or *context-based cultural studies* instead of *politically motivated cultural studies*, it could have led to a careful, important discussion of the good and bad forms of contextual knowledge—and of normative goals—that have arisen in cultural studies while granting the centrality of context. Guillory, however, is not in the business of identifying good kinds of anti-realist or postrealist LCS.

At the same time, Guillory does not defend classical realism or demonstrate the fallacies of leftist political goals or demonstrate the fallacy of cultural studies' antirealist epistemology. In fact, he himself accepts a version of antirealism. "Let us acknowledge," Guillory writes, "if this is still a question for anyone, that science as a practice is never wholly autonomous, that it does not transcend political or social context. *But that was not the issue in the Sokal affair.* The issue was rather the necessary political implications of realist epistemology" (p. 475). The problem, for Guillory, is not antirealist epistemology as such, which here he indirectly endorses. The problem is the invocation of a *necessary* political implication of an epistemology. In the absence of major examples, it's hard to be sure how important this is supposed to be. Antirealist cultural analysts normally see contingency where realists see necessity. They would thus be inclined to agree with Guillory that a claim to a necessary link is generally mistaken. For consistency's sake, they would join Guillory in criticizing any postrealist who sees contingency as *necessarily* progressive. The postrealist perpetrator might also abandon such a straightforward contradiction were Guillory to point it out. But the cure for this disease is not more realism. The cure is more *antirealism*, a better postrealist avoidance of necessitarian claims. This avoidance already lies at the heart of most existing cultural criticism.

Since the antirealist's epistemology is not really wrong, and since the nonnecessitarian presence of politics is okay, there's no reason to share Guillory's sense of the pervasive philosophical failure of LCS. We need neither evaluate the quality of particular research through an untenable contrast between realist and antirealist epistemology, nor reject it because of the presence of politics. The doors now open to the world can stay open. We can restate *interpretive holism* as the interpretative dimension of knowledge about the world outside the text. Investigators can proceed to define the

object rigorously, follow careful procedures, distinguish good from bad criticism, separate strong from weak empirical claims, and, if it seems useful, combine LCS-style narrative knowledge with quantitative and other methods of the natural and social sciences. We can stop worrying about defending an unsustainable realism, stop worrying about the presence of the political critic and call him or her the worldly critic, the postclassical realist, the historicizer.¹⁹ We can see politics as in many cases a melodramatic epithet for the contextual knowledge that includes virtually all nonreductive knowledge of human affairs.

We can also focus more clearly on something equally important, and that is the agency of the critic. Cultural studies, ethnic studies, and queer studies, among other fields, have changed LCS not because of a monolithic skepticism but because of their methodological variety. Their methods are often eclectic in the sense of being synthesized and recombined according to the perceived demands of the research question. Under these conditions, the profession is modified by interaction with the world and cannot finally define itself through a technical mastery guaranteed by internal consistency. I have linked this view to contextualist epistemology, but there is a deeper sensibility at work. The cultural critic often wants to grant the partial autonomy of the object from the mode of study. There is something unknowable about the object, which means simply that the critic is asked to take it on its own terms. The correlative of the autonomy of the object is the autonomy of the investigator from established procedures, the autonomy of his or her judgment as he or she modifies procedure in the name of the object. The investigator speaks first for the object of study and not first for the profession. This raises

19. For example, in the *Science Wars* issue of *Social Text*, biologist Ruth Hubbard argued that the outcome of some biological research is conditioned by taking for granted a clear, hierarchical contrast between male and female. When biology assumes a naturalized sex hierarchy, it is more likely to produce “sex differences research that claims to ‘prove’ that there are clear-cut differences between women’s and men’s learning styles” (Ruth Hubbard, “Gender and Genitals: Constructs of Sex and Gender,” *Social Text*, nos. 46–47 [Spring–Summer 1996]: 164). Were biologists to challenge or drop this gender system, they would produce more accurate accounts of the biology of sex. If Guillory is not actually a classical realist, he wouldn’t claim that Hubbard’s views on the dearth of women in science discredit her critique of sex differences research; the latter can be evaluated on its own terms. He does claim, however, that arguments like Hubbard’s, at least in LCS, generally posit in their opponents a necessary link between realist epistemology (here, biologists who say their sex/gender beliefs do not affect their research about learning patterns) and politics (accepting gender differences as biologically based). Hubbard may or may not believe this personally—she may have experience that says philosophical conservatives are also social conservatives, but there are numerous exceptions to such patterns. In any case, this is not how she proceeds: she identifies faulty scientific results and follows them back to incorrect substantive assumptions—bad results to bad paradigms. The paradigms are not primarily epistemological, and Hubbard is responsible for providing evidence for the connection rather than gesturing towards a supposedly necessary and inherent one. Hubbard, like other critics of bias in academic knowledge, does reject the *naturalism* of her opponents, though she does not do it simply by linking realist epistemology and regressive politics.

all sorts of loyalty issues for the professionalist, who sees the profession being corrupted by what he or she may like to call politicization. The stakes here are very large, for they concern the ability of LCS to fathom the separate existence of the object, which is possible only if the critic is an agent him- or herself, experiencing his or her at least partial autonomy from the profession's methods, able to define what is and is not political, and able to say whether that's good or not. Unless it owns its critical agency along with politics, LCS will have trouble asserting its right to comment on the world in the company of economics and biology or welcoming its members who do anyway, or understanding the world in its complexity.

Optimization and Freedom

The agency of the critic was in fact a central issue of the postmodern thought that was so misunderstood by Sokal and his ilk. We find it at the heart of postmodern darkness itself, Jean-François Lyotard's *The Postmodern Condition* (1979; English trans. 1984), subtitled *A Report on Knowledge*. Lyotard was writing in the context of what Guillory correctly calls the "scientific monopoly on truth" (p. 479).²⁰ Contrary to popular opinion, Lyotard's postmodernism did not advocate antirealist skepticism in itself, but a non-scientific knowledge that could not be dismissed by classical realism.²¹

In this book, Lyotard was trying to restore science to its relations with the narrative of knowledge in general.²² Modern academic knowledge, Lyotard

20. Lyotard's objection to this was forceful but not especially radical; his fellow-travellers included his ostensibly antipostmodernist antagonist, Habermas, who also argued that science's preeminence wrongly undermines other kinds of knowledge. He claimed that the rich tradition of inquiry into the nature and conditions of knowledge was truncated by nineteenth-century positivism, which radically narrowed this inquiry to "methodological inquiry into the rules for the construction and corroboration of scientific theories" (Habermas, *Knowledge and Human Interests*, p. 67). The philosophy of science comes to monopolize epistemology just as science comes to monopolize knowledge. Habermas's book was the philosophical equivalent of a jailbreak film, in which he chronicles various inadequate attempts to flee this monopoly. He is especially concerned about the way breakout arguments have been repeatedly dismissed as symptoms of mere psychology. This last theme has special pertinence to the humanities.

21. Lyotard rejected classical realism wholeheartedly and identified postmodernism as "incredulity toward metanarratives" (Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi [Minneapolis, 1984], p. xxiv; hereafter abbreviated *P*). He described knowledge systems as narratives that integrate and make sense of the data at hand. Following Wittgenstein, he called them "language-games," where meaning is "the object of a contract, explicit or not, between players (which is not to say that the players invent the rules)" (*P*, p. 10). The concept here would have been familiar to readers of Carnap, Quine, Kuhn, and others. The fact that science is correct about what makes planes fly does not make science less linguistic, institutional, contractual, that is, less in need of a narrative that legitimates it by bringing all its pieces together. Lyotard's sense of science as a language-game did not mark a postmodernist break with modernist philosophy of science, but its continuation.

22. Though Lyotard made some dubious claims about postmodern science, he was quite right about the cultural and social context in which science operated. For a critique of Lyotard's use of science, see Alan Sokal and Jean Bricmont, *Fashionable Nonsense: Postmodern Intellectuals' Abuse*

wrote, has been defined by two versions of a master narrative. In the first version, “knowledge finds its validity not within itself, not in a subject that develops by actualizing its learning possibilities, but in a practical subject—humanity. The principle of the movement animating the people is not the self-legitimation of knowledge, but the self-grounding of freedom or, if preferred, its self-management” (*P*, p. 35). The second version of the narrative describes knowledge as self-legitimizing: “The subject of knowledge is not the people, but the speculative spirit” (*P*, p. 33). The first version ties knowledge to human interests. The second version separates them. The first associates knowledge with liberation. The second associates it with truth as such.

This account is idealized; it omits the coercion involved in instituting both freedom and truth and the varying definitions of both terms. But Lyotard was concentrating on a crucial historical feature of these twin perspectives: freedom and truth are not two separated and conflicting narratives but *two versions of the same narrative of emancipation*. The people liberate themselves from tyranny in the same way in which knowledge frees itself from falsehood. Both movements depend on a capacity for self-unfolding, for self-management at least partially freed from external coercion. It was on the ground of a common freedom that Wilhelm von Humboldt and other believers intended to build a university that would unite these two domains of freedom: the university would allow “the nation-state itself to bring the people to expression . . . through the mediation of speculative knowledge” (*P*, p. 34). The university would help the nation-state unite the liberation of the people with the freedom of knowledge. To do this, the university would need to establish ties among all the branches of knowledge through their common ground in freedom.

This vision may now seem wishful or absurd, but this is in part because

of Science (New York, 1998), pp. 134–38. Sokal and Bricmont clearly trade on their book’s value as a critique of postmodernism overall, but their project is more specific: “We make no claim to analyze postmodernist thought in general; rather, our aim is to draw attention to a relatively little-known aspect, namely the repeated abuse of concepts and terminology coming from mathematics and physics” (*ibid.*, p. 4). Their procedure calls for two comments. First, they repeatedly criticize the transportation of scientific concepts into cultural and philosophical fields; they object to the misuse of terms like *complexity* as metaphors and so on (see also their description of their methodology on pp. 4–5). In other words, they object to the context-free use of terminology, and in this sense their book can be seen as a legitimate cultural-studies-style critique. Second, they write as though their discrediting of postmodernist uses of science amounts to a discrediting of postmodern thought. They seem to assume that scientific terms have a determinate effect on the discourses in which they appear or, in other words, that science remains the deciding factor even in nonscientific discourses. It is *this* universalizing move that Lyotard rejected. Sokal and Bricmont do not discuss any other aspect of Lyotard’s work and certainly not his larger historical argument.

both versions of the emancipation narrative have been overwhelmed by a third narrative—the narrative of optimization.²³ Many of the claims of Lyotard's 1979 report on knowledge have become the truisms of today's knowledge society: the triumph of post-Fordist capitalism, continuous technological revolution, deregulated markets, democracy defined as the distribution of technology. The rise of this economic legitimation narrative was hardly a figment of radical or postmodern analysis. An early postwar statement came from Clark Kerr, president of the University of California from 1958 to 1967, who celebrated the centrality of the university to the knowledge society while complaining that the university's "directions have not been set as much by [its] visions of its destiny as by the external environment, including the federal government, the foundations, the surrounding and sometimes engulfing industry."²⁴ Like Kerr, Lyotard argued that economic legitimation is not new, but that it had recently achieved an unprecedented power over the production of knowledge.²⁵

The economy most directly influenced knowledge by encouraging researchers to focus on optimizing production. Lyotard located this influence in the logic of technology, which he defined as the language-game "pertaining not to the true, the just, or the beautiful, etc., but to efficiency: a technical 'move' is 'good' when it does better and/or expends less energy

23. Emancipation and optimization are overlapping competitors, not opposites, and this competition does not require an untenable contrast between them. On this question in the tradition of European higher education to which Lyotard also refers, Derrida wrote that "we know better than ever before what must have been true for all time, that this opposition between the basic and the end-oriented is of real but limited relevance. . . . One can no longer distinguish between technology on the one hand and theory, science and rationality on the other" (Jacques Derrida, "The Principle of Reason: The University in the Eyes of Its Pupils," *Diacritics* 13 [Fall 1983]: 12).

24. Clark Kerr, *The Uses of the University* (Cambridge, Mass., 1963), p. 122; hereafter abbreviated *U*. "The basic reality, for the university," he wrote, "is the widespread recognition that new knowledge is the most important factor in economic and social growth. We are just now perceiving that the university's invisible product, knowledge, may be the most powerful single element in our culture, affecting the rise and fall of professions and even of social classes, of regions and even of nations" (*U*, pp. vii–viii). Kerr claimed that liberal knowledge had been eclipsed by German industrial research even as John Henry Newman was renewing Humboldt's call for knowledge for its own sake in 1852. In other words, the entire run of the research university was devoted to society's technological improvement. Kerr was relying on the pioneering research of Princeton economist Fritz Machlup in *The Production and Distribution of Knowledge in the United States* (Princeton, N.J., 1962). Machlup estimated that by the late 1950s "the production, distribution, and consumption of 'knowledge' in all its forms" accounted for "29 percent of gross national product. . . and 'knowledge production' is growing at about twice the rate of the rest of the economy" (*U*, p. 88). These arguments would become better known in such venues as Alvin Toffler's *Future Shock* (New York, 1970) and Daniel Bell's *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York, 1973).

25. A later and more comprehensive exploration of the ties between postmodernism and the economy is Fredric Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism* (Durham, N.C., 1991).

than another" (*P*, p. 44). Technology either optimizes or fails; any adopted technology is an optimizing technology. Technology above all must optimize the economy, which it does by increasing "the surplus-value derived from this improved performance" (*P*, p. 45). Today's "new economy" discourse uses different terms to say something similar—both profitability and survival depend on the continuous revolution of products and the organizations that produce them.²⁶

Lyotard felt that technology tended to subordinate science to business's quest for unceasing optimization: technology had come to express a "generalized spirit of performativity" (*P*, p. 45). His most basic point was not that knowledge lacks context-free foundations but that its defining context was now the drive to optimize. More than criticizing science as such, Lyotard wanted to protect it from technology as controlled by the grand narrative of optimization. He read the relations between science and other disciplines through his hopeful sense that "even today, progress in knowledge is not totally subordinated to technological investment" (*P*, p. 45) and posed the question of how knowledge could continue to develop independently of its financial return.

A clue to the answer lies within the optimization narrative itself. The narrative had triumphed not by promising sheer efficiency but by promising that efficiency would produce popular emancipation. This combination is an obvious feature of internet discourse, which describes a technology that is both a landmark of scientific research and a source of personal freedom. Similarly, the modern research university continues to support the development of both economies and selves. Business and the university have not abandoned freedom for technology or emancipation for truth, but claim instead to have synthesized them. Freedom is still very much part of constructing a narrative of legitimation; the question is what place freedom will have in the narrative. Postmodernism does not *abandon* the older aspiration to furnish the union of freedom and truth but gives this aspiration a new ground. It marks the culmination of a century-long development in which the ground of the union of freedom and truth has shifted decisively from the humanities to technology.²⁷ Postmodernism is

26. For a simplified but fairly influential example, see Kevin Kelly, "New Rules for the New Economy: Twelve Dependable Principles for Thriving in a Turbulent World," *Wired* 5.09 (Sept. 1997), <http://www.wired.com/wired/archive/5.09>.

27. Although the topic is outside my scope here, it's worth remembering that Lyotard tied the rise of the economic narrative to extensive bullying and coercion. He called this *terror*. "By terror," he wrote, "I mean the efficiency gained by eliminating, or threatening to eliminate, a player from the language game one shares with him. He is silenced or consents, not because he has been refuted, but because his ability to participate has been threatened" (*P*, pp. 63–64). Obviously criticizing a cultural studies analysis of science does not make one a terrorist. Criticism is not in

the condition in which freedom and truth *appear* united through the search for efficiency.²⁸

To be a postmodernist in Lyotard's sense is thus to *critique* rather than *advocate* postmodernism. "Postmodern" cultural criticism is not objecting to science or even to technology as such, both of which have numerous LCS fans. "Postmodern" cultural criticism *is* objecting to the optimization narrative that shapes *all* of the domains of knowledge. It is objecting to alleged necessary links between optimization and knowledge creation. It objects to this narrative's claims to have preserved the freedom of both the people and of knowledge, and to measure these correctly by the standard of efficiency.

Creation Narratives

The contemporary humanities disciplines face a choice, though it is not a choice between embracing or rejecting science. The choice, to put it with equal simplification, is to embrace or (at least partially) evade the narrative of optimization. Do we think that the logic of efficiency successfully embodies freedom *and* truth, or don't we? Do we value forms of freedom and truth that do not lead to optimization? We can improve our relations with science and social science under either premise. The first premise is supported by most developments in the modern research university. Sitting smack in the middle of the globalization process, the university advocates both optimal technology and broad service to humanity, finds no contradiction, and thus helps tie human to technological progress. The second premise claims *not* that optimization as such is bad or fully avoidable but that the optimization synthesis is incomplete for, and sometimes destructive to, many forms of liberation *and* knowledge that survive in spite of it. Forms that are irreducible to optimization often appear in the realm of culture, as is backhandedly acknowledged by economic frameworks that brand them *the olive tree* or *jihad*. Many of those who prefer this second premise have, among other things, been trying to use the humanities to identify those

itself the rejection of one's right to play. But the science wars have sometimes had the terrorist undertone of denying the right of narrative, nonscientific knowledge, to say anything about science's effects or direction. This is the juncture for which Lyotard saved his most negative criticism. It is the juncture where science insists on its immunity from *narrative* knowledge by ignoring its placement in the social bonds it says corrupts everybody else. As Lyotard sees it, this move, when it occurs, does not originate in scientific practice as such but in the optimization narrative.

28. The optimization narrative claims to synthesize freedom and truth precisely by keeping them separate; it serves its idea of human freedom by seeming to separate human interests from the pursuit of knowledge through various forms of theory and technique. This dichotomy depends on a classical realism that has lost its philosophical plausibility, though it is sustained through other means, and for the good practical reason that the stability of the optimization narrative depends on its power to bring freedom and truth together by keeping them apart.

noneconomic ways of knowing that are ignored, distorted, or suppressed by the search for optimization.

This is an enormously complex task, and it is proceeding slowly and confusingly, using the cumbersome mixtures of methods that we all wish could be simpler. Yet there is one clear element in all of this, and that is the need to insist, *as a normative judgment, not a logical relation*, on the centrality of human emancipation in the narrative of knowledge. The humanities can justify this judgment on the basis of freedom's empirical importance in the history of human culture, or on the basis of modern knowledge's legitimation through the ground of the double emancipation of human life and the life of knowledge. A strategic disaster follows arguments that, like Guillory's, have long been urging LCS scholars to separate their methods from their politics; when LCS stigmatizes questions of human freedom as politics and seeks to purge them, it falsifies its object of study *and* undermines its ability to compete as knowledge with knowledge that optimizes. Oddly enough, the humanities will find parity with the sciences, and the basis of mutual respect, only when it stops trying to jettison its "political" freedom narratives and instead integrates them into its ideals of truth.

This is what much contemporary cultural criticism has been doing—working with liberation narratives while looking for increasingly accurate codifications of the relevant knowledge. These codifications are always partly based on narrative, involve some elements of interpretation and storytelling, coordinate multiple points of view, and generate explanations based on combinations and interactions rather than on single-source and linear generative codes. "Postmodern" cultural criticism is antirealist, sort of, but it is more fundamentally antireductionist; it works on every level, speaking metaphorically, between the ecosystem and the gene.²⁹ This cultural criticism has routinely embraced the inevitable embeddedness of literary and cultural knowledge, though criticism is still in the early stages of systematizing its conjunctions of the body, consciousness, personal experience, cultural formations, historical movements, and social power. The continuous attacks on politics have only slowed this process down. I'd like

29. A major antireductionist among scientists is paleontologist Stephen Jay Gould, who recently criticized the Human Genome Project for ignoring the failure of the "central dogma" of "one direction of causal flow from code to message to assembly of substance." Gould argues that

reductionism [fails] for the complex system that we call biology . . . for two major reasons. First, the key to complexity is not more genes, but more combinations and interactions generated by fewer units of code—and many of these interactions (as emergent properties, to use the technical jargon) must be explained at the level of their appearance, for they cannot be predicted from the separate underlying parts alone Second, the unique contingencies of history, not the laws of physics, set many properties of complex biological systems. [Stephen Jay Gould, "Humbled by the Genome's Mysteries," *New York Times*, 19 Febr. 2001, A15.]

to see a one-year moratorium on complaining about each other's politics—it'd be interesting to see how this would improve our work.

There is always much to be said in favor of efficiency, and professional disciplines are a case in point. Disciplines organize the accumulated knowledge of countless practitioners engaged in untold labor, and they systematize at least a fraction of humanity's quasi-infinite thoughts. But disciplines also impede intellectual movement, particularly while they are engaged in methodological purifications. Weak professions sometimes purify all the harder, disavowing exactly the open systems of thinking they rely on most. In the process, they crack down on the agency of their members, not by criticizing specific research results, which are always fair game, but by preempting entire paradigms.

I think this is particularly terrible when it happens in literary and cultural studies, where critical freedom may be our single greatest asset. But LCS is not so susceptible to the subordination to optimization, for optimization depends on a form of creativity that is central to LCS. Management writers call it *discontinuous innovation*. Lyotard called it *paralogy*, meaning innovation partially ungoverned by a given system. These terms signal different goals but focus on the same basic fact, that optimization depends on the possibilities of the individual's divergence from the rules of optimization. Lyotard praised innovation that is not "under the command of the system, or at least used by it to improve its efficiency" (P, p. 61). "The artist and the writer," he wrote, "are working without rules in order to formulate the rules of what *will have been done*" (P, p. 81). Creativity is what escapes optimization, what has escaped it, what will have escaped it in the optimal *and* nonoptimal experience curated by LCS.

Creativity in this sense expresses the inaugural condition of the existence of knowledge. Knowledge's advance depends on all kinds of systematic analysis, but starts with the subject's capacity for autonomy from the known context, which in turn depends on the subject's at least partial freedom. It is thus impossible to isolate the progress of knowledge from the freedom of knowledge, which cannot be isolated from the freedom of the person who knows. The individual's freedom, in turn, is entwined with the freedom of humanity. There is no truth without freedom. There is no new knowledge that does not proceed through emancipation.

LCS, as I see it, offers *experiences* of a synthesis of freedom and truth. The experience lacks a philosophy; humanism sometimes served, but it has been too narrow, compromised, or colonial. Whatever the term, literary and cultural studies provide the standpoint where we are not restricted to the economic narrative of our own existence.