Scandalous Knowledge

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Science, Truth and the Human

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For Stephen

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Scandalous Knowledge

Chapter 1

Introduction: Scandals of Knowledge

It has been said that knowledge, or the problem of knowledge, is the scandal of philosophy. The scandal is philosophy's apparent inability to show how, when and why we can be sure that we know something or, indeed, that we know anything. Philosopher Michael Williams writes: 'Is it possible to obtain knowledge *at all*? This problem is pressing because there are powerful arguments, some very ancient, for the conclusion that it is not . . . Scepticism is the skeleton in Western rationalism's closet'.[1] While it is not clear that the scandal matters to anyone but philosophers, philosophers point out that it should matter to everyone, at least given a certain conception of knowledge. For, they explain, unless we can ground our claims to knowledge *as* such, which is to say, distinguish it from mere opinion, superstition, fantasy, wishful thinking, ideology, illusion or delusion, then the actions we take on the basis of presumed knowledge – boarding an airplane, swallowing a pill, finding someone guilty of a crime – will be irrational and unjustifiable.

That is all quite serious-sounding but so also are the rattlings of the skeleton: that is, the sceptic's contention that we cannot be sure that we know anything – at least not if we think of knowledge as something like having a correct mental representation of reality, and not if we think of reality as something like things-as-they-are-in-themselves, independent of our perceptions, ideas or descriptions. For, the sceptic will note, since reality, under that conception of it, is outside our ken (we cannot catch a glimpse of things-in-themselves around the corner of our own eyes; we cannot form an idea of reality that floats above the processes of our conceiving it), we have no way to compare our mental representations with things-as-they-are-in-themselves and therefore no way to determine whether they are correct or incorrect. Thus the sceptic may repeat (rattling loudly), you *cannot* be sure you 'know' something or anything at all – at least not, he may add (rattling softly before disappearing), if that is the way you conceive 'knowledge'.

Classical epistemology is a definitively philosophical pursuit, normative (determining, directing, judging, justifying) in aim, logical-analytic in method. The alternative forms of knowledge-investigation in question here, notably constructivist epistemology and social studies of science in the tradition of Ludwik Fleck, Thomas S. Kuhn, Michel Foucault, David Bloor, and Bruno Latour,[2] have major theoretical components but are not conventionally philosophic enterprises. Their aims with regard to knowledge and science are largely descriptive and explanatory, not normative, and their methods, though certainly involving conceptual inquiry and (re)formulation, are largely empirical: archival and observational. In questioning classical conceptions of knowledge and pursuing the study of science as a set of historical phenomena and social-cultural practices, constructivist epistemology and post-Kuhnian science studies are radically different both from philosophical epistemology in the tradition of Descartes and Kant and from mainstream philosophy of science in the tradition of the Vienna Circle and Karl Popper. Moreover, the accounts of the emergence, stabilisation and transformation of scientific knowledge developed in these fields are radically different both from traditional lay ideas about scientific discovery, truth and progress and from the views of science held by many or most practising scientists. That is quite a lot, of course, from which to be radically different. It is not surprising, then, that the critiques, alternative approaches and alternative formulations developed in these relatively new fields have been misunderstood, misrepresented and greeted with ridicule, distress and/or outrage from so many quarters.

I

It will be useful to say a few words first about what I shall be referring to throughout the book as *constructivism*, including both constructivist epistemology and constructivist history and sociology of science. In most informed contemporary usage, including the usage of practitioners, the term 'constructivism' indicates a particular way of understanding the relation between what we call knowledge and what we experience as reality. In contrast to the understanding of that relation generally referred to as 'realism', constructivist accounts of cognition, truth, science and related matters conceive the specific features of what we experience, think of and talk about as 'the world' (objects, entity-boundaries, properties, categories and so forth) not as prior to and independent of our sensory, perceptual, motor, manipulative and conceptual-discursive activities but, rather, as emerging from or, as it is said, 'constructed by' those activities. In contrast to the prevailing assumptions of rationalist

philosophy of mind, constructivist accounts of cognitive processes see *beliefs* not as discrete, correct-or-incorrect propositions about or mental representations of the world but, rather, as linked perceptual dispositions and behavioural routines that are continuously strengthened, weakened and reconfigured through our ongoing interactions with our environments. In contrast to referentialist views of language, constructivist accounts of *truth* conceive it not as a matter of a match between, on the one hand, statements or beliefs and, on the other, the autonomously determinate features of an altogether external world (Nature or Reality), but, rather, as a situation of relatively stable and effective mutual coordination among statements, beliefs, experiences and practical activities. And, in contrast to logical positivist or logical empiricist views, constructivist accounts of specifically *scientific* truth and knowledge see them not as the duly epistemically privileged products of intrinsically orthotropic methods of reasoning or investigation ('logic' or 'scientific method') but, rather, as the more or less stable products of an especially tight mutual shaping of perceptual, conceptual and behavioural (manipulative, discursive, inscriptional and other) practices in conjunction with material/technological problems or projects that have especially wide cultural, economic and/or political importance.[3]

Constructivism is often conflated with 'social constructionism'. Distinguishing between the two is difficult because both terms have shifting contemporary usages and variants ('construct*ionism*', 'social construct*ivism*', and so forth) and because the views and enterprises they name have complex intellectual-historical connections. Nevertheless, their simple identification obscures significant differences of origin, emphasis and intellectual or ideological operation. As a set of ideas concerning the nature of knowledge and operations of human cognition, *constructivism* has been developed largely by epistemologists, psychologists, cognitive scientists, and historians, philosophers and sociologists of science. Key proto-constructivists include Nietzsche and Heidegger; influential mid-twentieth-century figures include Peter Berger and Thomas Luckmann, Jean Piaget, Paul Feyerabend and Nelson Goodman; important contemporary constructivists include Susan Oyama in developmental psychology and Gerald Edelman, Francisco Varela and Antonio Damasio in cognitive science.[4] All these theorists are or were interested in the processes and dynamics of cognition: either micro-cognition, that is, individual learning, knowledge and perception, and/or macrocognition, that is, intellectual history and the cultural-institutional-technological operations of science. Accordingly, their arguments are or were primarily with other scholars and theorists of cognition and science, especially though not exclusively philosophers.

With regard to ideas of knowledge and science, *social constructionism* is a more culturally focused and politically engaged – or, as it is variously claimed or complained, 'critical' – set of views. As such, and especially as maintained by cultural critics, feminists, gender theorists and other scholars and critics in connection with such problematic practices as racial classifications, gender bias or normative heterosexuality, it operates primarily as an effort to challenge relevant beliefs – including those offered by scientists or in the name of science – by denaturalising them, revealing their dependence on historically or culturally particular discursive practices and/or exposing their implication in the preservation of prevailing social and political arrangements. In cultural-studies usage, the phrase 'socially constructed' commonly contrasts with such status-quo-justifying notions as 'natural', 'innate', 'proper' or 'inevitable'. In science-studies usage, it commonly contrasts with such realist-rationalist notions as 'pre-existing in Nature or Reality' and/or 'accepted for good reasons'. The idea of the *social* figures centrally for both constructivist theorists and social-constructionist critics, but in diverse (though not necessarily mutually exclusive) ways. Thus a constructivist sociologist of science is likely to stress the 'social' – here in the sense of collective, intersubjective and/or institutional – aspects of scientific knowledge as opposed to individualistic conceptions of the knower or the scientist, while the social-constructionist gender theorist is likely to stress the 'social' – here in the sense of class-related, culturally mediated, economic and/or political – forces involved in gender distinctions in opposition to socially conservative defences or biologistic accounts of those distinctions.

The citation of Foucault occupies a hinge position with regard to these confusions or conflations (although, as it happens, neither term – 'constructivism' or 'socially constructed' – appears in his writings, at least not centrally). A number of Foucault's earlier works, especially *Madness and Civilization*, *The Order of Things* and *The Archaeology of Knowledge*, develop models of the dynamics of intellectual and institutional history, including various human sciences and academic-professional disciplines, that are quite congruent with those of the constructivist historians and sociologists mentioned above. For example, Foucault's 'epistemes' (and, later, 'discourses') are comparable along many lines to Fleck's 'thought styles' and Kuhn's 'paradigms'. Although the emphases are different in each case, all three point to the existence of conceptual-discursive systems that both enable and constrain the processes of cognition – perception, classification and so forth – for the members of some historically or otherwise specific collective (for example, nineteenth-century clinical psychiatrists in Foucault's account, early twentieth-century medical pathologists in Fleck's, or seventeenth-century chemists in

Kuhn's). At the same time, a number of Foucault's later works, especially *The History of Sexuality* and the essays and interviews collected as *Power/Knowledge*, have been key reference points for the notion of social construction, both for those who appeal to it in challenging conventional assumptions about some human trait, category or institution and for those who dismiss the notion as an absurd ideology-driven denial of the self-evident given-ness (for example, innateness or universality) of the trait, category or institution in question. Thus, as we shall see in Chapters 6 and 7, casual dismissals of Foucault along with what is represented (often quite ignorantly) as 'social constructionism' figure recurrently in the self-promotions of evolutionary psychology.

II

In *The Social Construction of* What?, Ian Hacking observes that nominalism is a crucial conceptual commitment of constructivist epistemology (which, as it happens, he calls 'social constructionism').[5] Hacking explains nominalism as the 'den[ial]', contra realism's affirmation, that Nature is inherently structured in certain ways.[6] Contrary to his implication, however, constructivists do not characteristically 'deny' *metaphysically* what realists evidently metaphysically maintain: namely, first, that Nature *is* structured in certain ways inherently (meaning independent of our perceptions, conceptions and descriptions) and, second, that we properly assume (Hacking says 'hope') that those ways are largely in accord with our perceptions, conceptions and descriptions of them. Rather, constructivists typically decline, in their historical, sociological or psychological accounts of science and cognition, to presume either any particular way the world inherently is *or* such an accord. This professional ontological agnosticism is not, as realists may see it, a perverse refusal of common sense but an effort at due methodological modesty and theoretical economy.

Nevertheless, Hacking's observation of an association between constructivism, thus labelled, with nominalism, more appropriately understood, is correct and suggests other important intellectual connections and divergences. Specifically, nominalism (traditionally, the view that 'universals' are only names given to 'particulars') can be seen as an active, ongoing acknowledgement of the theoretical significance of the historicity of language. It is, in that sense, allied with Nietzschean and Foucauldian genealogy and with Derridean deconstruction, all of which attempt, among other things, to indicate historical and other ranges and shifts in the actual usages and understandings of theoretically

beliefs and practices. Kuhn sees the formation of such disciplinary conceptual-discursive-pragmatic systems as requisite for the pursuit of what he calls 'normal' science and their radical breakdown and wholesale replacement as the major events of intellectual history. Such systems have also been called – by, among others, Heidegger, Wittgenstein, Quine, Derrida and Lyotard – 'world pictures', 'language games', 'webs of belief', 'closures' and 'regimes of truth'.

There are a number of key points here. One is the interrelatedness and high degree of mutual determination of *conceptual-discursive* elements (ideas, definitions, distinctions, predications and so forth) and both *perceptual-cognitive dispositions* (observations, classifications, interpretations and so forth) and *material practices* (measurements, manipulations, the design and manufacture of instruments and so forth). Another is the *social* constitution and maintenance of such systems: that is, the fact that they arise from and are stabilised by ongoing verbal, cognitive, social and pragmatic interactions among the members of particular communities. A third point, accordingly, is the *contingency* of the epistemic viability of the systems and their elements: notably, the dependence of the specific meaning and force of individual terms and concepts ('disease', 'planet', 'quark', 'gene' and so forth) on their intersystemic linkages to other ideas, assumptions and related practices and, correspondingly, the dependence of what would be experienced as the adequacy or propriety of any of these ideas, assumptions and practices on the currency of the relevant system in the relevant community.[8]

In debates over such ideas since the 1960s and 1970s, the constructivist views outlined above have been interpreted – and, accordingly, assailed – as implying an everything-is-equally-valid relativism, 'anything goes' in the practice of science, and irrationalism in the choice and adoption of scientific theories. What those views certainly do imply is the conceptual and empirical inadequacy of prevailing philosophical accounts of scientific method, truth and progress.[9] Indeed, one way to understand the self-scandalising perceptions and interpretations of constructivism by mainstream philosophers is as a testament to the continuing coherence and normative power of the classic conceptual system, at least within the orbits of their particular epistemic communities.[10]

III

The specifically disciplinary distinctions evoked here – that is, between, on the one hand, academic philosophy and, on the other, the various

'context of justification' of scientific facts or theories, which distributes matters neatly if dubiously within science and neatly if invidiously between philosophy and other enterprises.[13] As the distinction is commonly explained, whereas the context of *discovery* of a scientific theory may involve such matters as personal interests or social influences and be of interest accordingly to biographers, historians or sociologists, its context of *justification*, which consists of the determination of the scientific legitimacy, conceptual coherence and objective validity of the theory in question, involves only matters of reasoning and is thereby properly the task of logicians and philosophers. A cognate distinction came to be drawn between 'internalist' and 'externalist' histories of science. The idea here is that *internalist* histories, which document the unfolding of scientific knowledge from the evidentiary-based solution of strictly scientific problems arising in and from the pursuit of science itself, may, as such, be useful to philosophy, but that *externalist* histories, which concern themselves with various 'outside' influences or factors (institutional or political conditions, technological projects and so forth) that occasionally deflect science from its essential epistemic aims (or so it is said) are, accordingly, without interest for philosophy.

Questions may be and have been raised regarding the propriety of all these distinctions. Is there a clear temporal and modal difference, for example, between scientific discovery and justification or, in effect, between scientists' accounts of phenomena and (their own) assessments of the adequacy of those accounts? Are philosophers especially well equipped to make assessments of scientific legitimacy or validity? Do scientific events ever unfold purely internally to science, and are external forces intrinsically alien to the furthering of scientific goals? Are we sure, for that matter, that personal interests, institutional conditions and technological projects are 'outside' science, or might they be essential aspects of science and, indeed, necessary for its functioning in the ways commonly valued? Are psychologists, historians and sociologists necessarily to be seen as upstarts and interlopers in examining the ways scientific theories are formed, assessed, stabilised, justified and transformed, and are their findings intrinsically without interest for philosophers? Or, rather, as all these questions suggest, may it not be the case that the strict distinctions and divisions of labour that underwrite philosophy's self-honouring role in the study of science and knowledge beg all the relevant questions and, where maintained, insure philosophy's self-confinement? That, in any case, became a key issue among philosophers themselves[14] as well as between philosophers and scholars or scientists in other fields in the second half of the century.

IV

As distinct from rationalist conceptualisations, knowledge (everyday, expert or scientific) may be understood not in opposition to ('mere') belief but *as* beliefs that have become relatively well established. So understood, knowledge/beliefs can be seen as emerging continuously from three interacting sets of forces: individual perceptual-behavioural activities and experiences; general cognitive processes; and particular social-collective systems of thought and practice. Accordingly, the familiar contrast between 'duly compelled by reason' and 'improperly influenced by interests and/or emotions' gives way to the idea that all beliefs are contingently shaped and multiply constrained. Similarly, such familiar distinctions as those between 'objectively valid scientific knowledge' and 'personal opinion' or 'popular superstition' are replaced by the idea that all beliefs are more or less congruent with and connectible to other relatively stable and well established beliefs; more or less effective with regard to solving current problems and/or furthering ongoing projects; and more or less appropriable by other people and extendable to other domains of application. That is, the differences expressed by the classic contrasts – and there certainly are differences, and they certainly are important – are not denied or flattened out (reason is not 'abandoned' for 'irrationalism'; scientific knowledge is not 'equated with' myth or ideology; and so forth), but are reconceived as variable gradients rather than fixed, distinct and polar opposites.

The chart below (see p. 12) summarises a number of these points and indicates some distinctive concepts and major foci of interest in contemporary research and theory regarding knowledge and science. I would stress that the two columns here are not to be taken as contrastive oppositions or as simple substitutions of one by the other but as differences or alternatives of various kinds. In a number of cases (for example, *communal*, *social*, *institutional* versus *individual*, or *activities*, *skills*, *practices* versus *propositions*, *laws*, *models*), the contemporary alternative is an addition to or expansion of the classic attributes and/or a shift of focus in the objects of research and theorisation. In other cases (for example, *embodied* versus *mental*, or *coordination* versus *correspondence*), the alternatives represent reconceptualisations or redescriptions of the classic notions but not their simple rejection.

A glance at this chart makes obvious enough the reasons for the recurrent misunderstandings, misrepresentations and sense of scandal we are remarking here. For in virtually every instance, the constructivist-pragmatist-interactionist alternative, no matter how theoretically well elaborated, empirically well documented, or conceptually coherent and

20th-Century Reconceptions of Knowledge and Science

Classic Realist, Rationalist, Logical Positivist Concepts	*Distinctive Constructivist, Pragmatist, Interactionist Concepts*
Individual	Communal, social, institutional
Interior, intellectual, mental	Exhibited, embodied, enacted
Propositions, laws, models	Activities, skills, practices
Representation, correspondence	Interaction, coordination
Discovery	Construction
Reason, logic, experiment	Negotiation, rhetoric, performance
Unity, progress	Multiplicity, transformation
Truth	Effectivity
Autonomy	Connection, interdependence
Objectivity	Interests
Transhistorical, universal	Historical, situated

practically effective from the perspective of those proposing it, will appear to those operating effectively with traditional conceptions either as a perverse reversal of a fundamental attribute of genuine knowledge or as a cynical dismissal of a fundamental value or ideal of science. As is generally the case with such head-on collisions of thought styles, neither decisive rebuttals nor rational resolutions, as these are commonly understood, are to be looked for. And, indeed, most debates on these issues, where they have intellectual content at all, consist largely, on the revisionist side, of functionally inaudible (as if never uttered) or invisible (as if the pages were blank) repetitions of central arguments and, on the traditionalist side, of the rehearsal of self-affirming defences and refutations, while, as discussed in Chapter 4, proposed 'middle ways' tend to be rightward-leaning, fundamentally unstable assemblies of contradictory views.

The situation described here is not, in my view, the herald of a major 'paradigm shift' in how we understand knowledge and science. The work of such twentieth-century historians of science as Alexandre Koyré, Kuhn and Foucault has made it difficult, of course, to conceive the dynamics of the history of science as cumulative progress toward, or unfolding of, manifest epistemic destiny. Series of radically discontinuous junctures, however, or recurrent cycles of plateaus, crises and revolutions, are not the only alternatives. Paradoxically, both are too static and monolithic when it comes to representing intellectual history in a general sense – that is, as distinct from the history of the natural sciences as such. A finer-grained and more dynamic model is suggested by Fleck's image of a 'network in continuous fluctuation' as adumbrated

by the notions of 'strata', or multiple sites of activity and change, and 'polytemporality', or variable time scales, elaborated by Foucault and Latour.[15] In accord with such a model, one may conceive the dynamics of intellectual history, including the history of philosophy and of the other academic disciplines as such, as a continuous play of elements, sometimes contending, sometimes convergent, sometimes parallel, in which new elements (clusters of intertwined ideas, constructs, discourses and institutional practices) 'merge', in Fleck's words, 'with old ones to create stable points, which, in turn, are starting points for new lines everywhere developing and again joining up with others',[16] and so forth – without end, either as completion or determined destination, but not without event, development or differentiation.

If we see intellectual history this way, twentieth-century epistemology (broadly understood here) can be regarded as a period of especially high volatility – challenges, innovations, resistances, reformulations – in a field of especially numerous, mobile, energetic elements and complexly connected lines and nodes. What *can* be looked for, then, and seem already to be in view, are transformations, more or less radical and more or less widespread, among all the theoretical discourses, styles and enterprises involved, those of epistemology proper, those of rationalist-analytic philosophy of science, those of constructivist theory, and those of such related fields as cognitive theory, cultural theory and political theory: multiple ongoing challenges and responsive innovations, not across-the-board switches; mutual modification, appropriation and intermingling, not unilateral triumph.[17] Continued resistance along with misunderstanding, misrepresentation and self-scandalised reaction are as much to be expected as anything else. The difference between intellectual history and the history of science is that, in the former, where there are no technological-pragmatic pressures for closure and thus no Latourian 'black boxes' (that is, highly stabilised and taken for granted ideas or machines), it remains possible for mutually incompatible conceptual systems and thought styles (for example, rationalism and pragmatism) to coexist and contend with each other virtually ad infinitum, with the only victories – and highly unstable ones at that – being institutional. But, of course, such victories are not insignificant to those involved.

V

If scepticism is the skeleton in rationalism's closet, relativism is the bugbear under its bed. The topic or phantom haunts twentieth-century epistemology proper and figures centrally in the reception of

dominance, in many quarters, of some form of rationalist-realist-positivist epistemology. As also indicated above, however, nothing in a contemporary constructivist understanding of intellectual history would lead one to claim or expect the simple overthrow of that epistemology.

Finally, note is taken in the pages that follow of the occurrence of 'relativist' – along with 'postmodernist', 'anarchist', 'Parisian', and other such terms – as a random epithet of derogation and dismissal in the 'science wars', culture wars, theory wars and discipline wars, particularly as invoked by traditionalist philosophers and scientists dealing with the intellectual developments traced here and by evolutionary psychologists seeking to discredit critics or rivals. Many of the philosophers, scientists and other academics producing such epithets in these connections are, in their respective fields, quite eminent. What is notable in virtually all the cases cited here, however, is their exceedingly limited first-hand acquaintance with, and, in fact, considerable ignorance of, the ideas thus derogated and dismissed – an ignorance especially remarkable where the issues are posed as matters of, precisely, intellectual competence, rigour and responsibility. Indeed, it's rather a scandal.

Notes

1. M. Williams, *Problems of Knowledge: A Critical Introduction to Epistemology*, pp. 2, 5.
2. Key texts here are Fleck, *Genesis and Development of a Scientific Fact*; Kuhn, *The Structure of Scientific Revolutions*; Foucault, *The Archaeology of Knowledge*; Bloor, *Knowledge and Social Imagery*; Latour, *Science in Action*.
3. For examples and elaborations of the various constructivist views described here, see Knorr-Cetina, *The Manufacture of Knowledge: An Essay on the Constructivist and Contextual Nature of Science*; Pickering, *Constructing Quarks: A Sociological History of Particle Physics*; von Glasersfeld, *Radical Constructivism: A Way of Knowing and Learning*; B. H. Smith, *Belief and Resistance: Dynamics of Contemporary Intellectual Controversy*, pp. 23–51; Christensen and Hooker, 'An Interactionist-Constructivist Approach to Intelligence'; and Chapter 3, below. For an instructive historical account, see Golinski, *Making Natural Knowledge: Constructivism and the History of Science*.
4. See, for example, Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*; Piaget, *Biology and Knowledge: An Essay on the Relations between Organic Regulations and Cognitive Processes*; Feyerabend, *Against Method: Outline of an Anarchistic Theory of Knowledge*; Goodman, *Ways of Worldmaking*; Oyama, *The Ontogeny of Information: Developmental Systems and Evolution*; Edelman, *The Remembered Present: A Biological Theory of Consciousness*; Varela, Thompson and Rosch, *The Embodied Mind:*

13. The distinction, drawn in those terms by Hans Reichenbach, was given force in Popper's *The Logic of Scientific Discovery*. For a good brief discussion, see Nickles, 'Discovery'.
14. See, for example, Quine, 'Epistemology Naturalized'; Goodman, *Ways of Worldmaking*; Rorty, *Philosophy and the Mirror of Nature*.
15. Fleck, *Genesis*, p. 79; Foucault, *Archaeology*; Latour, *Pandora's Hope: Essays on the Reality of Science Studies*.
16. Fleck, *Genesis*, p. 79, translation slightly modified. The passage is discussed further in Chapter 3.
17. For recent examples of such transformation, appropriation and intermingling in the fields mentioned, see Longino, *The Fate of Knowledge*; Godfrey-Smith, *Theory and Reality: An Introduction to the Philosophy of Science*; Hansen, *New Philosophy for New Media*; Latour, *Politics of Nature: How to Bring the Sciences into Democracy*; Connolly, *Neuropolitics: Thinking, Culture, Speed*.
18. See B. H. Smith, *Contingencies of Value: Alternative Perspectives for Critical Theory*, esp. pp. 150–86, and *Belief and Resistance*, pp. 1–22.

Chapter 2

Pre-Post-Modern Relativism

If 'relativism' means anything at all, it means a great many things. It is certainly not, though often regarded that way, a one-line 'claim' or 'thesis': for example, 'man is the measure of all things', 'nothing is absolutely right or wrong', 'all opinions are equally valid', and so forth.[1] Nor is it, I think, a permanent feature of a fixed logical landscape, a single perilous chasm into which incautious thinkers from Protagoras' time to our own have 'slid' unawares or 'fallen' catastrophically. Indeed, it may be that relativism, at least in our own era, is nothing at all – a phantom position, a set of tenets without palpable adherents, an urban legend without certifiable occurrence but fearful report of which is circulated continuously. That would not mean, of course, that the idea was without consequence. On the contrary, no matter how protean or elusive relativism may be as a doctrine, it has evident power as a charge or anxiety, even in otherwise dissident intellectual quarters, even among theorists otherwise known for conceptual daring. It is this phenomenon that I mean to explore here: not relativism per se, if such exists, but the curious operations of its invocation in contemporary intellectual discourse and something of how it came to be that way.

The historical angle will be significant here, as indicated by my title, intended to evoke a relativism that is both 'pre-' and 'post-' modern but still also 'modern' – or, as I shall elaborate below, Modern*ist*. The point here is not so much that the views so named are perennial, though that, too, could be maintained. Given current understandings of the terms in question ('postmodern' as well as 'relativist'), one could claim as pre-'postmodern relativists' all those from Heraclitus and Montaigne to Alfred North Whitehead or Ludwig Wittgenstein who have questioned ideas of epistemic, moral or ontological fixity, unity, universality or transcendence and/or who have proposed correspondingly alternative ideas of variability, multiplicity, particularity or contingency. The point is, rather, that the periods of the emergence and prevalence of such views

remain open questions for intellectual history and, therefore, that any presumed or asserted historical specificity is suspect.

Considerable recent work in intellectual history suggests that, from the end of the nineteenth century and increasingly to the eve of the Second World War, a notable feature of theory in virtually every field of study was a more or less radical questioning of traditional objectivist, absolutist and universalist concepts and a related effort to develop viable alternative – non-objectivist, non-absolutist, non-universalist – models and accounts.[2] Major representative figures involved in such activities, both critical and productive, include Friedrich Nietzsche, Martin Heidegger and John Dewey in philosophy; Ernst Mach, Albert Einstein and Niels Bohr in physics; Karl Mannheim in social theory; Franz Boas in anthropology; and Edward Sapir in linguistics. If 'relativism' is understood most generally and non-prejudicially as this sort of radical questioning and related theoretical production, then we may observe that, in the era we call 'Modernist', it appears to have been a significant strand in much respectable intellectual discourse. Stated thus, the observation may not be contentious. It is worth stressing, however, in view of the current routine attachment of the ostensible period-marker 'postmodern' to ideas also characterised as 'relativist' and the operation of that double label – 'postmodern relativism' – as the sign of a distinctly contemporary as well as especially profound intellectual, moral and political peril.

I

To begin to explore how such characterisations operate, we may consider a few journalistic examples. A recent review in the *New York Times* discusses two books concerned with the trial of scholar Deborah Lipstadt in a libel suit brought against her as author of a work titled *Denying the Holocaust*.[3] One of the books under review is by British historian Richard Evans, Lipstadt's key witness at the trial and himself the author of an earlier work described by the reviewer, Geoffrey Wheatcroft, as 'an attack on postmodernism and deconstructionism in the name of the traditional historical virtue of objectivity'.[4] The other book is by the relatively young American journalist D. D. Guttenplan, whose account of the trial Wheatcroft praises but whose 'ventures into theory' he describes as 'less happy'. The evidence of this infelicity is Guttenplan's rejection of the idea, put forward by Evans, of a link between Holocaust denials and 'an intellectual climate in which "scholars have increasingly denied that texts have any fixed meaning" '.[5] Wheatcroft remarks:

> But surely Evans's point is well taken precisely in this context. Once we allow the postmodernist notions that historical data are relative, that all truth is subjective and that one man's narrative is as good as another's, then Holocaust denial indeed becomes hard to deal with.[6]

Two features of the passage are worth noting. One is the utter invisibility of any nameable, citable, quotable proponents of that cascade of 'postmodernist notions'. The other is the hodgepodge quality of the notions themselves, which range from sophomoric slogans to important ideas currently at issue and by no means self-evidently absurd. Who among the figures commonly associated, properly or improperly, with 'postmodern' theory maintains that all truth is subjective or that one man's narrative is as good as another's? Michel Foucault? Jacques Derrida? Jean-François Lyotard? Hayden White? Richard Rorty? Stanley Fish? David Bloor? Bruno Latour? Actually, of course, none of these. Similarly, is it quite clear that texts *do* have fixed meanings and that historical data are *not* relative to anything – for example, to the perspectives from which they are viewed or to the idioms available for reporting them? The parading of such dependably – if not always relevantly or inherently – scandalising ideas and the absence of specific citations (authors, texts, passages) for any of them are standard features of the contemporary invocation/denunciation of 'postmodern relativism', whether done crudely, as here, or more artfully, as we shall see later, at the hands of scholars, academic critics and philosophers.

To continue, however, with our example: the idea of an atmospheric linkage between Holocaust denial and relativistic 'postmodern' theory – floated by Evans and endorsed by Wheatcroft – is central to Lipstadt's own book, subtitled 'The Growing Assault on Truth and Memory'. Explaining her conviction that 'part of the success' of current denials of the Holocaust 'can be traced to an intellectual climate that has made its mark on the scholarly world during the past two decades',[7] she continues:

> Because deconstructionism argued that experience was relative and nothing is fixed, it created an atmosphere of permissiveness toward questioning the meaning of historical events and made it hard for its proponents to assert that there was anything 'off limits' for this sceptical approach . . . No fact, no event, and no aspect of history has any fixed meaning or content. Any truth can be retold. Any fact can be recast.[8]

'This relativistic approach to the truth,' Lipstadt observes, 'has permeated the arena of popular culture, where there is an increased fascination with, and acceptance of, the irrational', an observation illustrated by belief in alien abduction.[9]

(understandable in the case of survivors and their families) but would bar such thought in that regard for everyone else.

The association of relativism with morally improper comparisons recurs in a newspaper column that appeared shortly after 9/11 under the arresting headline, 'Attacks on U.S. Challenge Postmodern True Believers'. According to the columnist, Edward Rothstein, the murderous attacks on American targets exposed the hollowness of 'postmodernist' – and here also 'postcolonialist' – relativism. He explains:

> [P]ostmodernists challenge assertions that truth and ethical judgment have any objective validity. Postcolonial theorists . . . [suggest] that the seemingly universalist principles of the West are ideological constructs . . . [and] that one culture, particularly the West, cannot reliably condemn another, that a form of relativism must rule.[11]

But, Rothstein continues, 'this destruction seems to cry out for a transcendent ethical perspective'. '[E]ven mild relativism' that 'focuses on the symmetries between violations' is 'troubling'; for what are 'essential now' are 'the differences . . . between democracies and absolutist societies' and also between 'different types of armed conflict', by which he presumably means something like inherently unjustified terrorism as distinct from manifestly just wars of defence.

The questions raised by this equation of relativism with morally improper comparisons are, as in Lipstadt's case, themselves ethical, involving here political as well as intellectual judgements and acts. Rothstein evidently sees no relation between what he denounces as the 'ethically perverse' idea of symmetry – which, he claims, requires a 'guilty passivity' in the face of manifest wrong[12] – and what he calls for as a 'transcendent ethical perspective'. But symmetry – that is, an observable correspondence between elements of otherwise different or opposed things and, accordingly, their equitable or proportional treatment – is closely related to common ideas of fairness and could be seen as a crucial aspect of justice.[13] Rothstein also sees no connection between the 'unqualified condemnations' he regards as necessary in this case and the 'absolutism' that, in his view, characterises societies so different from Western democracies that only a postmodern relativist could think of considering the two symmetrically. In the days immediately following 9/11, a number of regional specialists and other academic commentators urged consideration of the less obvious conditions plausibly involved in motivating the attacks, including what they saw as the relevant culpabilities of United States policies in the Middle East. All these public commentators, however, condemned the attacks per se. What Rothstein appears to mean by 'unqualified condemnation', then, is a refusal to

Philosophy of knowledge/Science studies

Throughout the recent culture and science "wars," the radically new conceptions of knowledge and science emerging from such fields as the history and sociology of science have been denounced by various journalists, scientists, and academics as irresponsible attacks on science, absurd denials of objective reality, or a cynical abandonment of truth itself. In *Scandalous Knowledge*, Barbara Herrnstein Smith explores and illuminates the intellectual contexts of these crude denunciations. Smith begins by looking closely at the epistemological developments at issue. She presents a clear, historically informed, and philosophically sophisticated overview of important twentieth-century critiques of traditional accounts of human knowledge and scientific truth and discusses in detail the alternative accounts produced by Ludwik Fleck, Thomas Kuhn, Michel Foucault, Bruno Latour, and others.

Smith demonstrates that the familiar charges involved in these scandals—including the recurrent invocation of "postmodern relativism"—protect intellectual orthodoxy by falsely associating important intellectual developments with logically absurd and morally or politically disabling positions. She goes on to offer bold, original, and insightful perspectives on the currently strained relations between the natural sciences and the humanities; on the grandiose but dubious claims of evolutionary psychology to explain human behavior, cognition, and culture; and on contemporary debates over the psychology, biology, and ethics of animal–human relations.

"Scandalously unimpressed by the charges, countercharges, and prudent middle paths found in current disputes over science and truth, Barbara Herrnstein Smith deploys her ferocious intelligence, wicked wit, and broad understanding to provide us with a tonic mixture of empathy and resources for taking positions that are both informed and responsible. She does not flinch before the barrage of outrages; neither, this book in hand, need we."

—Susan Oyama, author of *Evolution's Eye: A Systems View of the Biology–Culture Divide*

"Elegantly written and constructed, amusing and energetic, *Scandalous Knowledge* continues Barbara Herrnstein Smith's edgy and distinctly partial commentary on the science wars between realists and constructivists. Constructivists will be intrigued by the novel, and sometimes critical, avenues the book explores. Realists will be, well, scandalized."

—Andrew Pickering, author of *The Mangle of Practice: Time, Agency, and Science*

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