

Introduction to *Critiques of Knowing*

Lynette Hunter

Editors' Introduction

*What follows is a slightly modified version of the Introduction to Lynette Hunter's *Critiques of Knowing: Situated Textualities in Science, Computing and the Arts* (Routledge). It has been included here at our request, for we believe it to be an innovative and important, unique, instance of cultural analysis. As is immediately obvious, the section printed below is an argument which points to the limitations of many branches of current theory, often expounding at the same time as demonstrating the strengths of this reconsidered manner of engaging with study, a proposal which is carried out in the subsequent pages of *Critiques of Knowing*. We hope, the reasons why we wanted to include the section in this issue of **parallax** are apparent, too. For, in a strong sense, we see here a 'metadiscursive' overview of some issues which informed our conceptualisation of polemics: against cultural studies (as indicated in the editorial of this issue). What follows we consider to be appropriate both as both a polemical piece of writing in itself on the theme of the generation and politics of knowledge and an introduction to a work which approaches pressing cultural and political concerns: a serious re-assessment of what classical rhetoric can teach us about the most recent developments in knowledge production.*

Rhetoric and Situated Textuality

Textuality, like knowledge, is bound into power, for textuality is both knowing and the way we articulate knowledge. What follows will attempt to study of textuality, particularly in the sciences and artificial intelligence in science which has cast itself in the role of a discipline which self-consciously represents the way that science represents knowledge.

Knowledge and textuality are usually taken to be neutral areas by analysis within an institutional structure that obscures the connections with ruling power. This is what I call the ideology-subject axis which I explore in detail in *Critiques of Knowing* since an understanding of its rhetoric lies at the centre of my understanding of the recent development in standpoint theory of a concept of critical realism. In many systems of inquiry that foreground particular connections with ruling power, in many discourse studies, knowledge and textuality are often taken as determined or constructed or constituted by an ideological system. These studies implicitly

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insensitivity and dullness have come to define those people outside of the system as 'object'. However, within the theory of situated knowledge and in standpoint theory, knowledge and textuality are taken as engaged in by groups of people working on negotiating questions of value and action among relations of non-ruling power and between the non-ruling and the ruling.

In the process of studying the place of textuality within science, I am also concerned to look at what I call the 'gesture to the arts' made by both mainstream and standpoint critiques, and to explore the place of textuality in a number of disciplines. The chapter of the book extends the standpoint critique in feminist science and technostudies into aesthetics. The insistent gesture to arts strategies of beauty or pluralism as a possible resolution for science, does not take into account the fact that the recognised 'art' is just as systematic as science, that 'beauty', like the 'successful science, is also an artefact. But aesthetics is also a field tied to the Greek root of the word, to 'feelings', which are generated by all disciplines, and I would agree with Alison Jagger that emotions or feelings are often unauthorised modes of knowledge, the 'rational', for example, being an authorised emotion. Aesthetics and epistemology are closely intertwined, for without articulation knowledge remains tacit, and the main focus of the extension of standpoint theory into aesthetics is to argue for a new understanding of 'situated' textuality, analogous to situated knowledge. Situated textualities occur where people work on words together to build common ground for the articulation and valuing of knowledge, and in order to argue for them, work draws not only from contemporary work in the social history of science but also from the history of rhetoric.

Standpoint theory argues that knowledge that is articulated from the standpoint of those excluded from ruling relations of power, is a particularly important kind of knowledge. Because of the exclusion, the knowledge that is offered from that excluded position is quite different to that current within the ethical and ideological system of a society and its culture, and is therefore a source of assessment and potential change and renewal. The theory is concerned with articulating situated knowledge while retaining a concept of the real in the sense of critical rather than naive realism and with re-defining the 'individual' to account for people who are not subjects but to account for the not-subjected of people's lives.

In science, where standpoint has been explored at length, there is, in recent decades and as the later chapters discuss, a critique of scientific objectivity based on self-limitation resulting from the exclusion of, among other things, women's knowledge. In politics, there have been critiques of the curious doubleness of the autonomous yet universalist man constructed by the liberal democratic social contract, because the necessary isolation of that individual obscures the situatedness of their lives. In philosophy, we find the critique of value-free assumptions in both empiricism and idealism, because the notion of 'value-free' denies history. And in the social sciences, there is the debate between quantitative and qualitative methodology, the latter arguing that verisimilitude, repeatability and enumeration evade the contextual pressures of living.

authority, often, if not usually, without words. The critiques delineate tacit of various kinds, and all recognise the need to work on words to bring knowledges into communication. In nearly every case the pathway out to which the critiques offer, is through story, narrative, or poetics, yet there is critique of the aesthetic constraints on these materials. The result is a hiatus that gestures toward the arts but with no concept of the situated needed to articulate situated knowledge, its contexts and its value.

Rhetoric is a field that insists on the bringing together of textualities, politics. It has traditionally been concerned with social context, and distinguished between the situated, the systematic and the authoritarian concerned with different approaches to truth: truth as certain, as plausible negotiated or probable. And rhetoric is also concerned with the ways individuals wield power, the ways they delimit and extend the possibilities of interaction. Throughout the book I turn to writings on rhetoric from the classical period, and particularly to the texts on rhetoric by Plato and Aristotle. My elaboration of the political structure of democracy is bound up in those relations is the development of epistemology and attitudes to value. The infusion of rhetoric throughout many discourses has led to virtual images of Plato and Aristotle formed in each historical place and time, answering to its needs. All of the discussions return to these classical texts, partly to help dismantle unhelpful in earlier metadiscourses, and partly to rebuild alternative versions more adequate to today. Much of my reading of Plato and Aristotle affirms and lends weight to situated knowledges and standpoint theory. In bringing a refreshed to a contemporary need articulated in feminist theory, the rhetorical approach moves the theory from epistemology into aesthetics both in my critique of aesthetics of different disciplines and in my exploration of different kinds of textuality as inadequate and hence merely a code, textuality as (in)adequate hence transgressed and transcended, and textuality as necessarily limiting the materiality of language and therefore the ground for common work on value.

Standpoint theory comes close to discourse studies in many of its concerns. Standpoint theory's concern for critical realism separates the two. Discourse studies are profound in their concern with the constitution of social systems, and find it difficult to deal with the 'real', for reality is messy and requires that systems relax and get out of the nets of living. Yet each does vital work: Standpoint in its focus on power relations, and discourse studies in their focus on the constraints of ruling relations constitute individuals. To distinguish between ruling and non-ruling relations is to distinguish between areas that need different kinds of rhetoric, that is, to distinguish themselves not only in different kinds of knowledge but also in different kinds of textuality. And explicit through the book is the political context of the current democratic social contract that underwrites the dominant modes of knowledge and textuality with which I live, and which it mediates through the rhetoric of the current that represents many western nation states to their subjects.

The first chapter of this book analyses the ideology-subject axis and its relations in order to assess the connections of knowledge and textuality with ruling

are common to plausible rhetoric as defined throughout the history of rhetorical theories. They include: the assumption of common grounds rather than a discussion and agreement to them; the veiling, hiding, and obscuring of constructed status of these common grounds; the isolation of the system to preclude grounds from question and change; and the procedure of arguing always within the system, always from the accepted common grounds. When one knows that this kind of strategies is happening, the rhetoric can be recognised as an expedient rhetoric that is often successful.

At the centre of the rhetorical stance of ideology is the assumption that representation can be adequate to a lived reality rather than a set of negotiations around the limitations of language. It implies that communication, here political communication between the individual and ruling power, cannot be negotiated differently, but must be shifted to greater adequacy. The practice of this assumption develops into the concept of the isolated, autonomous subject, increasingly constituted by ideology as the subject acquires the stability necessary to its legitimation. Further, as it develops stable representations, it leads to a focus on visual accuracy and repeatability which underwrites the concept of objective knowledge. The ideology of the nation state is common to both politics and science.

A constant thread through all the chapters, is the recognition that much recent political theory takes science as the 'best-case' for politics. And, as I examine in detail in the last two chapters of the book, feminist standpoint theorists in the social studies of science offer direct critiques of the political systems that support it. Science is appealing to analysts of the representative democratic state, since it works within a stable set of parameters that enclose its grounds, isolate its community and allow it to be subject to a rational logic that achieves its success by gaining legitimation from the structures of the system that generates it. Hence issues of legitimation, and the way science or political systems justify themselves to their constituents, become central. Modern science has achieved this stable state through increasing involvement in industry and in commerce that need stable technology to maximise profit. Industry and commerce also need stable politics, and since the seventeenth century capitalist nation states have achieved this stability through ideology. Chapter One outlines the rhetorical stance of ideology, which stabilises the representation of those in power as well as the identity of individual citizens who become subject to that power. I argue that the stance purposively excludes some social relations and relationships and communities in order to remain stable, and constructs an axis of representation relating ideology to the subject.

Aristotle describes exactly this phenomenon of communication in his discussion of the rhetoric appropriate to 'science', by which he means the conceptual knowledge developed within a small group of people, rather than an experimental method which could be used by many. He spells out the strategies and devices that are used to construct stability and repeatability, but he also says that such rhetoric is inappropriate to social interaction because it is enclosed, and hence obstructs negotiation and the discussion of differences necessary to political action. Hence expedient rhetoric aimed at success is not appropriate for politics because of

development of ideology in the modern period of western history, polit a rhetorical structure similar to that of Aristotelian 'science' and for the s For three centuries, the politics of western liberal democracies was a cl with an extremely small proportion of the population representing a sli number, ruling the whole, inevitably from their own experience and re their own interests because there were no permitted competing views. A not so worried about this because the dominance of the oral medium me; that the powerful would not stay too long in power. But the rhetoric do out that way in a period of nation state consolidation with capital, and wi media and other technologies distancing discussion and stabilising repre:

Central to the argument of this book is that both ideology as represent: state, and the language that represents scientific practices, use similar strategies and devices but for different reasons. The experimentation at t modern science, which has come to define the 'natural sciences', is ir primary medium of scientific textuality and should locate its aesthet conveying the activity of that textuality, science uses language to conn other people. However, modern science developed during an historical p theories of language were attempting, unsuccessfully, to achieve full adeq real, and since language is always different in reality, it appears to be i The response of science to this dilemma, which is discussed at length ar by scientists during the seventeenth and eighteenth centuries, is to use l a code, and to employ mathematical language, which of course appears exact because it operates wherever possible within a pre-defined terr scientists can understand that there is a real world with which the experime but for the large part of the population which is unfamiliar with experi second order code of language is the reality of science.

In chapter two, I argue that today, this understanding of science is exac the recent development of computing science and particularly of Artificial I (AI). Neither computing science nor AI deal immediately with the nat they are, not surprisingly, often linked with mathematics and philosophy the rhetoric of the textuality of computing, mimics that of the second or science and takes language as inadequate to reality. The widespread use of throughout the modern nation states of Europe, North America, Australia at the least, has given weight and practice to this understanding of scier also, many analyses from political philosophy, in their reference to th model of language and rhetoric, are taking an artefact as a best-case exar tautologically use an ideological structure to justify the structure of ideolo of a rhetorical analysis of the textual representations that science distinctively demonstrated in computing science and especially in AI, ch to four offer a critique of the techniques frequently used for representing w does. At the same time, using the example of humanities computing, the: study the pervasiveness of the belief that these techniques are indeed wl has to offer. The commentary suggests that the persuasion is particular when adopted by the arts and humanities where textuality is not used order code but as primary material, albeit within an aesthetic system

has to be said that many people working in the arts and humanities have rejected computing precisely because it mimics the set of epistemological conditions that challenge. But with hypertext, which seems to offer different strategies, some of resistance has begun to break down.

The third chapter turns to a study of what mainstream philosophy of science says about the representations used by science. These commentaries frequently refer or focus on computing and AI because of their claims to display the representation of science. The argument here suggests that philosophers of science, with a few exceptions, underwrite a notion of textuality that explicitly draws on the (in)adequacy of language and results in representation either as second order code or as transcendence/transgression. Mainstream philosophy of science also frequently gestures to beauty or plurality as a possible resolution for science, and does not understand that much recognised 'art' is just as systematic as science. However, this misunderstanding is not surprising since many critics and intellectuals who comment on art do not themselves recognise the systematic structure of 'beauty' nor the ideological construction of plurality. Indeed, the one is frequently offered as a resolution to the other, in an essentialist/relativist stand-off that is redoubled in political and aesthetic debates about authenticity as identity politics as against multiculturalism.

Chapter four works from a rhetorical critique of dominant theories of language and textuality as (in)adequate, to suggest that there are different kinds of first order textuality or textuality as primary material, and that the different textualities permit different kinds of legitimating practices for knowing, different ways for people to represent value and to value representation. The critique returns to computing as a case study from hypertext methodology to emphasise that no technique is enclosing, isolating or reductive, or exploratory, contextualising and flexible, in itself nor is either authenticity or self-reflexiveness in itself enabling. Communicative techniques from all disciplines need a rhetorical analysis of stance, which will position techniques and strategies historically, politically and socially. Such an analysis situates the textuality and in so doing situates the knowledge.

The concept of language as (in)adequate to the real is also central to theories of aesthetics and criticism in the post-Renaissance period. Chapters five and six move through a standpoint critique of science to a critique of aesthetics. Within the modern nation state, the artist is cast as the allowed or permitted transgressor of ideological enclosure, and intellectuals or critics are those who articulate to the state the knowledge of transgression being enacted. Art itself is perceived to be activity that attempts to transcend the inadequacy of ideological limitation. In doing so it produces beauty as it wrests some element of social reality from ideological obscuring into cultural articulation. At the moment of articulation such work produces intense joy, partly because it sits so neatly into the interstices of ideology it is often called 'true'. Yet none of these designations account for the personal and individual work on web and other media carried out by artists. As I argue in chapter five, these designations are critical theories of reception and intervention by and for an art that is produced by licensed citizens of the nation state.

critical vocabularies for aesthetics, encourage or admit contact with the s of non-ruling relations. This a standpoint analysis can make clear. But i case, then what does the gesture of resolution toward the arts made by p of science, whether they be mainstream, standpoint, feminist, or contribute? What makes it simpler for discipline-specific language to deny relations is that ideology and the public understanding of the sciences, and the arts, assume that the function of language is to be adequate to world. I suggest throughout this book that in effect art, science and con work rather differently in their immediate activity with the material world they engage, acknowledging the limits of language and negotiating with it Without an understanding of rhetorical stance and the situatedness of standpoint can and has been dismissed as identity politics. Yet with a situatedness that rhetoric can offer both to knowledge and to text (and to outwith the scope of this book, such as sexuality), personal experien positioned with respect to conversation, decision, action and value, with groups of people having specific needs. A rhetorical understanding of that s also makes it possible for communities to negotiate with other commu larger political field.

Rhetoric argues that language is inexorably different to the real world, w language has to be worked on in specific contexts of negotiation over com or in situated textualities. As a result, I present this analysis as one also b own experience as a practising biochemist from 1968-78, as a humanities teacher and user from 1980-95, and as a writer and artist all my remem The structure of the book is interspersed with stories, anecdotes and acco personal engagements with these disciplines. The interspersals are at first they erupt through the density of memory and are most fully told in the fin There I speak about my current teaching, in which, with the help of othe engage with people in strategies for conversation and common action, and texts, other knowledges and other people, of quite different needs and pos concluding discussion begins to ask what science and computing might be the recognised arts might be like, and indeed what politics might be li engaged more substantially with rhetorical negotiation, probability and c

Lynette Hunter is a number of things, including a Professor of the Rhetoric at the University of Leeds, and a performer of theory-art. Per include 'Can a man be a Woman', 'Trying not to be a Tragic subject', 'C Books' and 'Bodies in Trouble'. Title explosion: enjoy.

