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TOWARD UNDERSTANDING LITERACY:
DISARMING THE APPEAL OF ATHEORETICAL ECLECTICISM
IN TEACHING PRACTICE:
AN ANALYSIS OF DISCIPLINARY PERSPECTIVES

by

Wendy Myra Strachan

A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
in
The Faculty of Education

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ABSTRACT

The thesis assumes that educators seek educationally worthwhile outcomes of literacy teaching. It responds to uncertainties about the development of literacy which are apparent in tendencies toward eclectic teaching practices which, supported by single disciplinary perspectives, tend to be mutually neutralizing in their effects. In search of a comprehensive understanding of literacy, the thesis takes a synoptic view of readings from a cluster of significant works on literacy in the disciplines of classical studies, anthropology, cultural history, sociology and psychology. Profiles of the Greek transition from orality to literacy are taken as the point of departure for examining claims about literacy's cognitive effects. These claims are set against anthropological studies which indicate that common thinking processes underlie diversity of cultural expression but that the technology and uses of writing partly account for the diversity. The particular attitudes, beliefs, meanings, and uses which distinguish literacy in Western culture are shown to have been developed gradually, the potentialities of the technology being realised in response to diverse needs it generates. Ethnographic and empirical studies in sociology illuminate factors affecting access, mode of acquisition, and the social value of literacy. Psychological studies

suggest that individual literacy learning should be typified by engagement, intention, and use of the imagination.

By means of an extended critical analysis of these works, the thesis finds that the form literacy takes depends on the dynamic interaction of technical competencies, cultural-textual knowledge, social contexts, and individual consciousness. When constituted in particular ways, and brought into dialectical relation, these elements of literacy development are capable of fostering critical-transformative literacy. Achieving such a form of literacy is to learn to relate to the world and experience in a particular way but does not imply attachment to a particular canon nor linguistic dialect. Teaching practice will be compatible if it offers constant demonstrations of the attitudes, beliefs and values of a critical-transformative literacy, discourages dependence on rule-governed learning, and is coherent with the manner in which the child's imagination and consciousness is, at different stages, able to understand and grasp the world.

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Chapter One

Introduction

To step into the field of literacy is to venture into what Walter Loban (1978) so accurately describes as a "dangerous region" with a "menacing geography." There is a general lack of agreement about what literacy is, how it is acquired, what effects it has, and whose and what purposes it should serve. Government leaders, social scientists, publishers, corporate executives, educators, and the general public bring diverse, competing perspectives and political agendas to bear on the answers to such questions. That disagreement in itself is not new, of course. Literacy has been a contentious issue since at least the early nineteenth century. What is new, and what makes the current debate more difficult for educators, is that literacy as a concept has become much more complex.

Until the early 1980's, it was difficult to find explicit discussion of literacy in educational literature. Fifteen to twenty years ago, such sources as guides for teaching reading, statements of school goals, lists of subject objectives, and preambles to reading comprehension tests included few explicit references to literacy. Becoming literate appears to have been viewed as synonymous with learning to read and write, or was assumed to be an outcome achieved by learning to read and write. Literacy was thus principally a means: as one needs a bucket to

fetch water, so one needs literacy to gain independent access to the knowledge stored in books. In education, reading and writing, like listening and speaking, served as media for the communication of knowledge.

That school learning, like all learning, involves thinking, and that thinking involves language were also implicit rather than explicit assumptions. Because implicit, the nature of their relationship appeared unproblematic. The links among them matched the chain of transmission: teachers talk--students listen--students learn--students think. Alternatively, books replaced or supplemented teacher's talk and reading replaced or supplemented listening. Students' own speaking or writing served as audible or visible evidence that they had indeed learned. They themselves would be described as literate when they demonstrated themselves capable of producing evidence of their learning in the conventionally correct manner.

The possibility now being widely raised, however, is that reading and writing do not simply offer efficient alternatives to face to face talk as a means of communication. The idea that reading and writing might have some distinctive impact on the nature of what is learned, and thus on thought, has contributed to making literacy a complex concept and raised questions about the nature of the relationship between language, learning and thinking.

Literate capacities begin to look like a cultural tool-kit for thinking. The possibility of there being a complex and perhaps powerful relationship is having a significant impact on how educators think about teaching and learning and the role of language. If literacy is not only a means, what else is it? How does literacy affect thought and thus learning? What implications does this different concept of literacy have for education?

Articulated concepts of literacy, like the debates on literacy, are easier to find outside the field of education than within it. Educators are driven, as seems to be the norm, to borrow, adapt, and modify insights and understandings about their practice from other disciplines and from the public arena. The brief overview which follows describes the public arena in which educators are participants. It identifies some of the principal ways literacy is being defined and talked about and suggests why these ways have limited value for educators.

Current Definitions and Descriptions of Literacy

Dictionary definitions do not explain concepts but they do specify how words are currently used and understood.

Webster's Third New International Dictionary (1971, unabridged) gives two definitions of literacy: "the quality or state of being literate; and the ability to read a short simple passage and answer questions about it." The

definitions under the entry for literate indicate how the term literacy may refer to qualitatively different characteristics. Webster's distinguishes three categories of meaning:

1. literate defined in terms of quantifiable skills in the have or have not, absolute sense: "Able to read and write - opposed to illiterate."

2. literate defined in terms of qualities: "Characterized by or possessed of learning: educated, cultured."

3. literate defined in terms of degree or quality of performance: "Well-executed or technically proficient: polished, lucid."

Quantities of literacy

In institutions outside of schools, literacy is most commonly talked about in its absolute, quantifiable sense. Typically, the talk is prompted by the apparent absence of what are perceived to be literate competencies. Inability to read and write as measured by standardized tests of various kinds has, since the mid-nineteenth century, been the canker prompting periodic flurries of discussion about lowered standards and the need for improvement. The reaction to the perceived incompetence is to develop projects to correct the problems. The need to improve or encourage particular levels or uses of literacy has typically been identified by businesses or agencies outside

the public school system and it is they who have responded by developing literacy programs.

In the U.S., for instance, many large companies have introduced literacy programs to train workers to function more effectively in their jobs. Some literacy programs are offered by social and charitable organizations. Others are sponsored by unions or by government departments and some are taught in non-credit extension departments of colleges. They benefit adult learners, minority students, or "disadvantaged" young children, rather than "average" students in the regular school system. They are associated with compensatory and remedial ideas and are commonly planned from deficit descriptions and definitions, from characteristics of illiteracy rather than literacy.

In non-educational contexts where levels of literacy are assessed, whole populations are classified on the basis of having or not having a degree of literacy. As a form of aid, the United Nations has, since 1947, administered literacy programs on a large scale in developing countries. The U.S. Bureau of Census, the military, and some government departments who provide remedial help to immigrant populations speaking languages other than English also classify people on a have-have not basis. The literacy they are looking for is a minimal standard of ability to deal with written language.

The U.S. Bureau of Census defines literacy as "the ability to read and write a simple message in any language." This standard is significantly more demanding than measures which deem ability to produce a signature as indicative of literacy. Nonetheless, it is a measure which makes minimal demands on the judgment of an assessor and neither offers nor requires complicated discriminations. The literate can be distinguished from the non-literate in a straightforward either/or manner. Assessments which measure ability to perform a range of every-day-life tasks requiring literacy, such as the 59-item 1985 National Assessment of Progress test in the U.S., provide more specific information about what an individual can do on the test but like the simpler screening of the Census Bureau treats literacy simply as a quantifiable property which can be learned and applied regardless of context and purpose.

Educators in the past have not been satisfied, either to aim at or to achieve such minimal literacy levels. It must be said, however, that current trends toward teaching to minimum competency levels and the practice of measuring that competency with systems of tests which in effect control teaching are oriented to very limited levels of attainment. The way in which literacy is defined has a significant impact, of course, on what is measured and thus taught. The failure of educators themselves to conceptualize literacy in terms of much more sophisticated

and comprehensive kinds of competencies and understandings makes us vulnerable to the conceptions of others who have a vested interest in minimal levels and uses of literacy. At the very least, it would seem educators need explicitly to reject this first definition of literacy in favour of a complex description which reflects the educational goals of curriculum guides.

Literacy as qualities

The definition of literate as "characterised by or possessed of learning: educated, cultured" makes the traditional association of literacy with being well-read in the literary sense. The literate person was familiar with culturally esteemed works of literature and valued them in accordance with public standards. When mass schooling became an educational goal in the nineteenth century, it was clear, as Baumann notes, that education would not produce "literary masses." The literary sense of literate has thus continued to apply and be applied only to the few.

"Cultured and well-educated" described an elite group, typified by graduates of exclusive liberal arts colleges. As a definition, it connotes a cultural literacy that is too closely identified in traditional ways with reading and acceptance of the literary canon to be useful to a broad spectrum of educators. Not that there is not a certain public longing for what is perceived as a lost cultural homogeneity. E.D. Hirsch (1987), in his recent best-selling

book, Cultural Literacy, has urged schools to teach a common body of knowledge in order to reinstate what he sees as a rapidly eroding cultural heritage. The authority of that fairly homogeneous public standard of what constitutes cultural knowledge and thus cultural literacy has anyway been undermined. Widely challenged by literary works from previously marginalized groups, its right to authority is perceived in contemporary and multicultural societies as both ethnocentric and elitist.

Not only has consensus broken down on *what* literature counts as the stuff of the culture, there is also no consensus on a definition of literacy which associates being literate almost exclusively with knowledge of literature. That definition has been expanded to recognize and value knowledge and competence in multiple aspects and activities of the culture. Knowledge and appreciation of multiple "languages," broadly defined and each with its own standards, is acknowledged to constitute being literate in the third sense given in Webster's dictionary. Characterizing literacy in respect to a broad range of social activities democratizes it. It is achieved through participation in all manner of activities involving the skills of literacy rather than exclusively by attendance at academic institutions. "Literacies" thus proliferate: media, computer, legal, cultural, political, critical, and

what is commonly called basic or functional literacy, to name a few.

Literacy as competence

What appears to distinguish one literacy from another, except the last--basic/functional literacy--is a matrix of concepts and activities peculiar to each. Becoming computer literate, for example, involves learning the appropriate language to refer to computer processes and understanding computer workings and applications. James Boyd White (1983) writes of legal literacy that it is "...not merely the capacity to understand the conceptual content of writings and utterances but the ability to participate fully in a set of social and intellectual practices" (p. 137).

Basic literacy, on the other hand, is determined principally by the ability to encode and decode any simple text, to fill out forms and interpret labels. It is a capacity to give and respond to signals. It is not specific to any body of content or information. The U. S. army has replaced such generic definitions of literacy for ones which refer specifically to the "literacy demands of each military occupational specialty" (Venezky, 1983, p. 45). Assessment and instruction procedures are then developed that "embed literacy training within training for the specialty itself." Venezky coins the term "applied literacy."

Being able to manage the written discourse current in particular socio-economic or political contexts serves as a

kind of social currency: the means to full participation in culturally valued activities requiring literacy. Bailey and Fosheim (1983) endorse the view that literacy is tied to social activities and go even further, asserting that "...an individual may be literate in one domain and yet effectively illiterate in another... Changes in the demands for literacy can render useless some forms of reading and writing while placing high values on others" (p. 5). So conceived, literacy becomes a passport to membership in a particular system of activity and may not be transferable to other activities.

Indeed, school reading tasks can apparently be useless in some circumstances. On a recent Canadian literacy survey (Southam, 1987), young adults apparently coped quite well with school-type reading but had trouble finding headings in The Yellow Pages or summarizing general themes. Such findings, if interpreted at their face value and added to a value judgment about the importance of being able to read The Yellow Pages, might seem to imply that training in reading The Yellow Pages should replace existing school kinds of reading--a line of thinking that underpins basic literacy programs and much of the minimum competency trend. Adopting a literacy-as-competency concept of literacy has further implications for education, insofar as it implies that learning to read and write about the subject is a way of learning the subject. The contexts in which this view of

literacy is applied, however, typically value expository reading and writing over the narrative and imaginative. It is a concept of literacy which in practice privileges explanatory, exploratory, and scientific language that explains, explores and demonstrates.

Conceptualizing literacy in terms of literacies which are domain specific and socially exclusive has a certain pragmatic appeal. Acquiring the literate competencies needed to be a tax clerk sounds, and indeed is, functional and applicable and relevant in what is commonly called "the real world." In her study of the writing done by a bank staff, however, Jane Ledwell Brown (1987) found that 83% reported learning from their work experience and only 24% from seminars and courses. When literacy is acquired in contexts of use, the context not only makes what is to be learned meaningful but also has a direct socializing function which is efficient. From an educational perspective, however, preparing students with the literacy skills for certain kinds of jobs would tend to marginalize the broader implications that attach to a more complex concept of literacy. Literacy-as-competence conceptualizes literacy as tools and information which socialize the individual to function in particular contexts. But educators are not concerned only with preparing students for possible future contexts and uses of the contents and skills in the curriculum; they are also concerned with the ways in

which the curriculum and the role of literacy in the curriculum fulfil present and immediate needs of children as users of symbols. In fostering literacy, they will thus take account of the symbolic nature of all forms of language and its uniquely humanizing, as well as instrumental uses and purposes.

Literacy and Teaching Practice

That none of the common definitions and concepts of literacy can be regarded as adequate for educational purposes should not surprise us. The definitions which come to education from common usage refer to certain social manifestations of literacy--skills in decoding and encoding, possession of aspects of cultural knowledge, and competence to communicate within a particular context. The links between teaching practices in schools, individual processes of acquisition, and the social evidence of literacy are by no means simple or clear. In making literacy an explicit goal of education, educators and educational theorists put themselves in the position of needing to understand what they mean by literacy and, following from that understanding, to find ways to achieve the outcomes of literacy they believe to be educationally worthwhile.

These outcomes are likely to be distinguishable from the outcomes sought by other groups within the society. Employers or religious authorities, for instance, may simply

want workers or congregations who follow instructions. They may be most concerned with ability to read. Such writing functions as copying and transcribing may be all that is required in many situations. Adult learners in literacy programs commonly have their own quite specific purposes for learning to read and write. Educators, in contrast, are charged with responsibility for making decisions and choices about the purposes for literacy when they teach young children and adolescents. As educators, they intend to encourage individual knowledge and competencies in directions that are both socially and personally desirable and in the belief that knowledge and competence will enable personal fulfilment in social settings. Their motives are more altruistic than self-interested. In principle, at least, they will encourage literacy which enhances individual potential rather than literacy which inhibits or constrains it.

With evidence accumulated over the last decade that skills approaches to language instruction inhibit development (Cambourne, 1988; Harste, Woodward, & Burke, 1984; Smith, 1986), significant changes in ways of teaching to achieve literacy are taking place. Ability to read and write is being understood as involving more than correct assemblage and analysis of linguistic components. It is seen as developing in response to the meanings and purposes for which it is used. As Mary Barr (1982) describes it,

"[Language development] accompanies and permeates experience, growing more like a plant than a building, in response to surrounding nutrients instead of in accord with blueprints" (p. 3). Such changes in understanding are reflected to some extent in teaching practices which assume that children are meaning-makers of their own intelligible environment. These practices are beginning to change classrooms and to replace linear, sequential, skills-teaching methods. Literature, replacing basal readers, is used as the material for learning to read as well as for reading. Children are assumed to have experience and ideas which they can write about and which can thus be included as subject matter for writing, replacing such tasks as making up sentences in order to use spelling words.

The picture of the student in such classrooms is, as Mary K. Healy (1984) describes it, of "an active language user, spurred by some intention, deliberately translating experience into words and structuring her own meaning" (p. 3). It is also recognized in these new approaches, however, that that student is not alone. Language use is not only an individual meaning-making activity, it occurs in and can be nurtured by social settings. The ideal social setting is collaborative rather than competitive in structure and offers purposeful opportunities for language use. It is structured on the assumption that all students are capable of participating successfully. It communicates the message

that reading and writing are both possible and worthwhile for all and that they are useful for doing things in the world.

These views and pedagogies do not simply represent alternative methodologies which appear to be operationally successful in the short term. They are based on socio-psycho-linguistic models of reading and writing that derive from theoretical work in psycholinguistics and psychology (Vygotsky, 1962; Kelly, 1963; Bruner, 1975, 1986); on interactive models of language acquisition (Halliday, 1978; Krashen, 1984); on interactive or transactional theories of reader response (Rosenblatt, 1938, 1987); and on research about composing processes of writing (Berthoff, 1981; Emig, 1971; Perl, 1978). They appeal to teachers on many grounds. They acknowledge that the child's mind is not a clean slate awaiting teachers' marks. They satisfy certain intuitions about the integrated, holistic nature of language and learning. They seem closer to our lives as learners in the world outside school and seem thus more accessible and experientially plausible.

On the other hand, these approaches have an ad hoc quality about them. Although informed by theories about language learning and composition, that theory does not encompass a comprehensive educational view of literacy, notwithstanding the fact that literacy has become an explicit goal of mainstream education. Even current texts

which now declare literacy as their goal commonly have little to say about the assumptions related to literacy which underlie the teaching practices they recommend. They are more likely to assert that this or that practice will develop literacy than to explain why. The danger, and perhaps the great loss, will be that integrated, holistic approaches to language and learning will simply compete in the marketplace of alternative strategies. Evaluated within the narrow frameworks set by standardized tests, for instance, they may prove more or less effective in raising scores.

It would be naive to suppose that any theory, however derived, necessarily has an impact on teaching practice. Teaching and teaching situations tend to be constantly shifting and improvisational by nature, rather than rational and linear. Teachers' practical knowledge or "lore", as Stephen North (1987) calls it, has a pragmatic logic and experiential structure. Teachers are concerned with what works or might work with students and they interpret their own practice within an experience-based framework. A functional property of teachers' lore, says North, is that "While anything can become a part of lore, nothing can ever be dropped from it" (p. 24). What this means is that teachers, engaged in a messy and mostly artful enterprise, entertain and act upon often contradictory premises and, furthermore, act routinely, on the basis of what they

already know. It seems reasonable to assume, then, that new approaches to reading and writing will typically be added to the teacher's eclectic repertoire. They will be made over, as North puts it, "in a way that suits" [the teacher's] needs in a particular time and place. And not just once.

Practitioners are always tinkering with things, seeing if they can't be made to work better" (p.25).

In the context of what will "work better" to achieve literacy, teachers will need to know what kind of thing it is they are aiming at, if they are to evaluate what they do. At present, educators trying to decide how to think about literacy are faced with a perplexing array of competing concepts and contexts to consider. While literacy itself is inadequately conceptualized and understood, its value and meaning as an educational goal must be seen as problematic.

Being able to read and write seems a clearly important though not sufficient condition for becoming a literate individual. It includes acquiring a body of knowledge and some strategies for thinking and learning. Writing thought of as composing involves thinking and understanding and drawing on what is known. What is the character of the relation, then, among the language skills of reading, writing, speaking and listening, the information and concepts represented in texts, and the strategies we use to comprehend and make use of them? Might that relation be part of what ought to be expressed in a concept of literacy?

Literacy and literate behaviour do not, of course, characterize only individuals. They are socio-cultural phenomena whose characteristics are historically achieved. Those characteristics will not be generic therefore, but will depend on factors and conditions which are particular to a society or culture. An understanding of literacy which took account of socio-historical conditions and developments would embed literacy in a theoretical framework. Within such a framework, we might think about language, learning, and thinking and the social contexts for their development in a more comprehensive and integrated way than is possible with the current definitions and concepts of literacy. With a full and rich sense of what kind of literacy is possible, we are better able to evaluate practice; we can make decisions about "what works" from a sophisticated understanding of what we intend to accomplish.

Overview of Thesis

In this thesis, I attempt to respond to the general lack of agreement among educators about what is entailed in becoming literate, what cognitive effects are attributable to literacy, and what and whose purposes literacy should serve. In the process of constructing that response, I have examined the development and effects of literacy from the particular disciplinary perspectives of classical studies, anthropology, cultural history, sociology and psychology.

In choosing to investigate what each discipline has to say about literacy, I have intended to describe what each says from inside the discipline, as far as I could, while at the same time maintaining an educational perspective. From the rather intimidating volume of research in each discipline, I made primarily pragmatic choices; I selected those works which have been widely used to offer theoretical support for particular practices and programs. From a selective and partial reading, these theoretical perspectives are used to support eclecticism in practice, but my intent has been to take a more synoptic view in order to arrive at a more comprehensive understanding. Recognizing the pitfalls of an atheoretical eclecticism, I have therefore taken a critical stance toward this varied literature, but my overall purpose has been to elicit what seems usable for educators seeking to formulate their understanding of literacy.

Such is the diversity of these disciplinary perspectives and their specific findings that attempting a synthesis might seem at worst futile and at best presumptuous. As educators, however, we need to see the field as a whole. We cannot afford the luxury of the specialist. We cannot view students, their learning or our teaching, exclusively through the specialized lenses of the psychologist, or sociologist, or linguist. Each student in the classroom is simultaneously an individual personality, a member of a culture, a bundle of mental capacities, and a

physical, sensing body, with all the specificities which attach to each of those categorizations. Students bring their whole selves to the social context of the classroom which itself impinges on and affects those selves and thus needs to be structured so as to nurture their social, personal, and intellectual development. Appropriating any single analytic perspective would distort perception of the students as whole beings. We want to be able to juxtapose one perspective against another, to allow understanding of each to inform understanding of the others, and in turn to become integrated in a conceptually rich and distinctively educational perspective on the processes we engage in to teach reading and writing and thus foster literacy. The investigation undertaken in this thesis is intended to reflect that frame of reference.

In order to answer the general question of how educators might conceptualize literacy, the thesis investigates four interconnected dimensions of its development: the nature of the relations (1) between orality and literacy; (2) between the development of literacy and the forms and uses of writing; (3) the effects of literacy on thinking and development of knowledge in the individual and the culture and (4) the conditions under which these effects are achieved. I begin from the obvious premise that literacy is a socio-cultural phenomenon with a history. In Western culture, we can begin that history with the Greek

invention of a new alphabetic script. The ways in which alphabetic literacy developed in Greece laid the ground for its subsequent development in Western culture. The second chapter thus sets out and discusses the claims arising from studies of the transition from orality to literacy in ancient Greece. Collectively, these claims constitute a hypothesis about literacy which is challenged, qualified, and refined in the next four chapters.

Chapter Three takes up the question of how literacy affects thinking and forms of expression by exploring, through the lens of anthropological studies, the nature of the differences between oral and literate cultures. Since certain differences clearly cannot be attributed to mode of expression alone, the fourth chapter traces the historical development of uses of writing and concepts of literacy. The literacy hypothesis is thereby confirmed in its general claims, but the historical record also shows that the potentialities of literacy are neither released nor experienced in a similar manner by all social groups within a culture. The fifth chapter uses the studies of sociologists to determine what features of a social context are probably critical in shaping the nature, uses, and purposes of literacy. The sixth chapter addresses the questions of what cognitive capacities can be considered to be distinctively literate and what is entailed in the development of literacy in the individual mind. The final

chapter makes some proposals for teaching. Not intended to be exhaustive or prescriptive, it describes approaches which seem compatible with the lessons from the previous disciplinary inquiries and which, indeed, seem likely to foster a form of literacy which will enhance individual potential.

Chapter Two

The Achievement of Literacy in Classical Greece

Introduction

In the history of human culture as in the history of the individual, forms of expression in spoken language precede those of written language. In fact, only a tiny fraction of the many thousands of languages spoken throughout human history have been written down. The study of language, however, was until this century generally reserved for written rather than oral forms. The written was thought to be the more accurate representation of the pure form of the language and the spoken to derive from and vary in colloquial expression from a written standard. Linguists were not much interested in comparing them (Schafer, 1981). While most linguists, as Schafer points out, no longer share Saussure's view that writing exists "for the sole purpose of representing [language]" (p. 23), the precise nature of the relation between speaking and writing continues to be a matter for debate and investigation.

Discussions of the relation and of the differences between the oral and the written have focused principally, however, on language structure and its situational uses (Bernstein, 1971; Halliday, 1976; Malinowski, 1923; Vachek, 1975). Detailed analyses of particulars enhance our understanding of how language works and how meanings are

created and shared but, until recently, this comparative work tended to overlook the implications of the mental processes of verbal composition. From Milman Parry's studies of oral methods of composition (1928/1971), extended and developed by Alfred Lord (1960), literary and classical scholars began to contemplate the possibility that the Homeric epics had been orally composed and orally handed down. Much earlier, at the beginning of the eighteenth century, Giambattista Vico had argued that The Iliad and The Odyssey reflected the thinking of poeticized consciousness. Vico theorized that the human mind had developed in a necessary sequence of three stages, beginning with the poetic. His work supports that of Eric Havelock who over several decades has explored the implications of Parry's studies and proposed that differences between oral and written expression can be explained by the introduction of alphabetic writing. In this chapter, which begins our search we shall examine the basis of that claim and consider its implications for our understanding of literacy.

The search will take us into a fairly lengthy review of Vico's and Havelock's work on pre-classical and classical Greek verbal composition. Writing appeared in Greece around the 8th century, according to Carpenter (Havelock, 1963, p. 49), infiltrating a cultural condition of almost total non-literacy. Like the computer in our own time, writing came

to function as a new vehicle of communication in an already sophisticated society with an elaborate system of social and political organization. Describing the effects of the computer today, or of writing in 500 B.C., requires making some before and after contrasts of how practices and perceptions appear to have changed or have been modified with the use of the new technology. In Greece, material evidence of changes was available in certain of the preserved cultural texts. The textual features of the transcribed Homeric epics--at least some parts of which seem unquestionably to be products of oral composition (Gomme, 1954; Hartog, 1988; Kirk, 1962; Page, 1959; Pearson, 1939; Vernant, 1983)--contrast strongly with the later written composition of Plato and of historians like Herodotus. Havelock proposes that the distinctive differences are the consequence of a cultural transition from orality to literacy. By releasing the memory from dependence on formulaic language and narrative structure, he claims the new alphabetic writing enabled the creation of new patterns of syntax, and new arrangements of experience and data. Thus through writing were afforded new resources for thinking which led, in Greece, to the development of rational, scientific thought and to a new critical consciousness.

Havelock's (1963) provocative conclusions were at the time both directly and indirectly supported by the work of

some prominent and imaginative scholars in other disciplines (Derrida, 1967; Goody & Watt, 1963; Levi-Strauss, 1963; McLuhan, 1963). Together with the work of Jack Goody (1977) and Walter Ong (1982a) in particular, these conclusions are referred to collectively as "the literacy hypothesis". That hypothesis has been challenged as being stated in rather too strong and too dramatically causal terms (Graff, 1988; Finnegan, 1977; Street, 1984). There is a general consensus among scholars, however, that the transition to literacy in Greece was related to transformations in thinking about the world and human experience of it - as, for instance, in the establishment of science as a mode of rational inquiry distinct from traditional or popular patterns of thought (Lloyd, 1983, p.1). The particulars of the support for this hypothesis thus deserve our consideration for the light they may cast on the nature of literacy.

It may seem that delving so far into the past can have little relevance to understanding the effects of literacy in the present. What we shall see, however, is that Greek literacy in Plato's time is not simply the result of thinly spreading a technological innovation on top of an ancient culture. Its character was achieved as an outcome of the cultural experience which preceded it. The features of that experience which have particular relevance for this thesis include the claims made in the literacy hypothesis about the content, language, and form of the Homeric epics

and the means by which they were held in the memory, spontaneously composed and transmitted, and the support adduced for these claims. The support, perhaps ironically, may leave doubts with regard to the Homeric epics, but, particularly through Parry's and Lord's later work with contemporary singers of epics in Yugoslavia, give considerable substance to the literacy hypothesis in its more general claims. As we shall see in later chapters, the effects of the infusion of preliterate experience into new means of expression have implications for our understanding of the effects of introducing literacy into other non-literate cultures as well as for educational practice.

The first part of this chapter sets the context with a brief discussion of the notion of composing processes as both oral-written and spontaneous-reflective. The following sections go on to indicate how the features of the Homeric epics, noted in the previous paragraph, and the means of their transmission established the ground out of which Greek literacy could develop. Those same features are also used to illustrate the transformation in consciousness which accompanied the invention and spread of alphabetic writing. In the final sections, I consider how the apparent effects of alphabetic writing on poeticized thought might contribute to our understanding and concept of literacy.

Language and the Composing Mind

We do not see the world as it is and have it imprinted on our minds in the form it appears naturally. To make sense of the world, we select and distinguish one thing from another, abstract and arrange them. We linguistically symbolize what we see and create order and patterns and meaning. The processes by which we do this are the principal means by which we interpret and make sense of the world. The most powerful means that we have are the techniques that language affords for establishing relationships, for seeing and naming one thing in terms of others and in relation to them. The process is a natural act of mind; all human beings are composers in this sense. We express that composing of the world mainly in and by means of our talk and writing.

Spontaneous verbal composition is generated from the structures of language internalized by the mind. We seem to be genetically programmed to speak and to learn language. Wherever human societies have formed, their individual members have communicated in situations of personal contact through spoken language. Although evidence of abstract notation and systems of symbols date back 25,000 years, it is sound that seems prior, coming naturally in the first cry of birth. With the invention of writing, however, and the systematic study of that sound as written, what is referred to as language came to be identified with the written words

we can speak rather than with the sounds we can write. We tend to forget, therefore, that all human languages are, by definition, ordered, structured sounds. They may, additionally but in a sense incidentally, become visible through a system of concrete symbols, but visual apprehension does not alter their essentially oral origins and thus their origin in the individual consciousness.

Although biological programming determines the capacity for language, it is our social nature and the institutions we create that shape, and in turn are shaped by, the characteristics of the language we develop. Changes in the semantic and structural features of language serve, as Vico terms it, as "witness," in the sense of testifier or confirmer, to "those social ideas and conceptions which are a necessary part of the different kinds of human activity and institution" (Pompa, 1975, p. 136). It is not simply that, by having as its content some information about those activities and institutions, the language offers a record of them. The language itself, as language, develops and affects a perception of that human social activity. Since language symbolically represents the interpretations of social relations that the human mind constructs, language is partly constitutive of that social world and its social relations.

The structures of language, with their patterns of syntax, forms of arrangement, rules of usage, concepts and

meanings become apparent in form when systematically studied; in use, they constitute techniques for thinking. They are the apparatus with which and by means of which we can think about, give meaning to, and express our experience. The forms that they take offer insights into the ways of thinking of those who produce them. They reveal the range of possible connections and relationships that have been internalized and are typically unconscious. It seems safe to conclude that observable differences in spontaneous forms of expression are significantly connected to differences in the internalized and largely unconscious means for making sense of the world. What this means is that when we can compose spontaneously on a subject, we can conclude that linguistic and semantic knowledge of that subject is within and constitutive of our thought. The corollary of this is that what we cannot say--because the means do not exist in the language or because we do not know the language--we cannot think about either.

Composing orally, however, is somewhat different from composing in writing, as anyone called upon to speak extemporaneously is aware. Speaking occurs spontaneously, often thought-lessly. Except in particular circumstances where we wish to choose our words carefully, it would be inaccurate to think of spoken language as typically composed in the sense of prepared prior to or during delivery. Not, that is to say, that speaking is unintentional, but that

what is said is not accompanied by conscious thought. As Max Black (1968) points out in talking about the relation of language and thought: "It is preposterous to imagine that rapid speech is always accompanied by a parallel flow of mental images or 'thoughts'....Speech needs no mental correlate in order to be meaningful" (p. 77). Black notes that intelligible, meaningful speech, as opposed to gibberish and random verbal wanderings, is not necessarily the consequence nor the reflection of previous or concurrent imaging or verbalizing in the mind. Thus, I can readily describe what I cooked for dinner yesterday or talk about any familiar topic with no reference to a parallel flow of mental images prompting me. The words themselves, as symbolic substitutes for the visual images of objects and events, suffice to produce and maintain the flow of more words.

Although written words can flow on to the page in much the same way, the speed of that flow, prior to the appearance of current technology, is much less than in speaking. The speed, combined with the appearance of visual images of the sounds, allows written language to register on the mind as a parallel flow; it mirrors the thought back into the mind, making it available for reflection. Writing thus tends to seem and commonly to be more deliberate and composed than speaking. This does not mean that the writer always does or needs to pay attention to the parallel flow

of images but the images are probably almost as hard to ignore as an echo to speaking would be. We have to read, in some sense, as we write, even if we avoid rereading in order to check whether we are making sense. Since the patterns of language more readily come under conscious control when written, they are at a remove from spontaneous composition. In order to make claims about the effects of literacy on thinking, it is important, therefore, to be able to show that the products of the non-literate consciousness are qualitatively different from those of the literate. In the particular case of Greek literacy, we need to establish the oral composition of the Greek epics as the spontaneous expression of poeticized consciousness if they are to be contrasted with later texts composed in writing.

That the means of thinking may not have been the same for all human groups for all time was probably first thought about and explained by Giambattista Vico in the early 18th century. Until the publication in 1744 of Vico's theory of mind, classical scholars had studied the monumental Homeric epics as the works of a brilliant poet. They regarded poetry as a superior literary form which "must express, or be the product of, the loftiest reflective consciousness"; they saw Homer as a sage and the laureate of his age. For a long time it seemed inconceivable, firstly, that the epics could have been produced without writing, and thus without the benefits of critical reflection; and secondly, that they

could be held in the memory and simply recited. Vico argues convincingly, however, that the poetry of the epics was not high art composed reflectively but a gradually transformed compilation of elements that were the result of spontaneous composition by poeticized minds.

We are not concerned here simply to believe, or even to understand, how the composition of the Homeric epics was achieved. Nor indeed do we need to accept the claim that they were all orally composed into the form we have them. Rather we need to accept only what seems the uncontentious point that some of the basic structures of the epics were orally composed, and that they represent perhaps a culmination of a tradition of orally composed epics in archaic Greek. We need as well to understand that such works are indicative of the poeticized minds which produced them and that those minds, the minds of individuals, were themselves indicative of the poeticized consciousness of the society. We look at the Homeric epics, therefore, as reflecting the social-psychological condition of orality in ancient Greece. The more detailed and complex our grasp of what is entailed in that orality, the more comprehensive our conceptualizing of the development and the nature of the literacy which emerged from it.

The Oral Transmission of Oral Culture

In a culture which depends almost entirely on oral communication, almost everything that is known has to be remembered. The more complex the social system and the larger the population of that culture, the more the maintenance of its cohesiveness will depend on the development of techniques for preserving and passing on culturally valued knowledge. The evidence accumulated by classical scholars suggests that in Greece, the Homeric epics embodied that knowledge and held a formalized place in the culture (Havelock, 1963; Kirk, 1962; Parry, 1971). They represented what Havelock (1963) calls the "collective social memory" which "is an absolute prerequisite for maintaining the apparatus of any civilization" (p. 41). Not simply an historical record that most of the population could quite well live without, it seems that the epics had an essential-interpretive as well as conservative function. They served as the means by which behaviour, values, and indeed, all knowledge of the social and natural worlds, might be classified and understood. As repositories of cultural meanings, they could probably be said to function in some respects the way the Bible has functioned for many Christians. The language of the epics, however, as the product of countless instances of spontaneous oral composition was probably reflective of the consciousness and of the culture at large in ways even more profound than

Biblical language could be.

For knowledge to live in the memory and thereby constitute the consciousness, it must be experienced in some way--experienced, in the sense that the emotions, the senses and the imagination must be engaged in assimilating and integrating what is to be learned. In the Greek oral culture, the techniques for creating such experience as the means of transmission of the cultural knowledge embodied in the epics were evidently highly developed (Parry, 1928/1971; Lord, 1960; Havelock, 1963). However that may be the case, the supportive documentation is accumulated by means of analysis and reflective recognition. In contrast, if we accept the widely held belief that the epics are works of mainly oral composition, then we must assume also that the techniques which enabled their transmission were not developed as an outcome of analysis and then introduced as we might introduce them today to help an individual with memorization. They were not superimposed or alternative to dominant modes of understanding. Rather, they emerged out of and were continuous with existing means and developed in response to social needs. By implication, those existing means would also have been poetically structured and the Homeric epics represent an instance of their refinement and standardization in a form which enabled their transmission.

Let us turn briefly to Vico's historical explanation of Homer's poetic composition which will be useful in helping

us to imagine the forming of pre-Homeric poetic consciousness. Vico argued on logical grounds for the necessity of the poetic mind as the first stage in a three stage process of human mental development. His theory accords with a contemporary school of thought (Johnson, 1988; Lakoff, 1987) on the fundamental role of metaphor in the development of concepts. In Vico's account, the story of the creating of mind begins when early people, equipped with senses, memories and imagination, met the world and discovered ways to think about it. Their sense experience was their only "mode of knowledge." Their minds responded to what their senses registered and, by means of association and imagination, they noted and expressed their awareness of likenesses and differences. Without empirical knowledge of why and how things happen in either their own human world or the natural world, they invented a logic derived from their awareness of their own selves. They used their own bodies-- their physical parts, their senses, and their passions--as the objects for comparison, investing the external world with bodily characteristics. Early people, "buried in the body...made of themselves an entire world" (Vico, 1744/1968, p. 130). By analogy and metaphor from their own beings they grasped and made sense of their surroundings.

Since they had to rely on their senses and imagination, early people could express their perceptions of the world only by means of these associative, and what we now regard

as poetic, structures. As Vico describes it, the poetic consciousness:

was born entirely of poverty of language and need of expression. This is proved by the first lights of poetic style which are vivid representations, images, similes, comparisons, metaphors, circumlocutions, phrases explaining things by their natural properties, descriptions gathered from their minuter or their more sensible effects, and finally emphatic or even superfluous adjuncts.

(p. 153).

That it was necessarily poetic meant also that these "lights" of style occurred spontaneously. They were not that is, the outcome of reflective, artistic composition, designed to please or to surprise with new insight. They were not an option, selected as a vehicle to embody some particular story or idea. They were, rather, the only means available for understanding and interpreting experience.

Vico's theory seems certainly plausible and offers us grounds for interpreting the Homeric epics as products of a consciousness long familiar with metaphoric connections, narrative structure, and concrete images. Vico himself identifies the period of the epic, the fable, and the heroic tale with his second stage of mental development which he names the "heroic." In this stage, the awarenesses that have been given form in language become enlarged from particulars

into maxims. The need for efficient social intercourse drives any language toward standard expression but in oral cultures, the need for the known and the standard is particularly crucial for social cohesion. In the period preceding the invention and spread of alphabetic writing in Greece, it is generally agreed that the standard meanings and forms were embodied in the Homeric epics.

These meanings and forms, being readily available to us in the written record, have been exhaustively examined by countless scholars. What is important for the purpose of the thesis is to clarify how the embedding of these meanings and forms of expression in the mind affected the capacity for thinking and interpreting the world. That is, how was thinking affected by the means of transmission, by narrative structure, by formulaic language and by the interpretive device of episodic exemplars?

Under conditions of orality, the poetic form of the epics, with its use of repetition, rhythm, alliteration and assonance, and its balanced patterns like parallelism and antithesis, offered the required mnemonics to assist the memory of the poet-singer and his listeners alike.

According to Alfred Lord's carefully analyzed recordings of the Balkan oral poets, the poet reconstructs the narrative with each telling, somewhat as the jazz musician undertakes to render a known melody and improvises with recognizable jazz phrasing. The poet, likewise, knowing the content of

the story, recounts it in song by patterning together metrically arranged verbal phrases of which he has a vast store in his memory. As important as the poetic form was the narrative organization of the meanings and knowledge to be learned. Stories have characters and action which engage the emotions and can be both visualized and identified with. What can be visualized can be held in the memory and readily remembered. Not only was narrative thus essential, given the purpose of the telling, because it could "live" in the memory, but it was also essential because, as Havelock (1963) points out: "Only a language of act and of event is amenable to the rhythmic and mnemonic process" (p. 173).

As vehicles of the collective social memory, the Homeric epics were peopled with characters who came to serve as generalizations or idealized models. Since the episodes which make up the narratives in both The Iliad and The Odyssey are now thought to have been based on actual events in the distant past, the characters were perhaps once actual persons. Vico argues for the historical bases of the first stories and, more recently, Heinrich Schliemann's findings from excavations at Troy and Mycenae offer more secure grounds for making an historical connection. But over time, some of these historical figures were transformed into heroes and gods with divine powers, made larger than they had been in life. A character such as Hercules and the stories about him would exemplify particular features of

life, values and beliefs. Conversely, features of life in the real world which resembled what was modelled in the epic were both perceived and given meaning and significance by being described in terms of the known poetic character. Stories of the actions of the characters in the epic thus constituted a lexicon. In our own time, the equivalent heroes and stories might also be seen to constitute a cultural lexicon, albeit one shared by people who are simultaneously members of other cultural groups. We can readily recognize in our own society, I think, the same propensity to mythologize and idealize persons who have distinguished themselves in a public way and to imitate their behaviour, whether consciously or unconsciously.

Because of the way the narrative is organized, each episode stands as an event in time, separate and disjunct; each has the potential then to serve as an exemplar of traditional and thus acceptable interpretations of experience. Individuals could make decisions on the basis of their understanding of these known, typical instances of behaviour. The crucial factor in this process, of course, is the individual's level of familiarity with the exemplar instances. Both the instances and the terms in which to express them had to be in regular use or they would be forgotten and replaced. As points of reference, they appear to have covered a vast range of details of what Havelock terms the "proprieties of life," offering guidance for moral

decisions or procedures on how, for instance, to conduct births and burials, negotiate war and peace, or navigate into a harbour.

What this means is that individual judgment of the nature of any given act was made by reference to an instance rather than a principle. It was not just any personal instance, however, which we would recognize as a still very common way of making judgments. The exemplar offered in the cultural tradition had been publicly approved and was handed down as public truth. Our current practice in law of searching for precedents is similar though it proceeds in a reverse direction. The law establishes the principle on which a judgment is to be made but its enactment in a particular case is an interpretation to which subsequent judgments can be referred. Thus each precedent, like the episodes in the epic, serves as an exemplar for future reference. To what extent this was the common practice, it is not possible to say although the arguments put forward by both Havelock and Parry would lead us to believe that the instances were so deeply integrated into the individual consciousness that referring to them would be akin to referring to one's own experience. Such habits of thought would certainly have kept individuals firmly enmeshed in a web of relationships that established who they were and why and how they should behave. As Parry (cited in Kirk, 1964) points out,

these ways of making meaning emphasize constantly the accepted attitude toward each thing in the world and this makes for a great unity of experience...Human beings say the same things about the same things, and so the world to them, from its most concrete to its most metaphysical parts, is one. (p. 50).

Such homogeneity and coherence of experience is difficult to conceive of from the shifting vantage points of contemporary multicultural society. There must have been what is for us an almost unimaginable integration of self with the world, perhaps the kind of integration which is recognized now as the fleeting sense we call "oceanic"--the peak experience of loss of consciousness of self and identification with the world. What is for us a momentary awareness, reflectively recognized, was for the poetic mind an unconscious condition of living and being in the world. According to Mircea Eliade (1949/1954), early people could not have conceived otherwise of themselves:

In the particulars of his conscious behaviour, the "primitive", the archaic man, acknowledges no act which has not been previously posited and lived by someone else, some other being who was not a man. What he does has been done before. His life is the ceaseless repetition of gestures initiated by others. (p. 5).

That the social repetition of episodes in the heroic epics constituted the ways of making sense of experience explains their function in the culture. Knowing their contents was clearly not equivalent to learning Canadian history in Grade 10. They had to be part of the common knowledge. The means by which they were transmitted had also to be more effective than most teachers seem to be in imparting Grade 10 Canadian history.

The presentation of this poetically-narratively organized knowledge is likely to have contributed as much to its acquisition as the form. Since it had to be embedded in the consciousness of listeners in order to be used as a means by which everyday experience could be understood, it is unlikely to have been learned in the mechanical manner we tend to associate with memorization. It had to be by means of the poetic performance that the poem, and thus its messages, could be not merely heard and understood but possessed. Although we can only guess at what this performance was like, Parry and Lord (1964), whose studies of oral poets were mentioned earlier, gave accounts of the techniques of presentation. It seems probable that those practised by the early Greek poet-singers would be very similar, both because their intent was the same: to inculcate the messages of the culture and because they were using a similar vehicle: a lengthy narrative poem. In his performance, the poet would create "a highly sensual

experience." The chanting of the narrative, accompanied usually by the repetitive, hypnotic beat of an instrument, blended the rhythms of body and language. The effect on the listeners was to involve them mentally, physically and emotionally. They identified with the poet, the poets with their songs. For both listener and poet the experience mobilized "the entire nervous system...to the task of memorization" (Parry & Lord, cited in Havelock, 1963, p.151). The participatory nature of the poetic performance encouraged an empathetic relation between the "learner" and what was being learned.

As a characteristic of oral expression, it was not simply the kind of empathy we associate with feelings of recognition and sharing, but a much more powerful identification. Havelock (1963) suggests of this identifying that "psychologically it is an act of personal commitment, of total engagement and of emotional identification" (p. 160). It was a "submission" or surrender of the mind to a learning process which was a "continual act of memorization, repetition, and recall" (p. 157). It would be a mistake therefore to equate this process of memorization with what we typically mean when we talk of memorizing a poem, a vocabulary list, or arithmetic tables. Such acts of committing to memory are merely rote recording of information: acts of will to imprint codes in the memory. The process of memorizing the cultural

information of the epics engaged the mind, senses, and emotions of the learner. There was no division of "affective" and "cognitive" modes. The learning was lived through--individually experienced and visualized--and thus able to be held in the memory.

As I suggested earlier, we must assume that in the spontaneous composition of spoken language we express internalized language structures. The characteristics of the familiar, formulaic language of the epics, as well as its content would have been imprinted on the minds of listeners and affected their oral expression. G.S. Kirk (1962) suggests we think of the process as one in which "the accustomed phrases ...[were] dropped into the listener's consciousness" (p. 193). Ordinary speakers, of course, would be unlikely to practice the economy of phrase of the poems or to choose to convey their ideas metrically since they did not need to reconstitute from memory a vast document of the cultural history. Poet-singers, after all, were performers whose long apprenticeships prepared them to tell the historic tales. The linguistic structures available to them were, no doubt, "to some extent formalized and separated from that of real life," (p. 195) as Kirk says. They were not, however, outside the mainstream language uses of their culture.

Formulaic, poetic language was reinforced in ordinary social or political settings. According to Havelock, such

people as civic officials and rulers made formal pronouncements in verse. Judgments were handed down in verse. It was obviously recognized that new policies must somehow be inscribed in the memory or they could neither be grasped nor carried out. They would also commonly be "framed", Havelock (1963) says, "as though they were also acts and words of the ancestors" (p. 121). Anyone who has grown up on today's television advertising will recognize the effectiveness of such techniques as the use of verse and the voices of heroes. Presenting new information in this manner has the practical effect of making it memorable and giving it importance.

From the accounts of the scholars whose work has been drawn on so far in this chapter--Havelock, Kirk, Ong, Parry, and Vico--we may be persuaded that the methods of the oral tradition were extremely effective in preserving cultural knowledge. In gathering together the features of the cultural condition of orality, I have attempted, albeit briefly, to characterize it in its organic wholeness. I began the chapter with a general discussion of composing, drawing attention to some aspects of the relations between thought and its verbal expression. I then looked specifically at composing in pre-literate Greece and sketched out what seemed to me to be the principal features of the cultural context in which it developed. It appears that the oral tradition provided continuity and not only

held a way of life intact but could accommodate change.

According to Kirk, the cultures which developed on the Greek islands and the mainland between 1500-800 B.C. were highly sophisticated. They developed their art and architecture and had successful systems of social and political organization and commerce. Athens, in particular, managed to achieve "a relatively advanced state of material culture...despite total illiteracy" (Kirk, 1962, p. 46). The oral-aural techniques of the poet-singers appeared, as we have seen, to furnish intensely unifying and living experiences. The oral poet stimulated the imaginations of audiences and filled them with rich mental associations and a strong sense of harmony. Over time, the collective mind assimilated to itself multiple layers of poeticized historical experience which became highly differentiated. Concrete events became formalized and coalesced around central ideas, intuited rather than explicitly known. Into that living fabric of the past the poets wove, strand by strand, the experience of the present, connecting and extending it with new fragments of new texture and tone, maintaining meaning and continuity.

Following Parry, Lord, and Havelock, I have referred to the forms of the language used by the poets as both poetic and formulaic and as indicating a poeticized consciousness which has particular consequences for thinking. All formulaic language places limits on what can be thought

about and expressed. Although, amid the linguistic diversity that typifies a Western urban culture, we are not limited to the use of formulaic language, most of us need look no further than our own speech and writing to observe how cliché, epithet, and stock phrases operate to link us to particular social groups. Phrasing which is generalized and formulaic rather than unique and particular is the currency of our connectedness and we readily acquire it in social interaction. Its use is certainly not confined to oral cultures, but Havelock's observation is that in conditions of total orality, formulaic patterns dominated linguistic expression. He points, for instance, to the "curious" written language of such pre-Platonic philosophers as Xenophanes, Heraclitus and Parmenides. In their style, he notes the formulaic patterns of oral composition and concludes that that style represented "not merely certain verbal or metrical habits but also a cast of thought or mental condition" (Havelock, 1963, p. x).

The combination of formulaic phrasing and metrical pattern would have been particularly constraining. "[The oral poet]... practised a drastic economy of linguistic statements... There are a million things you cannot say at all in metrical speech," says Havelock (1963), "and it follows that you will not think them either" (p. 149). The constraint arose out of the necessity for a language which was rhythmic, vivid and memorable. In several of his works,

Havelock describes with examples the kinds of patterns and constructions which appear in Homeric passages. These included such devices as semantic parallelism: "Hector is dead; fallen is Hector" (Havelock, 1963, p. 147) wherein the image is maintained but the words slightly changed; or repetition and semantic variation: "Hector is dead; fallen is Hector. Yea Achilles slew him Hector is defeated, Hector is dead." Factual statements had to be stated in the form of action with subjects that were agents. In one of his examples, Havelock (1984) cites the opening lines of The Iliad which "invite the muse to 'sing the wrath of Achilles, the wrath that ravages, the wrath that placed on the Achaeans ten thousand afflictions'" (p. 73). Proverbial kinds of utterances were also common and they too expressed ideas in terms of subjects and actions: "An honest man always prospers" (Havelock, 1985, p.76). While the demand for image, action, narrative, and rhythm in language obviously made it possible to say and communicate what needed to be said to carry on in daily life as well as to transmit cultural knowledge, that demand also constrained what could be said and therefore what could be thought.

In Milman Parry's (cited in Kirk, 1964) judgment, "the formulaic expressions which all people use are felt to be in perfect accord with reality, to be an adequate representation of it" (p. 51). Appearances, however, must sometimes have seemed, to individual minds, to conflict with

the standard conception of them. Parry describes Achilles as the one character in Homer who appears to recognize some anomalies and contradictions. Parry (cited in Kirk, 1964)

comments on:

the awful distance between...the truth that society imposes on men and what Achilles has seen to be true for himself...Achilles is thus the one Homeric hero who does not accept the common language, and feels that it does not correspond to reality... Achilles' tragedy, his final isolation, is that he can in no sense, including that of language (unlike, say, Hamlet) leave the society which has become alien to him. (pp. 53-54)

Achilles' insight, which he expresses in action but "has no available words to express directly" (Parry, p. 54), shows awareness of alternatives and of ambiguities, an awareness which is at the source of any composing or thinking process. Had he words with which to articulate the ambiguities, "the hinges of thought," as I.A. Richards (cited in Berthoff, 1981) calls them, Achilles could express directly what he has grasped directly. The heroic tradition had been a legacy maintained by oral poets for two or three hundred years during a time of complete illiteracy. Although Homer had transformed the heroic characters, making them at once less stereotyped and more subtle, the heroic tradition was probably something of an anachronism.

Achilles' dilemma may represent a disillusion for which he lacked verbal means of expression. Such power was yet to come. In the oral world of which Achilles was a member, those particular means were not yet available.)

What was required as means in the language was the invention of a new syntax which could express experience in an alternative way. With the invention of alphabetic writing around the 8th century B.C. in Greece, such a syntax was gradually developed. Slowly at first, but by about 500 B.C. at a rapidly accelerating pace, writing became common and reading widespread. Writing provided an alternative to face to face communication which, in itself, had broad social implications. Historically, the invention and use of writing offered later generations a record of Greek life and thought during the extraordinarily fertile classical period. What has come to be called the Golden Age produced art, drama, philosophy and history which have had profound and lasting effects on the course of Western civilization and thought. Such remarkable achievements have prompted scholars ever since to search for causes and explanations. Until recently, these explanations have generally been grounded in what we might call socio-political and economic realities. Over the past several decades, however, attention has been paid to a factor that had been more or less invisible: the impact of a new technology, alphabetic writing.

Dizzied by the rapidity of technological innovation in our own time, we know that technology affects what we do and how we think and we try to analyze the nature of those effects and what we judge to be their costs and benefits in our lives. It was as a consequence of such analysis that Plato issued his cautions about the limitations of written language and the danger of reducing the power of the memory. As a consequence of analyzing written language in "thousands of passages of Greek literature from Homer to Aristotle" (Havelock, 1986, p. 23) Eric Havelock, among others, has advanced the general hypothesis that changes in modes of communication enable the development of new ways of looking at the world; that is, new ways of thinking. More specifically, he argues that the spread of alphabetic writing in Greece not only coincided with the universally acknowledged changes in thinking and ideas, but was instrumental in their development. For the purpose of this thesis, we need to understand the reasons put forward for this claim and to consider the implications for a concept of literacy.

The Transition To Literacy

The principal sources I shall draw on in this section are from the work of Eric Havelock. Havelock's original analysis and conclusions are among the most widely cited in the field of literacy studies. He has been specifically

concerned to characterize the development and effects of literacy within the particular cultural context of classical Greece. Between 1963 and 1988, Havelock produced a series of historical studies each designed, as he says, "to demonstrate what may be called the growth of the early Greek mind" (1963, p. vii). He saw his approach to the task as a radical departure from the assumptions on which other accounts had depended. He analyzed and described in detail the syntax and other linguistic features of the Homeric epics and compared them with later literate works of classical Greece. Whereas other studies of the variations in Greek vocabulary had tended to arrange the words analytically, Havelock's looked at variations in meaning as historically situated and developed.

Basing his argument on the assumption that "direct evidence of mental phenomena can lie only in linguistic usage" (p. vii), Havelock (1963) interpreted differences between "oral" and written texts as indicative of changes in the patterns of language internalized in the mind. The explanation for the changes lay, he proposed, in the effects of the invention of the alphabet and the general spread of literacy. The use of writing affected the development of new knowledge in ways more profound than simply affording a means of recording it. Although we may consider that his case is overstated, his thesis warrants attention, not only as a plausible explanation of significant changes in ways of

thinking but as a contribution to understanding the nature of literacy as it developed in classical Greece.

It is not my purpose to argue for or against Havelock's case. Rather, my purpose, as part of my investigation into how classical studies may help us to conceptualize literacy, is to outline what seem to be the aspects of Havelock's argument that are most compelling for understanding the particular character of Greek literacy. In what follows, therefore, I set a context for interpreting Havelock's claims, outline his arguments, discuss the problems and questions that they raise, and consider the implications for a concept of literacy.

First, let us be clear about the intended application of Havelock's claims about the effects of writing. I have referred above to his noting differences in oral and written syntax and usage. Havelock regards these changes as defining a "cultural situation." As we have seen, until about 700 B.C. that Greek situation was predominantly oral and only gradually, as reading became common, did the milieu become literate. In terms of the culture, the norms of orality were gradually replaced by the new norms of literacy. What Havelock claims as effects of literacy, however, are effects within the culture. Literacy conditioned the 'meta-mind' in the culture, or what we might call the cultural consciousness. Whatever is part of any culture is there as a "given" to its members but will not

necessarily be reflected in all of them as individuals. While every individual mind will necessarily be affected by literacy in a literate culture (barring physical or mental disability or complete social isolation) the nature, quality, and degree of that literacy might reflect only in part what could be described as characteristic of, or inherent in the whole. The point is important to this discussion since the claims that are made for the effects of literacy cannot be extrapolated to apply in a specific sense to all individuals in the culture.

A second point, related to the above, is that Havelock takes an historical perspective and is making comparisons between texts which were produced across a span of several hundred years, and between forms of writing which developed over an even longer period. The task is comparable to looking at the development of the novel from Henry Fielding in the 18th century to Margaret Atwood in the 20th. Careful study of the characteristics reveals changes over time which the critical reader will seek to explain according to a theory about possible causes. The significant difference between Havelock's study and that of the progress of the novel is that his "texts" are both oral and written. The word text as applied to oral composition is, of course, something of a misnomer. Such composition becomes text only after recording, the process of which doubtless affects some of the meaning, removed as it is from the context of

performance and given a merely visible arrangement. What we may examine as text may be rather like "the inanimate corpse which remains after the vital spark has fled" as Levi-Bruhl says of written myths. Corpses, however, do have all their parts, if we are lucky, even if we cannot see them in operation. It seems legitimate therefore to compare linguistic features of these transcriptions with those of genuine "written" compositions, provided that they can be regarded as otherwise equivalent.

That the texts were originally composed orally does not, as we know, imply transience. The oral texts that Havelock compared with later written ones were not the transcribed oral language of casual conversation or personal interaction. Indeed, it is crucial to his thesis that the texts he uses have a particular status in the culture. The texts of oral composition, such as the Homeric epics which Havelock uses as his source, are those which have a formalized place in the traditions of the culture. They had multiple functions, as we noted earlier: they transmitted the traditions and beliefs that needed to be preserved in the individual and collective memory and provided a principal means by which individuals could interpret and understand their social experience. While all the texts he studied were those which embodied culturally valued knowledge, they differed in the way they were composed and transmitted: some depended on sound and the voice, others on

sight and script. The period after 700 B.C. was not the first time the Greeks had access to a symbolic system for writing. The Mycenaeans used a syllabary with which they recorded mainly administrative, military, and commercial information. No extensive texts of discourse have been found and such composing as is represented on the tablets classifies data and commemorates important civic or military occasions. Drawings often accompanied the word lists and it is supposed that items could thus be understood by non-literates as well as literates. The principal use of the syllabic literacy appears to have been to assist the memory by storing the kinds of information which can be listed.

Some familiarity with the content is almost a prerequisite for understanding pre-alphabetic writing, such as syllabaries, since the symbols do not correspond directly with the spoken words, creating ambiguity in the reading and affecting also the speed of reading. The reader of syllabaries has to be addressed in recognizable idioms and themes or else the meaning can neither be recognized or accepted. What can be written and understood therefore is much more limited than what can be spoken. The Greek alphabet, in contrast, offered such a precise analysis of sound that it was possible to represent oral language virtually as spoken. When read, the silent and visible words could be recovered as sounds. That the sounds of language could be almost exactly represented and that thus

the language was visible were the two characteristics of Greek alphabetic writing which were key factors in the development of new ways of thinking and the development of new knowledge.

The alphabet consisted in symbols which alone--or, as proved necessary, in combination--made it possible for a speaker to reconstitute the sounds of spoken language. The original Greek alphabet of twenty-three symbols was devised, like all alphabets, as "an instrument of acoustic recognition" (Havelock, 1974, p.55) to prompt recovery of ancient Greek. With such a small number of symbols, not every sound had a corresponding symbol, so there was some onus on a reader to guess and thus some room for ambiguity. Nonetheless, the alphabet, in the early form and as it was modified later by both Greeks and Romans, was a remarkably efficient tool. Havelock suggests that it had three strengths which helped to encourage its use and acquisition by a majority of the population: it provided coverage of almost all the distinctive sounds in the language; the relation of sound to symbol required almost no guessing or choosing by the reader; and the number of shapes did not overburden the memory. Once the symbols had been learned, they were integrated into the individual's mental apparatus. They could be spontaneously produced, requiring attention perhaps when, as in speaking we might be uncertain of the conventional pronunciation of a word, the writer was

uncertain of conventional spelling.

Since sound could be unambiguously rendered and recovered, unfamiliar ideas could be written down and thought about--an activity that was highly improbable under the former oral conditions, or with previous alphabets. This does not mean, of course, that the language of the oral culture had constituted some kind of mental bank of unchanging statements. The capacity to use any language already includes an ability to invent combinations of words in sentences and to "produce/ understand an indefinite number of sentences" (Taylor, 1980, p. 289). Such inventiveness is a condition of oral language expression. Max Black (1968), in The Labyrinth of Language describes the process:

The secret [of linguistic innovation, the capacity for generating sentences, inventing new words, etc.] seems to reside in something no less fundamental than the apprehension of relationships in general... We start with the "structures" (sentences) whose meanings are apprehended as wholes. As we begin to analyze these holophrases into elements that can be arranged and recombined, we learn at the same time how to reorganize them. Thus analysis and synthesis are inseparable aspects of the mastery of linguistic structure: to be able to divide is necessarily to know how to

connect and vice versa. (p. 51).

In conditions of total orality, for instance, inventiveness was evident in the variety of ways that similar meanings could be stated. In the example given earlier about the death of Hector, we saw the use of exact repetition, rephrasing, and rearrangement, all of which were accomplished within and according to the internalized demands of the rhythmic flow. The capacity to develop novel statement through writing is an extension of this oral inventiveness. It was prompted, however, not by what the ear could hear in the language but what the eye could see on the page.

The visibility of written language was as important as ease and accuracy of representation to the development of a new discourse. When language is written down it has a physical presence detached from the speaker. In a totally oral world speakers and their language are identified with each other--the speakers are their words; in a literate world, speakers can both be distinguished from the objects of their thought and see themselves thinking. In an oral world, as Ong (1983) points out, when the story is not being told, "all that exists of it is the potential in certain human beings to tell it" (p. 11). When the story is written, it exists both inside and outside minds and, in the written form, is available to be read and reflected upon. The consequence of the capacity for reflection on the

meaning of the language which was afforded by writing gave rise to the capacity for novel statements. These statements were not simply alternative ways of phrasing existing ideas but embodied alternative or new meanings and ideas.

New language and new ideas emerged, Havelock suggests, when existing vocabulary was set into new contexts. New contexts tend to transform the familiar, allowing us to see potentiality where none had been seen before. In the case of language, a new syntax established new relations of words and gave rise to new meanings. That new syntax, of course, took time to develop. Initially the alphabet was used to transcribe the oral record and both these transcriptions and early texts are characterized by techniques borrowed from oral modes of composition. By way of example of this transitional period, Havelock (1986) cites a passage from Hesiod on justice. In Homer, the term justice (*dike*) occurs but never, Havelock claims, as the formal subject of a discourse. Although the passage shows that what Hesiod intends is a descriptive definition of justice, he has not developed a syntax for such a definition. The passage is thus a compilation of what Havelock describes as "dynamic situations in which justice singular or plural features as a subject performing or an object being performed on" (p. 102). In an example from Sophocles, the chorus on the genius of man, Havelock notes that the description of features does not tell us what man is but what he does: "A

series of man's properties as a species is spelled out in short narratives of things we do...These are not definitions, not conceptualized abstractly. But they approach the language of definition, so far as they are cast in the present tense" (p. 104).

A quotation from Aristotle (*Antigone*, 332-33, cited in Havelock, 1986) more than a century later, also about the properties of man, exemplifies the transformation to a new way of expressing ideas: "Man alone of animals possesses discourse... As man is the best of animals, so also sundered from law and justice he [is] worst of all" (p.105). In these statements, the word is figures as a means of linking a subject to a class or property, not an action. In its earlier, oral contexts of usage, to be had signified "presence, power, situational status and the like. In its literate contexts of use, it signified a timeless relation of abstractions. Thus, to rephrase an example given earlier, the new syntax could say 'Honesty is the best policy' as well as 'An honest man always prospers'" (Havelock, 1986, p. 76).

When what was stored in the mind could be written, it could then be stored outside the mind, "releasing," Havelock (1976) says, "mental energy" for other kinds of intellectual activity which ultimately meant a new logical or, to use Bruner's (1986) term, a "paradigmatic" mode of discourse and "an immense expansion of knowledge available to the human

mind" (Havelock, 1976, p. 46).

In a paradigmatic mode, invisible abstractions take the form of categories, classes, principles, axioms and relationships which are used to reorganise the world as experienced by the senses and to remove experience from specific and concrete contexts. Plato distinguishes, for instance, the person who cannot talk of beauty except in reference to particular examples of it and the person who grasps the concept of beauty in isolation from any instances of it. The latter grasps the world as intelligible, the former as merely "sensible." The one understands the world with concepts as distinct from images, and with abstractions as distinct from concrete, visualised events.

Havelock (1963) acknowledges Plato's debt to the "great pioneering effort" (p. 260) which preceded him, but points out that it was Plato who insisted on the need for dissociation from the human lifeworld and for a conceptual language to replace the imagistic one of the poetic, oral mind. It was part of Plato's achievement to discover and to analyze exhaustively a "new frame of discourse and a new kind of vocabulary." Havelock (1963) suggests that what Plato intends to accomplish through this discourse is an awakening which converts the psyche from the many to the one, and from becomingness to beingness; this...is equivalent to a conversion from the image-world of the epic to the abstract

world of scientific description, and from the vocabulary and syntax of narrativised events in time towards the vocabulary of equations and laws and formulas and topics which are outside time....Platonism at bottom is an appeal to substitute a conceptual discourse for an imagistic one. As it becomes conceptual, the syntax changes, to connect abstractions in timeless relations instead of counting up events in a time series; such discourse yields the abstracted objects of "intellection." Plato can never separate any discussion of these objects from the activity of thinking that apprehends them. They are noeta or they are nothing. (pp. 261-262).

In the development of this new discourse, it was not necessary to invent new words. As Havelock (1963) points out by way of example, words which can be translated as motion or body already existed but in the new syntax each was "shorn of particularity and becomes stretched to the dimensions of a concept" (p. 260). What Havelock seems to imply, here and in his related examples, is that knowledge of the meaning of these words ceased to depend on and derive from the actual physical experience of motion or body. Once the words were used as concepts, or, in Plato's terms "forms," knowing their meaning was to know them, not as transient concrete instances, but as permanent universals.

The one was an act of the intellect, the other of the senses; the one entailed the apprehension of knowledge, the other, belief or opinion.

The consequences of what we might crudely call the "separation of mind and body," which was a product of Plato's intellectual analysis, profoundly affected the development of Western thought for two millenia. We shall consider some implications of that analysis for our understanding of the development of literacy in Chapter Five. At this point, however, I want to elaborate on a related hypothesis. As was noted earlier, making thought visible fostered the development of a new syntax, thus the capacity for novel statements; it also detached what was said from the person who said it. Or, to use Havelock's (1963) phrase, it made it possible to distinguish "the knower from the known" (p. 197).

In learning to read and write, individuals acquired a means by which they could stand in a new relation to knowledge which previously had existed only, as Ong put it, as "potentialities" in human minds. In an oral culture as, indeed, in any culture when a thought is verbally expressed to another, the meaning and import of what one has said are apparent in the response of listeners. When a thought is expressed in writing, the writer can decide on and determine the meaning and import of what is written. Individuals may articulate and reflect, not only on their own thinking, but

by extension, on the thinking of others and on the traditions of their own culture. In visually separating what was thought and said from the person who said it, writing was a mechanism by means of which it eventually became possible to conceive of a body of knowledge which exists independent of the persons who think and know.

One manifestation of this "separation of the knower from the known" was the emergence of a new conception of the individual personality as a distinct self. The experience of self as individual depends on a psychological separation from the external environment. It requires a conscious recognition that the physical differences between an individual human being and all other objects in the world, animate or inanimate, have their inner counterparts which equally distinguish the one from the many. Beyond that basic distinction is an immense diversity of conceptions which have preoccupied many minds and cannot be dealt with here. Suffice it to say that what it means to be a "self" changes from one culture to another and, within a culture, is historically developed.

In Homeric language, Havelock (1984) claims, there were no direct or explicit words to express a sense of an individual consciousness: "The traditional oral vocabulary describing the operations of the consciousness had been rich but unspecialized, drawing no fine distinctions between the feelings on the one hand and thinking on the other, between

the emotions and the intellect, between sensation and reflection" (p. 81). Although, he notes, "loosely differentiated" operations of human consciousness could be addressed and invoked, these "[were] inside you or part of you in some way, and yet they were not you" (p. 82). What he seems to mean by this is that such operations as "spirit, will, wish, desire, decision, sense, heart, mind, wish" (p. 81), were common to all persons and although invoked in the individual as situations demanded, were not indicative of uniqueness. Havelock (1986) cites Achilles as an example of a Greek hero who, he says, "may have had a 'self' in our sense of the word, but he was not aware of it, and if he had been, he would not have behaved as a hero of the oralist vocabulary, a speaker of utterances and a doer of deeds" (p. 114). Julian Jaynes (1976) offers a similar view of Achilles as an unself-conscious doer who "is obedient to his gods" (p. 73).

New vocabulary was not necessary for the transition to self-consciousness; existing vocabulary was modified and its meanings thereby transformed. Havelock (1984) observes that the words which refer to thought, mind, and intellect, for instance, developed by means of the linguistic device of adding the third personal pronoun to their early pre-conceptual and unwritten forms. The addition, says Havelock (1984), had the effect of "[emphasizing] the identity--the very existence--of these new abstract subjects" (p. 80).

The meanings of the words also developed as they were used in different contexts. The word psyche, according to Jaynes' (1976) reading, supporting Bruno Snell (1960), of its use in The Iliad, meant simply "the property of breathing or bleeding....No one in any way ever sees, decides, thinks, knows, fears, or remembers anything in his psyche" (p. 271). Later, it came to mean life as in life force, according to Havelock's (1984) interpretations and eventually, through Socrates' dialectic, "My psyche becomes 'me'; that is, my life force becomes 'my (own) self' (p. 85). Until the Socratic dialectic had accomplished its historical task, the terms for self and person, and the concept of selfhood, did not exist. Nor under conditions of oral communication could they exist" (p. 83).

Writing, Havelock is claiming, was the means of turning the unconscious out to consciousness and looping it back in on itself with self-conscious use of language. "The doctrine of the autonomous psyche is the counterpart of the rejection of the oral culture...Such a discovery of self could only be of the thinking self" (Havelock, 1963, p. 199). That "thinking self," confronted by his or her own thoughts, and released from the need to hold knowledge in memory, was now free to reconsider its own behaviour and thought. It could analyze and evaluate instead of simply imitating. It could envision change and what "might be's" in an oral world, seek to adjust the present to what was

known from the past and to repeat it.

There seems to be no serious disputing that the linguistic changes Jaynes and Havelock documented did in fact occur and that they expressed a new awareness of the self. What is less certain is the exact nature of the relation between the spread of literacy and the development of a new concept and new capacities for individual thinking. The particular example of the psyche and, had we looked at them, the examples of the other words that refer to acts of mind, seem to point to a concept that was as much a product of the history, ethos, intentions, and, indeed, of the Greek psyche, as it was a product of the technology of writing. The Greeks could not step outside their culture and think or be what was not in some form, albeit embryonic, already present as part of the a priori culturally-shaped mental set. It seems plausible, however, to argue that the change would not have occurred without the aid of writing. What we need to recognize in addition is that how the Greeks chose to use writing and what they wrote about necessarily reflected and emerged out of existing ways of valuing, interpreting and understanding.

Conclusion

Over a period of roughly two hundred and fifty years, new linguistic apparatus was developed with which to think and thus to compose and make sense of the world. The

acoustic accuracy of the symbolic representation of language afforded by the Greek alphabet greatly enhanced the complex implications and potentialities of the visibility of language. The alphabet, internalized as a system of meaningless symbols, could be used without being thought about. It became a tool whose transparency served as a window through which to reflect on language in the mind. The visibility and permanence of written composition made yesterday's thought present today in its exact past form and available for tomorrow unchanged. Today's thought could be compared with yesterday's--word by word, sentence by sentence. Released from the need to recall from memory, the mind could reflectively classify and reorganize its own thought.

Out of such mental processes emerged a new prose syntax and a new language with potential for new patterns of organization and new relations. With prose, logical sequences and causal connections could be expressed without recourse to human agents as subjects. In the composition of the oral epic, the need to colonize the memory through vicarious but nonetheless lived human experience meant that such abstract relations could not be part of the record; what was to be remembered had to be visualized. It was only when the record could be written that the composer, "rid of the need to preserve experience vividly...was freer to reorganise it reflectively" (Havelock, 1963, p. 189). The

"spell of narrative" could be broken, therefore, only when experience could be rearranged in categories, a possibility of rearranging that had to await the invention of alphabetic writing and prose syntax.

With Plato, the transformation from oral to literate mind was fully accomplished. Plato is credited with making explicit the differences between the oral and literate cultures and creating "a new kind of experience of the world - the reflective, the scientific, the technological, the analytic" (Havelock, p. 67). In Plato's terms, the use of abstract "conceptual" language is equated with true thinking, and literacy is tied to rationality. The new way of thinking dealt with reality and led to knowledge; the spell of the mimetic performance in learning was replaced by a dialectic which developed analytic skill.

Literacy in general thus becomes tied into ways of thinking that are particularly evident in Greek philosophy, history, and rhetoric of the second half of the 5th century B.C. Havelock elevates rationality to a condition of mind distinct from and superior to the oral. His arguments reflect Plato's antipathy toward the means by which the culture was transmitted and by which it discouraged critical thinking. Vico, however, invites us to see the rational as growing out of the poetic, a modification, to use his term, of the poetic which affords access to an expanded view of ourselves and the world but does not, and indeed cannot,

reject or substitute for the poetic. Although Havelock has argued for a particular way in which that expansion took place in Greece, he has presented it as an accomplishment opposed to and in replacement of what existed before. The non-literate mind is thus set against the literate as both primitive and non-rational.

The poetic mind made sense in a sensible world by analogy and metaphor. The literate, Havelock claims, makes sense through abstract concepts in an intelligible world. Though we do indeed have non-poetic means of making connections and establishing relations, these means themselves are still largely governed by metaphor. Lakoff and Johnson (1980), in their book Metaphors We live By, argue with abundant illustrations that far from being simply a peripheral poetic device, metaphors deeply influence the connections we make, both culturally and individually, as we approach the world and express our experience of it in our actions. "Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature... Metaphor is not just a matter of mere words...human thought processes are largely metaphorical," (pp. 3, 6) argue Lakoff and Johnson.

Their evidence and arguments support the expansionist view that Vico proposes. As our experience and knowledge of the world expands, we expand the range of things in terms of which we can understand and experience other things. The

process by which we structure and form that understanding, however, may not change. A conceptual grasp of the nature of "motion," for instance, probably requires and depends on a prior imaginative grasp. However we may understand the role of writing, as a new technology of communication, in the development of ways of thinking, we need to consider carefully the implications of theories which lead us to oppose imagination and the imaginative consciousness to reason and the intellect.

The literacy of ancient Greece gave rise to the Western traditions in literature, religion, history, and science. On what did it depend? It seems clear enough that the spread of writing in Greece at least enabled, while it did not actually cause-- cause being much too difficult to assume precisely in such human affairs--the growth of the intellect in the directions Havelock describes. It is less clear that Havelock is correct in his assumption that because writing reduced the burden on memory it in a significant sense replaced memory. If writing serves mainly as alternative storage, memory may perhaps no longer function in the same way. It seems more likely that the literate imagination, no less than the oral, needs to depend on a richly populated memory. Empathetic identification and multiple vicarious experiences may be necessary prerequisites to achieving the separateness and critical thinking capacity associated with rational capacities of

mind. The fulfilment of those prerequisites would explain Plato's dictum that "All learning is a form of remembering." Learning can only be a form of remembering, however, when experience has been accumulated which provides rich enough ground from which ideas, concepts, and generalizations can be abstracted and named. In the case of Greece, the ground was there, accumulated over centuries down to the refinements of Homer. Writing served as the means for articulating what was known implicitly by making that mind visible and static on the page.

Havelock also seems to credit writing with enabling the development of novel thinking, in contrast to what it is possible to think using formulaic oral language. The use of formulaic pattern is common to all languages even today, both in speaking and in writing. We must all recognize the standard phraseology in which much business, legal, military, economic and educational information is stored. Its use, which always does constrain individual thinking, hints at what it must have been like to depend almost entirely on such forms of expression, but is also a reminder that no culture has a monopoly. Formulaic language serves now as it did then to encapsulate the current wisdom without surprising the minds of either speaker or listener.

The developments which Havelock characterizes were achievements of the culture. They were achieved over a period of several centuries although they came to an intense

flowering in the 5th century. From his characterization, we can draw no certain implications for the effects of writing on the development of individual minds in the culture. Nor, from his work, can we explain what he describes as the "dormancy" in capacity for novel thought which set in after this period of high literacy. There remain, therefore, unanswered questions and a cluster of ambiguities about the role that writing played in the development of that particular literacy, both in the culture and the individual.

There are further questions about the inherent characteristics of writing and their effects on thinking. If these characteristics of writing themselves have powerful effects on thinking, then we might expect to find similar effects in any culture that has an alphabetic script. Equally, we would not expect to find in cultures without writing the concepts of self and the kinds of thinking associated with writing and literacy. In all societies and cultures, to learn the language is to become immersed in a distinct "form of life," to use Wittgenstein's phrase, of the culture. As with all other activities that constitute a form of life, the ways in which language is conceived of and used can be very different from one culture to another. In looking at some aspects of the development of language in Greece, we have been considering the impact and effects of literacy on the changes in syntax and thought within the context of particular cultural conditions. From looking at

studies of other cultures and the ways in which literacy appears to have affected their language and thinking capacities, we shall be able to estimate the extent to which the development of literacy in Greece is comparable to or has implications for other cultures. In the next chapter, I turn, therefore to examine accounts by anthropologists of thinking and literacy development in predominantly non-Western cultures.

Chapter Three

Literate Capacities from an Anthropological Perspective

Introduction

Chapter Two drew largely on Eric Havelock's articulation of the "literacy hypothesis" in order to indicate the contribution classical studies have made to our understanding of literacy. Havelock's claims, with certain qualifications, are in their general outline increasingly accepted as helping to account for the development of new ways of thinking, new forms of expression, and new forms of knowledge which were characteristic of Greek culture by the mid-fifth century B.C. In this chapter, we shall examine, from the perspective of anthropologists, what kind of relation there appears to be between writing and ways of thinking, expression, and knowledge.

In Greece, literacy was associated with the development of rational/scientific thought and critical detachment, with paradigmatic/abstract classifications of information and experience, and with a discursive syntax able to generate and reflect alternative presentations of knowledge. Havelock's thesis, derived from a detailed analysis of differences in the composition of oral and written texts, draws attention to the change in mode of communication and cultural transmission from the oral to the written and describes a causal relationship between the change in mode and the change in linguistic forms, uses, and capacities. That changes occurred, leading in

classical Greece to the development of such organised forms of knowledge as philosophy, science, religion and history is accepted by scholars of all disciplines as a matter of historical fact. The role of writing and literacy in affecting or effecting these changes, however, has so far attracted no such consensus.

At the time Havelock published his seminal work, *Preface to Plato* in 1963, however, similar claims were being made for the effects of literacy by anthropologist, Jack Goody and literary scholar, Ian Watt. In their article: *The Consequences of Literacy* (1963) and Goody's later book *The Domestication of the Savage Mind* (1977), they laid the foundations for an investigation of the effects of literacy in societies other than the early Greek. Intrigued by their claims, others subsequently argued that if writing is indeed a causal factor in the developments Havelock and Goody describe, then one would obviously not find the characteristics associated with literacy in a non-literate culture.

The search for evidence of "a basic difference in modes of thought" (p. 11) is the focus of the articles which comprise Robin Horton & Ruth Finnegan's (1973) collection of essays titled *Modes of Thought* and has been pursued directly in other, more recent anthropological studies of the nature of orality and literacy. In this chapter, I draw on the research of several of these scholars. I shall use the findings from their inquiries to address two related questions: one, what

relation obtains between the literate mind, as described by Ong and Havelock, and the non-literate; and two, how does writing appear to function in the development of new mental capacities.

Literacy or Orality?

Implied in the question "literacy or orality?" and in phrases like "the transition to literacy" is the idea of moving from one mode or condition to another and leaving the other behind. Recent work in anthropology fails to corroborate the full extent of the claim made by Havelock (1963, 1976, 1984, 1986), and, more recently by Walter Ong (1983) that the acquisition of literacy entails radical changes in cognitive capacities. Ong, for instance, has boldly claimed that "Writing is a technology that restructures thought" (1986, p.23); that writing is necessary "for the realization of fuller human potential and for the evolution of consciousness itself" (1983b, p.2); and that, "Once writing takes over, it appears to be the most crucial development of all...making for the transformation of consciousness and society (1986, p.36). Despite the fact that both Havelock and Ong devote much of their work to examining the oral conditions out of which literate capacities developed, the debate about the claims has tended, as Goody (1987) points out, to focus on the distinctions rather than on the relations between the oral and the literate. Hence the charge that the literacy

hypothesis supposes a great leap forward in capacities, changes which imply what Goody terms a "Grand Dichotomy" between orality and literacy.

Goody himself rejects simple contrastive descriptions of cultures. In The Domestication of the Savage Mind (1977), he argues for examining cultural change and cultural differences from within a developmental framework. He observes that most classifications of differences in thought between cultures and societies do not state the nature of differences as a "succession of changes over time, each influencing the system of thought in specific ways" (p. 46). Instead, characteristic ways of behaving and thinking which appear to have been superseded by new ways are set in opposition to each other; relationships between them are constructed which express a before and an after. The standards for the "after" turn out to be certain distinguishing features of modern Western industrialized cultures. Since the "after" features are what it means to be advanced, a culture with the contrasting "before" features is by definition not advanced.

In the history of Western culture, for example, a development is traced from mythological to historical explanation, from belief in magic to belief in science and from concrete to abstract modes of thought. Other cultures, ones lacking the "after" features of our own, are set in contrast along similarly dichotomous lines. They are given such oppositional labels as: conservative, traditional,

closed, magical/non-scientific or pre-rational, pre-logical, participatory, simple and primitive which contrast with the labels denoting contemporary Western culture: developed, complex, detached, logical, rational, scientific, open, individual and creative.

Goody rejected the assumption that classifying cultures in these terms could be useful in either describing or understanding them. He thought the labels too general to be capable of explaining differences in thought. Nor did he accept Levi-Strauss' argument that these oppositions described two distinct and alternative ways of looking at and understanding the world, both fully developed and existing in parallel up to the present. Were this the case, Goody notes, the so-called primitive and the developed persons would, at least in theory, be unable to make sense of each other, yet Goody's own experience among tribal people in Africa and elsewhere persuaded him that this was not the case and that there is good reason for supposing common ground and a continuity in the ways that thought develops. Rejecting the notion of dichotomy, however, does not explain observable differences in the forms of expression of oral and literate thought, nor does it explain the relationship between them. We will take up Goody's analysis and explanation of the differences later in the chapter and pursue here support for his insistence on a developmental view of the relationship between them.

A developmental view implies that, within a particular culture, it is possible to trace the origins of ideas, beliefs and social practices and see whether and how they are affected by changing conditions. As an approach to cultural analysis, it makes it possible to identify rather than simply ascribe cultural characteristics. The culture is more likely thereby to be described on its own terms, instead of being understood only in relation to an imported interpretive frame. Before and after comparisons can be made within the development of the culture. New conditions may modify and transform features of the culture, but essential elements, meanings, or patterns will be traceable and recognizable: water may be heated to steam, but does not become fire. In the development of Greek concepts, the psyche that was breath and life became soul or self, but not intellect. A development in the form in which concepts were expressed could also be traced. In the previous chapter, I drew attention to Vico's interpretation of the nature of the individual episodes and the individual persons in the Homeric epics. Vico argued that they came to represent idealized instances of behaviour and character. To the degree that they were types and generalizations, they were abstractions from multiple like or similar instances, even though the ideas and concepts that they embodied were implicit and do not seem to have been verbally expressible in the compact form of abstract concepts. With the development of a new syntax, abstract concepts such as beauty and justice were

named explicitly. Although distinguishable from them, the abstract concepts can be seen as continuous with the abstract episodes, though perhaps not merely an alternative or equivalent mode of expression.

Since the investigations described below were into the cultures of non-literate societies, it was not possible, in fact, to look at them from a developmental point of view and trace, as Havelock attempted to do for the Greek culture, the development of ways of thinking and understanding. What the investigators concerned have done, therefore, is to examine certain social and linguistic practices in these societies in order to determine whether there is evidence of the kinds of thinking associated with literacy and to what degree. The continuities they notice are not observable within the single cultural record, but continuities with the record in other cultures, most notably, of course, the perspectives of Western literate culture. What this means is that certain characteristics are being looked for and given labels. If the characteristics ascribed to thinking processes in literate culture are present in the non-literate, it would seem correct to conclude that such processes are not influenced by writing.

In trying to understand the challenges which are put forward through comparisons with non-literate cultures, we have to deal with somewhat confusing and conflated terms. It is not clear what is being talked about: thinking processes in the sense of the composing processes described earlier or

thinking processes as the manipulation of internalized structures and content. The former denotes a natural human capacity to make sense of one thing in terms of another; the latter refers to the evidence of what those things are, evidence which is partly apparent in the structure and meaning of language. A further alternative is that thinking processes may refer to the exercising of formal logic or to problem solving, both of which are learned ways of proceeding to deal with ideas or information. The term "modes of thought", the title of Horton's 1973 collection, implies both thinking processes and content of thought, that is, what is thought about. What Havelock and Ong mean by thinking processes is also not very clear but Havelock's case is built on the assumption that "direct evidence of mental phenomena can lie only in linguistic usage" (1963, p. vii). He interprets changes in language as an indication of changes in thinking. By thinking, he appears to mean, not the how of composing but the what that is composed with--the latter, of course, being accessible to us in the language and comprised of the relations between things that the language enables thinkers to make.

The search for evidence of characteristics of literate thought in non-literate societies is a search for particular kinds of thinking which are described as scientific, critical, rational, abstract and so on. The point of this search, we recall, is to determine whether it can be claimed that writing

makes such thinking possible. We shall need to take into account what is being referred to as thinking, but if it appears that the thinking of non-literate people is in significant respects continuous with the literate, then claims about the effects or influence of writing will need to be examined and clarified.

Rational/Scientific/Critical Thinking

The concepts of rational, scientific and critical are clustered together here because each is implicated in the others and because they tend to be used interchangeably in dichotomous characterisations of literate as distinct from non-literate thinking. They are associated with writing because written expression, as a visible static artifact, is amenable to sustained analytic scrutiny of its contents and meanings. Such critical activity is a hallmark of scientific inquiry. Applied to phenomena in the external and physical world, scientific enquiry has developed into scientific disciplines capable of generating modern scientific theories. The significance of rational-scientific thinking and its relation to pre- or non-scientific thinking is much discussed in the essays which appear in Horton & Finnegan's collection, Modes of Thought.

Most commonly, scientific theory is defined in contrast to traditional, (i.e. non-literate), religious theory and thus thinking. In his long essay, "Levy-Bruhl, Durkheim, and the

Scientific Revolution", Robin Horton presents and argues for Durkheim's thesis on the relation between religion and science, observing that the kind of evidence brought forward by Levy-Bruhl does not justify making sharp distinctions. He cites Durkheim's "emphasis on the continuities between traditional religious theory and modern scientific theory" (p. 282). Durkheim suggests that in both, theoretical concepts relating to "unobservable entities" form the basis of interpretation of those entities and link them in a causal chain. Religion, like science, attempts to connect things with each other, to establish internal relations between them, to classify them and to systematize them.

The essential thing was not to leave the mind enslaved to visible appearances, but to teach it to dominate them and to connect what the senses separated; for from the moment when men have an idea that there are internal connections between things, science and philosophy became possible. (p. 260).

Durkheim's treatment of thinking is of processes of making sense, which he maintains are the same for all people. What differs between them is what is put into relation. He equates, for instance, the Australian aboriginal's establishing a relation between the sun and a bird with our saying that heat is a movement. "We choose them according to different criteria and for different reasons; but the processes by which the mind puts them in connection do not

differ essentially". What distinguishes religious theory from scientific, Durkheim suggests, is that science introduces elements of criticism, deliberateness and objectivity which are missing in religious thinking. He claims that "scientific thought is only a more perfect form of religious thought" (p. 264).

Agreement on the prominence of critical attitudes in science comes also from Karl Popper, says Horton, who stressed that scientific thinking differs from traditional, not because of content or logical structure but "rather in terms of the presence or absence of critical spirit" (p. 280). Polanyi, (cited in Horton & Finnegan, 1973), reinterpreting one of Evans-Pritchard's (1937) accounts of Azande reasoning, asserts continuities of logic: "African doctrines about supra-sensible entities have much the same logical structure as Western scientific doctrines about theoretical entities" (p. 40). Pierre Auger, also a scientist, challenged the analysis of another anthropologist, Levi-Strauss. Auger showed, Horton notes, that the use of analogy which Levi-Strauss identifies with primitive thinking is in fact "central to the development of scientific theory" (p. 280). The distinctions which are being made here relate not to the ways in which knowledge in science and religion is constructed but how it is challenged and thereby modified. While critical capacities and scepticism are acknowledged to be common to all human beings, Horton claims that the difference is a matter of "degree

rather than kind" (p. 280). In like manner, it can be argued that the difference between the abstract epic episodes in Homer and the names for the abstract concepts they had narratively embodied was also a matter of degree not kind. The question is then whether degree significantly affects thinking.

In the context of comparisons between religious and scientific thinking, S. J. Tambiah argues that they are not concerned with the same intellectual tasks and thus that the differences are more significant than the similarities. While not disagreeing with Horton that the use of analogy and theory are common to both traditional religion and Western science, he claims that the purposes and uses of analogy are different. Analogy in traditional religion is used to persuade and conceptualize, whereas in science it is "closely linked to prediction and verification" (p. 195). In the former, properties are transferred to objects or persons by means of analogy; it is means of connecting what is known. In the latter, analogy is a projecting from what is known to imagine the unknown. While the one does not displace the other, the use in science constitutes a means with which to think that requires a prior act of making the analogy or model explicit so that it can be thought about and with. While Tambiah does not directly connect literacy with explicit analogies and theories, he observes that "science (strictly defined) is an achievement perhaps only of certain complex and literate

civilizations" (p. 200). Not only is it that the theory needs to be explicit in order, as a matter of logic, to become a subject of critical analysis, it also needs to be remembered and compared with other theories. Goody (1977) cites observers of African societies who note African scepticism toward "witchcraft, divination, and similar matters" (p. 43) but, as he points out, the incidence of scepticism does not itself constitute a critical tradition which accumulates such thought and allows it to be the subject of critical analysis and reflection. How are shifts from a religious to a scientific consciousness to be accounted for? Within Durkheim's theoretical framework, the causal factors would spring from social interaction. He represents the differences, not as thinking of a different intellectual order altogether, but as "progressive specialization" and "perfectionings of method" (p. 264). What might have led to the specialization of science, however, neither Horton in his essay, nor Durkheim nor Tambiah make clear, other than to describe it as a process of evolution, developed by differentiation and elaboration from the primitive religious basis. The features of this specialization correspond very closely to those associated with literacy. Goody, indeed, takes the view that without a means of recording sceptical thoughts, it is not possible to develop a critical tradition. Recalling the constraints which conditions of total orality put on the ways of organizing knowledge so that it can be held

in the memory, it seems at the very least unlikely that such a tradition could develop without literacy. Even more unlikely, perhaps, is that a critical tradition could develop without origins in oral habits of scepticism and criticism. What writing enabled, as a new technology of communication, was the enhancement and expansion of these capacities.

Commonly associated with capacity for rational-scientific thinking is the capacity for what is referred to as abstract thought. Although the capacity to abstract is a natural human capacity, Havelock and Ong, have claimed that abstract analysis and abstract classification are an outcome of literacy. Only with the emergence of genuinely scientific thinking are abstract concepts rearranged into abstract forms. Use by non-literate people of abstract forms of classification have nevertheless been documented and thus appear not to be beyond their mental capacities. Keith Basso (1980), for example, has described a complicated word game played by non-literate Apache children which requires the application of abstract classificatory principles.

Basso argues that decontextualised, written lists require: (1) the application of one or more principles that serve to define (or identify) the boundaries of a classificatory space and (2) the application of one or more principles that serve to segment and order items within that space (p. 77). The game he describes is apparently a traditional one, played "ever since the world began" (p. 77).

It proceeds in the following way:

An instigator of the game calls out a lexeme...which is understood to delimit and represent a more inclusive semantic domain (e.g. animate sky dwellers). A second player responds by calling out another lexeme, representative of a different domain [e.g. animate earth dwellers], which contains at least one vocalic segment identical to a vocalic segment contained in the first lexeme...Now it is the instigator's turn, and he must identify a member of the initial domain (i.e. "animate sky dwellers") whose name contains at least one non-vocalic segment identical to a non-vocalic segment contained in the name produced by the second player...The second player now follows suit, naming a member of his domain (i.e. "animate earth dwellers") which shares a non-vocalic segment with the last name voiced by his opponent...The instigator then returns to his domain and searches for vocalic correspondences; the second player does the same; then back to the second player's domain for non-vocalic correspondences and so on. (p. 77).

In his article, a review of Goody's work, Basso gave no background information that would assist in evaluating this evidence which he uses to refute claims such as Goody's that abstract classification has to await the invention of writing.

Goody acknowledges that he lacks empirical evidence of oral classificatory tasks of this kind since he has no linguistic samples. He rests his argument on his formidable experience with non-literate cultures, and on the grounds of the absence of any logical necessity or occasion for such tasks (p. 108). Even did such a list exist, he suggests, "it is unlikely to serve as a point of departure for an elaboration of the system, nor yet as an explicit model for other types of categorization and classification" (p. 108). Basso's example goes beyond illustrating evidence of continuity of thinking processes from non-literate to literate to showing that specific characteristics of the products may also have similarities. While the capacity exists and may find, as Basso documents, an occasion, purpose and means of expression, that capacity is likely to remain latent rather than active without a means of elaboration or systematization. What Goody alludes to, but does not elaborate in his discussion is equally to the point. Capacity does not develop without need or occasion; but needs, other than those for bodily nourishment, are largely defined by what is available. Once a means becomes available, the need for its use develops in response to recognition of its potentialities and, correspondingly, so does the capacity to use it.

A final characteristic, also typically associated with rational/scientific/critical thinking and thus not typically with non-literate cultures, is what is rather roughly

described as "openness" and "awareness of alternatives." Both Tambiah and Horton claim that scientific thinking encourages a search for and a greater sense of alternatives and thus makes societies and their thinking "open" in some sense. Goody, however, reminds us that openness is not confined to literate societies. In simple cultures, religious systems show great adaptability and are very open to change. Among the LoDagaa "a whole set of deities, gods, shrines...change in emphasis and in actuality" (Goody, 1982, p. 207). The powers accorded these deities shift when they disappoint or when some old cure fails or a new remedy is found or proposed. Change occurs also as common sense dictates: "when the contexts change (because of famine, invasion, or disease) or when individual attitudes change (because of the recognition that the remedy has not worked), the ideas and practices will themselves change" (Goody, 1977, p. 43). Such change, while it straightforwardly refutes simplistic notions of conservatism among non-literate people, seems nonetheless to be closer to human social accommodation and adaptation than to conscious speculation about imaginatively and/or scientifically conceived possibilities. As Rene Dubos (1971) points out in his essay "The Pursuit of Significance":

Throughout history, in all parts of the world, populations have been compelled to abandon their homes and to resettle other lands, as a result either of wars or natural disasters, or for economic

or ideological reasons. But human adaptability is so great that displaced populations have usually succeeded in recreating a home with all the connotations of the word even when the move had taken them to entirely different physical and human surroundings" (p. 535).

That adaptability and capacity to change as needed is reactive behaviour and a natural human trait. People faced with new conditions and ambiguous or contradictory situations will change their ideas and the way they live, whether literate or non-literate. Recognition of the need to change leads, as Goody says, to new attitudes and actions. Goody does not suggest that the change is more than that. It seems akin, therefore, to Achilles' sense of ambiguities which he acted upon but could not articulate. If articulated and detached from action, ambiguities may be critically examined and resolved or reduced by the creation of new frameworks and terms through which to transform the way of seeing and experiencing the world. In what Goody describes, the terms do not seem to be changed, nor, in the instances cited, are there changes in the underlying assumptions about the relation of human behaviour to that of the gods. The capacity for making change nonetheless exists.

While there are differences in the degree to which certain characteristics of thinking are evident in different cultural settings, the thinking processes, conceived as the

mechanics of thinking of different societies appear, to borrow Geertz' (1983) imaginative phrase, to be "wondrously singular". The assertion of similarity of kind seems mainly to be a very plausible assertion about commonality of means of making sense of the world. Indeed, it seems unlikely that in the long evolution of the human mind a change of the enormity required to transform essential thinking processes would occur with any rapidity unless genetic and not simply technological factors were at work.

The further dichotomies that seemed to be convincing descriptions of ways in which oral and literate cultures are different had to do with features of the means of transmission of knowledge. In oral cultures, Havelock held, knowledge could only be transmitted by inducing an almost hypnotic state of participation in the listeners. The oral performance required emotional engagement from both the poet singer who had to relive the tales he was telling and from the listener-observers, but the poem was not an expression of his individuality. He learned it and knew it as well as his own life story but it was not his. Remembering the poem required the use of formulaic language that would assist the poet's memory and also imprint the content of the poem on the minds of listeners for whom its story had functional rather than aesthetic value. In contrast, transmission of knowledge in literate cultures would be characterised by such features as detachment, individual expression of ideas, distinctive syntax

and concern for style and word choice, and intellectual and aesthetic purpose. In the next section, we look to see whether these features do in fact inhere exclusively in literate or non-literate cultures and thus whether they accurately describe the transmission of important texts in non-literate cultures other than the Greek.

The Transmission of Culture

In her essay, *Literacy Versus Non-Literacy: The Great Divide*, Ruth Finnegan (1973) discusses the nature and functions of literature in non-literate societies and argues that it "can achieve the same range of things we expect from written literature, with all that this means for the mode of thinking in such contexts" (p. 143). Contrary to popular belief, says Finnegan, oral literature is not exclusively functional in nature. It also meets emotional and aesthetic needs. Nor is there any necessary involvement of the kind Havelock describes as the complete emotional identification of poet and audience with the poem. Although it is performed face-to-face with an audience, oral poetry may still achieve the kind of detachment associated with written literature. Literary conventions, a special poetic language or use of special dress or music would all serve to distinguish the literary performance from ordinary conversation and thus imply a kind of detachment. As hundreds of samples collected from oral poets amply demonstrate, oral literature expresses truths

and insights which portray and illuminate the human condition and may reflect the individual vision of the poet. It is thus not different in these respects from the written in its capacity to comment on and reflect the culture.

Finnegan herself offers examples to illustrate her claims and they are further supported by the studies of other anthropologists. She describes the Eskimo poet, for example, as sitting apart, waiting for inspiration and attempting to become receptive by thinking "beautiful thoughts". During performance, oral poets respond to the demands of an audience and embellish and clothe the familiar skeletons of stories in original ways, revealing their personalities and individual talents.

A high respect for individual contributions is evident in both oral composition and other Athabaskan social practice. Scollon & Scollon (1980) describe a method of composition which involves the interaction of the speaker and audience. Following a known formal structure, speaker and audience negotiate the specific content of the narrative to a degree that "avoids any unilateral attempt to make any one participant's sense of the situation or of the world 'stick'". (Scollon & Scollon, p. 27). The interactive way that the narrative is built appears to make the use of formulaic language unnecessary as the means of prompting the memory. Individuals prompt each other.

Wallace Chafe (1985) contrasts the composition of

ordinary talk with that of writing and ritual speech. In talk, he says, speakers produce words and phrases at the rapid rate of about six words every two seconds. Although the potential choice is from a huge lexicon, the actual choice in talk is much reduced by the demands of the social interaction. In writing, writers may not be limited by time and can thus draw on all the resources of language to which they have access; they can refine their messages and search for exactness of expression. Their language will thus tend to exhibit a greater variety of vocabulary and sentence structure; it will be more integrated, as opposed to fragmentary, than conversation and contain fewer explicit indications of awareness of an audience or listener.

In his analysis of Seneca speech, Chafe found distinct differences between the colloquial and the ritual uses of language and these conformed to the contrasts described above. The ritual speech, moreover, was delivered as a monologue, rather than as performative interaction with the audience, and thus audience involvement as contributors and audience identification in Havelock's mimetic sense did not occur. Chafe's example suggests that detachment can be achieved in an oral culture, that the poet is not necessarily dependent on an audience for responsive guidance, and that the language of oral ritual reveals an integration of sentence structure more typical of the rehearsed thought of writing than of speaking. Such attentiveness to language is noted also by A. Grimble,

writing of the Gilbert Island poets. He describes them as having a passionate interest in form and style and "labouring patiently after the perfect epithet" (Grimble, cited in Finnegan, 1973, p.108).

Akinnaso analyzed Yoruba oral ritual, taped in 1951 when, Akinnaso (1981) claims, "the diviner's language was still relatively unaffected by literacy" (p. 10). He notes the same kinds of similarities between the formal ritual language and writing that Chafe describes, similar detachment of the speaker from the audience, and conscious attention to the linguistic structure of verses. The fact of a qualitative difference in sentence structure in ritual language suggests that the alphabet is not absolutely necessary to changes in syntax.

Through such examples, we can identify similarities in purpose and techniques of oral and written literature. Finnegan suggests that one can find as many or more differences within the literature of literate culture than are distinguishable in the contrast between non-literate and literate. The forms of Western literature have themselves developed and changes are apparent in how character and individuality, for instance, are conceived and expressed. Emotional identification as a characteristic of oral transmission is evident in not too vestigial a form in the mass experience of modern rock concerts and rock videos and it seems not to be a universal characteristic of oral cultures.

While the Scollons' research does not suggest that respect for individuals includes encouraging individualism in the Western sense of unique person, the expression of that respect nonetheless reflects that culture's unique social practices and world view. These particularities alert us to recognize differences in style and values among non-literates as we do among literates, thus to reject any notion of homogeneity or of a monolithic model of either orality or literacy in culture.

That is not to imply, however, that there are no significant differences in the modes of expression of literate and oral cultures. The change in syntax noted by Chafe in his analysis of Seneca language, for instance, does not appear to be accompanied by new forms of organization which lead away from an essentially narrative mode. Nor does the fact that poets respond in ways which reveal their individual talents and personality necessarily indicate anything about their concepts of self as individuals or about their self-consciousness. As Geertz (1983) explains, some conception of what a person is, "as opposed to a rock, an animal, a rainstorm or a god" is universal. Our Western notion of the individual, however, would seem, he suggests, "a rather peculiar idea within the context of the world's cultures" (p. 59). The Javanese, Moroccan and Balinese sense of self is only half-realized and their idea "differs markedly not only from our own but, no less dramatically and no less

instructively, from one to the other" (p. 59). Their self-perception can thus be understood only through understanding their view of themselves, not by means of our concept.

That an observer bringing a particular frame of reference may note individual differences, as it was also possible to do in the case of the Homeric poets, does not mean that the observer will or can interpret that individual performance in the same way as the perpetrator or actor. The Eskimo poet may sit aside and wait for "beautiful thoughts", but we must regard as open questions what the Eskimo poet means by that activity and how he perceives its expression, in relation to himself as an individual voice. In the descriptions given earlier of individual roles in composition, no claim was made that a Western concept was being implied. Nevertheless, by claiming to perceive a sense of individuality, despite the extreme complexity and cultural nature of that concept, the authors assert a not very useful undifferentiated commonality.

Such qualifications notwithstanding, what emerges in the context of discussions of rituals or economic exchanges as well as of linguistic expression, is evidence of apparent continuities and similarities in thinking and means of cultural transmission which make dichotomous descriptions of literate and non-literate seem somewhat simplistic and more importantly, not very useful for understanding differences between cultures. Reduced to what lies behind or beneath, to

internal happenings and psychological processes, the mechanics of thinking of different societies appear not to differ in any significant way. It seems a limp conclusion to arrive at - and by no means new or original. It will permit us, however, to shift the discussion away from metaphysical speculations and toward the more concrete and graspable forms of expression which distinguish societies and stages of mind from each other.

Forms of expression, that is to say the visible and audible expressions of thought, clearly differ radically both within and among cultures. Myth is not history, magic not science, ritual not religion, and oral proverbial wisdom not philosophy. Although each of the latter may have roots in the former, and be the product of the same natural human thinking processes, they are nonetheless distinctive representations of understanding. They clearly cannot be described as simple outgrowths or elaborations without ignoring significant differences in their functions, contexts of use, forms and methods of inquiry. But how, then, do we account for diversity and development in forms of expression and understanding and thus of knowledge?

Understanding, Forms of Expression, and the Influence of Writing

Goody's answer in The Domestication of the Savage Mind, is that the growth and development of knowledge was made

possible by the kinds of techniques and capacities developed by means of writing. Having noted that no particular social or intellectual effects seem to follow from differences in languages, Goody argues that "an examination of the means of communication, a study of the technology of the intellect, can throw further light on developments in the sphere of human thinking" (p. 10). For Goody, the attempt to explain transitions in the history of human societies required a shift from the previous emphasis on means and modes of production to the means and modes of communication. He suggests that although processes of change which produce identifiable contrasts are neither linear nor binary, they do have "significant breaking points which one must be able to specify if any plausible reasons are to be teased out for social change" (Goody, 1986, p. X11). The invention of writing and the spread of literacy were mechanisms that constituted such breaking points. The consequences for thinking that Goody (1977) associates with writing are essentially the same as those noted by Havelock and listed above. He connects writing and especially alphabetic writing with "the development of abstract concepts (p. 150), the development and growth of knowledge (p. 48), changes in cognitive structures (p. 18, 160), increase in reflective thinking (p. 109) and changes in the type and ability to recall (p. 111)".

Much of Goody's work in The Domestication of the Savage Mind argues that the origins of abstract concepts are to be

found in the classifying and categorising which were involved in producing lists and tables on the Sumerian tablets. The visible list, he points out, had a qualitatively different impact on the mind from the heard list. The form of the written list itself gave shape and set visible limits on a sequence of words: lists have clear beginnings and endings and are disconnected from other lists as well as from the concrete contexts of use. Information could be thought about in a new way when it was abstracted from a flow of activity. The relationship of the words was no longer established acoustically in an active, flowing context of behaving but spatially and visually in a static scene. As the concept of list changed, the range of possible thoughts changed too. Words could be reordered according to various abstract criteria. They could be regarded for their like and unlike characteristics, compared and thought about for their meaning or morphological similarity. The list offered alternatives for reordering after the fact of recording. The existence of a list of events, for example, written down for some purpose as they occurred, "means that they can be resorted according to different criteria" (Goody, 1977, p. 87) at a later date.

Related to lists, tables reflected a changed concept of the basis of relations among naturally disparate items of information. Like the list, they changed the nature of representations of the world and represented a further step in classifying and establishing new relationships. In order to

construct a table, one needs to determine, for instance, the meaning of abstracted segments of information or determine similarities in characteristics of words and then compare and contrast and derive sets of relationships among items previously disparate and embedded in concrete, active contexts. Contrasts, analogies, and contradictions are revealed in the process of constructing the table. The task is one which demands some analytical thinking and is closely related to formal logic, an essentially literate process of reasoning which departs from reliance on narrative and common sense, the hallmarks of traditional oral thought.

The visible arrangement has a dialectical effect on classification. It encourages hierarchization, sharpening and refining of categories, and formal operations of a graphic kind. In making a new kind of manipulation possible, Goody (1977) suggests tables affected the structure of memory:

the format of a table may itself be internalised as part of visual memory...Once such essentially graphic devices...have been learned, they can be used to organize information of a wide variety and great quantity without the use of pen and paper" (p. 158).

What Goody is saying is that once the concept of a table is grasped, the idea of arranging and relating bits of information in categories offers a mental construct or thinking strategy to apply to a variety of assemblages of

information. It provides an alternative way of looking at information. But additionally, the table acts reflexively to affect perception of the data. By rearranging, the table changes perceptions and interpretations. The form of the table thus has an heuristic function. It is a way of forming and directing perception that motivates a search for information that the construct itself postulates. As Wittgenstein describes it (cited in Richmond, 1986, p. 83), concepts are "...the fixed rails along which our thinking runs, and so our judgment and action goes according to them too (1967: 374) and further, that "Concepts lead us to make investigation; are the expression of our interest, and direct our interest" (1974a:570).

By patterning data in a particular way, the table serves as a code which when imposed on perceptions makes "information" the mind recognizes and understands. The pattern is, however, not simply a static entity. It affects later representations of particular items of data. The relations made apparent in the table extend the ways in which particular data may be seen and understood. The phenomenon is a common one. We know of things in contexts of place, time, and relations. When something familiar is lifted out of its context, we may see it in a new way because it now exists in relation to different things which change how we perceive it and thus how we remember it. The terms in which it can be understood are expanded and visual memory is engaged in a new

way.

We recall that memory in an oral culture is typically prompted by the formulaic and poetic structures of the language and by the affective conditions of the context in which the language is spoken. Rhythm, metre and rhyme structure the content so that it is recalled as sets and patterns of sounds. Sensory awarenesses of scene and action, reconstituted in the mind, further stimulate the memory to recall the activity of speaking and thus of words spoken. In contrast, the table displayed items in a visual arrangement that could also be reconstituted as a whole image in the mind, one part serving as a trigger to remind of another in terms of the known relation of the parts. Verbal memory was thus structured by a static, abstract image which had no need to be related to the activity of its original production in order to be reconstituted. That the list or table was an abstraction, or that the criteria for including items were themselves abstract does not affect the nature of the task of classifying, a task intrinsic to all language use and not, as we have seen in Basso's example, necessarily dependent on writing.

It seems likely, nevertheless, that writing in the first instance makes it easier to reorder according to varying criteria while making fewer demands on memory. Although the process might be accomplished without writing, it could not be formalised and systematized to develop new knowledge without

writing. Suzanne Langer, in describing the genesis of art forms, makes a distinction which seems apropos here. She labels sing-song speech, rhythmic sounds and other tonal forms as "musical materials", not music, and comments that they arise casually and may "attain some degree of conventional development before anyone sees them as artistic forms at all... They are musical materials but their unconscious use is not art" (Langer, 1980, p. 249).

In a comparable way, we may see the use of lists and tables as being materials which became the means for conscious development of certain kinds of understanding and knowledge. Lists, for instance, served as archives of information which made possible the development of knowledge in history and medicine. Goody speculates that the existence of king-lists, annals and chronicles among the Sumerians and Babylonians made possible the later piecing together of information to compile a history. By early 2000 B.C., according to Wiseman (cited in Goody, p. 91), a Semitic epic linked together "events from the Creation to the Deluge in a single account." Successive revisions and reorganizations of the simple records and abstracting from the earlier epic forms, led eventually to other forms of composition which constituted historical knowledge. Medical knowledge developed from early Mesopotamian records which show collections of recipes for remedying ailments, and notes on symptoms and prognoses. These, Goody (1977) notes, "were added to and changed over

time" (p. 144). Remedies recorded on papyrus were also commented on and added to as Egyptian physicians gained experience and knowledge. The process of recording and revising was a major step toward the rational science of medicine.

The quantity and kind of knowledge which can be accumulated depends entirely on the techniques available for its preservation. Written documents have served that function very adequately. The development of knowledge, however, depends on more than accumulating a quantity of information. It is not a matter of putting down layer upon layer of the sediments of thought. Development that includes and transforms accumulated knowledge requires a critical perspective and forms of expression which offer alternative patterns of organization and representation. The evidence cited earlier suggests that all human beings possess the capacity for a critical perspective. Without alternative forms of expression as means, however, a collection of information can only be replicated in its existing form. To say something other than traditional forms allow, therefore, requires a new form. Suzanne Langer comments of myth, for instance, that:

It is the primitive phase of metaphysical thought, the first embodiment of general ideas. It can do no more than initiate and present them; for it is a non-discursive symbolism, it does not lend itself to

analytic and genuinely abstractive techniques. The highest development of which myth is capable is the exhibition of human life and cosmic order that epic poetry reveals. We cannot abstract and manipulate its concepts any further within the mythical mode... Ideas first adumbrated in fantastic form become real intellectual property only when discursive language rises to their expression. (p. 203).

Langer's argument here echoes Havelock's insistence that truly abstract concepts required a prose syntax and changed forms of expression. Archival information of the list, recipe, and table kind, while necessary, does not of itself lead to growth of knowledge. Its terms function principally to denote or represent. They are useful and interesting to readers who know and understand the contexts of their use. In order that the nature of the knowledge they represent be contextualized and thus more generally intelligible, new forms of expression are required. The forms which emerged in Greece used a new syntax, as we saw in the previous chapter, which permitted new kinds of explanation and were characteristically explicit.

Explicitness, suggests Goody, was a condition of the growth of knowledge of the kind associated with the Western rational-scientific cultural tradition. Without writing, new relations established by new categories could not be

elaborated and used as frameworks for the conscious development of further categories and thereby of new knowledge and understanding. Writing "takes words out of their speech context and places them, so abstracted, in a unilateral relationship with words (concepts/morphemes, lexical units, possibly phrases)" (p. 104). The meaning of the words is established by their use in the text. The text exists in one dimension as an autonomous, self-referential symbolic form. It is what Ricoeur (1984) calls an "autonomous symbolic whole", which has become "detached from the practical level" (p. 57). Divorced from the interactive oral context, written prose language makes demands that are determined internally by its structure. Its representation of the world is an alternative to what can be symbolized and articulated orally, not merely the written equivalent. By means of prose syntax, new relations among words and their meanings could be explicitly expressed, relations which the list and table begin to establish but which prose verbal explanation defines precisely. The revising and reordering applied to lists were later applied to fully articulated ideas in prose. Partly by means of this process, alternative ways of understanding were possible; new knowledge and a disciplinary tradition could be established and developed.

It is important to note the qualification "could" in that last sentence and to note also that we are here considering only the possible effects of alphabetic writing. The evidence

from anthropological studies strongly suggests that diversity of expression and cultural relations characterises oral cultures as it does literate. Given that diversity, it seems reasonable to assume that we could not expect to find a single continuum of development from the oral to the literate.

The characteristic of explicitness that Goody identifies as being crucial in the development of Western forms of disciplinary knowledge is, indeed, not a characteristic of all literate forms or conventions. As Nobuhiro Nagashima (1973) explains in his comparison of Japanese and Western thinking, literacy does not lead necessarily to scientific-rational thought in the Western mode. Contemporary Japanese thinking he says, is reflected in "minimum-message" communication where there is no attempt to be fully explicit or to represent meaning in an autonomous text. Japanese literates of the Ancient and Medieval periods developed the minimum-message as conventions which held down to the present. Like the literacy of Western culture, minimum-message had its roots in the non-rational, participatory, symbolic mode of communication in preliterate folk society. The use of script conventionalized but did not essentially transform the form of communication. Understanding of messages in Japanese always requires considerable background knowledge and experience of the writer-speaker and the subject.

Conclusion

The characteristics of the relation between the oral and literate minds appears to be determined by differences in cultural contexts rather than by differences in processes of thinking. The mental operations underlying the various forms of cultural expression examined in this chapter seem remarkably consistent. They include such generalized and somewhat interdependent capacities as: perceiving, imagining, analyzing, abstracting, generalizing, classifying, analogizing, feeling, remembering, and learning. What the presence of writing appears to have done is both respond to and create new kinds of material in the external world to which those capacities can be applied. From their investigations of cognitive development, psychologists Bereiter & Scardamalia (1987) support such a conclusion. They suggest that "literate thinkers do not differ from "oral" in the mental operations they employ, but rather in what they are able to apply those operations to" (p. 16).

The differences in the ways in which different cultures understand the world depends in part on what is available in the environment as the means of symbolizing and representing and in part on recognition of and need for the uses of whatever means exist. The invention of writing led to the creation of forms of written expression which constituted means or techniques for thinking, which could be internalized and used in the construction of understanding. Once the means

of understanding and making knowledge was dependent to a significant degree on what had been recorded in writing and thus available for critical scrutiny, the technical role of writing, as a substitute for factual memory and as a static artifact on which to exercise the mind's critical faculties, is prominent in an obvious way. Writing was necessary to the extent that the new techniques for thinking, the products, were intimately related to writing as the means by which they were developed. Without writing, those particular techniques could not exist.

To think of writing as either causal or not causal in the development of new mental capacities and new ways of understanding and thus in the process of cultural change, is, however, to misconstrue the process. Culture, writ large, symbolically mediates all relationships of human groups with the internal and external worlds. The products of that culture, including written discourse, constitute part of the external world which must be internalised in symbolic form by its members. Natural and human events, such as earthquakes or rapid increases in population, may create or cause a need for new means to mediate relationships. Once that means exists, it is enfolded into the culture and becomes part of the mental apparatus with which ongoing and developing relationships are mediated. Since any means, including writing, has to be interiorized, to use Walter Ong's terms, it is also necessarily dynamic. Human memory is not a storage space, a

library, or a computer. It is part of what Vanderburg (1987) calls the "dynamic organisation of the brain" (p. 90). The means that becomes part of the mental apparatus must therefore in some sense have effects and be a cause. From changes in the language within a culture, we can infer changes in ways of thinking; that is, changes in the way the mind articulates its grasp on the world constitute changes in the means available for interpreting it. As Ong puts it, "Without writing, the literate mind would not and could not think as it does" (1986, p.24).

Because the process of cultural change is so extremely complex and dependent on such a multiplicity of realised and unrealised potentialities and diversity of social structures, the causes of change are necessarily also complex and multiple. No single dimension of mediation is likely to dominate. Politics, religion, economics, and technology all interact in evolving patterns of ascendancy and decline. Writing as a technology functions within those patterns. The emergence of literate cultures and literate minds in Western Europe suggests that writing offered potential for intellectual development that was responded to and could be nurtured in existing socio-political contexts. This does not mean we assume recognition at the time of what that potential might eventually give rise to in the culture. The comparison with the computer in our own age is again illustrative here. The uses of computer technology are constantly being both

created and discovered and we can only imagine and speculate about what it will mean to future generations. Not knowing does not stop the inquiry and the development which are subject to the complex of ongoing, somewhat unforeseeable, socio-historical forces.

An inquiry into the effects of writing in Western culture fortunately does not require imaginative or speculative projection into the unknown. What it does require is that we try to trace the development of literate capacities through a multiplicity of interwoven events and to discover the conditions which led to the uses of writing and literacy that we have inherited. Tracing any thread necessarily highlights the thread and to some degree distorts its significance in relation to its context. While acknowledging that to be the case, the search to be undertaken in the next chapter will nonetheless enable us to grasp more securely an understanding of the particular nature of literacy in Western culture and the conditions which produced it.

Chapter Four

Through Writing to Literacy: A Cultural-Historical Record

Introduction

In the previous chapter, we examined what anthropologists have to say about the thinking processes or mental operations of people in non-literate societies. According to their observations and reports, we cannot distinguish the mental operations of non-literate from literate people. Processes of thinking appear to be biologically determined rather than culturally. They are, as Geertz (1983) says, "the pristine powers we all have in common" (p. 151). We must conclude, therefore, that cultural differences cannot be explained by differences in thinking processes brought about through writing. Nor, if we accept Nagashima's evidence, can we hold the view that the development of writing and literacy proceeds along an invariant path toward Western modes of scientific-rational thought. This does not mean the search to understand the effects of literacy has to be brought to an abrupt halt at a dead end. But it does mean that we cannot think of literacy in terms of inherent unvarying consequences and that we must look elsewhere in order to understand the relation between writing, thinking, and cultural phenomena. In this chapter, therefore, I shall attempt to locate the meaning and uses of

literacy within particular socio-historical contexts.

Only very recently has the relevant historical information about literacy become available. In the past, historical studies of literacy tended to look at literacy quantitatively. They estimated the number of persons who at any one time were apparently able to read and write and documented such information as occupation, geographical distribution, and kind and level of education. More recently, historical studies such as Walter Ong's Orality and Literacy (1983) reflect the new awareness that more is entailed in being literate than the ability to encode and decode a symbol system. Orality and Literacy is a synthesis of decades of Ong's own thinking about literacy and of research and thought from a wide spectrum of disciplines. Ong constructs a picture of literacy development which culminates in the rational-abstract-conceptual-critical characteristics of literate competence we inherit today, characteristics which for ease of discussion I shall refer to in this chapter as "critical literacy." Other historical studies such as Brian Stock's The Implications of Literacy and Michael Clanchy's From Memory to Written Record in England 1066-1307 situate literacy in the social contexts of uses and practices at particular periods. They provide synchronic, detailed descriptions and analyses within which and against which to interpret and understand Ong's

diachronic perspective.

An attempt to trace the development of any aspect of human activity through a complex historical landscape necessarily illuminates that development and throws other activity into shadow. As it illuminates, so it accords significance. Because it identifies a course, it implies continuity, direction, intention, and a certain inevitability. In his account of the development of writing, for instance, Walter Ong uses phrasing like "what writing accomplished" and "writing restructures consciousness" (1983). A selective historical account can appear to claim that critical literacy is the result of writing. As I have suggested, Ong's terms strongly bias thinking in that direction. But writing is a human invention put to use in human social settings. It does not of itself rupture a cultural landscape with the suddenness of an earthquake. What distinguish one cultural group from another are, to cite Geertz again, "the visions and versions that we socially construct" which include, of course, the forms of literate expression. In certain of these settings, particular cognitive potentialities of writing were gradually and discriminately realized. Coexisting with them, obviously, were multiple other, quite different social settings in the same culture. These conditioned uses and perceptions of writing in other and different ways, some of

which led to what Clanchy (1979) has called "practical" literacy and to what Illich (1987) terms "lay" literacy.

As we examine the historical record in this chapter, we need to acknowledge those differences since they must modify any claims that imply an inevitable development through writing toward a critical literacy. Noticing the differences further allows us to see more clearly how the nature of any literate activity is continuous with and contingent upon the nature of particular settings. The principal purpose of this chapter, however, is not to argue the contingent nature of critical literacy. The purpose is to investigate and describe developments in the use of writing through which have emerged, under particular conditions, those intellectual capacities we associate with high literacy. The consequences of the influences of varying social settings will be the focus of the chapter which follows. Those consequences will be referred to here, therefore, only in order to help maintain a proper perspective.

It will be my task in this chapter, then, to trace the uses of the technology of writing and the evolving perceptions of literacy from the disintegration of the Roman Empire down to the nineteenth century. Within the obvious limits set by a chapter length survey of such complex change, I select episodes and examples which, by

illustrating changes in the uses, practices, purposes, perceptions, and beliefs about writing, will allow us to draw conclusions about the role of writing in the development of the unique forms of thought and expression and kinds of knowledge generally associated with critical literacy.

The Technology of Writing

The title of this chapter, Through Writing to Literacy, was prompted by my belief that there are important distinctions to be made between literacy and writing. Although the technology of writing did not disappear, for instance, the literate expression and intellectual development of the relatively small and homogeneous Greek population of the Classical period was not maintained at the same level in the centuries following Plato. Furthermore, after the fall of Rome, the bureaucratic structure and communication networks collapsed, no longer needed among the heterogeneous populations of the former empire. While the literate achievements of the Greeks were not lost, their potencies lay dormant until rediscovered in the later Middle Ages. In the interim, the technology of writing was put to use principally for clerical and administrative purposes.

Writing has commonly been conflated with literacy and both are sometimes given the label of technology. Writing

is the basic function in the practice of literacy and implies its correlative, reading. Writing thought of as the technical system, however, lends itself to less ambiguous description than is presently possible with the term literacy. A distinction is also useful, if the relations between a culture and its literacy are to be understood. For the present purposes, therefore, I shall treat writing not literacy as the technology. I begin by considering the senses in which writing warrants being called a technology and explain what that seems to me to imply.

A technology is the application of technical method to some kind of action. In writing, this involves the application to spoken language of an artificially constructed system of rules and elements, as exemplified in the Greek vocalic alphabet and the syntax of prose. Technology also involves the use of tools. Defining writing as a technology draws attention to its dependence on tools such as pen, ink, paper, and more recently, on typewriters and computers, and to its material presence as visible language. All technologies affect the nature of the task to which they are applied and thus the way the tasks are perceived.

Whether the task is a simple one like chopping food or a complex chemical process of dyeing fabric, the technology used affects not only how we do it but also how we describe

it, visualize it, and conceptualize it. What used to be an act performed by the hand with a knife, in the case of food chopping, for instance, has been transformed by food processors. Energy no longer comes from the body to produce small segments from large, but from a motor. A blade spins in a cylinder and large pieces whirl about as the blade flails them into fragments and flings them aside. What constitutes chopping changes with the introduction of such technology. When we think about it, we do so in terms of the various methods of doing it. The technology has a material presence with which and by means of which we think about the task. The technology enters our memory and shapes our consciousness and perceptions.

In the case of writing, the technology changes our perceptions of language and communication. The text as materially present transforms the relation between oneself and one's language and between oneself and others. Communication is only one use of verbal symbolization or language. Most of the time we manipulate language in our heads, along with other imaging, in order to transform sensory data into the meaningful symbolic form that renders our experience knowable. The technology of writing enables us to confront and interact with our own thoughts as well as with those of others. It enables us to structure our memories, thus our minds, with additional, different ways of

organizing, analyzing, and conceptualizing our experience. These new ways are patterns, genres, forms and conventions of linguistic expression, developed by means of the technology of writing. They become habits of thought encouraged by the analytic process that writing entails. They may include such forms of logical procedure as syllogistic reasoning which involves a particular kind of analysis using written verbal statements. The new relationships and meanings these written forms embody are integrated into our consciousness and become internalized as the ways in which we conceive of how to make an intelligible world. Once internalized, they become tacit knowledge, as Polanyi names it, and are used spontaneously, as were the poetic, imagistic forms of Vico's poetic man. They are the means by which and through which we construct and perceive our world.

The story of the applications of the technology of writing is the story of how we arrived at what we perceive with. Historically, it begins with a period which could be broadly characterized as the use of writing to inscribe. Existing texts were copied and recopied by hand. Spoken language was encoded in writing. Reading was a process of deciphering; writing a process mainly of recording.

Applications of the Technology of Writing

Between the end of the Roman Empire and the early Middle Ages, the institution most able and willing to make use of the technology of writing and to maintain a literate culture was the Church. After the fall of Rome, when the fairly extensive network of schools established by the Romans had collapsed, only a small scribal class of priests had access to the surviving sacred texts. Kenneth Clark (1969) tells of a "boat load of 50 scholars" arriving at Cork looking for a safe retreat. On the islands of Lindisfarne and Iona, a small group of Celtic priests helped "keep Western civilization alive" by producing highly ornamented manuscripts of the gospel books. Roman manuscripts were also preserved and copied in monasteries such as those in Tour and Toulouse in France (Clark, 1969). For the early Church, writing was useful and necessary as a means of recording, preserving and proselytizing the teaching of the gospels. Church authority might be more difficult to assert, however, if it maintained the policy of allowing democratic access to the texts. Literate competence was thus limited to a small group of priestly readers. For most people in the society, writing anyway appeared to serve no compelling individual needs.

In the first place, the existence of a written record did not mean that many people were expected to be able to read it. Indeed those who "wrote" the texts were not

necessarily able to read them themselves, but simply copied from scripts. As long as a few priestly readers could decipher it, everyone else could listen. Secondly, what was important was to receive the messages of the gospel as sanctioned by the Church and, moreover, to accept them unconditionally as the voice of God. As the mediator between the faithful and their Maker, the priest spoke as that voice. The tacit assumption was that the written version differed from the oral only in the medium. That the word was spoken, however, was as important as the messages it contained about the Christian tradition since part of that early tradition seems to have included belief in the power as well as the truth of the living word, of the spoken rather than the written. For Christians, echoing Plato, the written word did not and could not reflect or express genuine truth and knowledge. Only common speech, "the living, surviving voice" (p. 71), as Papias, Bishop of Hierapolis (in Pattison, 1982) called it, could express knowledge and truth.

The custom of "voicing" the text was also a practical matter. Until spaces were made between written words, the reader had to read by sounding out combinations of letters in a sentence and listening, says Illich (1987), "to hear whether they made sense" (p. 15). Writing was equally affected by the habit of not separating words. Scribes

could not read silently what they had to copy, they too had to sound the words. The usual practice, therefore, was to have one person reading aloud while several others inscribed what they heard--a dictating procedure still common, of course, in many twentieth century classrooms and offices. Alternatively, the scribe might read aloud as much as he could remember accurately and then transcribe from memory. Writing was thus a process of recording from listening, either to another or to oneself. Later, when it became common to leave spaces between words, the texts being copied could be read silently and transcribed. More radical changes in the processes of reading and writing had to await other technical developments.

As well as being useful for its religious mission, writing was also important to the Church in building a bureaucratic structure. Efficiency, however, demanded that as the bureaucracy needed to administer the Church increased, the language of written expression be standardized. By the 5th century A.D. the Church, therefore, reverted to using formal correct Latin for liturgical and Biblical texts and for all its bureaucratic communication. The move to standardization initially made it possible for clerics to communicate with each other across national vernacular boundaries and thus to cope with life more easily as members of their particular religious

society. Eventually, however, the written forms corresponded less and less closely to the spoken. Latin, like English today--but without the benefit of modern networks for translation--broke down into so many spoken dialects that even those who had been taught to read and write were unable to understand the standardized written forms.

Since spoken language continued to dominate communication during this period, the proliferation of dialects in spoken Latin only aggravated their estrangement from the written forms. As well, the obvious artificiality of the written language dramatically separated it from the spoken vernacular languages of the general population. The refinements in the written language, which initially had improved communication within the church and institutions to which it was related, eventually contributed, therefore, to its breakdown. By the 9th century, it became Church policy to enforce the use of formal correct Latin only in oratory and written documents and to acknowledge that "the society was rooted in speech" (Pattison, 1982, p. 79).

The use of writing had always been restricted because the Church taught only limited numbers of persons to read and write. The priestly scribal class was responsible for doing the paperwork necessary for maintaining and developing not only Church business and organizations but also for most

other social institutions. Even kings had to hire writers to inscribe and readers to decode messages for them. Although he learned to read, Charlemagne, for instance, never learned to write. Apparently he had wax tablets by his bed to practise on, but "said he couldn't get the hang of it" (Clark, 1969, p.17). Mayors and noblemen, as well as many bishops and abbots were unable to read and write. Cippola (1969) cites the example of Count Baldwin II of Guinea who, he says, was "an exceptionally learned person who named a beautiful library, yet he never learned how to read--he had his books read by his clerici et magistri" (p. 40).

The new policy regarding the use of formal Latin was occasioned in part by Charlemagne's administrative need for a common language for those in power and in part by the recognition expressed in the Council of Tours that ordinary people needed to hear Church teachings in language they understood. Charlemagne himself was very diligent in having manuscripts collected and copied. Clark credits him with starting the process which preserved ancient literature. In England, Alfred the Great began what historian A.J. Mapp has called "the greatest literary tradition in the occident." Alfred is reputed to have taught himself to read at forty. He himself translated into English such works as Pope Gregory's Cura Pastoralis and sent a copy to every bishop

and judge in his kingdom, with orders that it must be read. He sponsored the Anglo-Saxon Chronicle, a year-by-year history of England and arranged for the translation of a wide range of books including Boethius' Consolation of Philosophy, and Bede's church history the Ecclesiastical History of the English Nation.

Although the translation of ancient books and the keeping of written records flourished during this Carolingian period, the "renaissance," as Stock refers to it, was brief. Decline in both quality and quantity of records followed (Stock, 1983, p. 17). The Church continued to hold onto the formalities of Latin which increasingly came to be identified with what Pattison (1982) describes as an "elitist, formal, rational, distant and esoteric... spirit" (p. 79). The Church also, up through the 10th century, continued to hold onto its monopoly on the technology of writing and thus kept to itself the power which accompanies record-keeping and communicating. In what was an essentially rural and agrarian economy, however, the ordinary person certainly had neither the wherewithal nor the need to learn to read and write.

Throughout this period, the main forms of writing had limited and specialized uses. Most were specific to the religious community and made it possible to get the work of the Church done or they were adapted to the administrative

needs of rulers. (Literary works, like the many heroic epics of the Anglo-Saxons, were transcribed into writing but these were part of an oral tradition like that of the Homeric epics and not meant to be read silently or in private.) Reading and writing served also as means of reinforcing and conserving approved procedures, traditions, and doctrine, mainly religious. Indeed, Clark (1969) says that St. Gregory, who was himself a scholar, is thought to have "destroyed many volumes of classical literature, even whole libraries...And in this he was certainly not alone" (p. 17). Written material, whether religious or bureaucratic, did not replace oral communication. Written forms supported communication by removing the need to depend on memorizing text and expanded and improved communication by standardizing the language used to promulgate Church doctrine, thus unifying congregations across national boundaries.

The applications of writing during this first period occurred within a fairly homogeneous cultural landscape, clearly defined and carefully preserved by the practices, beliefs and values of the Church. Between the 10th and 14th centuries, however, significant social and economic changes took place in Europe. The practices, purposes and perceptions of writing changed and developed with them. Reading became a process not only of deciphering and

comprehending, but also interpreting; writing a process not only of recording, but also analyzing. Texts began to be seen not only as representing but as embodying knowledge.

The Shift to Textuality and Interpretation

Clanchy speculates that up until the end of the eleventh century, a return to an oral world was still possible, but by the end of the twelfth, a process had been set in history that was irreversible. The technology of writing ceased to be the exclusive property of the Church and the development of literate capacities reflected the varied and proliferating social contexts of its use. In particular, written forms became increasingly more practical and served a broader range of purposes. The transformation from dependence on oral communication in the domain of ordinary public life began with an increase in the demand and supply of written records.

The impetus for this increase came with an increase in the movement of people, the rise of commerce and towns, and in England, the government's need for information and money. From the 10th century onward, written documents were used in a broad range of legal and institutional tasks. Clanchy (1979) estimates that between 1066 and the invasion of William the Conqueror to the end of the reign of Henry II the output of the royal government increased more than

tenfold. William the Conqueror initiated the Domesday Book, an inventory of all people, animals and objects and the geometric progression of its accumulation of information continued into the 13th century. All kinds of other records were also produced. These included charters, contracts, property transactions, title deeds, Chancery rolls, collections of statistics, plea rolls for use in court, records of expenditure in large households, and records of court proceedings.

As writing began to transform the way many administrative tasks and social activities were carried out, it also transformed the way those activities could be perceived and thought about. As has been the case in our own time with the introduction of computers, the use of the technology affects how we perceive tasks done previously by other means. As potential applications of the technology are recognized and put to use, they ineluctably enter memory and are available as metaphors for use by the imagination. The computer, for instance, is transforming the ways we can think about information storage and is becoming a metaphor for how we might conceive of our own minds and memories. In the later Middle Ages, as the contexts for use of written records expanded to include more and more aspects of life, those records also began to transform the ways people thought about information storage and similarly introduced

metaphors for conceiving of human minds and memories. The more common the use of written records, the more it became customary to rely on the accuracy of what was written as an alternative to relying on individual memory and on oral testimony.

We have seen that up through the 10th century, written documents served mainly to support oral communication. In order to be meaningful, the words had to be claimed as "the words of someone." The authority of the speaker as the source of truth and knowledge greatly exceeded that of the written reminder or the writer of it. The increase in types of records did not initially change that perception, in part because the writer was commonly not the originator of the content of the writing. The writer as scribe practised a trade like other craftsmen who were hired to perform such tasks as building houses or boats. The writer required "special mechanical skills simply to work with the materials available" (Ong, 1983, p. 95) which probably took more time and technical expertise to acquire than those who actually needed written documents wanted to expend or develop. The personal word also had more credibility than the impersonal document since the document might easily be untrue or forged, as was not at all uncommon in the case of books and charters in the 11th and 12th centuries. Not only was forgery a problem, but inadequate methods of reference made

it very difficult to trace written documents and thus to use them to substantiate any claims being made. Technical advances and literate criteria for criticizing documents as well as the expertise needed to apply them came only later. At this time, what was written lacked in itself the authority attached to what was spoken. The testimony of a document often required the support of spoken testimony.

"Which was better evidence, for example, seeing a parchment or hearing a man's word?" (p. 209) asks Clanchy (1979). He cites Eadmer's description of the conflict over an invective in which "documents signed with the Pope's seal," the most impressive produced in medieval Europe, were challenged in derogatory terms by three bishops as "the skins of wethers, blackened with ink and weighted with a little lump of lead" (Clanchy, 1979, p.209).

By 1300, however, the weight of authority began to rest in texts. The truth of discourse was tested not by speech but by documents. Clanchy (1979) reports court cases, for example, which show that "the oral procedure of challenging jurors had become in reality a written one" (p. 223). Although the facts had to be delivered orally, they had to exist also in writing. Texts such as contracts and plea rolls began to serve as evidence that could be used to substitute for the original oral record should the oral record be lost or forgotten. Other kinds of documents were

gradually assumed to be accurate representations of the intentions of whomever had prepared them. These would then serve what Stock (1983) describes as a "dispositive role which effectively superseded oral arrangements" (p. 7). What became fact then was what had been written, suggesting a recognition and acceptance of the written form as having come from a reliable source and thus believable, whether or not it had been confirmed orally.

No doubt this acceptance was the consequence of a number of factors, the most immediate, though not new of course, being the fixed nature of writing. Time might fade but not change the words on the page, unlike the effects of time on human memory. The actual number of people who could read and write still represented only a small fraction of the male population and equally small was the percentage of people who had both the need for and access to the skills of writing. The authority eventually accorded to texts was probably, therefore, also related to the fact that those whose social status required them to use written documents already had authority. Not that the effects were felt any less by those who could not read and write than by those who could. Illiterate peasants taken to court would be subject to the new methods of testing evidence. Their word might not count against a contradictory written record. "Under the literate regime, the oath pales before the manuscript;

it is no more the recall but the record," (p. 18) says Illich (1987). In the afterlife as well, the influence of the record would be felt. "Even the rudest peasant and humblest charwoman can no more enter the church-portal without learning that their names and their deeds appear in the text of the Heavenly Book. God, like the Landlord, refers to the written account of a past, which, in the community, has been mercifully forgotten" (Illich, 1987, p. 17).

As Stock and Clanchy document it, the shift to belief in the authority of texts appears also to have been much influenced by the state of flux in language and by the way texts were composed and their meaning and significance negotiated. The 11th to 13th centuries were a period when written English and French were still in a fluid state of development" (Clanchy, 1979, p. 261). Standards of written English had been eroded by challenges from colloquial forms, Stock says, because no public authority existed to uphold particular conventions. The actual language used in written records depended on "the status of the persons concerned and the nature of the document and not on the language actually spoken on the occasion" (Clanchy, 1979, p. 160). Records of court proceedings, for instance, might be written in Latin yet the actual spoken proceedings be conducted in English or French. As spoken languages, French and English were almost

in competition and in their written forms, they competed for status with Latin which still held pride of place by virtue of its antiquity, universality, and association with scholarship.

As was noted earlier, written, or what Ong calls "learned Latin," had splintered off from the spoken by the 6th century A.D. The written was subsequently standardized; the spoken developed in two directions: into the recognizably distinct Romance languages of whole populations--Spanish, Italian and so forth--and into the Latin dialects spoken by clerics. Although written Latin was by no means dead in the sense we think of it today, thousands of words being added over the centuries (Ong, 1983, p. 113), its life was somewhat protected from the pressures of the linguistic marketplace. Insofar as it was used in practical as distinct from scholarly contexts, however, Latin, like French and English, had a destabilizing influence on usage in both speaking and writing during this period.

With multiple influences on the development and use of languages by different groups in the society, no single group of characteristics adhered exclusively to written and spoken forms. There was no direct correspondence, for instance, between the informal and the vernacular or the standardized and the written. As use of the vernacular in

texts became more common and in more sectors of life, a situation developed in which there was a growing interdependence of oral discourse with written texts. Writing reflected both the non-standard vernacular vocabulary and sentence structure and also oral methods of composition. Stock notes that John of Salisbury in 1159, for instance, talked of writing as a process of dictating and "penning," the one done by him, the other by his secretary. Eadmer, in writing his biography, was himself doing both things but he distinguishes between them, recognizing that the composing techniques he drew on to "dictate" derived from classical rhetoric whereas the actual penning was simply a physical act. His writing, like John of Salisbury's, was a process of spontaneous composition and an extension of his speaking, not a different means of expression. What it did is provide for his reading audiences an alternative to hearing as the mode of communication.

But just as composing in writing was associated with speaking, "reading" was commonly associated with hearing rather than with silent, visual scanning of text. Readers read aloud to listeners. "The medieval recipient prepared himself to listen to an utterance rather than to scrutinize a document visually" (Clanchy, 1979, p. 214). The interaction of verbal discourse with texts in these ways

contributed to their developing interdependence and appears to have enabled their interpenetration, to borrow Stock's useful term. Since they are recognizably close to speech in their methods of composition and could be identified with the speaker, individual acts of speaking and writing could be perceived as interchangeable and thus the written and read word could be assumed to have meaning and be given the authority previously accorded only the spoken word.

It was out of such interacting and interdependent socio-political-linguistic contexts that concepts of writing were gradually transformed. These new perceptions and beliefs were acquired rather than consciously learned. They emerged unbidden from the contexts of use of the technology. As characteristics of a new "literate mind," they appear to be the outcome of adjustment or accommodation to social and economic realities rather than of intellectual will. Stock (1983), indeed, locates changes in the perception of writing within a general framework of social change in a similar direction:

If a generalization is to be proposed, it would have to speak of a new system of exchange and communication, equally effective in economic, social, and cultural relations. Coinage appeared in quantity; markets surfaced in nascent commercial centres; prices began more and more to

be determined by supply and demand; and men gradually distinguished between inherited status and contractual obligations. Money, in other words, or commodities with a monetary value, emerged as the chief force for objectifying economic concerns, just as, in the cultural sphere, the written text helped to isolate what man thought about from his processes of thinking.

(p. 85)

The application of the technology of writing to linguistic expression and its meanings appears, that is to say, to have had similar effects to the application of monetary value to goods and services. As the use of money drew attention away from an item's actual value to any particular individual and toward itself as an indicator and eventually an arbiter of value, so writing similarly drew attention to itself as an indicator of thought and eventually as a source of authority.

That is not to say that the authority of written accounts was automatically accepted and assumed. The degree to which they should be accepted as accurate representations continued to be determined by reference either to corroborating oral or to other written testimony. Accounts would thus be subject to some level of critical, comparative analysis. In matters of administrative and commercial

practice, the analysis was not an abstract exercise. It would occur within contexts of use and action and would lead to decisions and judgments, which themselves might be recorded and used for later reference to assist in dealing with similar occasions or events. Illich (1987) mentions, for instance, that "a miniature of 1226 preserves the first picture of the 'corrector,'" a new official who leans over the shoulder of the scribe to certify the "identity between two charters" (p. 18). Such habits of comparative-analytic activity were embedded in concrete practices and, together with all the other socio-economic activities involving written records, constituted a "practical literacy" as differentiated from the "high literacy" of those who were to use reading and writing for intellectual purposes.

The purposes of practical literacy underlay intellectual purposes across a broad cross-section of the medieval population. The expansion of practical literacy was, in one sense, a successful means of enabling and reacting to major social change. It made the change manageable and possible. Understanding the change, however, and being able to explain the forces at work, required capacities to provide answers that satisfied changing sensibilities. When old terms of explanation fail, new ways need to be found. In the 12th and 13th centuries, the terms in which the society had been understood were proving

inadequate. The social order was rooted in religion but the Church no longer offered a sufficient degree of security and satisfaction in the face of a spread of Humanistic knowledge, social and economic disruptions and such uncontrollable disasters as plagues and epidemics. The tenets and ethics of Church doctrine which posited a world of Christian brotherhood stood in dramatic contrast, for instance, to the desperate economic realities of 12th century textile workers' lives. According to Marc Bloch (cited in Barbu, 1960), "the communities of the textile workers were one of the favourite breeding grounds of heresies" (p. 45). As a group, they, and other heretical sects and revolutionary movements, began to question the Church's interpretation of the scriptures. It was such high literacy,--the analytic-interpretive work applied to religious, legal, and historical documents--that laid the ground for the expansion and development of scientific, rational, critical, and discursive knowledge.

Although the authority of the Church continued through to the Reformation, new intellectual tools began to be developed during this period which challenged that authority and which served as the means of developing alternatives to the Church's interpretations, and later, during the Renaissance, alternative explanations. These intellectual tools included techniques of analyzing and interpreting

which were devised for use with texts. As we have seen, writing and texts had begun increasingly to influence relations in everyday activities. Texts also began to be used, however, in the acquisition of knowledge in law, theology and history and as the basis on which methods of explanation and interpretation could be developed.

The use of texts for these purposes had its origins in existing practices which were modified and transformed because of new demands. As was true of the emerging literate mind of ancient Greece, as described by Havelock, the new textuality in Medieval Europe grew out of prior, deeply embedded cultural conditions. In the case of Europe, the traditions which had earlier permeated all aspects of the culture derived from the Church. It was out of such interpretive habits associated with religious discourse that new strategies and approaches to texts emerged.

The need for interpretation of the scriptures and the importance of correct interpretation had long been clearly recognized in the Church. St. Augustine's On Christian Doctrine (497-526), for instance, outlines criteria for interpreting the figurative language of the scriptures. It is a guide to exegesis which specifies that the scriptures can be read and understood in terms of faith, hope and charity and any other reading is quite simply wrong. By the 11th century, there were many heretical and reformed

communities in the Church whose practices and beliefs appeared to contravene traditional doctrine. As a means of clarifying what actually constitutes heresy, accounts of individual heresies appeared in written form and were interpreted and distributed to ordinary believers in sermons and missives. The behaviour of groups of heretics was also documented and attempts made to explain the particular nature of the heresy in the context of the principles and practices of the Church.

The texts in which these heresies and their counter doctrines were recorded, initially had a status equivalent to evidence-documents. That is to say, they supported the oral record by confirming and contextualizing it. But the process of confirming eventually also involved comparing written accounts and searching for precedents which allowed rational distinctions to be made on the basis of textual evidence. These new kinds of rational distinctions replaced oral, anecdotal comparisons of experience which relied on memory. The texts which described and documented accounts of heresy began to be significant in resolving them. As they accumulated, written accounts provided an ongoing record which was studied and discussed in situations removed in time and space from the concrete activity of the original context which they described.

The process of such interpretive-analytic work was made

possible in part by technical changes in the appearance of texts. Illich (1987) points out that the potentialities of writing as visible language could not be realized until it could be read and understood simply by being seen and not also vocalized and read through. Readers need cues which help them to make sense of utterances just as listeners do. Such techniques as chapters with titles, chapters divided by subtitles, numbering of chapters and verses, paragraphing, marking quotations and summarizing marginal glosses, made it possible to develop a table of contents and alphabetized subject index. All of these structural cues assisted readers in the work of studying the meaning of the text, of critically examining it for its logic and argument, and of identifying inconsistency and contradiction. Indeed, they made such scrutiny possible.

In giving texts such serious and intense examination, and by using them to arrive at what they perceived to be the truth of events, scholars were treating the text as an accurate, meaningful representation of actualities, a substitute for experience. In this, their uses and beliefs were parallel to the way written records were handled in practical contexts. Significantly more extensive and developed, as well as more abstract, however, were the interpretive strategies being used in the analysis of heretical texts. In practical settings, the text's accuracy

would be connected to a concrete situation and to action. In intellectual settings, the text embodied the reality. Written words had meaning apart from action and concrete activity. Their meaning was connected to the meaning of other words and dependent upon them, not on what they referred to outside the text. The word on the page was invested with meaning that could be studied and understood without reference to its author. The logic inherent in text structure, in the syntax and grammar, was able to constitute alternative understandings of the world.

In Havelock's familiar terms, the activity of interpreting texts "separated the knower from the known" and permitted the contemplation of meanings about the world that were not embedded in concrete activity but were entirely symbolic. Indeed, the kinds of thinking and the assumptions and beliefs about knowledge that Havelock associates with writing in classical Greece begin to reemerge here in the medieval context. Experience, examined by means of textual logic, could be separated or abstracted from actual occurrences. Subjective, lived experience could be and was itself interpreted and symbolically constructed as text. It could be discussed, further, in terms of rules and principles, thus from theory and conscious organization, as art.

The label attached to these new interpretive habits was

the "scholastic method." It referred to "a set of techniques for evaluating and reconciling opposed positions and was not peculiar to any branch of knowledge; rather, the methodology was generally appropriated as principles of factual organizations" (Stock, 1983, p. 326). Transposed to legal and historical work, the methodology included both gathering of facts and the presentation of them in discursive text. Since the arrangement of the facts was according to criteria decided upon by the writer and would follow from logical principles, the methodology also implied interpretation. Since what was knowable in the context of this interpretive work "was largely associated with the accumulation of facts that were directly or indirectly derived from texts" (Stock, 1983, p. 405), it seemed to follow that the way to develop or increase knowledge was by making texts, since interpretive analyses had shown them capable of embodying facts, not merely recording them.

Bernard of Angers was probably one of the first, if not the first during this period, to produce text that was intended to increase knowledge, not simply to record it. He collected data--in this case stories of miracles--authenticated them by examining witnesses, compared accounts of the events, and then organized them into a coherent narrative which he then revised and edited. The way he organized his material was dictated by how he interpreted

what belonged with what, rather than by chronological sequence, and by what he thought memorable and significant. (According to Stock, 1983, the document he produced, The Miracula, was "an immediate and lasting success" [p. 64].)

Although the use of writing technology and the existence of texts made it possible for Bernard to engage in this kind of analytic reasoning, the contents of his work and of other historical works still depended on a blend of the old oral and new written traditions. In historical writing, for instance, the method of composition at first retained close ties with the epic narrative and all kinds of unverifiable data such as dreams and poetic insights were compiled and admitted to the record, data which would later become unacceptable. Not that even at the time, such data was uncritically received. Orderic Vitalis, writing a history in the late eleventh century, is said to have "detested those who told inaccurate narratives" (p. 75). As history developed into a discipline, the nature of sources and kinds of documenting which were recognized and included were subject to certain kinds of critical scrutiny. The corollary of the belief acted upon by Bernard--that texts could embody knowledge and be the means of advancing knowledge--was recognition of the role of self-consciousness. Through engaging in a process that "actualizes potential meanings" of words, readers

articulated those meanings, thus making them conscious. In acts of reconciliation of meanings, they turned to their own understanding and were thus led to see truth as something coming from inside and not external to the mind of the interpreter. As something inside, as Stock points out in his analysis of medieval interpretive work, it had to be inside individual minds and connected to consciousness.

In the late 11th century, the Dedascalicon of Hugh of St. Victor fully articulated the relation between textual knowledge and self-consciousness. For Hugh, it was a matter of how to attain human perfection. He advanced the view that human perfection is attainable through reflectively conscious awareness. Hugh posited that the bridge between imperfection and perfection is the study of texts which offer knowledge. In the process of consciously applying knowledge, there is self-knowledge, and by knowing itself, the self becomes more virtuous. Since the knowing is of the mind, it is immaterial and invisible. For Hugh, knowing also signified the immortal elements through which human beings "truly exist" (Stock, 1983, p. 323). Understanding and illumination were thus attainable from individual study and creation of texts. No longer, for instance, were priests and their voices needed as mediators for the individual in his or her approach to God. The text provided the means to individual salvation. This was "rationality as

inspired by literate pursuits" (p. 145) says Stock (1983).

The necessity of interpretation and of looking inward for knowledge and knowing is summed up in the contrasting views of Abelard and Anselm, as described by Kenneth Clark (1969), who comments:

At the centre...was the brilliant, enigmatic figure of Peter Abelard, the invincible arguer, the magnetic teacher. The older medieval philosophers like Anselm had said: "I must believe in order that I may understand." Abelard took the opposite course: "I must understand in order that I may believe." He said: "By doubting we come to questioning, and by questioning we perceive the truth." (p. 44)

As Havelock (1963) had observed of the Classical Greek experience long before, the transition to textuality described here also seems to be accompanied by the development of a "consciousness which...discovers the reason for action in itself" (p. 199). In the 11th-12th centuries, the discovery that meaning can be found in and through the individual mind emerged from the insights of brilliant minds like Abelard's and by means of the techniques developed to help interpret texts.

Eventually the transformations achieved by both practical and high literacy became recognizable as

characteristics of a new literate mentality which constituted a cultural phenomenon. It bespoke a climate in which texts served increasingly as the means of mediating individual and social interaction. Not that every one could read or write, nor cared personally about acquiring the skills. It appears, from what Stock and Clanchy describe of the changes which took place in the later medieval period, that not the technology per se nor the acquisition of skills to use it, but the presence of texts, the nature of their contents, and the social context of religious dissenters led to new perceptions of what constitutes knowledge.

The way and extent to which individuals were affected by new perceptions depended on the nature of their involvement with literate communities. Among clerics and their faithful and among the heretical groups, only a few individuals might actually read the text, but others participated in interpreting it. Participation in such textual communities brought with it the perceptions and methods of analysis associated with texts. Participants were immersed in settings which afforded particular kinds of demonstrations about the meaning and value of texts and thus literacy. They could become literate in their attitudes and beliefs about texts without having the technical skills needed to gain direct access to them.

Clanchy (1979) cites John of Salisbury who "emphasizes

that an illiterate prince can participate in wisdom through the medium of the priest's voice. The prince is not excluded by being illiterate" (p. 219). It is not apparent, of course, from such assertions what kinds of texts are being "read." Hearing the Bible and hearing Aquinas would be very different kinds of experience: on the one hand a written record of a predominantly oral composition; on the other, a text originally composed in writing. Nonetheless, John of Salisbury's example suggests that the prince was not hampered by his lack of skills. Acquaintance with the language and patterns of thought characteristic of texts and with the new ideas which texts introduced, enabled the prince to think analytically and to articulate underlying principles; his high social status enabled him to translate what he thought into action. The alternative view of the world that he could construct from reading, could be realized in some fashion, not in another text of his making, but in social realities of his making.

From the evidence of new approaches to organizing and using written information, it seems that scholasticism, as "a search for new intellectual tools," was successful in bringing about needed changes in the tools. The changes enabled scholars better to grasp and explain ambiguities. The presence of texts as meaningful embodiments of knowledge provided a new perception of an objective, intelligible

reality that was the product of new methods of classification of knowledge and an alternative to sensed experience. The relation of individuals to the process of making and developing knowledge, their stance toward knowledge, indeed their world view, was transformed by that shift in perception. As the nucleus of a paradigmatic shift, the interpretive-analytic study of texts enabled scholars to develop knowledge in ways not possible earlier.

But without ready means of disseminating texts, the spread of literate attitudes was necessarily restricted. The conditions which accompanied the next shift in uses and perceptions of writing, texts, and literacy include a new technology, the printing press, and another period of social upheaval. With the invention of the printing press, we enter the modern era of literacy.

The Printing Press as an Instrument of Change: The Shift to Print and Explanatory Discourse

The modern era of literacy began when the potentialities of the printing press were recognized and exploited, but the needs it responded to arose out of the socio-cultural conditions in 15th and 16th century Europe. Traditional medieval patterns of life and belief had broken down and a lively and long period of search and adjustment ensued. England during the 16th century has been described

as "a cauldron seething with economic unrest and social passion" (Barbu, 1960, p.150). Great changes in class structure, the centralization of political power, the growth of an urban population, the increase of commercial and financial capital, the expansion of trade, the exploration of the seas, and the spectacular rise of the middle classes, all contributed to what Barbu describes as "a degree of mobility often verging on instability" (p.151). The degree of social upheaval created conditions similar to those faced in the towns in the 11th and 12th centuries. During that late medieval period, however, belief in the explanations and codes of behaviour upheld by the church was the norm. By the 16th century, that belief had been shaken and there was a clear need for new ideas about the world and new techniques for gaining a firm grasp on it. The means by which new ideas could be developed could only arise out of existing cultural realities and existing technologies. With the printing press, the technology became available that could fully exploit the value and trust accorded to the written word.

In the latter half of the 15th century, many new ideas began to circulate in written form, through printing shops which sprang up all over Europe. Within approximately two decades between the 1460's and 1480's, printing shops located in cities had opened up as the new centres of text.

production. The printing shop, says Eisenstein (1985), "provided a new setting for intellectual activity. Printing shops were more sensitive registers of political, economic, religious and cultural developments than any other kind of shop in early modern Europe" (pp. 24-25). They printed what people wanted to read and what others wanted to write, on matters both mundane and scholarly. Ancient Greek texts, brought into and translated in Italy after the fall of Constantinople in 1453, gained currency through the print shops. As copies accumulated and multiplied, these texts were the means both of distributing and preserving classical knowledge. They revived interest, in mathematics, in Aristotle's Poetics and logic and in a classical Greek understanding of the relationship between human beings and the natural world. The output of copy was such that scholars all over Europe were able to study the alternative constructions of understanding and of ways of relating to the world which these texts presented and to use them in developing new knowledge.

Massive expansion of the accessible sources of information aided the accumulation of archives of exact and detailed records. By standardizing layouts on the page and standardizing language, printed text facilitated cataloguing, cross-referencing, and indexing, all of which assisted processes of textual analysis. Printed data could

be stored, copied exactly, distributed widely, and used as the basis of comparison with other accounts or with other kinds of phenomena. Instead of having to rely on correctly understanding verbal descriptions, scholars in the physical and natural sciences and in geography, for example, were able to use exactly duplicated versions of maps, charts, tables, and diagrams. Both verbal and visual data could be replicated easily and checked for accuracy. Words could be checked against the actual objects they named to ascertain their reflection of the reality. Print made it possible to produce detailed and precise verbal explanations and both visual and verbal descriptions based on actual observation. Although exact observation is obviously not dependent on print or writing, the development of modern science, Ong (1983) suggests, depended on the uses of print:

What is distinctive of modern science is the conjuncture of exact observation and exact verbalization; exactly worded descriptions of carefully observed complex objects and processes....Technical prints and technical verbalization reinforced and inspired each other. The resulting hypervisualized noetic world was brand new. (p. 127)

Eisenstein (1979) suggests how difficult it is today to imagine earlier cultures where relatively few persons had

ever seen a physically accurate picture of anything (p. 64). Exact and detailed observation with correspondingly exact verbal description is one of the ways in which we can sort out what we see and think. We name and connect and establish relations. Print set up wholly new opportunities and expectations for making such connections and for empirical studies of the world. It was only in the 16th century, for instance, that map-makers began to exclude Paradise, perhaps because they had come to value empirical truth and had not been able to ascertain an exact location (Daniell, 1986, p. 153).

The intellectual tools necessary for rational-scientific inquiry had begun to be developed, as we have seen, in the interpretive work of medieval scholars. Print accelerated the potentialities of this work by encouraging the standardization of the language that appeared in texts. Because the texts could be widely shared and their codes agreed upon, linguistic meanings were also standardized. It became possible, therefore, and indeed necessary, to construct ever-expanding networks of concepts and ideas through texts in order to assert the authority of particular collections of facts. It was possible thus to create, in Bruner's phrase, "possible" worlds that existed only symbolically and were not tied to an immediate, present, concrete context. Expansion of knowledge in science,

however, did not mean merely a vast accumulation of interconnected information and concepts. Although the development of rational-scientific knowledge depended on the existence of printed texts and on techniques for the rearrangement of information in conceptual categories and classifications, most crucially, it depended on a new mental disposition to search for understanding through logical explanation.

What had to exist, in addition to a facilitating technology, were an intuitively felt and recognized need and an emerging view or theory with which to look at the world by means of the technology. Among scientists, the characteristics of print may have reinforced but they did not produce, for instance, the revolutionary notion that the world is intelligible and the universe harmonious. That view was reflected in what Bronowski (1978) describes as the felt sense that Pythagoras' phrase "the music of the spheres" accurately described the harmony in the universe. It was apparent in the work of people like Kepler, who, Bronowski (1978) says: "tried to fit the five Platonic solids into the orbits of the solar system because he naturally felt that all these things must go together" (p. 28); and in the writing of thinkers like Marsilio Ficino, secretary to Cosimo de' Medici, who sensed that the world is intelligible and wrote of the sun that it was "fit" to be

the centre of the universe. In 1487, Pico della Mirandola argued in his series of theses Of the Dignity of Man that the destiny of human beings is not controlled by the movement of planets but, unlike other species, human beings control themselves and they do so with their minds by means of thought. Around 1550, Pomponazzi (cited in Bronowski, 1978) in his book Of Incantations firmly rejected any kind of magic. He says:

It is quite possible to justify any experience by natural causes and natural causes only....There is no point in introducing supernatural agents. It is ridiculous as well as frivolous to abandon the evidence of natural reason and to search for things that are neither probable nor natural. (p. 33).

Such ideas formed the basis of new rational attitudes which were able to be expressed and developed by means of new technology, the printing press. Supported by encyclopedic documentation and exact reproduction of sources, the scientific disciplines constructed the bases of all their various specializations. They created edifices of scientific-literate knowledge which have come to depend much more on all the resources that the standardizations of print could extend to written discourse than on the actualities of natural or physically observed phenomena. The process of

accumulating and verifying scientific knowledge depends on writing and on print. As Bruno Latour (1987) succinctly puts it, "Many things can be done with ...paper that cannot be done with the world" (p. 226). The gathering of authority for scientific knowledge is not a simple matter of referring to empirical reality. It is a matter of accumulations of data given literate expression. The disciplines have been built up through accumulations of evidence presented in convincing terms. These include networks of previously accepted "facts" and concepts which gain credence by being incorporated as "givens" in subsequent inquiries. Quoting Latour (1987) again, "...a fact is what is collectively stabilised from the midst of controversies, [which]...does not make it qualitatively different from fiction....Each claim comes to the future author with its history, that is with itself plus all the papers that did something with it or to it" (p. 42).

As a discipline, science accepts those findings which are constructed and coded according to a clearly defined complex of conventions. Scientific texts thus become one of the instruments by means of which subsequent scientific study can be carried out. Without writing and print, such self-contextualized, or at least discipline-contextualized products, could obviously not exist. What is significant about the texts is that they are constitutive of what it

means to think in a rational-scientific-conceptual way in science.

The search for logical explanations based on the rational analyses possible through writing was not confined to phenomena of the natural world. Writing was also used to explore, define, and explain the attributes of individuals and social groups. The 16th and 17th centuries were characterized by increasing differentiation of social groups by education, occupation, religious and political affiliation, and economic status. To the degree that any of these groups was able to define itself in relation to sets of beliefs and practices and in contrast to others, it was able to construct a common perspective and set that perspective in critical opposition to others. The more there are of those "others," the greater the potential for critical opposition and for more sharply drawn self-definitions.

Medieval scholars had brought to their interpretive work a common belief that human life should be entirely oriented towards the spiritual values of Christian faith. In this respect, the medieval cultural climate was homogeneous. Even the challenging and interpreting of religious texts occurred within the framework of an assumed and accepted faith. Scholars exercising their critical capacities to produce individual interpretations "shared in

the power of texts," to borrow a phrase from Scholes (1985), but did not create alternatives which could stand as opposing explanations of phenomena from a different critical perspective. The text produced "against text" stands separate as a new construction, recontextualizing knowledge and thus exhibiting and representing it in new ways or new forms, according to new classifications and arrangements. The feminist world view in our own time, for instance, has generated considerable critical work and the production of "texts against texts"--new explanations and new metaphors which offer ways of understanding our shared social experience that are alternatives to the explanations of patriarchy. In the period which includes the Renaissance, the Scientific Revolution, and the Reformation, critical, explanatory discourse of that kind was able to arise when alternatives to the traditional Christian world view had been sufficiently conceptualized and articulated.

The traditional Christian view was challenged when mathematicians and scientists rejected magic in favour of empirical evidence and cause-effect relations as means of explaining natural phenomena. No less subject to critical scrutiny than the natural world, religious texts were equally the object of new theory and new perceptions. The alternative texts which became available through printing, suggests Eisenstein, were both a prerequisite for and an

aspect in the Lutheran revolt. When Luther translated The Bible into German, he gave people a chance to read the scripture for themselves which meant making sense of it for themselves. Churchmen welcomed the increased access to Bibles and other religious tracts that printing afforded them and their parishioners. The technology was viewed as a "God-given weapon" by Christian leaders who sought to set their perspectives against those of the Muslim Turks and attempt to convert or overcome them. The presence of the text, however, also changed relations between the priest and his parish. As was the case in the spiritual practice of the medieval heretics, the text interposed itself as an alternative means through which the faithful might understand and reach God.

Uncertainty was compounded by the existence and distribution of polyglot editions of the Bible. As these became more available and more closely studied, it became more difficult to determine what might be the literal truth of the gospel. The dissonance created by alternative versions of a text once thought of as the divine, unalterable word of God, led not only to frightened rebellion and the forming of new religious communities, but also to thoughtful inquiry. It fostered, if not demanded, critical attitudes. As Smith (1986), describes it: "Where knowledge had been a matter of search, it became a matter

for research" (p. 177). A tradition of research was established in both science and religion. It led to increasing differentiation of areas of inquiry in science, and of practices and beliefs in religion.

The progressive differentiation of the external world by science was matched by progressive differentiation of social groups and eventually of the individual. Inquiry into social groups and their characteristics reflected both the actual increased social diversity of those groups and a new awareness of the diversity. Individuals were led to perceive themselves and were perceived as members of social groups and what was appropriate for one group was not appropriate for all, in work, social relations, or religious observances. Anne Ferry (1984) comments, for instance, that whereas in the early 16th century prayers were differentiated according to occasions and spiritual circumstances, by the middle of the century Thomas Becon's prayer book "separates prayers according to the status of the petitioners: magistrates, clergy, subjects, masters, servants..." (p.38) and so forth. Further exemplifying the search for definitions of relations was the range of books available in the 16th century that fall into the category of memoirs and handbooks for individuals to consult about appropriate ways to behave and think. The Books of Improvement which appeared during this period address

themselves to particular groups. They include manuals of conversation, Christian dictionaries which "not only outlined the ultimate ideals of Christian life but also prescribed detailed rules for the individual's conduct" (Barbu, 1960, p. 197), and books of behaviour such as The Complete Gentleman by Henry Peacham which, according to L. Wright (cited in Barbu, 1960), emphasized "the cultivation of the qualities that make the gentleman an accomplished versatile personality, as well as a capable servant of the state" (p. 196). The individual was systematically guided in how to conduct the common events of life and to conform with what was appropriate. From the 16th century onward, groups used the printing press to produce and distribute texts which constructed explicit interpretations and explanations of their perspectives and ways of understanding. Such texts provided a mirror into which individuals could look for definition of themselves as members of a group. Stories of individual lives, for instance, tended to describe activities and experiences which revealed the public self as an example that illustrated truths and principle, often those embodied in proverbs or the Bible. The individual life written about thus served as an instance of categories of socially approved and acknowledged behaviour and beliefs. By detaching their theories about the world from action in it,

these social groups could also study themselves, in the broadest sense, in relation to others. They thereby objectified themselves and their experience and created opportunities for reassembling and thus transforming it in their consciousness. The texts served therefore, as means, something to think with about the self, to make sense with.

One of the characteristics associated with Western literate culture is the development of individual consciousness. "The evolution of consciousness throughout human history is marked," says Ong (1983), "by growth in articulate attention to the interior of the individual person as distanced--though not necessarily separated --from the communal structures in which each person is necessarily enveloped" (p. 178). Those communal structures offer the individual sets of interests, beliefs and values and what Barbu (1960) terms a "type of mental organisation characteristic of their historical period" (p.). In his historical account, Richard Coe describes the emergence of autobiography as the expression of developed, not therefore essential or intrinsic, self-awareness of individuality. The articulation of the interior self, which constitutes a type of mental organization, is enabled, according to Coe (1984), by communal structures which have developed the social ideals of democracy and equality. "In feudal, hierarchical or tribal societies...the individual

adult...derives his significance in the majority of instances not from his own qualities, still less from his own 'uniqueness' as an identity, but rather from his family, his class, his totem, or the deeds of his remoter ancestors" (p.16).

The essays of Montaigne were a step toward the articulation of the interior self, in the sense that they marked the defining of individual experience within the common. Montaigne is not the first person known to have paid attention to his inner self. Augustine's Confessions (399 A.D.) were a candid exploration of his childhood and personal life not matched in any literature that survives until the memoirs of Benvenuto Cellini (1558-66). But the form through which Montaigne thought and communicated was one which has become the standard for humanist scholarship--the essay. The essay is a test of ideas. Its discourse proceeds from the assumption that displaying a line of thinking and arguing an idea by always looking at the other side of every question will assist in approaching truth. The truth, according to Montaigne, could only be truth as realized by a detached and disciplined yet intensely personal and emotionally involved consciousness. He matched the explanations and theories he identified in his society against the explicitly expressed text of his own experience. Although Montaigne wrote about himself and asserted the

importance of self-knowledge as a guide to the conduct of one's life, the consciousness he articulates is not uniquely individual. As Ferry (1983) describes it, Montaigne's self is not "exclusively private or inward" (p. 45). She suggests that, instead, it appears to be awareness of how one is in the world rather than awareness of a continuous inner life which parallels in private the life lived outwardly. She points out that Montaigne "for all his awareness of human differences...did not...formulate a conception of an intrinsic self" (Ferry, 1983, p. 45).

During the 16th century, the total English vocabulary almost doubled, but there were few terms or changes in existing words to describe an inward experience. In John Locke's An Essay Concerning Human Understanding, published in 1689, the vocabulary appeared for the first time that referred to a kind of inward experience or inner life that was distinct from the outer, and could be concealed. Shakespeare had earlier rendered the experience but not named it. As Ferry (1983) comments, "When we watch the figure of Hamlet moving through the play, we are made to believe that he has thoughts and feelings distinct from what he shows when he gestures, acts, speaks, or stands silent" (p. 3). The metaphors of inward and outer are themselves metaphors that arise from literate awareness. They seem to be connected with an alphabetic-literate awareness that is

bound to the exact reproduction of verbal thought in visible, sound-able words on a page. The intent to rationalize, which was a feature of intellectual inquiry throughout the 17th century, fostered distance and detachment and allowed conceptual development of a mental life that seemed to be distinct from and differentiated from the emotional and physical. Being human came to be equated with being rational; being rational was associated with the exercise of one's mental faculties in isolation from one's body.

Throughout the 17th to 19th centuries, human experience continued to be rationalized and defined as forms of writing and kinds of publications proliferated. The impetus which the printing press had given to the development of new modes of inquiry and new concepts, did not immediately lead, however, to the development of new genres of literary expression, to the departure from Latin as the language of international scholarship, nor to a monolithic and universal literacy. Of nearly 6000 books in the Bodleian Library in 1605, for instance, only 36 were in English. Apart from commercial records, which greatly increased and did take new forms, nearly half the books printed in England were religious up until about 1640 (Thomas, 1986).

The range of literate competencies, however, with respect to the scripts and languages used as well as to the forms of discourse, appears to have been quite as disparate and, according to Eisenstein, quite as subject to the demands of the market place as it is at present in our own culture. A hierarchy of reading and writing skills was apparent in the Tudor and early Stuart periods in England. At its base was the ability to read the printed word; next, the ability to read and write written script; and finally, the highest level, knowledge of Latin--the language of international scholarship, law, medicine, and administration. A person who could read the two most common forms of type in printed documents might be quite incapable of deciphering handwritten script. Only those who could write it were able to read it. And, fairly obviously, only those who knew Latin had access to scholarship and professional knowledge. "Early modern England, therefore, was a 'partially literate society' (Cressy 1980:17) in which there coexisted people living at very different levels of intellectual sophistication" says Thomas (1986, p. 103).

Yet that sophistication was not exclusively related to levels of literacy defined in simple terms as ability to read and write. Thomas points out evidence from a variety of sources indicating that people in technical and

administrative occupations, occupations that would seem to require high ability--mayors, governors of grammar schools, businessmen, politicians, artists and mechanics--were successful and competent though unable to read and write. In the political and religious upheavals of the 17th century "the written word had been extensively employed to influence public opinion, and every public controversy was accompanied by printed propaganda" (p. 112). Nonetheless, Thomas also observes that the technical skills of reading and writing were not a condition of participation in the controversy. Illiteracy was as closely associated with religious Non-Conformity and political activism as literacy.

Although it is not possible to say precisely how many people could read and write, the numbers appear to have increased dramatically between 1650 and 1750 in England and Europe. Only 25% of males are estimated to have been literate in Scotland in 1643, but that number had risen to 78% a century later. In the religious diaries of 141 17th century men, Spufford (1979) found detailed accounts of educational practice which showed that people of all occupational levels came into contact with print and that many people were able to read but not write (cited in Kaestle, 1985, p. 24). No doubt the increasing use of vernacular languages, even by scholars, both responded to and created demand for more widespread ability to read.

Expansion in trade also created a need for literacy. More open sea navigation, for instance, meant a need for more literate sea-men. "Map-making, clock-making, and the manufacturing of precision instruments rested on a growing supply of literate craftsmen" (Cipolla, 1969, p. 49).

While it may be true, as Thomas argues, that individuals could compensate for their own lack of skills by seeking help from others and thereby not be "cut off from the culture of the written word" (p. 107), practical utility demanded as it does today that people become what we now call "functionally literate," that is, acquire some rudimentary skills which would enable them to do their jobs--fill out forms, decipher accounts, record purchases and so on. Illiterate businessmen not only ran the risk of being cheated, but also had more difficulty functioning in an expanding market economy. It was also the case that as jobs became more specialized and technical and as the variety of reading matter greatly expanded, being literate increasingly meant being able to read and write for oneself, at least at some level or in some contexts.

The period from the 17th century down to the present, indeed, is characterized by widespread literacy and highly differentiated texts, by highly differentiated applications of writing and uses of literacy and, consequently, by a broader spectrum of literate activities and capacities.

Within this spectrum are those activities which opened a path toward high literacy: the accumulation and development of disciplinary knowledge in rational-abstract-conceptual-scientific forms and the articulation of individual consciousness in literary forms, as exemplified respectively in specialized scholarly and literary texts whose common general purpose is to reveal and explain the culture and its members to themselves.

The other literate activities in the spectrum include all those forms of recording and documenting which catalogue and describe a society's socio-political and economic life and which maintain and support that life. These textual forms serve principally to communicate ideas and information for use within and across groups of readers and are factual-documentary in character. In contrast to the relatively transient value assigned to the factual-documentary texts, the literary-scholarly have been given an authoritative and permanent status in the culture. But factual-documentary texts, particularly the journals and periodicals of the 17th and 18th centuries, offer very interesting insights into the development of literate attitudes. They are described in some detail below because they served to establish new relations between readers and writers. They reveal patterns of interaction among readers, writers and texts which contributed to the making of a culture dominated by literate

forms of expression. Such patterns also underlay the development of knowledge in the sciences and humanities albeit with an important difference: in the disciplines, discussion and critical analysis commonly appeared only as written discourse. The circulation of texts and ideas was thus in them less democratic. The development of periodical literature further also very clearly demonstrates the ways in which writing was used to reconceptualize social realities and to construct alternative ways of perceiving and understanding them.

The intellectual activity that in the early days of the printing press centred in the print shops shifted, in the 17th century, to coffeehouses and salons. Individual coffeehouses tended to be frequented by people who were of like mind politically or who were members of the same profession. So, the poets and critics went to one venue, clergy to another, scholars and academicians kept each other company, and Tories and Whigs kept their haunts separate. In lively conversation, the issues of the day were discussed, argued and clarified. "By the 1690's, the English postal service, the London coffee houses, and the new periodicals had combined to form a widening network of public discourse" (p. 25). Two features of that discourse have particular relevance for this illustration: the circulation of material to read and the interchangeable

roles of readers and writers.

The notion of "circulation" is a metaphor for the connections and chains of communication along which flow language and ideas. It was used by Arthur Young in Travels in France and for him it meant "an intricately prepared system of channels through which people, things or writing connect and move. Its economic and physiological senses always adhere to its use to describe patterns of reading and writing. Circulation secretēs the reading habit from every pore" (p. 32). The periodical constituted such a channel in the system of circulation. It represented a means of idea exchange not restricted, as were treatises in Latin or scientific essays, to a very limited audience, but accessible to a broad cross-section of the population.

Literate practices during this period were not homologous with social class and power. People were brought together as readers and writers with common interests which in the journal superseded their social class differences. Klancher cites as an example the audience of "gentlemen" for Gentleman's Magazine who were constituted not only from the class of landed gentry but as well from among the upper clergy, professionals, well-educated manufacturers and merchants. The periodical functioned, says Klancher, to bring together people of different social rank and develop among them some shared values and attitudes. The audience

for a particular periodical was thus formed into a new kind of community typically based on their work interests. The style and format of the publication was adapted to fit its particular audience.

But the periodical was not so much a vehicle carrying ideas to that audience as a framework within which activities of reading and writing were carried out and which was contoured by what Klancher (1987) calls a "habitual energy, a mode of reception and comprehension" (p. 33). Circulation was thus a transforming, interactive process. Cohesiveness in the connections was continually reinforced. "Each journal offered itself as a tightly knit community of readers and writers who revolve between reading roles and writing roles" (p. 18). All readers were potential writers or performers and in that role there was a sense of their submitting themselves to an audience like themselves for their rational, critical response. Merely to read was not to participate in the life of the journal. Writing, in this context, appeared to be both democratic and communal, "the very opposite, the Bee argues, of clerical language, that dictatorial discourse cast down from the pulpit" (Klancher, p. 23). Not, of course, that it could be democratic in the sense of open to absolutely anyone. The most basic requirement of that was missing--universal literacy. But it was open to those who had the technical skills and who

perceived themselves to be part of the community to whom and for whom the periodical spoke.

The periodical appears at this time to have been democratic, not only in its communality, but also in its tendency to widen the circle of its readership in what Klancher calls the previously "anonymous marketplace." The periodical created a shared language and style. The readers as participants in its creation identified with it and further, took it as their reflection and representation. The periodical thus described and defined its readers to themselves and had a "colonizing" function in bringing in other readers who assimilated its definitions into their own self-perception. "All works of the mind contain within themselves the image of the readers for whom they are intended," Sartre has remarked. Conversely, readers in some measure may become the image reflected to them or by identifying the misperceptions, reshape the image by rewriting it in a closer likeness. "Hence the periodical writer both names and colonizes the social group to whom he writes, drawing into the public those still unincorporated into the universe of public discourse" (Klancher, 1987, p. 25). The periodical created a social world which did not yet exist but which could be imagined and thus engendered into existence by those who were able to participate in its production.

What literacy meant in this context of interchangeable reading-writing roles included use of the kinds of discourse being developed in the periodical and equally importantly the adoption of attitudes about the uses of reading and writing. In the Middle Ages, dialogue appears to have occurred orally, with the text as the embodied knowledge being interpreted in communities of readers. By the 17th century, dialogue appears to have occurred by means of and within texts, in addition to any interpretive oral discussion which arose out of the contents of the texts. Sartre's (1988) observation that "One read because he could write; with a little luck he might have been able to write what he read" (p. 86) conjures up images of an idyll of literate exchange in which all who had the technical skills were assumed and expected to have a voice; everyone was a subject, an actor as well as spectator.

The language of that discourse was intended and needed to be essentially transparent to any reader. The intimacy of the reader-writer relationship, however, encountered a dramatic challenge at the end of the 18th century when the French Revolution stirred up passionate feelings and fierce conflict of opinion in England. The intense debate generated a lively network of radical "corresponding societies" which met in London taverns and in the pages of pamphlets and periodicals. Thomas Paine's The Rights of

Man, for instance, is estimated to have reached about 200,000 readers and to have injected a political "style of thinking and expression different to what had been customary in England" (Chambers, cited in Klancher, 1987, p. 27).

Political upheaval and public reaction and perceptions expressed in written forms transformed the relation between writers and readers. In the 17th century, the periodical served as a new medium of social discourse. It fostered self-conscious awareness among its participants of themselves as members of a particular audience but was able at the same time to assimilate others. After 1790, reading audiences as social groups became more highly differentiated from each other. Their individual character was defined by the ways in which they were distinguished from others. Reading audiences constituted new cultural groups with consequent cultural boundaries which, claims Klancher, "were imagined first of all in texts" (p. 44). The relative cohesiveness of the active 17th century reading audience had, however, disintegrated by the early 19th century.

With readers who are no longer potential writers but now only consumers, the Bee's communal exchange of reading and writing in the texts alternate society has vanished. The Metropolitan acknowledges the now distanced reader as an embodied historical process. (Klancher, 1987, p.

45).

Language became a commodity in the most mundane sense. As writers became distanced from readers, they increasingly saw their function as representing audiences to themselves, of being mirrors and thus having power to influence the self-image of that audience and indeed their attitudes, values and behaviour. Writers felt they were addressing readers in a direct, personal way. The response of the audience, unseen and unheard, had to be imagined and anticipated by the writer, at least in part if he or she was to communicate. What this implies is an identifying of writer and reader and, conversely, reader with writer through the text. At the point when what is written is taken a further step and is assumed to be parallel to if not equated with experience, and when individual and social experience to a significant degree are mediated by writing, the technology of writing can be said, in Ong's terms, to be fully interiorized.

Conclusion

The purpose of this chapter has been to trace the development of writing and a literate tradition in Western culture by examining the meaning and uses of literacy within particular socio-historical contexts. Those contexts have illustrated how written texts have become means of making

sense of the world and shown the relationship between kinds of thinking and kinds of texts. Writing, we have seen, has been the essential technology in the construction of rational-scientific-conceptual knowledge. The historical record reveals that through various forms of written expression, Western culture built vehicles for thought and understanding which have come to dominate and inevitably bias our perceptions. "How we construe is how we construct," as Ann Berthoff (1981) says. As the kinds of critical-analytic thinking achieved through writing permeate practices and affect beliefs in the culture, they become part of how the mind thinks and thus construes and thus constructs.

The legacy of writing in Western culture is comprised of sets of understandings which are constituted by texts. These sets of understandings have been developed in response to a complex of interacting factors and must be recognized as historically achieved and particular to their historical contexts. They are not, therefore, merely outcomes of the technology of writing. They are outcomes of the technology as used by particular individuals and groups of people for particular purposes in particular contexts. Written texts, moreover, need to be conceived as means or techniques or strategies. They are not merely archives to be consulted or substitutes for human memory. Those original uses have not

disappeared, of course, but have been extended and expanded as texts themselves became more available, more standardized and more depended upon and people learned new ways to read and use them.

Conceived as means, texts and the making of them is a process of rethinking, reconceptualizing, and rearranging the world we live in. They are an instrument with which we have and may transform the culture we inherit and the conditions into which we are socialized. From the historical record, we can infer that once such properties as truth, knowledge and rationality are attached to the written word, texts are used to make sense of the world as it is known in the present; they therefore necessarily undergo constant changes in their forms or genres, in their patterns of organization of ideas and in the concepts they elaborate and constitute. They are used to enable thinking and to affect thinking. The notion of preserved in text and of texts as static distorts the value of texts as constructions that live in the literate imagination, accessible for present and future acts of creating and constructing alternative views of human experience.

At no time over the long period surveyed here, however, could use of the skills of reading and writing be described in monolithic terms. Nor was the literacy resulting from their use either experienced or expressed uniformly. It was

always possible to locate literate capacities within particular and thus differing contexts and to characterize them by reference to attributes of those contexts. The achievement of creative, constructive, critical literacy is one of the outcomes of the application of the technology of writing. Like other uses of literacy, it occurred in particular contexts and is associated with particular purposes and practices. How purposes and practices are differentiated and how they affect the nature of literacy has been a matter of some consequence to sociologists. It will be task of the next chapter to examine the ways in which social contexts affect the way literate forms of expression are used and how those uses in turn affect the meaning and value of literacy to particular groups.

Chapter Five
Sociological Perspectives
on the Development of Literacy

Introduction

The previous chapter traced the evolving uses and perceptions of writing in Western culture. As a technological innovation, writing was a useful substitute for face to face communication and made possible constantly expanding networks for sharing information and ideas across time and space. Over time, writing increasingly served intellectual purposes: it was exploited as a means both of articulating the world and of making sense of it through rational analysis and textual interpretation. Literacy emerged as a distinctive means of comprehending and relating to the world. Texts of many kinds came to dominate the ways of mediating, perceiving and interpreting relationships between human beings and their natural and social worlds. They were, simultaneously, a means by which all aspects of that culture could be perpetually examined, articulated in greater and greater detail, rethought and transformed. Through writing, therefore, were achieved habits of mind and social practice which are constitutive of a constructive, critical literacy serving speculative as well as archival and documentary purposes.

Sociologists and some social historians take issue

with such descriptions of the development of literacy on the grounds that they impute causal attributes to literacy.

What literacy is and what effects it may have, they argue, are not inherent in the technologies of writing. It is, rather, the social contexts for the development of literacy, contexts which include the existing economic and political conditions controlling access to and use of the skills of reading and writing, as well as established traditions, habits, and beliefs about language use, which determine the nature and effects of literacy in a culture. Whatever a particular historical account may suggest about the capacities writing appears to have released in Western culture, questions will still need to be answered therefore about their meaning and generalizability across the spectrum of social groups in that broadly "literate" culture.

In the previous chapter, we saw that at every period of major transition in the uses and perceptions of writing, the effects were not experienced either consistently or identically by groups or individuals in the culture. The historical record thus fully supports the sociological argument that writing cannot be treated as a causal variable which operates irrespective of particular complexes of social factors. At the same time, that record seems to support the claim that the development of literacy has both coincided with and contributed to the development of Western

thought and culture. As we examine the sociological perspectives, we need somehow to resolve the unnecessary opposition which has been created by competing claims about causal factors. Sociologists have tended to substitute socio-political influences for what is termed the "literacy hypothesis" as the explanation of cultural differences. Instead, we might structure the argument differently to express a perhaps more accurate and more viable relation. An historical claim for the role of literacy in the development of thought and culture still leaves unanswered the further question: How do social conditions affect the nature of literacy? If we approach the dominant sociological perspectives as responses to that question, we can then consider the implications that follow from the evidence they offer. Does it lead us (a) to rethink the relation between constructive, critical literacy and writing and (b) to conceptualize literacy to accommodate the various social purposes for which writing and texts are in fact used?

In this chapter, therefore, we investigate challenges to the literacy hypothesis and studies of the effects of literacy among differing social groups within the dominant literate culture. The accounts of anthropologists among non-literate people demonstrated, among other things, that we cannot explain differences in thought in terms of

thinking processes. From the cultural history, we discovered that differences in thought can be understood as outcomes of developments in forms of expression and in attitudes toward writing. Sociologists will help us to account for the fact that the presence of a highly developed technology does not guarantee the emergence of constructive, critical literacy among all social groups.

The Literacy Myth

In the view of sociologists, the literacy hypothesis does not explain the development of literacy. The term serves as an umbrella phrase for the cluster of claims about the effects of literacy with which we are already familiar from the work of Goody, Havelock, and Ong. Goody's attempt, for instance, to interpret cultural differences in terms of a change in mode of communication from predominantly oral to predominantly written has generated an ongoing search for alternative socio-cultural explanations. Whereas the literacy hypothesis offered a primarily technological explanation that differentiated groups by the degree to which they had been intellectually empowered by the technology of literacy, sociological perspectives embed the source of difference in social values and organization. The explanation is couched in terms of choices being made according to perceived needs and rewards which are

themselves a product of social values and conditions, including levels of access to texts.

The claims associated with the literacy hypothesis are labelled the "literacy myth" by social historian, Harvey Graff. As Graff (1988) describes it, the myth is that:

literacy has been intimately tied to post-Enlightenment, "liberal" social theories and expectations of the role of literacy and schooling in socioeconomic development, social order, and individual progress...Writings about the imputed "consequences," "implications," or "concomitants" of literacy have assigned to literacy's acquisition a truly daunting number of cognitive, affective, behavioral, and attitudinal effects. These characteristics usually include attitudes ranging from empathy, innovativeness, achievement-orientation, "cosmopolitanism," information-and media-awareness, national identification, technological acceptance, rationality, and commitment to democracy, to opportunism, linearity of thought and behaviour, or urban residence" (pp. 82-83).

It is partly a consequence of associating literacy with such a broad range of characteristics, argue Brian Street (1984) and Graff, that a great variety of agencies all over

the world have embarked upon literacy programs. These agencies work at local, national and international levels and represent a broad range of political, religious and economic interests. Their programs both assume and proclaim that literacy will enhance the economic and political life of the state and the intellectual life of the individual and that literacy will lead to modernization, social mobility, prosperity and progress. The model that serves as a reference point has, of course, been constructed of certain features of industrialized Western culture.

Street, in his book, Literacy in Theory and Practice, argues directly against views that predictable effects follow from inherent characteristics of literacy. He claims that programs which equate mastery of the skills of reading and writing with those effects are treating the technology of literacy as an agent in a social process. Within the collective term of technology, Street recognizes the material and technical aspects of writing. The "material" aspects include the physical equipment used in writing or printing--pens, parchment, printing presses, and so forth. The "technical" aspects include textual forms with their distinguishing conventions and the reading and writing skills needed for their mastery. Both material and technical aspects are essential constituents of literacy but, says Street (1984), "we cannot predict the social

concomitants of a given literacy practice from a description of the particular technological concomitants" (p. 97).

The technological concomitants have comprised a great variety of materials over the centuries. Surfaces for writing on have ranged from wet clay, scraped animal skins, wax tablets, and tree bark through paper to electronic screens; tools for inscribing include pen knives, goose quills, brushes, the printing press, typewriters, and keyboards. Many of the early tools required expertise possessed by only a few people, so the act of writing, as we saw was the case through the Middle Ages, was often separate from the act of composing. "Writing," as Clanchy (1979) says, "was certainly seen as an act of endurance in which 'the whole body labours'" (p. 90).

Although the tools clearly affected the speed with which someone could write and thus the amount one individual might produce, Street argues that other factors determined their effect on the development of literacy. He cites Clanchy's observation that quill pens were so expensive in medieval England their use was restricted to those who could afford them. Although the printing press is commonly associated with the spread of literacy and thus with the outcomes claimed in the autonomous model, Street reminds us that in Fiji the printing press was used by missionaries to control the kinds of knowledge disseminated. Similarly in

France, according to Cressy, was the printing press used to control the "unlettered masses." The materials available, in other words, indicate neither the purpose nor function of the literacy.

The technical aspects of literacy include the forms of literate products and the skills of reading and writing. Street argues that neither the characteristics of the forms nor the effects of the decoding skills of reading and writing are inherent to literacy. Two of the formal characteristics he singles out for attention are the fixity and explicitness of written language. As noted in previous chapters, an outcome of the fixity of writing is that documents can be subject to more precise critical reflection than is possible with speech. Two versions of documents can be placed alongside each other, for instance, and compared for accuracy. While not denying the obvious--that visual scanning of a text affords a more precise basis of comparison than dependence on memory--Street points to the early medieval custom of requiring spoken oaths and living witnesses to confirm the truth of written documents. The fact that documents can be compared becomes significant, therefore, only when those making the comparison treat documents as the site of truth. Such beliefs are decided socially, he says, not by the characteristics of the technology. They are "a product of their own society's

ideology of literacy" (1984, p. 117).

A second characteristic of certain literate forms is their tendency to explicitness. Goody suggested that explicitness in writing produces language which can be understood and interpreted outside its context of use. Such a feature makes it, in a sense, context and culture-free, since written discourse, as distinct from written lists, must incorporate its own context to a significant degree, particularly when writing to distant and public audiences. Street argues that such claims impute to literacy an intrinsic capacity for decontextualized thought and thus intellectual advances. In fact, he says, explicitness is merely a convention, culturally developed to meet the needs of particular social structures. Explicitness is not intrinsic to the medium. For evidence, he compares the differing degrees of explicitness required of personal letters and academic articles. In the former, much contextual information can be omitted because it will be common to both writer and reader; in the latter, extensive contextual detail may be required in order that the audience unknown to the writer is able to understand what is being said. It is the functions the writing is to serve and the needs of users that determine its characteristics and in terms of which the characteristics are best understood. "To take literacy out of the very context that enabled it to

develop explicitness...is to reify the technical aspects of a more complex and integrated practice" says Street (1984, p. 89).

The ability to read and write any kinds of texts presupposes the acquisition of certain skills. In writing, the sounds of words must be converted into the symbols of an alphabet and, in reading, the task is reversed, the symbols are converted into sounds. The acquisition of these skills, however, does not lead necessarily to any particular cognitive competencies, either in the individual or in the culture. The example of literacy in Greece must be taken as a special case, he says, and the forms and consequences of Greek literacy perceived as arising from that particular cultural context. He notes, for instance, that the characteristics of classical Greek historical sensibility and objectivity, as evidenced in the shift from myth to history and attributed by Goody to the powers which literacy released, were unlikely to have been shared generally throughout the society, were probably confined to scholars, and anyway are unprovable.

He cites, by way of support for his skepticism, an analysis by Ellen and Neal Wood (1978) of Greek political and historical writing. The Woods offer a new interpretation of Socratic political thought, describing it as "an intellectually sophisticated and ingenious

justification for counter-revolution in democracy and the maintenance of the status quo in oligarchy" (p. 56). By relating that political theory to the social contexts in which it was written, the Woods "try to establish that their political theories are essentially partisan in origin and ideological in content" (p. 56). In so doing, they then conclude that later classicists uncritically accepted the Greek historians' claims to objectivity, not on account of inherent textual qualities but more from social class sympathy since similar problems of social change characterized their own society. The differentiating of myth from history on the basis of history's "objectivity" is thus undermined along with claims that literacy is the hinge on which the differentiation depends. Street makes the further comment that technology cannot account for the kinds of challenges to received opinion that were made by Greek historians. "The conditions in which this challenge become significant are social ones rather than 'technological'... An analysis...would involve study of political and ideological structures rather than technologies" (p. 56).

Street's argument is appropriately aimed at simplistic notions that the introduction of a technology will bring about specific kinds of change. He draws our attention to the historical fact that existing institutions and practices assimilated writing technology and used it for their own

purposes. None of his argument runs counter to what we have seen from the historical record. It seems extremely likely that social class sympathy has a great deal to do with acceptance of views and that a new sensibility is restricted to particular social groups. In an examination of effects of a technology, however, we are considering what has been accomplished with it and thus what we have inherited.

Perhaps because he constructs his argument in reaction to an autonomous model of literacy, Street tends to underestimate the influence of technology. In his view, technological characteristics and competencies are of little consequence as predictors of the flow of influence of literate forms and practices in social contexts. It would seem difficult to deny, however, that rapid social and economic change are made possible by technological advances in communication and that societies which wish to gain access to written information they have not themselves developed must acquire the requisite skills. As John Oxenham (1980) notes, "Only those who are literate can buy, direct or at any rate work with the range of technologies which are changing the wealth, organisation and operation of their societies; and which will sooner or later pervasively affect the currently non-literate group" (p. 95). The technologies of literacy, both material and technical, affect the conduct of social interaction and certainly cannot be lightly disregarded as a

factor in the promotion and development of literacy.

Although Street maintains that "the technology is itself shaped and defined within the culture" (p. 113), Clanchy (1979), whose work Street cites extensively in support of his thesis, acknowledges the influence of the technology itself on how it is used. He observes that "a particular technology of writing shapes and defines the uses of literacy in a region or culture" (p. 88). Likewise Cipolla (1969), in his historical survey, draws attention to the reflexive nature of all technology in his comment that while a society's values may affect the kind of techniques it develops or fails to develop, "the state of technology has obvious effects on values" (p. 109). In discounting the characteristics of the technology, Street also fails to acknowledge the ways in which the tools we use become metaphors for how we think, not only of the tasks to which we apply them but also how we think of other, related tasks. As we have already noted in the case of food processors and computers, technology does change the way we perceive tasks and conceptualize them. New technology opens out new possibilities for extending and transforming existing practices. At the same time, it constrains what we do. In the case of computers, for instance, Bowers (1988) argues cogently that the microcomputer shapes thinking. He observes that "the binary logic that so strongly amplifies

the sense of objective facts and data-based thinking serves, at the same time, to reduce the importance of meaning, ambiguity, and perspective" (p. 44).

The point we need to recognize here is that no either-or argument accurately portrays the social reality. Although the nature of the means of recording and representing does not, of itself, determine what will be recorded, by whom, or for what purpose, the means are not therefore unrelated to either the uses or the effects. Explaining development only in terms of social context, however, misrepresents the complex interrelation of the technology with the culture. It runs the risk of replacing technological with socio-political determinism. We will need then, to conceptualize our understanding of the role of context in a way that avoids determinism. In the sections to follow, we shall consider the theoretical issues that arise out of the methods of research and the objects of attention common to sociological studies and then examine actual findings of some studies.

Literacy and Social Context

Ethnography is a means of study very commonly used by sociologists to investigate and report on social phenomena. It is a means of mapping social contexts in all their details and particularities in an attempt to capture lived

experience. John Szwed (1981) argues that ethnographies are needed to understand literacy because "the stunning fact is that we do not fully know what literacy is" (p. 30). Szwed advocates that we find out what people actually do with texts outside of school and what their literacy needs are. Such investigation, he suggests, will probably reveal that "absolutes are few in questions of literacy, and that the roles of individuals and their places within social groups are preeminent in determining both what is read and written and what is necessary to reading and writing" (p. 305). We should use ethnographic studies, he says, to find out the literacy needs of students because the "relationship between the school and the outside world...must be observed, studied, and highlighted" (p. 308). Szwed implies that if we know what uses literacy has in particular kinds of community, then those uses can be reflected in school.

It is important to be aware, however, that ethnographic descriptions of literacy practices and perceived literacy needs will always refer to patterns found among groups and to conditions in the past. Reacting to those conditions as if they are in the present and can be extrapolated to the future ignores the dialogic, dynamic nature of human interaction in social contexts. Thus, while it is instructive to describe contexts ethnographically, acting on the information they reveal, as if it reliably indicates the

future, is a risk at best. When used to anticipate individual behaviour, it is plainly unjustified.

As educators, we must assume that we can act upon the present and are not simply carried along in a tide. While the ethnographer who documents present practices does not claim to be a futurologist, the attempt to anticipate from studies of the present the needs of individuals in the future places him or her in their camp. Szwed's language, which is not untypical in the field, substitutes the determinism of technology for the determinism of social role and status. He describes a structure which he appears to assume is fixed in time and space, with no capacity for change and rearrangement. He further proposes that by documenting the present uses of literacy, we can arrive at descriptions which will answer the question, "what is literacy?"

Ironically, of course, associating literacy with social contexts must mean that there is no fixity or permanency of its characteristics because a human social context is always in a state of flux and to some degree unstable. It may also mean that we need to think in terms of plurality of literacies, each particular to a social setting. In that case, we would need to know whether these literacies would characterize individuals who have the particular capacities, or would refer to the cultural conditions into which

individuals will be initiated or, indeed both. In a recent ethnographic study of literacy in a veterinary institution, Catherine Schryer (1989) notes that "specific information and language practices are required to be recognized as a literate veterinarian" (p. 10). In that institution, as in all social contexts, the information and the language practices are present as conditions. Schryer identifies the assimilation by the individual of the base of knowledge and an ability to express it in appropriate ways as constituting literacy. As she describes it, it is not part of that literacy to be able to develop knowledge in the field. Rather, those who are being initiated into veterinary practice see themselves as conduits between the knowledge and its application.

What seems to be missing in accounts of literacy which suggest that it cannot be understood apart from the social context, in itself an uncontentious claim, is a way to understand the role of literacy in the flux of human activity. What we see is that the context tends to be inaccurately portrayed as a static structure, the features of which are impressed upon individuals and reproduced ad infinitum. We need, therefore, a way to objectify the details of contextual features without at the same time freezing them. Frederick Erickson (1988) argues for understanding dependence on context as a relation between

the individual and the context.

All "literacies," then, are radically constituted by their contexts of use. This is not the opposite of *context independence*; that is, it is not *context dependency* or *field dependence*.

Rather it is a fundamentally different notion of the relations between an individual's intellectual capabilities and the specific material and social situations in which those capabilities are employed. To call these capabilities practices is to say that an individual's ability to think is dialogically defined, that is, constituted by (a) other people in particular forms of social relationship, (b) the physical objects (utensils, tools) and symbols (words, numbers) with which the individual interacts, directly or vicariously, in doing the thinking. (p. 210)

What an individual is able to do and to think, Erickson is saying, depends on the relationships that inhere in the social context and on the tools it makes available for use. In relationships, power is a dominant feature, affecting individual attitudes and performance. In Literacy, Schooling and Revolution, Colin Lankshear (1987) convincingly argues that because all social structures involve relations of power, patterns of literacy practice

are "intimately related" to power. Power relations affect the way learning tasks are perceived and defined and thus responded to. Studies of how context affects performance, for instance, have shown that when individuals are themselves able to define or shape the problem to be solved, they are better able to display competence than when the problem is defined and shaped by someone else. In the latter situation, they are put in what amounts to a testing situation, operating according to someone else's construction and required to fulfil their requirements. Erickson (1988) reports on studies by Scribner and Jacob, for example, in which workers with limited reading ability were able to read work orders when they were at liberty to figure out their own way of doing it. Yet the same workers would have been unable to complete equivalent reading tasks on a school-type reading test that required what Erickson calls the "canonical form" (p. 214) of reading practice.

In school, relations of power between students and teachers seem to have significant effects on what students are able to do. Lankshear notes that the pedagogical practices which enable students to develop a critical, personally powerful literacy are typically reserved for students who are successful in school. These students usually come from middle class homes where habits of literacy are close to those valued in school. Mechanical

degrading tasks and restricted opportunities for self-expression constitute the pedagogy applied to students with limited ability to use language in school-valued ways. Thus, following Erickson's designation, the tools that they are given to work with themselves offer limited potential, and with a pedagogy that affords only limited opportunities for self-expression in school, these students are also the ones least likely to be articulating their understanding of subject matter in their own words. The tracking systems and remedial classes which they enter in elementary school tend to ensure that the pattern of their literacy development is maintained through their school life. They are thus always in a relation with teachers and texts wherein their problems and their goals are shaped and defined by someone else. Their use of texts, and thus their literacy, is consequently being developed in relationships and with a technology that are unlikely to foster their critical, constructive capacities.

Of the many investigations into uses of texts in recent decades, the ethnographic studies of Shirley Brice Heath (1982) and Richard Hoggart (1957) and the empirical research of Dorothy E. Smith (1973) detail the nature of the influence of texts. Shirley Brice Heath documents a ten-year investigation and explains how uses of texts differ according to what communities and families perceive they

need and will gain from texts. Richard Hoggart offers a detailed account of changes in working class literacy, "in particular as they are being encouraged by mass publications" (p. 11). Dorothy Smith analyzes the structure of documents that come to constitute what she calls "documentary reality," the power of which stems in part from its invisibility. In the next section, we look at the work of these scholars as illustrations of the ways in which context "radically constitutes" literacy.

Literacy and the Uses of Texts

The focus on uses of texts in this section will direct our attention to observable linguistic and social behaviour with texts. As instruments of communication, like techniques of spoken language, the meaning and use of texts is defined and learned in social situations. The purposes texts serve will thus be seen to vary from group to group and within groups, according to a complex of factors. Insofar as causes are assumed for any behaviour with texts, they are social rather than technical. That shift in perspective allows us to describe and understand the socio-cultural conditions within which individuals come to value and get meaning from texts. It is the purpose of this section to identify the main features of those conditions which appear to affect the development of literacy in

particular cultural settings.

The uses of texts.

Heath (1982) uses the term "literacy events" to include all those situations in which written language has a function, whether or not all the participants can, do, or need to actually read and write in that situation. She cites as a literacy event, for example, instances like that of a Girl Guide selling cookies to raise funds. The girl hands out a written description of the cookie project, but also describes it orally which Heath says makes the spoken communication "take precedence" over the written in this case. She explains that it is important "to know what the framing situations for literacy events are in a variety of contexts, for situations may differ markedly from each other and may, in fact, contradict such traditional expectations of literacy as those taught in school or in job training programs" (p. 45). In designating all uses of written language as uses of literacy, Heath was able to document the multiple ways in which written forms function in actual communicative contexts outside of school.

Within the community of Trackton, a black, working-class neighbourhood in a small town of 10,000, the most commonly used texts are labels, brochures, bills, and forms which everywhere define and explain products and services in a consumer society. Outside the community, Trackton

residents are affected by the use of such texts as the Bible and religious tracts in church and by policy statements, applications, news clippings and such-like in work settings. For the most part, their use of these texts occurs within an oral framework. Children read signs aloud for fun and peer competition and to identify places they know and are going to. Adults negotiate with the content of written texts to supply needed directions or information, as a reference during activity which may depend on it. But, says Heath, "they have not opportunity to attend directly to the written materials through any active use of their own literacy skills; instead they must respond in appropriate speech events which are expected to surround interpretation of these written materials" (p. 110).

Reading in Trackton is rarely a solitary and silent occupation and few people read extended pieces of discourse. Trackton adults do not buy books or magazines for themselves or their children. Children and adults read aloud and in groups the short factual, informational kinds of texts that are part of their active, daily lives and usually when what is being read will immediately be put to use. Reading prices, addressees, instructions, and TV listings have immediate practical consequences for action. Newspaper articles and community circulars are read aloud among family groups and neighbours who collectively discuss the meaning

and relevance of the content. Such written texts often serve as the basis for accounts of related personal experiences. The process of arriving at a meaning includes some merging of reader experience into the content of the text. There is little sense of recognizing and using the text as a source of autonomous, context-free meaning. The text is included as a speaker in a conversation and its contents are recontextualized and evaluated by the experience of the other speakers. Depending on its relevance, new information from the written source will become part of the working knowledge of the readers.

Trackton residents write for two main purposes: to replace memory for such items as telephone numbers and addresses, and to substitute for an oral message where absence or distance prevents personal contact. Thus they write letters to friends and notes to teachers. Less frequently, writing would be necessary for various financial matters, like signatures on forms and the like, and for church records--bulletins, reports, and so forth. Rarely does anyone have to produce pieces of extended connected writing, except, Heath (1983) notes, for "those school-children who diligently try to complete their homework assignments" (p. 198).

Residents of Roadville, a white working-class neighbourhood in a town, surround themselves with a great

variety of reading matter. Like the Trackton community, they read the printed materials in their daily lives, but additionally they buy books and magazines and talk about the importance of reading as an activity for its own sake.

Whereas in Trackton, texts are used as sources of information for action, in Roadville texts from newspapers and bulletins are clipped and saved, but they "are not enough to prompt Roadville family members to action...there are no possible secondary reinforcements to help them take the steps from actually possessing many of the reading materials that are in their homes, to reading them, to following up on the written messages" (p. 222). The issues raised in the reading are not discussed outside the family nor does the knowledge from it appear to affect either behaviour or beliefs.

Despite these limits on the amount and effects of reading, the Roadville community strongly assert the value and importance of reading. Children's books are used for bedtime reading and are read aloud, usually by mothers, through the preschool years. Up until about age three, the child is encouraged to participate both verbally and physically in the reading. They imitate sounds and actions, ask questions, and name objects in pictures. After three, children are taught to listen quietly and to respond in directed ways to the reading, whether it is at home or

Sunday School. Roadville adults buy newspapers and magazines for themselves but appear to look at these individually and to store them rather than make use of them as Trackton adults in a social exchange to compare what they read with their own experience and jointly arrive at meanings.

Of writing in Roadville, Shirley Brice Heath says that it is a private affair, a matter of individual choice that, unlike reading, neither requires nor obtains any particular encouragement in the community. As in Trackton, the principal uses of writing are to trigger the memory and to substitute for personal contact. Most writing thus consists of brief phrases or single words whether on a list for shopping or a job completion form at work. The longest connected text appears in letters which are written in an essentially conversational style and assume a reader who is fully cognizant of the writer's context. The language and conventions to be followed in all written forms are known and closely observed. When children write they typically do so because required by parents or teachers and they are given clear guidelines on what they can and should include in such writing as letters, thank you notes, and school assignments. Roadville residents write when necessary to communicate or to fulfil employment or social obligations, but writing is not valued of itself.

The acquisition of literacy.

The way texts are used in both Trackton and Roadville affects the manner in which literacy is transmitted to children in each community. The principal difference, briefly summed up, is that Trackton children acquire literacy and Roadville children are taught it. The difference reflects both perceptions of the nature of literate language and characteristics of the social relations and has considerable impact on the quality and permanency of the literacy.

The flow of experience in Trackton is not held up for examination and articulation in language. Children are expected to listen and watch and learn from their elders, and to pick up what they can so that they can get on in the world. Adults make few linguistic concessions to make their meaning more accessible to children. They answer questions and correct errors or misinformation, but do not "teach" in the sense of pointing out either with questions or statements, asking for repetition and rehearsal, providing additional examples, or simplifying. The relationship in this situation is egalitarian. Concepts are implicit in situations and children must, by themselves, analogize and develop their understanding without the assistance of articulated distinctions or similarities between events or objects or emotions. Children are expected to "come to

know."

What they come to know about literacy, therefore, is learned from observing and eventually from participating in the way adults use texts. Like the adults, they take what is learned from texts and contextualize it in their own experience. Without paying particular attention to the way something is written or talking about language as an artifact existing in its own right, children spontaneously incorporate new terms or phrases from texts into their spoken language. They remember printed words as visual images in physical contexts and associate the word with the reason for wanting to read it. In examining the effects of this kind of memory for words, Heath noted that many children initially had difficulty recognizing words outside the familiar context or written in different script. They succeeded, however, when common or distinguishing features were pointed out to them. The way literacy is acquired in Trackton has consequences for its use and development:

Trackton children had learned before school that they could read to learn, and they had developed expectancies of print. The graphic and everyday life contexts of writing were often critical to their interpretation of the meaning of print, for print to them was not isolated bits and pieces of lines and circles, but messages with varying

internal structures, purposes, and uses (p. 195). Across sets of situations and actors, children learn the domains of applications of a particular word, phrase, or set of actions, and the meanings conveyed across these are often neither literal nor predictable. (Heath, 1983, p. 84)

The manner in which children acquire literacy in Trackton reflects beliefs that words are used in contexts for action rather than in isolation for reflection. In Trackton, says Heath, "words are action" (p. 233). The written word itself has no particular authority. It is open for "negotiation and manipulation"; it "opens alternatives," is "changing and changeable." All words, both spoken and written get similar treatment. They are "tools performers use to create images of themselves and the world they see" (p. 235).

It is more accurate to say that literacy is taught and learned in Roadville than that it is acquired. In Roadville, as we saw above, reading is regarded as important to success in school and life. Children are read to in their preschool years and are required to write in certain socially approved ways. Parents point out words, name objects and events depicted in books and in the environment, ask questions, and draw attention to conventions of print and composition. They simplify the language they use with

young children and respond to what children say with conscious repetition and extension of the child's language.

Parents thus do not depend on the child's own motivations to learn and participate in the adult world nor trust that the child is a meaning-maker who will "come to know." They believe further that they can and should influence what and how the child learns and grows. Both parents and the community present the world to the child as structured and ordered by fixed sets of roles and rules for behaving and speaking. They also present themselves as authorities who are positioned to instruct. Children learn that it is important to say the right thing at the right time. They memorize statements and labels and when to apply them and are praised for being able to show off their knowledge in verbatim performances. "Such expectations discourage the potential recognition of alternatives--both alternative choices of what it is one is to learn and alternative ways of saying what one has learned" (p. 144).

The Roadville approach to literacy teaching draws attention to the skills of literacy and to language as artifact, but does not provide a model for integrating what is learned from the text or interpreting it within the context of one's own experience or knowledge. In Roadville, the written word is an expression of authority which needs to be understood and thus explained, but is not open to

multiple interpretations which might challenge established patterns of thought and belief. It is not thus a flexible tool which opens alternatives as in Trackton.

The contrast in uses and ways of acquiring literacy in these two communities appears to have effects not only on the development of literacy but also on the maintenance of literacy habits. In Trackton, written materials function as an integral part of social interactions. Although they require the mastery of some technical skills, their meanings and uses are not distinguished from other forms of language and they are given no special authority. In Roadville, written language is treated as a source of external authority. It is a technical system to be learned in specified ways for defined purposes which are distinct from the uses and forms of spoken language. To be maintained, literacy habits must be practised and be for something. A group which has little need for reading and writing in the conduct of their daily lives will have little desire to maintain or develop proficiency. Heath (1986) notes that literacy events occur in Trackton much more frequently than in Roadville and consequently their literacy habits are better maintained. But, as she also points out: "Written materials are not a major source of new information for either community, and neither group writes to distribute ideas beyond their own primary group" (p. 305).

Both Trackton and Roadville could be characterized as literate communities since all adults can read and write. But the uses of literacy Heath describes in these two communities do not appear to include the characteristics associated with constructive, ~~critical~~ literacy. Newspapers, brochures and Bible tracts alike are integrated into oral patterns of communication and Heath (1982) observes that "no amount of books suddenly poured into the community...would have made an appreciable difference" (p. 111). Her careful documentation and analysis suggests that what literacy is is only marginally related to the technology and has much more to do with beliefs about written language. Richard Hoggart's less formal study of working class communities in England brought him to a similar conclusion, but he argues that the kinds of texts used do make a difference to those beliefs and perceptions.

Although the members of the working class in Hoggart's account read a great deal, he concludes that they don't treat what they read as real. They read mass-produced material for entertainment and for its fantasy value. They see newspapers as providing an escape, not as offering an alternative view of reality. They have, he says "a cheerful cynicism" (1957, p. 197) about the picture of life presented to them in the popular papers and magazines they read. They know that real life is different and they perceive art, as

it appears in the startlingly illustrated weekly magazines and newspapers, as "not only a temporary escape...[but] a commercial racket, a money making game at bottom" and the producers of it as "just writing for the money" (p. 197).

The human and personal approach, characteristic of literature as direct communication, attracts readers, but, says Hoggart, "at the back of the mind, in matters inviting any form of genuine belief, there sounds an echo from a bottomless unbelief" (p. 228). Hoggart comments also on the fact that reading about people must serve as direct communication. The meaning is not in the words as the medium of representation but in the words as communication about the writer. Thus, levels of complexity or artfulness in construction are ignored or registered as impediments to comprehension. The text must be able to be turned into talk about the person. "Outside the personal life, they will believe almost nothing consciously" (p. 150), he says. Reading and writing are not to be taken seriously, therefore. Writing is not perceived as a means by which individuals can transform their own understanding or grasp of experience and writers are thus not perceived as engaging in struggles to articulate a personally felt world.

If the work of a good contemporary writer is brought to the notice of most adults, they will not only find it difficult to follow his approach

to life, but will readily and firmly assume that he is, like the rest, though in some strange and unamusing way they have not quite got the hang of, "on the make," "just writing for the money" (p. 197).

Hoggart, in his discussion of texts, focuses not only on their uses but on their characteristics. What he observes of their uses corresponds closely to Heath's descriptions of how people in the Trackton community embed what they read in oral contexts. But he argues further that the reasons reading and writing serve the purposes they do are influenced in part by the nature of the texts themselves. He notes, for instance, that the material most commonly read in the popular newspapers and magazines portrays

a region where nothing real ever happens, a twilight of half-responses automatically given. "Meaningless and niggling" curiosity is more and more appealed to. But less and less is there a sense of the fibre of life. And this, for the readers, is perhaps the worst effect of all. It is not possible that people could positively, could actively enjoy this; there is nothing for them to be engaged with, to be positively reacting to. Since nothing is demanded of the reader,

nothing can be given by the reader. We are in a pallid half-light of the emotions...only the constant trickle of tinned-milk-and-water which staves off the pangs of a positive hunger and denies the satisfactions of a solidly-filling meal (1957, p. 195).

That the effects of this writing are not necessarily harmful, Hoggart attributes to the healthy disbelief of the readers and to the capacity of the working class to compartmentalize their lives, separating real life from entertainment. At the same time, he suggests, these perceptions, attitudes, and beliefs about reading and writing make them unable to use literacy as a means of developing their own non-"highbrow" wisdom. The popular modern newspapers and magazines which purport to speak for their audience, says Hoggart, "do not contribute to a sounder popular art but discourage it. They make their audience less likely to arrive at a wisdom derived from an inner, felt discrimination in their sense of people and their attitude to experience" (p. 277).

In both these studies, we see that the form of the "tools" as represented in the texts, the social forms of relations among the people using them, and the beliefs and perceptions of the texts, all interact to constitute the kinds of literate abilities of which any individual in that

context is capable. In these particular contexts, those literate abilities were limited. Furthermore, the seven types of uses of literacy which Heath (1986) identifies do not include, she says, the "critical, aesthetic, organizational, and recreational [uses] usually highlighted in school-oriented discussions of literacy uses" (p. 29). We need, she says, "to recognize that the extent to which physiologically normal individuals learn to read and write depends greatly on the role literacy plays in their families, communities, and jobs" (p. 31). And, without driving social purposes, there is no motivation for extending and developing those literate habits.

What implications are to be drawn from such observations? In Protean Shapes in Literacy Events, Heath (1988) notes that "in large complex societies such as the United States... Literacy no longer has many of the traditional uses associated with it...Television and other media have removed the need to rely on reading..." (p. 369). She observes that changes in the needs for literacy in modern society cause changes in the nature of the literacy and employers "do not see school-rewarded reading and writing skills as marketable" (p. 369). She cites research findings which indicate that employers seek the "capability of learning 'on one's own'...not for the literacy skills generally associated with school tasks" (p. 369). She

concludes that: "The current state of literacy research suggests, therefore, expanding definitions, measures, methods, and materials behind literacy teaching to incorporate not only school-based skills, uses, and functions of literacy, but also the counterparts and modifications of these in out-of-school contexts" (p. 370). The implication we seem to be led to reach is that in some way the needs of the marketplace and the literacy practices current in the community need to be reflected in the literacy goals of the school curriculum.

Literacy Choices

Shirley Brice Heath's and John Szwed's response to the problem of helping children make a transition from the literacy of the home to the literacy of the school and to the enduring problem that, as Erickson (1988) puts it, "the various activities of schools are organized so that class position is in most instances maintained from one generation to the next" (p. 208), is to recommend strengthening the visible connections between school and community uses of literacy and to adjust the curriculum to reflect literacy changes in society at large. Bringing the community culture into the school, they suggest, will create a bridge from one to the other. But if a new literacy is to be acquired in school by such means, existing community values and uses

cannot simply be transposed in order more effectively to meet the perceived demands of those communities. Those uses are part of the problem as well as part of the solution. Elsa Roberts Auerbach (1989), proposes a program design which would intend a transformation, a program in which both local community concerns and broader cultural practices would inform curriculum development. She argues that

the teacher's role is to connect what happens inside the classroom to what happens outside so that literacy can become a meaningful tool for addressing the issues in students' lives... The goal then is to increase the social significance of literacy in family life by incorporating cultural forms and social issues into the content of literacy (p. 165).

Without such a goal, bringing the community into the classroom encourages preservation of the status quo. Henry A. Giroux (1988) critiques what such an accommodation might mean at the social level, as distinct from what its effects might be for individuals. He challenges the pedagogy following from the simple bridging concept on the grounds that it does not encourage using literate capacities to "be present and active in the struggle for reclaiming one's voice, history, and future" (p. 65). In Giroux's view, existing cultural experience should always be the object of

critical examination. When the culture and experience students bring to school are "seen as strengths rather than deficits...[they are not used in]... developing a critical pedagogy of literacy" (p. 63). The descriptions of cultural practice are instead acted upon as if the participants in that practice are not engaged in continually remaking and redefining their culture to themselves. Giroux's caution is an appropriate one, albeit difficult for white middle class teachers, the dominant group, to translate into egalitarian practice with classes of black working-class students. Such logistics notwithstanding, what Giroux draws attention to is the imperative to use literacy as a means of cultural transformation. Who accomplishes such transformation, however, hinges crucially not only on relations of power, as noted above, but also on our perceptions of what culture is and where it is to be found. In The Predicament of Culture, James Clifford (1988) suggests that "We should attempt to think of cultures not as organically unified or traditionally continuous but rather as negotiated, present processes" (p. 273). In a literate culture, much of that negotiation is done through written records in which experience is continually being interpreted and reinterpreted. Some of those records, as we saw from the historical account in the previous chapter, constitute in large part what tends to be called culture since they are

preserved to embody valued knowledge. They are treated as the cultural inheritance deserving of transmission. Culture, however, is in its individual members as well as in preserved, valued knowledge.

All human beings embody culture: culture may be thought of as the entire way-of-life of a distinguishable group of people in the present, as well as the residues of history--that is, of all that is brought to the present from the past. The notion of transmission objectifies culture and assumes it is principally a possession. Culture thought of as "negotiated, present processes" focuses on it as a way of being, constitutive of who we are. Geertz (1983) observes that "we begin to see that to set out to deconstruct Yeats' imagery, absorb oneself in black holes, or measure the effect of schooling on economic achievement is not just to take up a technical task but to take on a cultural frame that defines a great part of one's life...those roles we think to occupy turn out to be minds we find ourselves to have" (p. 155). On these views, our culture is in each of us; it is not experienced or perceived as unchanging, and neither are all its characteristics shared equally by all those who are its members.

Individuals, understanding themselves as cultural beings, need to realize, says Carole Carpenter (1989), that "identification with a culture should be recognized not as

'what', but as 'when.' Under what circumstances does the second-generation Portuguese-Canadian girl identify as a young woman rather than as Portuguese and respond to the demands of her peer group instead of her parents?" While it is commonly acknowledged that a modern society is made up of diverse cultural groups, it is less apparent that that diversity is also present in individuals who will identify with various distinguishable groups over their lifetimes. If we think of cultures as "negotiated, present processes," we can respond to their actual open-endedness and locate ourselves within them as individuals capable of transforming them. Capable, perhaps, but only able to do so if we assume to ourselves, or are given, the necessary power, both technical and social.

The ethnographies reviewed here alerted us to re-perceive patterns of social interaction and the role of technology in culture. In the context of thinking about having power to transform culture and in relation to Giroux's argument, however, it is important to notice who is the "us" in that sentence. Producing an ethnography involves a negotiation with the culture being examined and results in new perceptions of it. That negotiation is actually done, not by its members who are the subjects of the ethnography, as in the case of the residents of Trackton and Roadville, but by a third party. The transition to a

new understanding occurs only for an "us" or "we"; that is, for the writer and the readers, not for those whose lives are the subject matter, unless, of course, they read about themselves. Unless they write about themselves, the written record produced by a writer and voice from outside the community may come to represent that community, to embody it, at least in those aspects which are described in the written record, and finally to stand as the cultural condition. In a literate culture, what is not written is very likely not heard and not valued, and thus will be marginal to what is constitutive of the cultural condition.

Possessing and being possessed by a critical literacy is one of the principal means by which people can continue to sustain and negotiate their culture. Bringing the community and its culture into the classroom, in Auerbach's sense, affirms their existence. To interrogate that culture in Giroux's sense aids in its redefinition. The social forms and practices that are used in the process of that redefinition ought to include those documents which Dorothy Smith (1974) points to as the mediators of what we know about our contemporary society and about ourselves. There are influential records in our contemporary culture which are neither held up as embodiments of it nor subjected to a negotiating process, yet are in significant respects more intimately related to daily experience of it. Through the

ethnographic descriptions of Heath and Hoggart, we looked at how groups choose to use and interpret texts. We turn now to look at uses of texts from a different vantage point and through a different analytic lens. Dorothy Smith has made a particular study of the documents produced and used by institutions, government departments and businesses to standardize the organization, administration and management of the affairs of the society. Her analyses invite us to recognize how the form and construction of certain kinds of texts exercises an implicit yet significant level of control over how they are read and interpreted and affects the roles and minds we might find ourselves to have.

Taking as a starting point the fact that much of what we know about our community and society in general is not known at first hand but by means of the various documents which present it to us and us to it, Smith examines the construction of those documents and their effects. She concludes that "socially organized practices of reporting and recording work upon what actually happens or has happened to create a reality in documentary form, and though they are decisive to its character, their traces are not visible in it" (1974, p. 257). In a way that is generally unacknowledged, the documents' forms and classifications construct an analysis of experience which not only determines the way that experience can be interpreted, but

also biases the conduct of an activity toward the features made visible by the analysis and establishes what can be regarded as facts within a particular organizational structure. One of Smith's examples of this process involves a comparison of two accounts, one personal and one official, of a confrontation between police and street people. In the personal account, the teller gives his individual rendering of the event as a discrete occurrence which he witnessed from a physically fixed observation point. In the official account, the event is structured by what is known from previous records and by the organizational procedures which direct the gathering of information and allow it to be at a remove from its individual human sources. The technical process of constructing an account includes what Smith describes as "structuring effects which are 'inserted' into actuality as features of its organization" (p. 261). The resulting organization of the event is not present in the actual event but becomes what is known about it. The participants are defined by the categories used to interpret the event, not by their own subjective representation of it: that interpretation tends to be marginalized and rendered irrelevant. The documentary reality under such circumstances comes to constitute the reality and excludes the representation of those for whom the event was a lived experience.

The consequences of that exclusion are particularly well understood by people for whom the imposed conceptual categories are not invisible nor intelligible. The Inuit have strongly asserted that they feel offended when they are described by others and presented with self-images they regard as untrue and inaccurate. Yet until the early 1970's, the image of the Inuit was represented in writing almost entirely by non-Inuit. The Inuit's response has been to write their own stories and to construct a new sense of themselves which comes from their own labelling, as their culture moves from the stone age into the technological. In researching the literate tradition of the Canadian Inuit, which began with reading and writing in Inuktitut over a hundred years ago, Robin Gedalof (1981) commented that "writing is perceived by the Inuit as a means of ensuring cultural survival and to maintain family relationships, develop political autonomy, and encourage cultural survival... As Inuit became aware of their unique historical position, they began to write about their own personal experiences, realizing that only in each person's individual response could the response of a people be captured" (p. 9). The writer, says Sartre (1949), "presents [society] with its image; he calls upon it to assume it or to change itself. At any rate, it changes; it loses the equilibrium which its ignorance had given it...the transition to the

mediate which can be brought about only by a negation of the immediate is a perpetual revolution" (p. 81). It is this revolution which the Inuit themselves recognize and for which they, and indeed all people need to struggle.

Conclusion

Culture, subject to perpetual transformation, Myron Tuman (1987) suggests, "should not be equated with our condition--the artifacts and ideas which surround us. Rather, culture needs to be identified with the active spirit within us that first created this world and is continually seeking to remake it" (p. 136). In Western culture, the association of literacy with that remaking is still strong. As we have seen, however, the power to use it is unevenly distributed. That unevenness derives from the several interrelated factors we have been considering: the presence or absence of technology and technical skills; the patterns of use of texts and the manner of acquisition of literacy; the relations of power between learners and teachers giving access to literacy; and the perceptions of the relation between culture and its members. All these various factors constitute forces in the environment which affect the uses and meaning of literacy.

In this chapter, we have examined the nature of those forces as described by sociologists and seen the effects of

differences in processes which themselves are set in motion according to socially perceived wishes and needs. What this evidence indicates is that the relation between critical, constructive literacy and writing is established in contexts where there is a perceived need or will for such literacy and where the processes of literacy acquisition are conducive to its development. That literacies in fact develop diversely in response to diverse social contexts and that writing and texts are used for multiple social purposes means that educators must make value judgments. They must choose what reading and writing are to be used for in schools and what kind of literacy will thus be nurtured. In making the judgment, however, they need to consider not only societal demands for particular literate capacities and the indeterminate character of the outcomes of literacy for individuals; they need also to consider the psychological effects of becoming literate.

Education in most Western cultures aims to foster the intellectual development of the individual. While schools probably accomplish other ends more successfully, their *raison d'etre* is not simply to keep children out of the labour market nor prepare them for it, but to develop their mental capacities. How and whether literacy affects those mental capacities and exactly what is entailed psychologically for the individual in becoming literate are

matters which educators need to take into account in making decisions about literacy practices in the context of the school culture. In the penultimate chapter of this investigation, we look, therefore, into what psychologists can contribute to our understanding of the nature and effects of literacy.

Chapter Six

Literacy and the Individual Mind

Introduction

Since one of the main concerns of this thesis is to investigate the relations between literacy, thinking processes and the products of thought, the preceding chapters have necessarily alluded to psychological aspects of literacy development and practice. The strong claims about the cognitive effects of literacy which derive from studies of orality and literacy in classical Greece have been tempered by evidence from anthropologists which confirms a universality of thinking processes despite immensely diverse forms of cultural expression. The attempt to trace literacy through periods of European history, while it can only highlight the discernible segments of a thread, nevertheless confirms in a broad sense the connections between literacy and the development of particular kinds of thought in Western culture. That account also confirms a pattern of development toward increasingly abstract forms of thought which are related in rather obvious ways to literate modes of expression.

The historical record nonetheless also shows that literate practices and the emerging literate forms of expression were inextricably bound up in a densely textured cultural fabric. Studies of literacy within our own and other cultures confirmed the shaping impact of socio-

cultural conditions. Those studies not only complicated and in significant ways made irrelevant the notion of effects of literacy, but also raised questions about how claims for effects must be qualified in order to shift attention to the kinds of social conditions which foster literacy.

In this chapter, we shall examine the contribution made by psychologists to the discussion. Psychologists interested in literacy and its effects on thought have, like many of the scholars in the other disciplines, taken as their point of departure the descriptions of historically achieved literate capacities that contrast literate with oral thought. Literate thought, we recall, is defined as decontextualized, abstractly sequential, rational, linear, and objective. Equipped with a battery of measuring devices, the psychologists' approach has been to test for evidence of the thinking patterns which characterize the contemporary canon of literate expression in Western culture or to determine how these thinking patterns appear to develop.

The field of cognitive psychology, which, according to Shuell (1986), represents the mainstream of thinking in both psychology and education, includes a rapidly expanding literature on the various relations among language, meaning, thinking, higher order reasoning, and writing and their role in the development of cognitive skills. The focus of attention in cognitive psychology is typically on thought

processes and mental activities. These are metacognitive processes such as planning and setting goals, active selection of stimuli and attempts to organize disparate materials or data. For the purposes of this chapter, I shall draw generally on the knowledge in this field but particularly from those whose work has focused on the relations between literacy and cognition.

Of these, Alexander Luria in the Soviet Union and Sylvia Scribner and Michael Cole in Liberia document the performance of individuals in non-literate or partly literate societies on particular kinds of cognitive tasks. Their work shows a connection with more recent cognitive psychology in its attention to metacognition, classification and logical thought, although it is based on the outcomes of those processes in task performance as evidence of mental literate capacities. David Olson, Carl Bereiter and Marlene Scardamalia describe those literate capacities in some detail. Working within the framework of educational purposes in teaching literacy, they suggest what is entailed in acquiring literate capacities. Collectively, the work of these scholars represents the range of study relevant to this part of the thesis. They focus on literacy as integral to cognitive development and investigate at the level of the individual the grounds for claims about the nature of literacy.

A discussion of the effects of literacy on the

individual mind would be incomplete, however, without some attention to the neurological functioning of the brain and to alternative views of human understanding. Research in the field is still new and findings tentative; no one can yet speak with certainty about how the brain works. I intend, therefore, only to draw attention to some intriguing hypotheses about the neurophysiological effects of the alphabet and to comment on the implications of the accompanying perceptual shift for the structure of memory and the use of imagination. Although not psychological in the strict disciplinary sense, the theoretical work of Mark Johnson on modes of classification and the use of metaphor contextualizes the psychological issues in an enriching framework.

In the first part of the chapter, I will describe and comment on the investigation and results of the work of the above-mentioned psychologists. The second part will place their work in a broad framework, including the neurological functioning of the brain, and will argue the need for an inclusive psychological approach which takes account of the interactive and interdependent relationship between orality and literacy.

The Psychology of Literacy

An inquiry into the psychological effects of literacy presupposes an existing literacy in the culture, some means

by which that literacy can be transmitted and acquired, and some subjects by whom it is acquired. Whatever form the literate techniques and practices take in a given social setting, they constitute the "existing literacy". The effects of that literacy, present as a cultural given in the society, must depend on the characteristics of the literacy, on the processes through which it is acquired and on the attitudes, perceptions, and intellectual capacities of the subjects. Any study of the effects of literacy on individuals needs to take account of these three interacting factors.

There is no biological law that determines the nature and form of non-physical human characteristics. We become psychologically human in social contexts. We know that human infants, for instance, when deprived of a stimulating social environment do not behave in human ways. They do not react either physically or emotionally in ways that allow them to express wants, form relationships, seek attention or even exercise control of movements despite being biologically programmed to do so. One of the many tasks which Alexander Luria (1979) set himself was to learn how "natural processes like physical maturation and sensory mechanisms become intertwined with culturally determined processes to produce the psychological functions of adults" (p. 43). One of those culturally determined processes was abstract, formally logical thought.

All human social environments provide multiple means for encouraging interaction and communication among people. The natural sociality of human beings is both elicited and given its particular nature by the social environment into which it emerges. That social nature of people, says Luria, "comes to be their psychological nature as well" (p. 45). Thus, he argues, the available forms of expression will determine the possible forms of thought. Illiterate and literate people will think differently because their social environments equip them with different ways of "operating" on information. These differences are not in mental processes which, as we have already seen from the work of anthropologists, are probably typical of the species, but are differences in ways of categorizing or classifying. Luria cites the English etymologist-psychologist W.H.R. Rivers, who suggested that people in primitive cultures "generalize the facts of the external world into different categories" (p. 59). In studying the inhabitants of remote hamlets and nomad camps in Uzbekistan and Khirgizia in Central Asia, Luria hoped to trace the changes and describe the differences in thought among people exposed in varying degrees to social change and the introduction of literacy.

The tasks he set his subjects involved abstract classification and syllogistic reasoning. He found that they did not classify the objects he selected according to common attributes. Instead, they assembled the objects

according to their functions in the environment, aligning them to concrete contexts and relationship of use rather than establishing abstract relationships based on their inherent characteristics. An illiterate peasant, for instance, was given the example of a group including 3 adults and one child. To the suggestion that the child did not belong in the group, he replied, "Oh, but the boy must stay with the others! All three of them are working, you see, and if they have to keep running out to fetch things, they'll never get the job done, but the boy can do the running for them ..." (1979, p. 70).

When invited to reason syllogistically from statements given by the interviewer, the subjects also connected the words to their practical experience. They responded on the basis of that experience, not to the meaning of the words themselves. Thus, to the syllogism: Cotton can grow only where it is hot and dry; in England it is cold and damp. Can cotton grow there? the villager replied, "I've only been in the Kashgar country. I don't know beyond that" (p. 78). Luria concludes that the theoretical thinking of these subjects was limited. They trusted their personal experience but would not accept premises outside of that experience. Since he had not been out of Kashgar, the peasant could not say anything about cotton-growing in England. Thus, he showed that he did not understand this use of syllogism and perhaps, as Luria implies, that he was

not able to think from the logic of language toward generalizations. Since the syllogism depends on a purely verbal analysis and verbal logic, understanding the meaning of the words and their relation is what is required, not their meaningfulness to an individual accustomed to taking into account more or other information than the words in order to answer the question.

Educated subjects, on the other hand, and also those who were only marginally literate but who had had contact with a changed economic system, responded to the same tasks quite differently. They reasoned from the information given whether or not it was consistent with or could be confirmed by their personal experience. Their response was akin to, 'Well, I haven't seen it but if you say that, well, then this must be so'. Luria sums up the outcome of these experiments with the comment that "In all cases we found that changes in the practical forms of activity, and especially the reorganization of activity based on formal schooling, produced qualitative changes in the thought processes of the individuals studied" (p. 80).

Luria's work has been criticized as inconclusive because he did not provide details of the actual experiments. His own reports include only illustrative anecdotes from the actual data he collected. His cognitive tasks were similar in abstraction and means of presentation to those used by Piaget in testing young children and are

probably vulnerable to the same kinds of attack. Margaret Donaldson (1978), for instance, has shown that performance on such tasks depends crucially on ability to interpret the situation appropriately and on familiarity with the intentions of the speakers which are not normal "speaking" intentions. What she points out about children's learning is relevant here: "You cannot master any formal system unless you have learned to take at least some steps beyond the bounds of human sense" (p. 82). The performance of Luria's subjects, non-literate and unschooled in the habit of reasoning from word meanings apart from their meaningful contexts of use, was characterized by their use of "human sense".

Luria's subjects, in their social uses of language, did not have occasion, it seems, to rearrange their world into conceptual categories that did not correspond to the concrete relationships embedded in and integral to living in that world. When the social situation changed and new forms of information processing, including categorical relations, were introduced, as in the new communal and town life, the transition to their use was readily accomplished, according to Luria. Individual literacy, in the sense of ability to read and write, appeared to be less necessary in being able to categorize than participation in activities where categorical relations were used. In such situations of use, the supporting concrete context gave meaning to the

categories which was not available in the experimental situations described earlier. It appears then, that it was not a matter of lack of capacity, but absence of need, occasion, and available means of expression.

Luria's observations remind us of the evidence from the cultural history that non-literates in a literate environment learn literate modes of thought, even if they are personally not capable of reading and writing. They learn and can use the terms of reference and conventions of explanation applicable to the situation. Of course, such capacities may not include nor imply ability to go beyond what is given in the context. Participation involves adaptation and accommodation; it does not imply the metacognitive capacity, associated with literacy, to reflect on one's own thought and to develop new knowledge and ideas.

In the introduction to their book, The Psychology of Literacy (1981a), Scribner and Cole criticize Luria's work as being inadequately designed to distinguish effects of schooling, literacy, and participation in new socio-economic structures. In their own work in Liberia, where they studied three comparison groups, they wanted to make those distinctions and clarify their influence. They defined literacy as possession of a writing system and literates as those people who were able to read and write with that system. Taking as their criteria for determining the effects of literacy the characteristics of literate thought

generated by cultural analysis, they investigated the literate Vai in Liberia and compared them with schooled (English) literates, non-literates, and Arabic literates.

As a conceptual framework for their study, they assumed the following causal sequence: *writing* leads to changes in the *individual mind* which leads to *cultural change*. If literacy leads to cultural change, it can be accomplished only by individuals within the culture. According to the causal sequence, the individual in a culture is at once the object-recipient of cultural modes and the proponent of them, as transformed through his or her experience. In this case, the given cultural practice Scribner & Cole were interested in was writing. The cultural analysis of literacy effects, they argued, must be upheld by psychological analysis for it to be tenable. They thought it necessary therefore to "demonstrate an association between antecedent literacy practices and consequent cognitive performance, and to do so under analytic conditions that would clearly establish literacy as a causal factor" (p. 19). They proceeded by establishing what these antecedent practices were and testing for consequent individual cognitive performance.

After nearly a decade of study among the Vai, Scribner and Cole were able to describe in detail the nature and apparent effects of the three scripts used by this small (12,000 people), largely agricultural, West African society.

In this group, only 28% of the adult male population were literate in one of the scripts, a majority in Vai, next in Arabic and least in English. Each script was used for different purposes in different contexts. Vai, a syllabary of approximately 200 phonetic characters, was used principally for personal communication and public information between people in different locations. Arabic is also a syllabary and its use was principally religious. English was the language of politics and economics in the towns. Each script was learned differently: Vai was acquired informally in a kind of peer tutor arrangement in the village and took between two weeks and two months to learn; Arabic was learned by rote memorization with almost no attention to understanding its meaning; English was learned in school.

From their study, Scribner and Cole drew conclusions which have implications for understanding literacy. They found that "specific uses promote specific skills" (1981b. p. 86). Although looking for generalized effects of literacy on mental ability, they found that Arabic literates who have to memorize large passages of the Qur'an did better in other memorization tasks than Vai literates; that Vai literates who wrote letters more frequently than Arab literates did better than the latter on communication tasks; and that English schooled literates could use abstract categories for classification whereas Vai literates could

not. Schooled literates, furthermore, were much better able to explain their linguistic choices than any other group, which Scribner and Cole attribute to that kind of explanation's being required in school. They were able to produce what Olson has termed "essayist" text i.e. text which is characteristically explicit and fully elaborated to communicate with an unknown reader. Schooling also improved performance on syllogistic reasoning and verbal explanations. Scribner and Cole concluded, therefore, that "knowledge of reading and writing does not have the same intellectual consequences as schooling" (1981a, p. 25) and that Vai literacy is literacy

...without education because it does not open doors to vicarious experience, new bodies of knowledge or new ways of thinking about major life problems. At best, Vai script literacy can be said to engage individuals with familiar topics in new ways (1981a, p. 238).

Vai literacy, however, although unschooled, as in the institution, is not therefore "untaught." The script still has to be learned as an artificial code. The difference is both in the way it is taught and what is taught--different, that is, from how Scribner and Cole perceive writing to be taught in English schools. Vai is learned in contexts of use and its meaning and value given informally within the community of users. English literacy, on the other hand, is

schooled literacy and includes the use of knowledge which is encoded in texts and connects learners to worlds and ideas which may be unrelated to the worlds and ideas they encounter in their immediate lives. In each of these cases of literacy learning, literacy served particular functions in particular contexts, and the consequent skills were also particular. The acquisition of literacy had no general cognitive effects. Scribner & Cole conclude that "... a monolithic model of what writing is and what it leads to ... appears in the light of comparative data to fail to give full justice to the multiplicity of values, uses, and consequences which characterise writing as social practice" (1981b, p. 86).

Scribner and Cole's work confirms what we have already begun to see in a different context and by different means of analysis. As Street, Heath, and Hoggart also showed in their ethnographies, the nature and effects of literacy depend on the amalgam of conditions in which writing is used and include its uses, the forms of texts produced, the means of acquisition and the beliefs and perceptions of written language. It is perhaps not insignificant that it should be schooling in English which appeared to have greater cognitive effects among the Vai. Scribner and Cole's conclusion raises the question of whether Vai taught in school would have the same effects as English. They describe Vai texts in terms which suggest even school use

would not develop the thinking associated with alphabetic literacy. Vai is a syllabary which functions according to different syntactic relations from those possible with a vocalic alphabet. Meaning is determined by reference to known contexts, rather than being fully articulated in the written text. Unlike phonetic scripts, syllabaries represent actual sound patterns in spoken language.

Syllabaries are therefore like complexes in representing what does exist rather than what might. Phonetic systems, however, deal with the possible rather than the real by dividing naturally occurring sounds into component parts—vowels and consonants—that exist as abstractions or theoretical possibilities. (Tuman, 1987, p. 105).

The evidence from other scripts such as Japanese and Arabic indicates that the patterns of thought, the ways of classifying and organizing information, are distinctive across cultures. Script is regarded as integral to the world view expressed in the Thai language. Buddhist priests, for instance, have firmly rejected changes to simplify the script on the grounds that the graphic configuration of the symbols expresses the interrelatedness of the verbal ideas. It would be impossible, they explain, to express the same meaning in another script. The Chinese character for the English word "crisis" will perhaps help

illustrate the priests' point, albeit in a different language and script. The character for the word "crisis" is composed of two connected parts, one of which signifies danger, the other opportunity. Whereas in English we define crisis as the turning point, in Chinese the turning point is implied by embodying two contrasting consequences.

As well as these two influential factors--the nature of the script and the nature of the texts--there is the additional factor of means of transmission and acquisition. The variable Scribner and Cole select as significant is schooling. Literacy acquired and practised in the society at large is different from literacy learned at school. They believe that schooled writing, characterized by the essayist text model, is isolated from and unconnected to the literacy of the society, except among academics and professionals. Yet it is principally the essayist text model with which "literate" modes of thought are associated. They conclude that claims for effects of literacy, confined to such narrowly conceived literate practices, not only undervalue other literate practices and whatever cognitive effects they may have, but also overestimate "the intellectual skills that the essayist text 'necessarily' entails" (1981b, p. 76). In making this comparison, they fail to acknowledge that some uses of reading and writing are not intended to serve as ways of constructing understanding or of doing what their own writing accomplishes in describing and analysing

Vai literacy: enable us to see Vai literacy through the framework of their interpretations. In their view, all uses of the technology of writing seem to qualify as literate practices and literacy itself is equated with the skills of encoding and decoding script. The conceptual base for their comparison thus does not allow them to explain differences in literacy historically or developmentally, nor to characterize literacy as an outcome of particular uses of reading and writing which achieve qualitatively different effects from other uses. Other psychological studies of the acquisition of literacy assume, in contrast, that a developmental process leads to the achievement of "essayist" literacy and that it does entail distinctive intellectual skills.

The psychological capacities associated with literacy

David Olson and research partners Marlene Scardamalia & Carl Bereiter, working in the context of contemporary North American literate culture, are attempting to define what constitute literate mental capacities and to describe what is involved in their acquisition. Unlike Scribner and Cole, they are not preoccupied with the assessing the grounds for attributing causal effects of literacy on thought. They focus rather on the skills that distinguish written from spoken language production, thus on the evidence and on the effects of the thinking processes that underlie literacy.

Their work begins to answer the question: what psychological processes are involved in becoming literate? Literate, that is, defined as ability to produce and understand explicit and abstractly organized text, what Olson (1977) has termed "essayist-text".

Underlying their research is the assumption that being and becoming literate is not merely a matter of possessing the skills of encoding and decoding spoken sounds as visible symbols. It is clear, further, that the literate capacities they deem necessary to understand and create autonomous written discourse, as opposed to written lists or even personal letters, do not follow in any direct way from acquisition of those skills. In their view, the skills needed for higher literacy are of a different order altogether. Two essential requirements of that literacy, according to Olson (1986) are firstly, "the treatment of text as an autonomous representation of meaning," that is, the ability to treat language as an object; secondly, and following from it, the ability to distinguish what is said from what is meant in order to understand that written language says what it means.

The ability to think about language certainly requires an objectifying of it, which in turn leads to a shift in perceptions about the location of meaning. It will be recalled that that kind of shift was noted by Stock and Clanchy in the later Middle Ages and by Havelock in his

analysis of syntactical changes in Greek texts. As we saw earlier in this chapter, the peasants whom Luria interviewed did not treat words themselves as meaningful objects; for the peasants, words referred to meaning in their experience and resided in them as speakers. Words appear not to exist independent of speakers for non-literates, nor separate from action.

More problematic is the other part of Olson's claim: that meaning is in language, separate from action, and that therefore we can create autonomous texts. He argues that understanding the implications of the autonomy of the text is essential in the development of school literacy or high literacy. For Olson, the two are equivalent since he claims that schools teach and insist upon the logical, as distinct from social, uses of language. The logical, autonomous text adheres to quite different conventions from spoken language. Whereas in spoken language what is said, in the literal sense, may not be what is meant, in written language what is said is what is meant. "Consequently, when children learn to read, they are not reading to recover the intentions of the speaker as they do when listening to talk, but rather trying to recover the meanings of words, sentences and texts" (1989, p. 192). Olson is not simply referring to young readers in the beginning stages here but also to mature readers of non-literary texts.

In oral contexts, words are interpreted in relation to

their concrete contexts: situational knowledge, personal knowledge of individuals, tone of voice and so on, communicate, as do words, the meaning of such statements as "I hear talking", which Olson says in the context of the classroom has the intended meaning of "Be quiet." The written form, suggests Olson, is the literate-essayist-textual construction characteristic of scientific, philosophical writing. Its intentions or meanings cannot be grasped using oral interpretive strategies. He says that their propositions are truth-governed, not audience-directed. They can therefore be read and interpreted within the confines of their inner linguistic logic. Scientific and philosophical texts use explicit language and complex syntactic structures to show relationships. According to Olson, they thus represent reality fully and accurately. They are to be comprehended on their own terms since they intend to be unambiguous and thus not conceal intentions and mean something other than they say. Olson's point seems to be that literates understand that the logic of written language imposes certain interpretations or meanings. Non-literates, on the other hand, do not. Non-literates do not recognize meaning independent of use in concrete contexts thus do not distinguish what is said from what is meant - whatever is meant is reported as what was said.

Olson's perspective on literacy takes a strong view of the differences between the spoken and the written. What

written text means, and how it means, have to be learned. It involves the acquisition of a literate as distinct from an oral orientation to language. That orientation, he has recently argued, may be acquired as much from the oral practices of literate parents as from the actual activities of reading and writing. Young children become better readers when they learn to talk about what they are hearing read to them or talk about what they themselves say, particularly if they use the "cognitive verbs" Olson regards as so important in literacy development.

In his analyses of children's informal talk and its relationship to learned skills in reading and writing, Olson has paid particular attention to the "cognitive verbs". The use of such verbs as "think", "believe", "wonder", "decide", "remember", "doubt" and "expect", indicates, he suggests, that the child is able to differentiate form from content. Such verbs indicate, for instance, how the propositional content of a sentence is to be understood. They help to differentiate literal from intended meanings and if indicated in talk, that differentiation can be transferred to interpretation of text. Their use further suggests that the child is grasping

part of a system of concepts for decontextualizing language and thought. Basic to this system are the verbs that mark an understanding of the relation between speaker's meaning and sentence

meaning (Olson, 1977), that is between what a word or sentence means rather than what one means by it" (1985, p. 268).

From this last statement, one might infer that Olson has simply had the teacher's common experience of informing a child that the public, dictionary meaning of a word is rather different from the meaning he or she appears to assume. I think, however, something rather more problematic is at work here and that there are good reasons for not accepting Olson's interpretation of the problems children have in acquiring literacy, although we may accept that those problems exist. Olson takes the position that sentences may mean something independent of the intended meaning of the speaker-writer. In the case of scientific writing, the intended meaning should usually be identical with the apparent sentence meaning, since in this writing, he has suggested, rhetorical concerns do not apply or at least are fully subordinated if not suppressed (Olson, 1977). While it is obviously true that readers are able to find meaning in texts without the intervention of an authors' explanation, Olson's insistence on distinguishing that meaning from the author's intentions and on a view of text as autonomous, encourages an unjustified belief in the objective authority of that text.

In school, such belief is reflected in the kinds of comprehension questions and study questions children are

asked to answer with reference to texts, questions which treat the text as source of answers, not source of author knowledge, meanings and ideas. Whatever the content of the text, however directly or indirectly the voice and intentions of the writer are heard, however much or little insight and interpretation are needed (e.g. more in literature, less in biology), all texts are products of human minds. Uses of texts which ignore authorship are little more than substitutes for the oral transmission and recitation of information that characterizes the Vai Arabic literacy Scribner & Cole describe, without the benefits to memory that Arabic literacy tends to promote. The fact that such reading and answering is in a language the reader knows and comprehends, unlike the Arabic text for its listeners, is not significant if those written words are not expected to have an impact on the perceptions and understanding of the reader. Studies of both adults and students who have learned only to decode and encode the writing system report that for many the discovery that written words have meaning is a revelation. "I didn't know it was supposed to mean something, i.e. to me," is not an unusual response to text.

Because written texts are stationary, visible, and full of explicit self-context, they offer the learner-thinker-reader an opportunity for reflection not possible in spoken language. But the thoughtful, and I would argue, literate reader must approach the text, not as a transparent window

on objective knowledge, but as the expression of a human mind not unlike his or her own. An inquiring, negotiating stance toward the perceived author uttering the words, an author with intentions and meanings to convey, propels the reader to engage with the meaning of the text, not merely receive it. The text might usefully be regarded as utterance, which for the convenience of the reader, is held still. It is, nonetheless, the product of the mind of a writer, a person who is using the conventions of discourse acceptable in his or her discipline or genre and doing so always with a rhetorical purpose, claims about the objectivity of scientific writing notwithstanding (Segal, 1988; Latour, 1987; Bazerman, 1988). The cognitive verbs Olson suggests are so important in development of literacy are precisely the verbs that must be presupposed by the reader to underlie the text. They may function in the child's spoken language to differentiate literal from intended meaning, but in their everyday, acquired, unconscious use they point to the speaker-author as the meaning-maker.

Similarly troublesome is Olson's implication that learners must adopt strategies toward written language that relocate the source of meaning away from themselves and in the text. He acknowledges the learner as meaning-maker in spoken language exchange, noting from his experiments that the child responds to the meaning of what is said rather

than taking the words literally. In their response to written language, however, Olson implies the learner must learn to be a receiver of made meaning. He speaks of "honouring" the "conventionalized" meaning. Presumably he means by this the meaning accepted within a particular discourse. Thus, what the word "force" means in physics and what it means to the layperson are different but both are conventionalized. He does not explain, however, how that meaning can avoid being interpreted and thus transformed, however minimally, by being paraphrased, paraphrase being the only means other than direct repetition of "saying what was said." Comparisons of several adults' restatement of "conventionalized" meaning in a passage of text would show the effects of reader perceptions and choice, despite intent to accurately represent the text. The more important point, however, is the stance Olson takes toward the relation between the reader and the text, giving the text too much authority and the reader too little.

The experiments Olson reports on in his various articles cite examples of student responses to spoken and written language. The examples are all very brief and Olson (1986) appears to draw conclusions about the say/mean distinction based on the use or omission of single words, e.g. "flower" instead of "blue flower" in concrete contexts where the child speaks about a flower visibly in hand. There are at least two problems with this kind of

experiment. First, the need for precise description is clearly missing since both participants in the dialogue can plainly see the colour of the flower. How many of us rhapsodize descriptively about a sunset to someone standing and looking beside us? Second, a response in the context of conversation is being interpreted to apply to what happens in a response to written language. The two situations do not make equivalent demands and are thus not comparable nor are the observations transferable. There is considerable evidence from studies of pre-school children's listening that they are very particular about the actual words used in a story, for instance, and will correct the reader who omits or paraphrases. Olson seems to take his own findings rather too literally in the effort to distance himself and his judgement from what he takes to be the "conventionalized" meaning.

These reservations aside, Olson's work reminds us of the specialized nature of written language and that texts exist in time and space, separated and separable from the physical presence of the author as speaker. Becoming literate does, in part, involve being able to make and derive meaning from texts, using knowledge of how linguistic contexts are constructed to provide the cues necessary for clear communication. But literacy also involves being able to create texts with the necessary textual characteristics. That task requires both knowledge of textuality and skills

in its application in composing. Composition of written text, according to cognitive psychologists Carl Bereiter and Marlene Scardamalia (1982), requires that the individual be able "to activate and search appropriate memory stores" without the aid of a conversation partner or a concrete interactive context and thus on "revamping the language production system so that it can function autonomously" (p. 3). The kinds of inquiry Bereiter and Scardamalia have undertaken intends to define and describe the cognitive skills required by writing and reading.

In their article, "An Attainable Version of High Literacy: Approaches to Teaching Higher-Order Skills in Reading and Writing" (1987), Bereiter and Scardamalia characterize high literacy by its use of the high-order cognitive skills with which we are already familiar. The intent of their work is, like Olson's, not to demonstrate the cognitive effects of literacy but to investigate ways in which those cognitive effects can be achieved in the individual. From their own studies of learners in school and from such evidence as Scribner and Cole's research among the Vai, they conclude that having a system of writing does not necessarily lead to literacy characterized by the high-order cognitive skills with which it is associated in our culture. It is also apparent that no assumptions can be made from the presence of high literacy in the culture about the levels of literacy among individuals. In this article

and their much cited 1982 article "From Conversation to Composition: The Role of Instruction in a Developmental Process," they argue for a new conceptual framework and a strategic approach to teaching the cognitive skills necessary to literacy. These cognitive skills, they suggest, underlie the "literate mode of thought" which enables a literate thinker to

construct a mental model of a situation indicated by the text and then derive implications from that model (Johnson-Laird 1983). The oral thinker ... is similarly able to derive implications from mental models, but they are mental models based on concrete situations rather than text propositions" (1987, p. 16).

The problem for educators is to enable the "low-literate, oral thinker" to get "from one mode of thought to the other". The obstacles in the way of this crossing, apart from the multitude of socio-political issues which were described in the previous chapter, include first, the nature of reading and writing acts; and second, the difficulty of identifying the mental operations of literate thinkers.

What distinguishes literate expression from oral, suggest Bereiter and Scardamalia, is not simply the mode but more importantly the context for its production. It is in the nature of writing that it is something one does alone, social theories of composing notwithstanding. Whereas in

conversation, a continuous stream of expression can be maintained by cues from a responding partner, in writing the writer must be self-cuing in order to generate extended discourse. Writers must be able to read their own text as if it were another voice prompting them to generate more, providing feedback and activating mental searches for knowledge. Writers must also be able to construct purposes for their writing either during the composing process or before, whereas in conversation no explicit goal of the exchanges is needed to maintain continuity and involvement. Reading one's own writing in this way is, of course, not automatic and depends on an interacting complex of factors that include the writer's intentions and involvement in the piece, knowledge of the subject matter, purposes of the writing, and the availability of a repertoire of strategies and techniques. It is the last which Bereiter and Scardamalia (1982) have attempted to define and which they have translated into teaching strategies.

The difficulty, however, is to identify the mental operations of literate thinkers. Bereiter & Scardamalia's methodology proceeds from reasoning that literate thinkers will be good readers and writers and that what goes on in their minds is accessible to analysis through the technique of think-aloud protocols. They compare what experts and novices say they are doing as they read or write. Their spoken-aloud thoughts are recorded, transcribed and analyzed

for evidence of strategies. By looking "at what experts know and at what they do that novices do not do or do differently or do less often" (p. 17), Bereiter and Scardamalia (1987) claim to have distinguished skills and strategies that characterize the more competent readers and writers.

They classify these "consistently emerging" skills and strategies into four types:

1. problem-solving, fix-up or back-up strategies.

These are strategies which come into play when the reader, in the example they give, has problems with comprehension. They include: restating the text in simpler or more familiar terms, back-tracking to the site of needed information, setting up "watchers" for needed relational information, and formulating comprehension difficulties as problems to be solved.

2. Self-regulatory procedures. These include checking, planning, monitoring, testing, revising, and evaluating. They are the means by which readers and writers consciously take note of what they are doing and whether it meets their intended criteria. Bereiter and Scardamalia call them "good mental housekeeping" procedures.

3. Executive structures. These are not very clearly defined but seem to include a holistic or synthetic awareness of the elements that will interrelate in the achievement of a goal and the ability to control them to

move toward that goal. Thus there is conceptual knowledge of the subject matter being read or written about and in the case of writers, the ability by experts "to follow a knowledge transforming model, in which there is an interactive solving of content-related and rhetorical problems in the pursuit of goals to be achieved through the composition" (p. 18).

4. Intentional learning procedures. Bereiter and Scardamalia define intentional learning as "effort invested in learning over and above the effort devoted to achieving other goals of an activity" (p. 19). Intentional learning might also be expressed as "owning" the learning in the sense of the learner's having found the intrinsic value of something and some personal meaning in it. As procedures, intentional learning is characterized, say Bereiter & Scardamalia, by such activities as deliberate reflection on the significance, applicability, meaning, and value of an activity. Learning is not simply performance of a task but has consequences for the mind of the learner which the learner seems to recognize.

Of these four types of strategies, Bereiter and Scardamalia judge the first two to be most amenable to teaching and have devised strategies which follow quite directly from their descriptions. They report that students enjoy a sense of confidence and control in having a strategy to apply and that the resulting reading and writing is

improved. The element which gets short shrift in their analysis is the impact of what they call the "knowledge base". Knowledge, as they refer to it, seems to correspond to food in the body's digestive system: as matter on which cognitive skills can act to accomplish its transformation; knowledge is content and cognitive activity shapes it into forms.

It is not clear how much significance Bereiter and Scardamalia attach to such knowledge in the development of high literacy. They recognize that, historically, high literacy was achieved by some individuals, an elite, by immersion in a highly literate environment, that is to say one in which they "read the words of the greatest writers and thinkers" (1987, p. 16), and which set expectations of high literacy for its members. In describing problem-solving strategies, they acknowledge that extensive knowledge of a subject usually includes not only its facts and concepts but also "a repertoire of abstract-problem types and ready-made solutions" which normally can be applied as a matter of routine to new problems or situations. Bereiter and Scardamalia comment also that difficulties may occur with using the self-regulatory procedures when knowledge of a subject or understanding of its concepts is too inadequate to permit the procedural self-awareness they require.

They make a strong case, further, for the importance of

intentional learning in high literacy, arguing that where there is willingness to go beyond meeting the requirements of a specified task, the way is open also to achieving knowledge beyond those requirements. An environment that supports such intentional learning might be one like that of professional academics, they suggest, there is an expectation of "growth beyond wherever one happens to be" (p. 26). The area of "growth" is in knowledge but it is not at all clear how the knowledge is to be acquired in the first place if it has to be there before the literate cognitive skills can be applied to it and if the knowledge and the skills together are not constitutive of high literacy as well as being the means to achieving it.

In one sense, of course, it is impossible to think of teaching or using cognitive skill without knowledge. One cannot compare without comparing something. On the other hand, if skill is given prominence over knowledge and is perceived as the object rather than the means, then the subject matter that is compared and why ceases to be important. Bereiter and Scardamalia advance the view that in most schools, and out in the world, learning is "adaptive." What is learned is enough knowledge to get along, but not more. "But if high literacy implies development beyond what is required for adaptation to environmental conditions, then it is not clear where the knowledge demands would come from that would motivate the

progress in literacy" (1987, p. 22). This is a rather curious statement, particularly in light of their emphasis on the importance of intentional learning. It is consistent, however, with an undue emphasis on skills rather than knowledge and is a matter to which we shall need to return in the next chapter.

Confined within a cognitive construct that assumes a linear progression and transition from one point to another, Bereiter and Scardamalia offer a concept of literacy as bleakly abstract as the cognitive skills that serve it. Their intuition that "something more than cognitive skills is involved" (p. 25) leads them to envision a "professionalism among students" that corresponds in its purposes to that of the academic milieu. The means they propose, however--"teaching the higher-order cognitive skills that will enable children to adapt to a school culture in which intentional learning is the norm... [with] children in the mutual support of one another's learning efforts" (p. 25)--conforms to their technical, abstract appraisal.

By formulating a model of mental strategies, they make these strategies accessible to conscious use. Knowledge of some strategies and even their possible applications, however, sheds light on only one aspect--and quite possibly a trivial one--of the complex nature of literacy and the thinking of a literate mind. Protocol analysis, the

principal technique for making conscious and thereby identifying determining these strategies, is able to reveal only what the compliant subject articulates. Critiques of this approach acknowledge that protocols are a "reasonably reliable form of evidence about the otherwise unobservable mental processes 'behind' or 'beneath' the observable act of writing" (North, 1987, p. 260). The ways in which they are used and analyzed, however, reveals a strong bias as to what counts as relevant to the production of a piece of writing.

Flower & Hayes (1980) who, like Bereiter & Scardamalia have used protocols to discover composing processes, acknowledge the paucity of the data they offer:

Many processes occur during the performance of a task that the subject can't or doesn't report. The psychologist's task in analyzing a protocol is to take the incomplete record that the protocol provides together with his knowledge of the nature of the task and of human capabilities and to infer from these a model of the underlying psychological processes by which the subject performs the task. (p. 9).

Admitting these limitations, however, does not prevent Flower & Hayes, like Bereiter & Scardamalia, from applying their model in the development of teaching practice and thus greatly oversimplifying and distorting what is involved in developing literate thought. Thinking, as Cooper and

Holzman (1983) point out, tends to be "diffuse, highly branched, and visual, not simply verbal" (p. 290). It has reflective, associative, metaphoric, intuitive and imaginative aspects, yet protocols appear to record "virtually nothing other than that which is to the point" (p. 290), and only that which can be represented as aspects of conscious, goal directed problem-solving.

The abstractness of models of higher-order cognitive skills applied to knowledge corresponds in subtle ways to the abstractness of alphabets applied to language--what one can expect the skills or the writing system to yield depends crucially on a host of other influential if not determining factors. In the case of writing systems, as Scribner and Cole so clearly demonstrated in the example of the Vai, the alphabet and the skills of reading and writing were alone incapable of transforming the spoken language and the habits of oral thought into habits associated with literacy. In the case of applying cognitive skills to knowledge, the nature of that knowledge, and the ways in which it is acquired, understood and used, will affect the character of the literacy, irrespective of the skills applied at some point during the shaping of its expression.

The notion that high literacy can be "achieved" through teaching cognitive strategies needs to be approached with considerable caution. Being literate does, in part, mean we are capable of "disembedded analytic thought" as Bereiter

and Scardamalia say, but as human beings living in a concrete world of felt experience, we should be mindful that "disembedded" presupposes a prior condition of being "embedded" and that "dis" acquires its particular meaning only through attachment. The tendency of psychology as a discipline is to examine cognitive skills through a lens which isolates evidence of metacognitive processes, abstract classification, and logical thought as these are conceived within the tradition of Western philosophy. In the interests of securing that evidence, traditional experimental methodology suppresses the experiential contexts for literate activities, thus the bedding from which rationality emerges. By virtually ignoring imagination and perception, it affirms a polarized, Great Divide view of human cognition, expressed in metaphors of crossing and transition, and in distinctions between orality and literacy which have questionable meaning or usefulness to us today, at least in Western culture which is saturated with literacy and irreversibly so.

In the next section of this chapter, we shall look at aspects of that "bedding". Derrick de Kerckhove hypothesizes about the effects of visual, alphabetic modes of communication on neurophysiological processing. He speculates that the perceptual shift facilitated linear, analytic thought. Less speculative and more securely grounded in empirical evidence is the theory proposed by

Lakoff and Johnson about the way we categorize and make use of metaphor. They oppose the traditional objectivist view of thought as logical, abstract and disembodied with an experientialist view of thought and reason as embodied and imaginative, with gestalt properties and ecological structure. As they describe it, their view "incorporates what was right about the traditional view of categorization, meaning and reason, while accounting for the empirical data on categorization" (Lakoff, 1987, p. xv). I shall argue that that view also helps us to understand the nature of the relationship between orality and literacy and the development of literacy.

Embedding Analytic Literacy

In trying to understand the distinctive forms of thought that have developed in literate cultures, a number of scholars have attributed to the Greek vocalic alphabetic a significant influence on neurophysiological processes. Although scientists themselves have difficulty determining where biology ends and psychology begins, scientific inquiry, operating non-metaphysically, proceeds on the assumption that brain precedes mind. Between the growth and functioning of the brain and the unceasing generation of mind, however, is a complex interrelation that is only beginning to be understood and described by science.

As research proceeds from both the inside and the

outside, as it were, the relationship between the brain and the mind becomes at once clearer and more complex. Although still mysterious and awesome, the nature and the quality of the mind nonetheless appears to depend crucially on the development of the physical structure of the brain. While all human beings are equipped with a genotypical structure that has potential for growth and development, individuals vary enormously in the degree to which that potential is realized. Not only does this mean that highly intelligent people have developed more highly differentiated patterns of neurons and ganglia than not-so-intelligent people; it also implies that the brain shapes and forms itself unceasingly in response to the multiplicity of stimuli with which it is bombarded. The resulting psychological systems consist in complexes formed by individual psychological experiences, actions, emotions, purposes, wishes and hopes. "The formation of definite psychical systems is related in part to the ontogenetic development of the mind. It therefore also shows, as does that development, a specifically historical component" (Lewin, p. 58). Whatever exerts an effect on neurophysiological processes, that is to say, will also affect development in the structure of the mind.

Derrick de Kerckhove, a director with David Olson of the McLuhan Program in Toronto, elaborates and extends a thesis, which we encountered earlier in Havelock's work, about the neurophysiological effects of the Greek vocalic

alphabet on the structure of the mind. The unique characteristic of the Greek vocalic alphabet, as was discussed earlier, is that both vowels and consonants are represented symbolically and abstractly. It is a code that parallels the sound properties of human speech rather than creates a reminder of them as do ideographs.

The physical act of deciphering alphabetized words, de Kerckhove (1987) reminds us, is a process of visually analyzing the letters in sequence and then synthesizing them into words. Reading requires recognition of both the visual features of individual symbols and of their contiguous sequence but the more "urgent" thing "may be to recognize the sequence of the letters to effect their combination" (p. 70) which can be accomplished quickly and accurately when they are read from left to right. De Kerckhove theorizes therefore, that the left to right directionality of the orthography of alphabetic writing encourages perceptual analysis prior to synthesis and is somehow related to or at least correlates with the development of linear, analytic forms of thought.

Experiments to determine the differences in ways of processing other scripts appear to confirm that correlation. As de Kerckhove explains (p. 62), orthographies for syllabaries and ideographs are written horizontally from right to left or vertically. To determine their meaning, the reader discriminates among possible combinations of

characters to decipher what fits the graphemic and semantic contexts. The context provides clues as to the appropriate form of the word. In speaking, the word is pronounced in a way that indicates its meaning. Thus the symbol cluster 'KTB' is said as KaTaBa when it means "he has written" and the same cluster as KiTaB when it means "book", i.e. that which is written. (Actual vocalization during reading is usually necessary only when the words or sentences are difficult or unfamiliar to the reader). De Kerckhov points out that understanding texts in syllabic scripts requires both visual discrimination and contextual knowledge. Since the right hemisphere is associated with visual-spatial processing, syllabic scripts are logically written from right to left. Symbols written from left to right as in alphabetic scripts need to be grasped in sequence. They are therefore logically processed in the left hemisphere which is associated with linearity and analysis. The linear sequences of letters, argues de Kerckhove, train the brain "to use sequential analysis as a prime organizer of information" (p. 60).

Luria's (1982) work with aphasic patients supports de Kerckhove's hypothesis in showing that neurophysiological processing affects the way language is used and understood. Luria describes in some detail the various strategies he used to help aphasic patients compensate for loss of particular brain functions. His work assumes that there is

a "brain basis of language-related behaviour" (p. 168), that there are neurological bases to the psychology of language. In semantic aphasia, for instance, disturbance of spatial functions, affects ability to grasp relations between elements of grammatically complex constructions. To the question "Where is my sister's friend?" a patient replied, "I know where there is a sister and a friend, but I don't know who belongs to whom" (p. 147). Strategies to assist in the kind of synthesis required in understanding the relations in the sentence included their analysis into simpler parts which could be perceived separately and thus processed differently.

In the example given above, Luria shows the outcome of brain processing. In another example, he explains how he affected motor processing by introducing a mediating form to a normally automatic process--articulation of sounds in speaking. He used written letters as part of a program to help patients suffering from afferent motor aphasia to recover their articulation of sounds. The use of the written letters, he says,

leads to the radical reconstruction of the entire functional system of articulation so that it is carried out by completely different mechanisms. Such reconstruction, using a complex, culturally mediated, external system of signs, is one illustration of the principle that higher

functions can be used to replace lower ones (p. 146).

Luria's purpose in those cases was to make conscious and thus bring under control mechanisms that in normal persons function automatically. Consciousness of processes changes the way those processes are organized in the brain which implies that psychological changes have neurophysiological effects.

In his studies of the development of children's language, Luria noted the difficulty children have in remembering their own words from spontaneous talk. Following Vygotsky, he "adopted the fundamental proposition that a change in the goal of a task inevitably leads to a significant change in the structure of the psychological processes which carry it out" (p. 172). A change in the structure of the activity, from spontaneous talk to elicited speech, for example, "not only changes the task and the structure of the speech process but also changes the functional systems of the brain that supports the activities" (p. 172).

If we apply Luria's work to De Kerckhove's reasoning about the effects of the vocalic alphabet, we would expect that when the goal of the activity is to determine sequence, different psychological processes are in use from when the goal or requirement is to discriminate and synthesize. The outcome of the different processes, following de Kerckhove,

is a tendency toward analytic processing and analytic thought in the one case and synthetic processing and context-dependent thought in the other.

In light of what was noted above about the way the brain appears to develop in response to stimuli, it seems plausible to hypothesize that new forms of language processing and different forms of visual processing would have some effect on the development of different parts of the brain. But the Greek alphabet, as Egan (1988) notes, was an "unintuitive, analytic achievement" [my emphasis]. As a technology, it was developed from experience with existing alphabets. Abstract analytic thought and cumulative knowledge proceeded by means of the alphabet rather than because of it. To suppose that the alphabet of itself restructures the brain and mind and that that restructuring leads to a particular form of thought would not account for the mentality which was able to create it. Human intentions, elicited, shaped and modified by culture and language, play a significant role in affecting the expression which a newly emerged psychological capacity has the potential to enable. Through the complex interaction of those intentions with the new psychological capacity afforded by the alphabet, emerged a new means of communication and new discourse.

We might wonder what cognitive strategies were employed to achieve this new alphabet and new discourse and speculate

about the social needs to which it responded. As well, we might view the Greeks' achievement as a leap of imagination and wonder about the mental models or images from which they were able to draw such daring implications. However it came about, we know they discovered an immensely liberating form of communication through which they could and through which they did learn to distance themselves from the immediacy of felt experience, reflect upon it, speculate, imagine, and theorize. The legacy of that leap of imagination includes concepts of mind and reason which insist, as Johnson (1987) puts it, upon "a gap between our cognitive, conceptual, formal, or rational side in contrast with our bodily, perceptual, material, emotional side" (p. 11). The concepts of mind-body separation have been reinforced in the Western philosophical tradition over the past two thousand years and emerge, as we have seen, in current discussions of the contrast between oral and literate traditions.

What we have seen described as a dichotomy was expressed in such contrasts between oral and literate as: concrete/situational - abstract; empathetic/participatory - critical/distanced; associative/synthetic - linear/analytic; and imagistic - imaginative. In previous chapters, we have been developing a concept of literacy which situates it historically and socially. We recognize that becoming literate does not mean we acquire new thinking processes, but it does mean, as the psychologists' work

suggests, that we adopt a new relation to language and to our own thought. The psychologists' research seeks out the meaning and effects of various kinds of interaction with written forms of language both to understand literacy and to foster it. What is being sought is the capacity for the habits of thought and expression that can be described as linear, analytic, critical, and explicit. The cognitive models approach taken by Bereiter and Scardamalia succeeds, as they acknowledge, only in teaching the more mechanical of the skills. Producing holistic awareness and intentions is more difficult, perhaps because they cannot be applied, but must come from within the person of the writer.

In order to find ways to bridge such gaps, to gain access to and for the person within, we probably need an alternative way of looking. In The Body in the Mind (1987), Mark Johnson proposes an alternative which argues that what he calls "metaphorical projection" of image schemata explains the way we grasp the world and construct relationships within it. In the remaining part of this chapter, I want to sketch out the central features of his theory and then indicate how I think it applies to a concept of what is involved in becoming literate. Although not a psychological theory, nor a theory of literacy development, Johnson's thesis addresses closely related issues from a different perspective; it can be used in understanding the ways in which the oral and bodily coalesce with and form the

ground out of which the literate mind can grow.

The opposition Johnson argues is between an experientialist, integrated body-mind view of rationality and understanding and the positivistic views associated with some philosophy and most science in the Western tradition. Contrary to Plato and Aristotle, Johnson asserts the power of imagination and our capacity for metaphor as the means by which we order our experience and transform the concrete into the rational and conceptual. Imagination, he suggests, is neither merely mimicry nor merely the empirical base for abstract-conceptual thought. Imagination is the means, as a "basic image-schematic capacity." Of course, Johnson is not the first to assign imagination a central role in cognition and as Egan & Nadaner (1988) point out in their recent book, Education and Imagination, the function of imagination in thought is currently being given serious attention by cognitive psychologists. It remains true, however, that our major theories of meaning, understanding, and reasoning virtually ignore imagination, or regard it as a special kind of intelligence. Johnson, in contrast, argues its pervasive energy in all rational thought and meaning-making.

Johnson builds his thesis around the two concepts of image schemata and metaphorical projections. He defines an image schema as "a recurring dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience" (p. xv). These

patterns live in the mind as abstract, pre-verbal structures. They express relationships grasped through bodily experience. They both constitute meaning and enable us to make meaning by giving order and structure to experience, experience being defined by Johnson as "everything which makes us human - our bodily, social, linguistic, and intellectual being combined in complex interactions that make up our understanding of the world" (p. xvi).

Since events and things in the world become meaningful for us only when we see them in relation to some scheme, network or system, the meanings we can make will be influenced by the nature and properties of the image schema in our minds in continuous interaction with what is in our environment, largely conceived to include culture, history, institutions and language as well as the natural world. Image schemata are not arbitrary or accidental. They have a basis in concrete, physical, bodily experience. We experience the environment with our bodies: we handle objects, we move about in space and time, we perceive and interact with others. These bodily experiences involve "recurring patterns" which take shape in the memory in the form of gestalt structures of wholes in relation to parts and which are themselves irreducible.

Johnson cites by way of example some of the various ways in which bodily experience of force or balance gives

rise to image-schematic structures. We may experience force as compulsion - being pushed along a path by wind, water or other people; blockage - being obstructed by something in our way; or attraction - feeling drawn to another person or object. These forces are represented as image-patterns which exist prelinguistically as part of meaning and understanding structures of force. Through acts of balancing, the meaning of 'balance' similarly begins to emerge. We have physical experience of balancing, of the relative distribution of forces and weights. These experiences become abstract mental structures of the pattern of relationships, in this case a pattern of axes, forces and weights which constitute the meaning of balance. Although experienced bodily as physical and gravitational forces, the meaning, he proposes, is schematically, not specifically structured in our minds.

Image schemata do not have meaning any more than words in the dictionary can be conceived to have meaning. They are rather, somewhat like words, the lenses with which we interpret and perceive other like and unlike activity. By means of metaphor, what Johnson calls the process of "metaphoric projection", image schemata are projected onto our experience and, by providing structure and relationships, enable us to interpret and understand that experience. Johnson illustrates the process of metaphorical projection of image-schematic structures with an example of

how schemata of balance affect our visual perception of weights and forces in painting.

Drawing on Arnheim (1974) he explains that balance in painting might be achieved through colour relationships or arrangements of figures. The balance, however, "is not objectively in the visual configuration but... exists only in our perceptual activity" (p. 99). Our senses of balance are thus projected from image-schemata of physical experience onto non-physical experience. We recognize, know, experience, and understand balance in painting not physically but psychologically although the source of our understanding lies in the bodily experience. That recognition of balance may be implicit and tacit. We recognize balance and similarly imbalance but may be unable to articulate what it is that is present or absent. We react spontaneously from the image schemata of physical experience.

So far, Johnson's theory is an explanation of how we create order and meaning in our experience at a non-propositional level. He argues further, however, that through image-schemata and metaphoric projections we reason and make inferences. Using the "balance" example, he suggests that in our understanding of balance, we hold a single image schema: "a symmetrical arrangement of force vectors relative to an axis" (p. 97). He points out that although our concrete experience always includes relations

among physical objects and weights "these same relations obtain for abstract objects related by the BALANCE schema. It is thus the experience of balance with its attendant properties, that has given rise to our mathematical concept of the "equality of magnitudes"...Balance, therefore, appears to be the bodily basis of the mathematical notion of equivalence" (p. 98).

In order to answer critics who argue that reasoning based on metaphors is arbitrary and unstructured, and thus not really reasoning, Johnson explains how the internal structure of metaphors constrains understanding and rationality and generates "definite inferential patterns" (p. 127). To illustrate, he analyses aspects of a particular case of scientific research done by Hans Selye, the founder of modern stress research. When Selye began his research, the metaphor he thought with was the body-as-machine metaphor that he had acquired in medical school. That metaphor dominated his perception and understanding of the ways in which various functions of the body relate to each other and his consequent diagnosis, treatment and theorizing.

In trying to reconcile disparate phenomena that this metaphor could not accommodate or explain, Selye shifted to a different metaphor body-as-homeostatic-organism which structured the phenomena in different ways and led him to an understanding of the disparate phenomena. The body-as-

machine metaphor ruled out entailments which could be inferred by the new metaphor of body-as-homeostatic-organism. Not only new inferences, of course, but also new questions, new categories of ideas and information, and new relationships were opened up with the introduction of a new metaphor. New ways of seeing brought into focus previously unnoticed phenomena and made possible the generation of new ideas. Metaphor, consciously conceived, was thus both constitutive of meaning and a tool for the creation of meaning.

Johnson's purpose is to "develop a constructive theory of imagination and understanding...in which what is typically regarded as 'bodily' works its way up into the "conceptual" and the "rational" by means of imagination" (p. xxi). He examines our current ways of thinking and in making comparisons with dominant views of cognition draws on the historical record. It is not part of his purpose, however, to describe the development of the human mind or to search for the historical origins of "the body-in-the-mind. In what follows, however, I shall outline what I see to be the connections between his contemporary theory and the historical record.

Parables before arguments

In treating metaphor as a spontaneous and thus primary means of interpreting experience and making meaning, Johnson

echoes Vico's theory, discussed in Chapter 1, that early human beings metaphorically projected their bodily experience onto the external world. Vico, it will be remembered, described a developing human mind and consciousness that began with the poetic. In what Vico called the next "heroic" stage of consciousness, particular poetic images are enlarged into maxims, fables and in their highest form, the epic poetry of Homer.

The Homeric stories of idealized characters and events structured all knowledge of the social and natural worlds and were the means by which it might be classified. As myths they were abstract structures in the sense that they referred not to particular persons or events but to exemplars. In narrative form, they function as the equivalents to the abstract structures which Johnson denotes image-schemata. (Johnson has not explored the implications of literate genres but agreed that they would function in this way). They establish relations in the socio-cultural milieu that can be metaphorically projected onto personal experience and used to interpret and reason about that experience.

The event-based nature of the myths limited capacity to reason, however, because it was not possible to articulate the general ideas that they embodied and thus deal with those ideas conceptually, separated from the specific contexts in which they were mythically embodied. Thus, as

we saw earlier. goodness and justice could be described only by reference to the acts of a person who was judged good and just. As Suzanne Langer writes of the myth, "It is the primitive phase of metaphysical thought...it is a non-discursive symbolism, it does not lend itself to analytic and genuinely abstractive techniques" (1942, p. 200).

Historically, the next step according to Vico, is to abstract and express in prose the abstract ideas which had been buried in the concrete details of the epics. The invention and spread of alphabetic writing is associated with prosaic, discursive language, a changed syntax through which abstract ideas could be expressed without reference to their concrete contexts. "Ideas first adumbrated in fantastic form become real intellectual property only when discursive language rises to their expression" (Langer, p. 201). Additionally, the visible form of language seemed to change, as we have seen, our relation to self and to what was understood as mind. Voiced language that was indistinguishable from its speaker became visible language and thus distinguishable. The capacity for individual thought and action was greatly enhanced. Jaynes makes the point rather neatly: "And once the word of god was silent, written on dumb clay tablets or incised into speechless stone, the god's commands or the king's directives could be turned to or avoided by one's own efforts" (p. 208).

As writing enabled individual, conceptual and abstract

thought, so too it enabled what we call imaginative thought. The two are inseparable. The creation of an abstract conceptual language enormously expanded the potential for metaphorical projection across domains of knowledge and experience. Imagination supplied the energy and the means. Although he gives an account of image-schematic structures and metaphorical projection which is, as he says "independent of a theory of imagination" (p. 140), Johnson seems to imply that the imagination is the force responsible for all metaphoric projection, both conscious and unconscious. With the invention of writing and the later development of discursive literate forms, imagination, through metaphorical and logical reasoning, is the means by which we generate novel orders of things and new categories. As Johnson puts it, "imagination is a free, non-rule governed activity by which we achieve new structure in our experience and can remold existing patterns to generate novel meaning" (p. 165).

Metaphor, in the sense used here, as the means by which we "project structure across categories to establish new connections and organizations of meaning" (Johnson, p. 171) not only underlies but gives rise to a vast network of literal meanings. It is thus not merely a means of figurative expression unrelated to what could otherwise be expressed propositionally. The capacity for metaphor, far from being an achievement of a reflective consciousness is a

primary means of making meaning. It acts upon all forms of expression in a culture - social, economic and intellectual - including, of course, what was expressed in writing. If as de Kerckhove says, alphabetic writing encouraged a linear, analytic approach to thinking about experience, the metaphorical projections which included the linear-analytic would have implications for ways of perceiving relations and drawing inferences. As we saw in the example of Hans Selye' reasoning, the entailments it was possible to infer from the body as machine metaphor were different from those of the body-as-homeostatic-organism. The development of countless imaginative structures of understanding that derive from a metaphoric separation of mind and body, itself an outcome of literacy, accounts in part for the development of knowledge which we characterise as scientific, rational, and abstract.

We are thus back to the beginning - to a description of characteristics we associate with literate thought. At this point, however, we can assert those characteristics without having to assume cultural differences in thought processes to account for differences in expression, nor assume a discontinuity between concrete, bodily experience and mental life. We might also at this point reconsider whether literacy has any causal relation to the development of particular kinds of knowledge. Given the description of the way we come to understanding and make meaning through

metaphorical projection (and no doubt other means of structural projection yet to be defined, including narrative and metonymic), we may perhaps approach the matter indirectly.

In his explanation of the effects of lists and tables on thought, Goody suggested that these forms introduced new relations among things and changed the way they were and could be thought about. With Johnson's theory, we can now see that the table creates a structure which is metaphorically linked to an image schema of containers. The image schema of containers, as things which hold other things, which separate and exclude, can be metaphorically projected onto the visual image of the table form and generate expectations of that form. That is, the boxes need to be filled; they are thought of as empty or full. Although full and empty refer, in concrete experience, to physical presence or absence of objects in containers, they are also used to refer to abstractions like the words in spaces on a page that are demarcated by lines. Those visible spaces translate further into mental space. Following Sweetser (cited in Johnson), the physical becomes a metaphor for the non-physical - "we use the language of the external world to apply to the internal mental world, which is metaphorically structured as parallel to that external world" (p. 50).

The mental spaces referred to in relation to the spaces

in the visual image of the table become more abstract when applied to constructions in language which are purely verbal and which have neither visual counterpart nor concrete reference. We can conclude that the forms produced by writing, as part of that external world, become available for metaphorical projection into the mental world. The process is not unidirectional, of course. The projection is not only from the external into the mental. Indeed, the external is commonly ignored as we know from our unconscious use of the metaphors that derive from bodily experience. The projection is also onto the mental within that mental world. That we are able to reason from abstract propositions, without reference to the concrete image or experience is evidence of this mental activity, activity so prized by classical theory that its birth in the womb of bodily knowledge, without which it cannot exist, has been rejected for more than two millennia.

Conclusion

We can conclude, adapting Johnson's theory, that image-schemata and metaphorical projections do not function exclusively in a pre-verbal realm of experience. There is no Great Divide separating, on the one hand, knowledge and understanding based on bodily experience from, on the other, knowledge and understanding based on abstract propositions. Neither, I suggest, is there a Great Divide between orality

and literacy. There is instead an essential dynamic continuity which cannot be characterized simply as a continuum, a linear image--we speak of "along" a continuum--that implies progression and thus a from-to hierarchical path as well as an unbroken course. In the case of an orality-literacy continuum, literacy is conceived as an extension of or development from orality, dependent upon the prior oral or arising from, but clearly differentiated from it.

We might argue instead, however, that the continuity is not in the substance but in the *relations* which link immensely varied forms of expression. To return, yet again, to Johnson's example of balance: the continuity of relation is fairly obvious from the scheme of balance as physically experienced and expressed, in say riding a bicycle, to its expression as visual objects in painting, and to its extremely abstract expression as mathematical formulae. At the same time, there are equally obvious differences in the characteristics of the expression. It is these differences to which we attach such importance. Thus we label as physical and concrete the experience of riding a bicycle, and as intellectual and abstract the experience of understanding mathematical formulae.

Johnson's theory invites us to see such differences not along a line from-to but as related at a most fundamental meaning level, a level which cannot be dispensed with unless

we choose to ignore the reality of what Johnson has, in a different context, aptly described as our "bodily, cultural, linguistic and historical situatedness in, and toward, our world" (p. 138). A focus on underlying relations rather than on differences in expression suggests, instead of the continuum, Great-Divide, or transition models, organic images of networks of veins, arteries and capillaries, of thickly woven textures or, indeed, of the physiology of the brain itself with its neurons and ganglia sprouting synapses. It is probable that no single image suffices since the dynamic activity of metaphorical projection is human and not uni-directional. Whatever we do or say is mirrored back to our minds by our own reflective consciousness or in the doings and sayings of others. Nor, perhaps more importantly, are the characteristics of the expression predictable as in the natural world. The power of metaphor, driven by the imagination, is its capacity to create possible worlds, worlds that have no direct counterpart in the actual world of concrete experience and which are not directly predictable, although conceivable because they are recognizable extensions of the metaphor.

The effects of writing on the reflective process and on our capacity to create new knowledge and possible worlds have been discussed in other contexts and are consistent with that part of Johnson's theory which explains our capacity to generate new ideas, new meanings, and new

knowledge. What is added here is the insight that our understanding grows from and is intimately connected to bodily experience whether that understanding be of things, events or ideas. When we connect Johnson's theory to the historico-cultural development of literacy, we see that the characteristics associated with orality which literate capacities are thought to supersede are actually necessary, prior to, and enabling of the literate.

In writing about the relation between the emergence of new kinds of mental activity and their effect on culture, Julian Jaynes comments that "The matter and technic of earlier ages of civilizations survive into the new eras uneroded, dragging with them the older outworn forms in which the new mentality must live (p. 320). In individuals also, the achievement of new characteristics does not imply that those characteristics are like a dye which transforms the "matter and technic" of previous stages of development or maturity. Luria has claimed that the effect of writing on the brain's functional system is to replace graphic images in thought "by certain accepted ideas about the meanings of words...[so that] thinking becomes verbal and logical and graphic images are relegated to the periphery of consciousness" (p. 183). It seems more likely, however, that there is never a time in life and thought when image-structures become redundant or peripheral. Conscious knowledge and understanding can only be achieved through the

processes of thought that include image-schemata, metaphor, imagining, and reasoning toward abstract concepts.

Johnson's theory, as it applies to understanding, can be used to account for differences in forms of expression by rooting them in the metaphors which underlie the language and culture and which are themselves a reflection of the historical, economic, social, institutional, and technological realities of that culture. That is to say, simply, that a culture without machines could not have a body as machine metaphor. It does not imply that the culture determines, through its countless metaphors, the content and shape of its participants' thought. Culture, as Geertz tells us, is a context "not a power to which social events, behaviours, institutions, or processes can be causally attributed" (1984, p. 235). Nor is it a power to which individual thought and behaviour can be causally attributed. Becoming literate in a literate culture is a matter of *becoming* literate. It requires, that is, that each individual develop a literate consciousness by acquiring the necessary skills and knowledge in an enabling social context. From the interweaving of Johnson's theory, the historico-cultural record, and the research of psychologists and sociologists, we see the complexity and the contingent nature of literate competencies and the manner of their acquisition. In the next and final chapter, we shall consider some examples of a compatible pedagogy.

Chapter Seven

Encouraging Literacy in the Classroom

Achieving Practice Congruent with Theory

Introduction

At the beginning of this thesis, I noted that the term "literacy" has only in the last decade become common in educational literature and that the umbrella goal of literacy was implicit rather than explicit in teachers' efforts to teach reading and writing. For the various reasons described earlier, literacy has become a much more problematic and complex concept. It is no longer associated only, or even principally, with acquiring technical skill in encoding and decoding language or with the materials and technologies of writing and reading. Those skills and the availability of materials and technologies continue to be the raw material; without them, there is no literacy. But they no longer define literacy; they have become, rather, the prerequisites of other forms of literacy.

In their classroom practice, educators are responsible for encouraging to the full the intellectual and imaginative capacities of their students. They select materials and methodologies which are responsively sensitive to the consciousness of their students and the world they inhabit. In deciding on a form of literacy to encourage, they will

need to recognize that there are alternatives and that each alternative has different implications for teaching practice. Few teachers intentionally restrain children's learning; few would argue in favour of practices which systematically and programmatically prevent children from becoming fully literate. That such practices do continue in schools and do stand in the way of learning and literacy development is well documented (de Castell, Luke, and Luke, 1989; Goodlad, 1984; Goodman, 1986b, 1988; Smith, 1986). It is also the case, however, that teachers are making changes and introducing alternative practices that, in important ways, reflect current views of literacy and language development. They encourage young children to experiment with written language as they do when they are learning spoken language. They themselves, correspondingly, understand attempts to compose in writing as approximations to be acknowledged rather than as failures to be corrected. Attention to writing across the curriculum has reminded teachers of all subjects that understanding the discourse of a discipline is integral to learning its factual content and to understanding its concepts. In writing instruction, there is a shift in attention to the processes of composition both before and as well as attention to the product. There is growing awareness of the impact of social interaction and of the value of collaborative learning processes in literacy development.

These shifts in practice, however, are currently occurring in contexts where they are as likely to be neutralized as nurtured. New practices may be attempted because they are seen to offer effective alternative methods. They may be merely added on to an existing teaching repertoire and used within an existing conceptual framework. As such, they offer a choice of strategy which makes for variety in teaching but is unlikely to reflect the transformation in understanding about learning and teaching from which they have been derived. Or, new practices may follow from and be congruent with new theories about what is involved in becoming literate. They are then not merely alternatives but constitutive of the theory and inseparable from it. On the one hand, the purpose of new teaching practices is subverted when its theoretical basis does not underlie their use. The practices lose their impact because they are domesticated within the existing school framework. On the other, the purpose is congruent with the practice. Changed beliefs lead to changes in the framework which then supports the new practice.

Change in practice, in and of itself, lacks sufficient persuasive power without the articulation of corresponding theory. The disciplinary perspectives which this thesis examines enable us to see more clearly that a strong theoretical basis exists for encouraging certain kinds of practices over others. In what follows, we shall briefly

consider examples of practice which would be compatible with the synoptic reading of disciplinary perspectives we have undertaken. These practices, I am suggesting, are both compatible with what we have learned and, further, they appear likely to foster a critical-transformative literacy. We shall look specifically at practices relating to: early oral and literate language development; the uses of texts and the teaching of reading; the uses and functions of talking and writing in school; and the social contexts for literacy development.

Early Oral and Literate Language Development

Apart from its artifacts which have both material and symbolic meaning and value, an oral culture must be held together and transmitted mainly through the spoken word. From the example of the Greeks which we examined in some detail and from the examples documented by anthropologists, it is clear that oral transmission did not imply oral recitation, nor indeed oral memorization, of information about the culture. It bore no resemblance to Mr. Gradgrind's dispensing of information about the genus horse. The Greeks drew on natural human capacities to abstract and make meaning. The listener-learner acquired cultural knowledge through participation in the vicarious experience embodied in the epics and dramatized in performance. That cultural knowledge could live in the individual imagination

and be available for translating and interpreting actual experience in the world. It was acquired in similar ways and had similar effects to the ways we unconsciously and naturally acquire all kinds of knowledge that enables us to become recognizable members of a particular social group.

Young children in all cultures attend creatively to oral language in their environment, make hypotheses about it, experiment with it, and learn to use it in socially appropriate ways with remarkable speed. They unconsciously draw on their innate ability to abstract, categorize and synthesize in order to make sense. In speaking, they integrate within themselves their felt sense of the context and its meaning and gradually are able to express their grasp and their intentions in words, phrases and sentences which are understood and responded to by others. As Polanyi (cited in Brown, 1988) describes it, the child begins by "dwelling in the particulars" (p. 7). Then, he or she makes sense through "an act of comprehension which consists in merging our awareness of a set of particulars into our focal awareness of their joint significance. Such an act is necessarily personal" (p. 7). The child does not need to have or to follow rules, although every child seems naturally to recognize and seek patterns and regularities in language. What is significant, of course, is that all children, unless impaired, succeed in mastering the language in which they are immersed so long as they are given freedom

and opportunity to learn it. There is good reason to believe that the process of learning written language need not be significantly different from that process of learning spoken language.

In some of the socio-cultural settings we examined in earlier chapters, literacy was acquired by natural participation in an activity requiring the skills of literacy. The onus was on the individual to figure out how to participate. As Shirley Brice Heath observed of the Trackton adults who served as teachers, they were responsive to questions but did not adjust the level or nature of their conversation to accommodate the children's understanding. They had learned from experience that the children would puzzle their way through, attending at different times to different aspects of the complex language acts they observed and eventually comprehending the whole. The implication for teaching, from both Polanyi's theory and Heath's research, is that children can and will successfully develop strategies for making sense of language. Teachers do not need, therefore, to control attention to the particulars, nor to sequence them in a certain order, nor to cut language into tiny pieces to make it more digestible. The learner can and will do that naturally if given the opportunity to experiment in an encouraging environment and with language presented "whole," as is always the case with non-school uses of spoken language.

The characteristics which constitute such an environment for very young children in the primary school are well documented in educational literature and I review them only briefly here. Children are immersed in the written word, aurally and visually. They are presented with multiple demonstrations of what reading and writing are for and how they can be enjoyed. Teachers read aloud, look at books with children, point to words and pictures, invite talk and speculation, and provide time for independent reading. Children learn to write by being allowed to experiment with making symbols and by telling their own stories, in drawing and talking as well as in writing. The teacher in such a setting is not a teacher in the traditional sense of teller. She is, instead, "salient as an example" (Biesele, 1986, p. 163) in a literate environment. She shows in all her interactions with the children and with texts what it means to be literate and how she values literacy.

Important messages are transmitted to children by such enabling environments at the beginning of their school lives. They learn that written language is meaningful in the same way that spoken language is meaningful. They learn that they can use writing to express their own thoughts and meanings. Indeed, there seems to be a quite straightforward relationship between the way children are taught to read and write and what they understand reading and writing are for.

In an interesting comparative study of similar groups of children, Diane DeFord (1981) collected writing samples from three classrooms over a three to six month period. In one class, phonics was the dominant mode and focus of instruction in reading; in a second class, flash cards to develop sight vocabulary was the dominant mode. In both cases, children's independent writing reflected what they had been formally taught in reading. The children in the phonics class made words with letter sound patterns: "I had a gag," "I had a dad," "I had a cat." In the Skills-Look/Say class, children generated sentences by substituting known words in known sentence patterns: "Bill can run," "Jill can run," "I am Lad," "I am Jill."

In the third class, the teacher based her work on principles of whole language. The writing in this class was quite different from the others.' One child, whose work was typical of the group, took on the role of reporter of the Iran hostage crisis and wrote: "Iran is fighting the U.S. 19 bombers went down. We only have 3 bombers down....We have droped 9 bombs over Iran the hostges have bean ther to long..." (Deford, 1981, p. 655). In this case, as in those described above, the child's writing reflected the way he had been taught to read and write: by looking for meaning, hypothesizing, and telling stories in his own words. In other words, the children in this class had been encouraged to learn about written language in much the same way as

they, and all of us, learn about spoken language: they discovered its purposes and made sense of it using strategies they themselves developed.

Evidence from research into children's practices indicates very strongly that when children are taught to use particular strategies in reading and writing, they all too readily give up the strategies they have developed independently. They accede to the authority of the teacher when their own ways are not acknowledged or confirmed. Harste reports, for instance, that children who at ages three, four and five had used a wide variety of strategies for figuring out words, confined themselves to sounding out after just twenty days of being taught phonics. Rather than teach in anticipation of what children might or might not need help with, a responsive teacher waits and watches. She notices when children experiment.

She recognizes, for instance, that a sudden eruption of capital letters on all nouns, and perhaps verbs as well, means the child has noticed and made a generalization about the use of capital letters. She congratulates the child and might ask, "What made you choose to give those words the capital letters?" She does not show displeasure with all the unconventional uses, any more than a mother would refuse to respond to a toddler's monosyllabic sentences. Instead, she acknowledges the accomplishment and watches for the next step. During reading, she might draw attention to

capitalized names and help the child make the connection between what he or she did in writing with what the author of the book has done. She thereby demonstrates that books are sources not only of ideas for stories but also of ways of presenting them. At the same time, she affirms the child's learning.

In enabling environments of that kind, young children acquire the necessary technical skills of encoding and decoding language but more importantly, they acquire attitudes and understandings about written language which have implications for future literacy development. While nurturing early years appear to be critical, the application of particular teaching techniques has so far produced no such consistent results. As Frank Smith has frequently pointed out, there is no evidence that one method is better than any other or that one approach works for all learners. We all know stories of four year olds who have sat down at the dinner table one night and read newspaper headlines aloud to an astonished family, just as we know of adults who only haltingly sound out simple words. Early experience lays the ground for mature literacy and, as I indicated earlier, the educational literature offers much well documented research describing what that ground should be like.

Rather more problematic, however, are the relations between the skills of reading, writing, thinking, and

learning, as they are taught and experienced in school, and the acquisition of knowledge. These relations become an issue in teaching from the intermediate levels of schooling upward when children are expected to acquire the knowledge and skills that will enable them to develop as individual human beings and as active participants and renewers of the culture. The cultural knowledge they are intended to learn through the school curriculum will come principally from texts. The kinds of relation children have with those texts will have significant consequences for their literacy development.

Uses of Texts and the Teaching of Reading

Texts come to be used and valued according to the purposes they are seen to serve in any given social context. In the early Middle Ages, texts were used mainly for administrative and religious purposes, thus were valued particularly by those in authority. With time and increasing economic and social diversity, the uses of texts proliferated among all segments of the population and, correspondingly, the value assigned to them varied. But uses and forms tend not so much to die out or be replaced as to be appropriated for specialized conditions or serve as a step toward newly developed alternatives. The diversity of forms and multiplicity of uses which characterize the place of texts in contemporary Western culture raise issues for

their educational purpose and use in schools. That is to say, given the wide range of possible types and purposes, what kinds of texts should be used, how should they be used, and for what purposes? What makes educational sense?

We live in a time when some written forms of expression are increasingly competing with, if not being superseded by, visual media. Ours is an age characterised by what Walter Ong (1983) has termed "secondary orality." Arguments for the use of literate forms must therefore contend with the realities of what appear to be non-literate, or as Suzanne de Castell (1990) has termed it, "post-literate," means of expression. I cannot attempt to deal here with the implications of post-literacy. Nevertheless, the implications to be drawn from this thesis for uses of texts and the teaching of reading are suggested here with that context in mind.

An assertion of this thesis is that a function of literacy has been the development of multiple forms of textual expression, thus multiple ways of understanding the world and interpreting human experience. That development was achieved as an outcome of certain kinds of relation of readers with texts which themselves evolved. It was apparent in the path we traced through the cultural history that the way texts were used and valued was continually transformed in different social contexts. For several hundred years following the decline of the Roman Empire,

much period writing was used mainly as a means of indirect communication and appears to have been similar in pattern to speech. Reading involved deciphering the code and recovering the language as it had been spoken. Later on, texts came to be seen as embodying truth and knowledge and were regarded as objects to be interpreted. Unambiguous speech became transformed into ambiguous text. During the Reformation, critical texts emerged from interpretive readings and were identified with authors speaking from positions that articulated alternative ways of seeing commonly experienced phenomena. Reading itself became a critical activity. As we look back on that development, it is apparent that each mode of reading constituted a step or stage upon which later approaches to texts depended. At this time, to be fully literate means being able, as and when it is necessary, to decipher, interpret, and criticize text.

Becoming literate, until the introduction of compulsory schooling with its aim of universal literacy, usually meant being immersed in the literate forms of expression which accumulated around particular human pursuits--whether they were literary, scientific, commercial, political, or indeed, as in the Middle Ages, heretical. Outside of school, such pursuits occur in contexts that give them meaning and concreteness. Multiple and distinctive forms of literate expression flow out of

those contexts as they are experienced, known, and interpreted by individual participants. In schools, such pursuits and their contexts are intended to be simulated through the curriculum so that children may be prepared for their actual participation later on as adults. In schools, however, the forms of literate expression are seldom very varied. Indeed, the principal literate evidence of the pursuit is often only a textbook--often indeed, only a single text--and the teacher's interpretation of it. The verbalizations of the learner are expected at least to approximate those of that textbook if not repeat them. The relation of the reader to the text is thus commonly that of code-translator and consumer. Rarely is the learner called upon to interpret or criticize. In the code-translation relation, what is not required and what is missing for the learner is participation in all that lies beneath the text and that contributed to its being made. In order to develop complex literacy, teaching practice must somehow enable the student to enter and experience a context for the text and its subject matter in order to understand it, and further, to integrate it within his or her own consciousness. From that integration, this thesis implies, a critical, transformative literacy can develop.

What constitutes a context for a text? From the point of view of the individual learner-reader, part of the context for learning something new will be that individual's

past and present, concrete or vicarious experience: a science experiment or an account of the discovery of DNA; a tour of Dachau or The Diary of Anne Frank. The older the students are, the more they are expected to think without the provision or reinforcement of concrete points of reference. As time and opportunities in school for concrete experience diminish, texts become increasingly important. They provide, as Madeleine Grumet (1988) describes it, "virtual not actual experience...a field of symbols, abstract in the sciences, particular in the arts, for contact with the world" (p. 12).

Whether texts constitute all or part of the context, the nature and quality of the text itself has significant consequences for the effects of that contact--for the breadth, variety, and characteristics of the mental landscape of the reader-learner. We may recall in this context the findings and conclusions of Scribner and Cole (1977) about Vai literacy. They noted that being able to read and write Vai did not produce the cognitive skills associated with alphabetic literacy. They concluded that since Vai literacy was literacy "without education," the cognitive effects claimed for literacy were in fact effects of schooling. By education, they meant that the contents of literate expression were not constructed so as to "open doors to vicarious experience, new bodies of knowledge or new ways of thinking about major life problems" (p. 238) or

to conceptual, analytical thought. That is to say, the texts themselves did not demonstrate the kinds of cognitive activity associated with alphabetic literacy. Schooling, they suggest, teaches relations to text requiring formal abstract, analytical thinking. Schooled literates are differentiated from Vai literates by the kinds of thinking processes they develop. The implication for teaching is that to engender critical literacy, teachers will want to select texts which are capable of providing an experience of it and to teach in a manner consistent with the relation between reader and text that they intend to foster.

Texts not capable of providing that experience are, from the perspective of literacy development, impoverished; impoverished texts will not furnish minds with the necessary material and relations that can live in the imagination as "virtual experience" of literate activity. In this category, I would put those texts which almost eliminate the possibility of interpretation by reducing vocabulary, sentence length, conceptual content and ambiguity to minimal levels in pursuit of ease of decoding and comprehension. Such characteristics have been common in basal readers (Goodman, 1986a) and in elementary social studies and science texts. They attempt to make their contents accessible on a linguistic level rather than compose those contents to appeal to the learner's mode of understanding (see Egan, 1988; 1989). Basal readers with carefully

controlled vocabulary and sentences and their accompanying workbooks have focused on teaching reading skills to be applied, someday, to real reading rather than allow children learn to read through reading. Typical science and social studies texts, particularly when used as the principal source of subject knowledge not merely its verbal abstraction, are wholly inadequate to stimulate the imagination and build a mental landscape. Concepts are presented as facts to be memorized. The text offers no elaborated contexts from which to derive concepts and in which to locate facts. The reader's interpretive and higher order comprehension skills are unnecessary.

Texts which are complex and capable of being interpreted rather than merely consumed, not only convey information or facts but, more importantly for literacy development, they themselves teach the ways of structuring, patterning and relating features of that information. Reading theorists and researchers have shown that through reading and listening to genuinely literary texts, for instance, readers acquire tacit knowledge of narrative structure and literary discourse (Meek, 1982; Wells, 1982; Heath, 1983). Other research suggests that children do not need simplified versions of stories they want to read and indeed, that versions which do not match their expectations of stories are in fact more difficult for them to understand, even when they have undergone some

simplification treatment (Fox, 1985; Simon, 1988).

Texts which are unintelligible to the reader are no more conducive to literacy development, of course, than impoverished ones. Intelligibility, however, has to do with a complex of factors comprising all the features of the text, the knowledge, intentions, attitudes and experience of the reader, and the relationships and purposes in the reading situation. It is the latter, reader characteristics and reading situation which have commonly been ignored in the making of school textbooks. In consequence, as noted above, in such settings as the elementary school, texts have been greatly simplified. In other settings, such as the secondary school, texts are used almost exclusively as sources of facts and appropriate disciplinary terminology. School textbooks have not been expected to teach the discourse of the discipline nor represent the structures of thought necessary for its production. The teaching methods which follow from the epistemological stance of such texts tend to reflect the nature of the text: methods rely on memorization rather than on approaches which develop understanding. They tend not to encourage processes of knowledge construction which depend on the interiorization of knowledge.

How texts are read, beyond literal decoding, includes the purposes set for reading. To achieve literacy, one of those purposes of reading is to make meaning for ourselves

by means of the ways of grasping the world that is shown to us in texts, just as we also observe and listen to make meaning of the world by means of the ways it is shown to us in talk and action. Expecting the reader to make meaning presupposes intentional learning. As Bereiter and Scardamalia (1987) have noted, activating learners' intentions is important in developing high literacy. Teaching practice needs therefore to take account of ways to engage student intentions. One indication of intention is that the learner has questions to bring to reading.

Genuine questions, questions that arise from curiosity, indicate a need and desire to know or understand as well as the existence of a mental framework within which to locate answers. Such questions are quite distinct from questions to test understanding that are constructed by the teacher or present in the text or teachers' manual or composed by students to test each other. They indicate attitudes and, as Neil Postman (1985) puts it, "To ask [questions] is to break the spell" (p. 161). They are genuine questions in the sense that they arise from curiosity about a subject. Students about to read and or learn about a topic might thus be invited to reflect on what they already know and think about the topic and to raise questions on the basis of those reflections. While the reading and learning will and ought to raise new questions, the fact that the learner approaches material with his or her own questions helps to make the

reading purposeful. Both the questions and the subsequent search for information or ideas must, however, be seen to be genuine. The teacher who invites questions but in fact disregards them turns a principle of theory-based practice into a technique.

When concrete experience is seen to be needed as part of the context for learning, students are engaged in what are referred to as "hands-on", experiential kinds of learning. Hands-on activities do construct a context for knowledge being pursued, but they may accomplish only part of the contextualizing task. They reflect the truth that we remember by doing. They tend to ignore, however, the equally significant truth, that, as Ibsen put it, "it is not our experience that matters, but how we understand it." Children engaging in experience of knowledge by doing science experiments, depicting historical scenes in dioramas, or acting out scenes from novels, will indeed remember what they did. The meaning of the experience and how it is understood, however, are all too readily appropriated from the child when the text or the teacher provide the language for it. When children copy notes from the board, fill blanks on worksheets, or answer factual questions, they record decontextualized information which they may later be required to recall. The tasks of observing, selecting, connecting, and ordering what is worth recalling have been done by the teacher or text. The

student's spontaneous observing, abstracting, reflecting, and verbalizing of the activity are nullified as part of what counts in class.

Supplying the language is supplying a means of understanding an experience. Supplying only one expression of understanding from a single inadequate text may well impede, not foster, literacy development. It may thwart learners from bringing their own language and understanding to the experience and may encourage dependence on the authority of that text. To fulfil needs for a critical literacy, texts must not be treated as repositories of truths to be acquired, nor as mere sources of facts and terminology. Texts offer interpretations and images that may extend our vision of the real and the possible; they are means with which to think about the world. Students must be exposed to multiple examples of ways of selecting, organizing and expressing a common body of information. Teachers working on a topic like photosynthesis, for instance, might select four or five explanatory accounts for students to read. Because each will approach the topic somewhat differently, each offers an alternative lens through which to examine the same phenomena. Further, each is an example of alternative discourse choices. Each thus illustrates the latitude in expression conventional for the subject and form, a latitude often not realized by students confined to the use of a single text.

Although the use of several texts attests to the existence of intelligible and acceptable alternative presentations, the texts must also be read as authors' compositions and thus as subjects for interpretation. Teaching practices will invite students to notice similarities and differences, to speculate about the reason for authors' choices in details or sequence, to comment on images or ideas effectively expressed, to question what they do not understand, and to compare what the texts say with what they have noticed or experienced themselves. In so doing, they may extend and transform their understanding of themselves and the world by means of the text. Mbulelo Mzamane (1982), in Children of Soweto, illustrates the constructive power of such interaction with texts in his account of reading Afrikaans texts in school:

Pakade also taught us to relate literature to our everyday experiences and to our conditions as Africans. We applied what we read to assess the attitudes of others towards us and their own assumptions about themselves. It amazed me to discover just how much of a writer's most hidden prejudices can filter through essentially literary material, like the angle from which he chooses to approach his subject, the thoughts and words he puts into his characters, even through the unspoken word, the suppressed thought, the

invented emotions. We had the feeling of infiltrating deep into enemy territory and came back with our heads bulging with new insights. The most ridiculous African characters in Afrikaans novels were made to look what they really were, lampoons in very poor taste...Always the African character in these novels, whether in exotic tribal regalia or ill-fitting Western costume, came through as a being with whom we had nothing in common, except the colour of our skins (p. 6-7):

Such interpretive activity with texts requires the student to explore the discourse features of the text as well as its factual or conceptual content. Such active rather than passive reading helps to achieve literacy through what Fromme calls a *being* rather than *having* mode of learning; it corresponds to Geertz's (1983) observation cited earlier that "to set out to deconstruct Yeats' imagery, absorb oneself in black holes...is to take on a cultural frame....Those roles we think to occupy turn out to be minds we find ourselves to have" (p. 155). That is, it encourages the process by which individual minds are populated by the ideas and concepts particular to textual forms of cultural knowledge. That knowledge is not only retrievable as items of information, equivalent to a *having* mode of knowing; it is also a framework or landscape in

which those ideas live and develop, thus have their being and constitute ways of comprehending.

As we think back over the multiple examples of processes of literacy acquisition that have been offered in the historical accounts and in the sociological and psychological studies referred to in this thesis, we see that the interiorization of literacy is not distinct from the interiorization of knowledge. Acquiring the knowledge has meant, additionally, acquiring the modes of discourse. The characteristics of the discourse can probably be acquired mainly through reading, but habits of critical assessment and reflection on the knowledge which the discourse embodies are unlikely to occur spontaneously. One of the ways in which knowledge can be transformed is through its expression in certain kinds of talk and writing.

Talk and the Development of Literacy

When we think about becoming literate, we refer to developing abilities to read and write. Both of these activities are commonly done alone and in silence. Indeed, the solitariness and silence of reading and writing are among the conditions which fostered a literate relation to the world. Talk with others, however, has a critical role to play in their development. It is not simply that historically and developmentally spoken language precedes written, and, from the standpoint of pedagogy, offers us a model for learning the written. Despite the implications of

phrases like "transition to literacy," the relationship between the oral and visual for the purposes of literacy development appears to be neither linear nor hierarchical. In this section, we shall examine what implications we can take from the thesis for the characteristics of interaction between the oral and visual and consider how that interaction translates in the classroom into uses of talk for literacy development.

As literate persons, we are at a disadvantage when we try to imagine oral language without writing. We have difficulty thinking about a word simply as a sound, so accustomed are we to its visual, alphabetic representation. We have to remind ourselves that language is a pattern of sounds which an alphabet merely transcribes. Although we know that to read a word, we have to sound it out, we have to remind ourselves that we sound it out to recover its meaning. The word "bird," for instance, brings an image to mind only when it is said; its visual configuration of letters bears no resemblance to the object to which it refers. Even the meaning, we have to remind ourselves, is not in the word and its sound, but in the human mind, individual and collective. The Greek alphabet, with its precise analysis of sounds made it possible to produce a visual representation of spoken language and thus of thought. Paradoxically, its exactness, intensified in its effects by such developments as standardization of print and

distinctively literate conventions, has distanced written symbols from their origin as sounds and from the source of their meaning. Thus, we are able to talk about spoken and written language as if "spoken" and "written" designate alternative modes of expression of a system that exists outside of that expression. Convenient as it may be to make a distinction, it obscures the oral foundations of literacy. To recall the nature of those foundations and their relation to literacy, we begin with a brief look back to the characteristics of oral transmission of culture. In the oral culture of ancient Greece, participatory enactments were the means by which cultural knowledge was transmitted. Performances dramatized cultural knowledge, beliefs and values in rhythm, rhyme and story, embedding in the oral consciousness the narratives that would hold the society together. For the learners, the participatory experience was a pleasurable one. It appealed, as we saw in Chapter One, to all the senses: it was a holistic experience, a harmony of body and mind; it bound listeners together, immersing them in unifying sound. Learning meant "achieving close, empathetic, communal identification with the known" (Org, 1983, p. 46). Using sound in song and chant and inducing such empathetic identification were effective ways of teaching. They continue to be part of teachers' practical repertoires: primary children love to chant rhymes and every teacher knows that singsong repetitions

help memorization. Stories cast spells; choruses of carols make us weep. Through mask and mime, we slip into other bodies, glimpse other minds. While these techniques persist, they tend to be at the edges of the curriculum. Story, song and drama in school are more commonly seen as modes of performance or as dispensable additions to serious teaching than understood as having powerful psychological effects conducive to learning. (For a fuller discussion, see Egan, Primary Understanding, 1988.)

From the perspective of literacy development, however, it is not only the particular form of expression that is significant in the mode of teaching in an oral culture. Although students might enjoy learning about the human skeleton through songs like "Dem Bones," for instance, they are unlikely thereby to acquire conventional biological knowledge and discourse. To enable learning and foster literacy, we can draw on the characteristics of oral transmission in other forms of expression and for purposes which will involve texts. From Chapter One, we recall that the oral mode of transmission was characteristically *empathetic* and *participatory* rather than objectively distanced. It engaged the *emotions*. It encouraged an *identification* of listener and speaker. As Ong (1983) observed, it was *redundant* or *copious* because "repetition of the just-said, keeps both speaker and hearer surely on the track" (p. 40). It "never exists in a simply verbal

context, as a written word does. Spoken words are always modifications of a total existential situation, which always engages the body" (p. 40). It was thus *situational*, not abstract. It was *spontaneously composed*. These characteristics indicate a relation to what is being learned which did not simply die out with the spread of writing and the increase in use of texts. Transposed onto texts, the habits and characteristics of orality were and continue to be essential to the interiorization, as Ong (1983) calls it, and development of literacy: they reclaim the source of meaning and the sound of language from the abstraction and silence of text; they assert a continuity rather than a dichotomy between implicit, tacit, situational knowledge and explicit textual knowledge.

In face to face encounters, both speaker and listener are bound in a context resonant with social and affective messages which affix meaning. As we speak, we react and communicate with our senses as well with our minds; we feel and transmit emotions and attitudes. As others respond to us, we not only learn what they think and feel from their explicit expression but we unconsciously form our sense of ourselves and construct our own meaning. Talk, therefore, engages us in an immediate, concrete, participatory, emotionally charged experience that is full of meaning. Although usually spontaneous and thus improvised, talking with others is a form of drama; through talking, we enact

what we are thinking. While talk is not normally linked to deliberate effort to teach something, those who participate in the drama of talk are learning. What is learned and what remembered will depend on features of the drama which are implicit: the intensity of the talk, the emotional tenor, the degree of commitment to its subject matter, and the kinds of responses it elicits. As teachers who want to transmit knowledge and must therefore influence what is learned, we need to encourage the kinds of talk productive of the kinds of learning and thinking we wish to encourage.

Any situation of talk contextualizes the subject-matter of that talk for its participants, establishing mental images of the patterns of the relationship between speakers and between speakers and the subject matter. What kind of talk encourages critical, transformative literacy? In the previous section, we considered the limitations of learning from a single text. Reliance on teachers' lectures similarly restricts learning by restricting, or even preventing, the use of talk to dramatize learning. The teacher's lecture is a single voice. When teachers stand in front of the class and deliver their version of the text, in their own words, they do what learners need to do: they say what has made sense to them; they construct patterns; they rearrange and reshape to explain the material in a different way. By offering an alternative to the text, they present the material from two angles. Perhaps their alternative

will be better attuned to what students are likely to understand. But the delivery pattern in which teachers talk and students listen locates the authority of the teacher in the substance of what he or she knows. The teacher mediates between student and text; she intervenes to explain, to fill out the text with examples and illustrations, speaking for the text and as the text. Students use talk to report and recall in response to teachers' questions. On the one hand, the teacher performs for the students; on the other, the students for the teacher. The exchange follows a marketing-commodity schema: performance for attention and knowledge for grades; and a container schema: knowledge of the subject fits within certain boundaries and is quantifiable. Students are not thereby engaged in the kind of talk about the material which reflects the inquiring and exploratory stance essential to critical literacy. Neither what the teacher does by such means nor what the students do makes explicit the provisional nature of knowing.

In order to foster literacy, more talk in the classroom needs to resemble a genuine dialogue about the material to be learned. In dialogue, there will be no single voice presenting fully digested, and ordered facts, concepts or ideas. In dialogue, the discussion bears no resemblance to barren teacher-led, question-answer sessions which too often pass for discussion in English and history classes. The discussion is exploratory and inquiring, as much a search

for questions as for answers. It is multi-layered and multi-textured, woven from interpolated and connected fragments. It develops and moves responsively to what has already been voiced, acknowledging by elaborating and extending. It is driven by its participants' grasp of emerging ideas and thoughts and by their intentional participation in its development. Through such dialogue, ideas are listened to and debated. Students are called upon to think about and rethink what they have said. In expressing views and challenging those of others, they define to themselves what they think and understand. They identify gaps in their logic or factual knowledge; they rearrange what they previously knew in light of what they have learned.

Teacher-lectures tend, like texts, to bypass the process by which meaning is made. Teachers do not reveal their own processes of coming to know, with all their half-starts, false trails, uncertainties, tentativeness, sudden insights and persistent searching. They share what they have learned, not how they learned, nor what it means to learn. They exploit the potentials of orality to demonstrate a container message about texts: that books have knowledge. In oral cultures, the container was a human being who could pass on his knowledge only through personal contact. To learn was to be in intimate relation with what he knew. When teachers present themselves as alternative

texts, they may be able to foster an intimate relation between the students and what they know but are unlikely to foster literate habits and attitudes. Students' answers to questions are dips into the container to pick the right package. They play the "guess what the teacher wants" game to which sociologists have drawn attention in recent decades (Barnes, 1971, 1976; Stubbs, 1980, 1983). It is a game well learned and learned early in school partly because it is situated in a concrete, oral context which implicitly affirms it. It demonstrates patterns from which participants will derive meanings for their relationship to school and textual discourse. Talk which dramatizes learning through dialogue demonstrates different patterns. The situation of such dialogue, with its exploratory, intentioned talk constitutes a rich sensory experience with a narrative structure. There are characters, a plot, a line of development, however wavering, a setting, a mood, a theme or main idea and perhaps even some kind of closure. It is thus the kind of experience that can live in the memory. A single feature of the images or the narrative can help to recall specific details of the discussion itself: what was said, who said it, how and why it was said, and what it meant.

Perhaps most significantly for the acquisition of disciplinary knowledge, dialogue enables students to use new terminology and discourse structures in the course of

meaning-making activity. Spoken words belong to us, are of us, and come out of us. When students integrate into their own language the discourse of the knowledge they are trying to acquire and they spontaneously compose that discourse to explain or clarify ideas, they are bound to their own words in a concrete-affective as well as abstract-rational relation. Through dialogue, they become identified with the words and the words with them. They, as speakers, are affirmed as the source of meaning when their words are open to negotiation and they can respond with "Well, what I mean is..." and "No, but..." and rephrase, extend and elaborate on what they have said. In so doing, they develop an intimate relation with the words and ideas they are in the process of making their own: "I speak the world; I own it". In the context of the classroom, they also offer their listeners alternative ways of expressing ideas and understanding of the same topic as do alternative texts.

In trying to encourage this talking to learn in the classroom, teachers know that at first students will probably use new discourse clumsily and inappropriately. But demonstrating the dialogue is particularly important in school for students whose age or experience prevents their having become accustomed to learning from text in the way they unconsciously learn from lived experience. They will internalize as new schema the characteristics of interpretive and critical activity as enacted in talk: the

concrete reality will be internalized as psychological reality. In its movement, the concrete activity resembles the process of composing by an individual writer and enacts that process as a reflective search out of which texts emerge and meaning is made. It dramatizes the fact that, as Ong (1977) puts it, "writing is permanently and ineluctably grounded [in orality]" (p. 77).

Writing and the Development of Literacy

Since reading and speaking contribute so significantly to the development of literacy, and certain literate habits of thought can be acquired without the technical skills of writing, it might seem that the actual act of writing could be by-passed as unnecessary or at least left to those few who choose to do it, whose so-called "learning style" is verbal, or who seem to have a talent with words. In the preceding sections on the role of talk and text in development of literacy, we looked at the kinds of practices that enable us to be socialized into literacy. In this section, we consider the implications of the thesis for how writing can be understood, used, and taught in order to foster the development of individual literate capacities.

It was apparent in the path we traced through the cultural history that the way writing was used and valued was continually being transformed. But of the many uses and purposes, probably none has entirely disappeared. Like the

Sumerians, we still write things down to help our memories and keep records: we make lists of people, goods and dates and transactions. Like Herodotus, we write about the world and human experience of it: we write to remember and to recall; like Augustine and Montaigne, we write to explain and clarify; and, like the clerics and philosophers, the scientists and poets, we write to compose and construct a view of the world. What this thesis implies, however, is that this last use of writing is indispensable to the individual's acquisition of a critical, transformative literacy. It also seems apparent that for the individual to become literate, it is not enough to read and talk about others' texts. The evolution of literacy has depended not on readers but on writers.

We recall that with the advent of print came the increased availability of texts and the spread of literacy. The conversations of the cloister, laboratory, publishing house, and coffee shop were relocated in texts. In the early days of journals and periodicals, as well as of texts in the emerging science-related disciplines, the readers of one issue were likely to be writers in the next. Writers engaging with other writers in formal and public conversations about matters of mutual interest, developed a critical discourse around those matters. The obvious point to be noted here is that the active participants in those conversations, the writers not the readers, developed a

multiplicity of textual forms; writers, not readers, developed the highly specialized knowledge and discourse of the scholarly disciplines. By writing, individuals participated in the exchange and development of new systems of thought and ideas in texts. As readers, they had to understand and interpret what they read; as writers, they had to examine what they themselves thought in relation to what they knew and what they had read. As they wrote, they articulated and reflected upon and thus in a sense discovered their own visions and versions as they made them. They recomposed, rearranged, reordered, modified, added, deleted; as Pat D'Arcy (1990) would put it, they represented in new form and thus transformed what they knew; they both learned and made knowledge through writing.

From the evidence presented to us by sociologists and psychologists, as well as the evidence that we have from our everyday experience of writing, we know that being able to encode language and follow conventions of style and usage are only the first steps toward entering the intertextual conversation that is implied in a transformative, critical concept of literacy. While it is apparent from the explosion of knowledge in many fields over this century that certain people have become literate in this sense, it is also the case that common practice in school has not encouraged this literacy. Writing in school is most commonly associated with demonstrating learning. Writing

usually occurs after learning is assumed to have taken place. It serves to inform the teacher and the student of what is known. It serves thereby as a test of both teaching and learning. Used to refer to such purposes, the word "writing" actually refers to the "what is written" and thus available for scrutiny, not to the activity of composing which produced it. Students write reports, answers to essay questions, summaries, and literary analyses and teachers evaluate them. Writing that is used almost exclusively for the purpose of testing what is known encourages a mechanical view of writing and what we might call a "dump-truck" view of learning: students go from class to class picking up loads of chemistry, physics, literature and history which they off-load at the end of term and promptly forget. Whatever they have learned is as easily discarded as clothes. It seldom changes the way they see the world. It tends to be learning as having, not learning as being. Writing merely records rather than constitutes what has been learned. The written product is an end product; it closes rather than opens the door to thought, reflection, and transformation of understanding.

Underlying the use of writing to record what is known is the assumption that writing, or the text, is only an outward expression of what has already been learned or thought. The implication to be drawn from this thesis, however, is that the activity of writing, like talking, can

be a composing process which intertextual conversations have developed into a learning process. It is a means by which the writer can constitute his or her ideas and understanding in visible linguistic form and can remove them, because written, from the immediate consequences of action and thereby have them available as possibilities to consider and reflect upon. In speaking and interacting with other persons in the world, we spontaneously and often unconsciously change our minds about matters both trivial and significant. We pick up information or cues that lead us to revise what we say or think or do. Whether we transfer a similar responsive, reflective process to our writing depends largely on our view of what writing is for and where it comes from. As suggested above, writing linked to a dump-truck view of learning tends to be a mechanical and arduous task. In school, it seems mainly a means to save time since teachers cannot interview all students individually to check on what they know. For the students, writing in a mechanical way to transcribe what they remember of what they have read or been told may aid the memory or serve as a route to a grade. It is not a creative, generative act. The writing does not appear to come from or be constructed by the mind or person of the writer. It is not understood as a representation of that person's experience and understanding of the subject.

What teaching writing in a manner that attends to

process has accomplished is to provide a structure which encourages a change in that view. Research in composition over the past two or three decades has drawn attention to the processes that writers commonly go through when they are producing a text. It is perhaps not coincidence that we can see rough parallels between the steps or stages individual writers describe and the historical development of uses of writing. Prior to actual composition, a prewriting stage occurs in the writing process where notes are taken, ideas recorded, and data gathered. Its purposes and characteristics correspond to the predominantly recording and transcribing period in the centuries following the dissolution of the Roman Empire. The drafting stage corresponds roughly to the interpretive period of the later Middle Ages. Data are examined for what they mean and for their possible relations. They are drafted into a form which represents a tentative statement of understanding. The revision stage corresponds to the period during and following the Reformation and Renaissance when texts were not only interpreted but criticized from within particular frames of reference. Established views were challenged and revised in light of new information, knowledge and experience and were re-presented in new forms. Although Scribner and Cole (1977) questioned the need to recapitulate in the individual the capacities historically achieved in the culture, research on composing indicates that writers do

indeed move through these stages, although not necessarily or even usually in a strict linear progression.

The role of the teacher in this process is to demonstrate how it is done and what it means. Teachers will need, as they are increasingly doing in response to the burgeoning research on composing, to be conscious of attitudes and strategies which enable students to use writing creatively and generatively. By allowing time for a piece of writing to be developed and accommodating a sequence that includes prewriting, drafting, response, revision, and editing, they acknowledge the author engaged in an activity of making. For the student, the process includes assuming authorship and looking back on what he or she has written by entering it into the public domain of the classroom. It prompts an inquiring, questioning, probing and speculative attitudes toward what is written. It demonstrates that writing is a means of opening, not closing off discussion and thought.

If process is understood as techniques rather than attitudes, however, it can become empty and rigid. Marching through required steps of the process over a week with preparation or prewriting on Monday to editing on Friday, at best liberates the student from the muse syndrome and at worst trivializes and devitalizes the complex activity of composing. In order to become literate, students need to be able to use the advantages that writing affords them over

speaking and to respond as actively to their own texts as I have suggested above that they respond to the texts of others. They need to write in order to separate themselves from what is in their minds and to realize their understanding in concrete, visible form on the page or screen. Thus displayed, it becomes available to them for contemplation. It becomes an object in a textual form which can be linked to others' texts and inserted, when shared, in an ever-expanding network of ideas. Since drafting is a way of imposing a preliminary order and pattern on what one knows, is learning or has experienced, and thereby discovering significance and discovering meaning, it would seem that writing for this purpose ought to have a prominent place in the school curriculum. Such writing is exploratory and tentative, open to dialogue and reflection. As a piece of text and a product, it may be added to, built on, changed and rethought, and perhaps revised and rewritten in light of what is learned from other sources: texts, experience, and readers. Writing might be used therefore at the beginning of units of study. Students write what they know about a topic and thus bring to their conscious awareness the details and ideas that they associate with a topic they are about to study. They set out their understanding in order to grasp it. Such writing is empowering because it draws the learner's attention to what is in his or her own mind; it is spontaneous and is made with the language of the

individual learner. Used as a means of learning, writing will be seen by both writer and reader as a representation of what the individual makes of newly acquired information. What is written will be seen as a display of thinking in visible, static form. "How do I know what I think until I see what I say?" asked E. M. Forster. The key words here are "see what I say" because they imply conscious regard and attribute authorship to the one who says. The writer looks at his own words as a reflection of his own mind. If the writer attends as a reader to the meaning and implications of the thinking on the page, he or she will interact with the words and ideas, picking up anomalies, inconsistencies, inaccuracies and so forth that invite rethinking and revision and thus remaking toward a new understanding. What is implied here, is that the written composition of learners needs to be approached from a perspective similar to that suggested above in the discussion of the ways of reading texts. That is, it must be seen as provisional and full of potential meaning. The writer, in reflective dialogue with others or self, will add to, build on, and extend what he or she has written and in the process make something new which can contribute to the intertextual conversation being enacted in the classroom.

The implication for practice is that teachers must acknowledge the making of meaning as an ongoing process which, as we have seen, they have power and authority to

extend and develop or to close off. In teaching students strategies to use as they make meaning in writing, teachers need to understand that they are slowing down and making conscious a process which occurs naturally. Prewriting strategies like brainstorming, listing, and webbing, for instance, are ways of drawing on the writer's inductive powers of reasoning. They articulate and make conscious the "dwelling in the particulars" which precede acts of comprehension and pattern-making and generalizing. Allowing response to drafts and modelling ways of talking about drafts renders the text as dynamic, whereas, as we noted earlier, grading and correcting conventions renders them as inert. Teachers must therefore engage actively with the potential meaning in students' texts. If they refuse to do this, they may well impede the student's ability to develop a transformative literacy. The teacher who looks in a student text to find her own ideas repeated, if in different words, is saying to the student, "Give me back what I gave you. The meaning is not in you but in me and I am checking that you can express my meaning correctly."

As the writer becomes conscious of process, he or she is well placed to grasp the conventional and contingent nature of particular discourse forms. Every real writer strives against what is given and transforms it. All writing in this sense makes something new. Through writing, teachers can help students to learn from experience how

texts work and how they are made and thereby be equipped to read others' texts more critically and skeptically. Writing can give new meaning and purpose to analysis of texts. It actualizes and makes concrete in action the value and purpose of paying attention to the strategies and techniques of writers. It also establishes a relation of collegiality and apprenticeship which assumes the learner is capable of becoming skilled. It demystifies the process of text construction.

Understanding what a writer has done and why is a matter of academic interest when the analysis is purely descriptive. It may be fun, like solving a crossword puzzle, but has few obvious consequences either for appreciation or pleasure in reading. Indeed, the common approaches to literary analysis so beloved of English teachers seem to be most successful in discouraging students from reading independently, not in enabling them to do so with confidence and from choice. Analysis can become more meaningful, however, when tied to writing. Identifying a writer's techniques and strategies and the effects they produce on a reader is a way of learning how one might handle one's own material, ideas, and experience. What other writers have done become possibilities to modify and adapt in new ways. All writers know this, of course. They trace their roots and influences on their thinking and work. Students, however, as we have noted, rarely regard

themselves as writers in the creative sense. They can be encouraged to do so by teaching approaches which invite them to look in their reading for ideas to borrow for their own work.

What we think of as reading matter in school needs to be broadly interpreted to include the range of written expression to which we are daily exposed. Schools too often limit reading and writing to a few academic forms. While writing which requires supporting arguments and examples or extended critical analysis is intellectually demanding and may thus deserve emphasis, other forms are also demanding and also assist literacy development. For instance, students might read advertisements, travel articles, manuals, news stories, encyclopedia entries, movie reviews, record album notes, bumper stickers and so on and then write to adapt, critique, apply, analyze, compare, imitate, argue with, represent in a different form, or evaluate what they have read. They might also write about a topic in different forms or from different points of view in order both to experience the alternatives and to consider and compare the effects of the differences on how one understands and interprets the subject matter.

However well-intentioned teachers may be in introducing processes, varying assignments, and assuming different attitudes toward students' writing, the kinds of writing assignments they require may, as James Moffett (1989)

reminds us, subvert the value of writing in developing thinking and understanding. We arrive at understanding through both inductive and deductive reasoning. Assignments to write may invite students to generate material through recall from memory or through investigation. By gathering and setting out and then determining pattern, meaning, and order in the data they have assembled, students reason inductively toward themes and general ideas. Assignments which propose central ideas and themes in the form of statements or questions invite deductive thinking. They act as a lens through which to examine and interpret material. Both kinds of assignment are important as journeys that allow the student to arrive at understanding and new insights by bringing experience, facts, examples and ideas into a new and fully realized relation.

How the teacher responds to what is written will, as we have seen, influence how writing is conceptualized. Teacher or text assignments which require deductive thinking and writing, however, tend to advance the aim of using writing to socialize into a domain of discourse and knowledge rather than to transform that knowledge. While it may be true that one cannot transform what one does not know intimately, overemphasizing one form of reasoning over the other through choice of writing assignments acts as a powerful means of control and as a barrier to the development of individual literacy. Writers who transform are writers who can select

and wrestle with alternatives and possibilities, who can make choices and create something new and different. Advocates of teaching practices which allow students some choice in both their reading and writing assignments recognize that means are not separate from ends: the ways in which literacy is learned will affect the nature of that literacy. We cannot expect writing to be a powerful means of making sense of the world unless we enable students to experience writing to make sense. By balancing inductive with deductive writing assignments, we may enhance opportunities for that experience.

We have developed, in the culture, ways to make sense of the world through writing about it. We have also, and perhaps simultaneously, used writing to help make sense of ourselves. Writing displays the individual mind on the page; it has brought us into intimate relation with our own thinking and has influenced, over time, our sense of self as distinct from others. As Ong (1983) describes it, "The evolution of consciousness through human history is marked by growth in articulate attention to the interior of the individual person.... Writing introduces division and alienation" (p. 178). While writing alone is probably not responsible for introducing division and alienation, it can be a means of achieving separateness which encourages us to orient ourselves to our social world as individuals instead of as members of a group. The losses following from that

orientation are, arguably, compensated by certain individual and social gains. As individual selves, for instance, we acquire strategies that help us recreate our view of ourselves and become what we can imagine and construct. As John Dixon puts it (1967), "Writing is a way of building a personal world and giving an individual, rather than a stereotyped, shape to our day-by-day experience" (p. 12). As individual social beings, we gain means to reflect upon, challenge and inquire into a spectrum of social realities that lie beyond our immediate experience, and thereby imagine and construct alternatives. To a degree not accessible to people in a non-literate culture, we can symbolically detach ourselves from the present and actual and imagine what is not--talking bears, for instance, or what might be--world peace.

Teachers can encourage the growth of sense of self through the kinds of writing and ways of responding described earlier. Certain forms and purposes of writing, however, lend themselves particularly to shaping our sense of self. Accounts of events in our lives, written as personal narratives, are valuable for instance, in ordering and interpreting our own experience. "There is no plot line in the bewildering complexity of our lives but that which we find and make for ourselves," says Lucy Calkins (1986, p. 3) an observation confirmed by authors such as John Cheever, who notes "When I began to write, I found this was the best

way to make sense out of my life." Personal narratives introduce coherence to events and embody meaning. They go beyond the personal anecdote recounted orally; they allow us to see the story itself as distinct from an audience response to it. The story becomes an interpretive lens through which we see ourselves in the past and with which we can imagine new alternatives for the future.

In writing assignments, teachers can invite students to try on and freely discard opinions, ideas, and personas. Writing, as a symbolic activity in the chiefly symbolic world of school, does not commit students to action in the world. When literate adults make use of their literacy they act in and upon the world. They fill out forms, make proposals, draft regulations, produce scripts and so on. The effects of their writing both defines them in a social role and gives them a degree of control over events in which they are involved. The writing of students need have no such consequences for action in the world and, correspondingly, it does not entail the same kinds of responsibility. "School is not the real world, and so," observes Madeleine Grumet (1988), "it shares the property that Marianne Moore attributes to poetry: 'imaginary gardens with real toads in them'...[where] the child's fantasies can flower in the fictive ground of the curriculum" (p. 162). Children's writing, however, can still be a means of gaining control in the sense of gaining a grasp on their own

experience, beliefs and thoughts.

Through writing, students can safely experiment with opinions, ideas, and personas: take a stance on racial intolerance, for example, justify an affirmative action policy, or describe a day in the life of the school principal. The dynamics of adolescent social relations commonly prevent the living out of desired self-perceptions. In writing, adolescents can begin to articulate and more freely assert that self. They can thus give expression to thoughts and feelings which might otherwise not become present to their consciousness. Of course, others may give expression to those feelings. As we read, we rejoice to find language that constitutes what had been previously seemed inexpressible. We identify with and recognize language that gives voice to our experience. By connecting with and articulating differences between what we hear or read and what we know, we define ourselves. We transform and individualize when we speak for ourselves; by writing, we can develop and fully constitute our individual understanding.

However persuasive these practices as means for developing a complex literacy, they are not merely technical formulae or recipes. As Bereiter and Scardamalia noted in their experimental work, students can subvert and neutralize any teaching strategies. Acts of learning and composing are not achieved by mechanically conforming to a set of

procedures. Going "beyond wherever one happens to be" (1987, p. 26) requires intentional learning, active meaning-making. The intentions, attitudes, beliefs, and values which will nurture and develop a complex literacy must be inherent in the social contexts of literacy learning; that is, in the pattern of relations which illustrate the meaning and uses of literacy in the classroom. It is to the implications of the thesis for the characteristics of that social context that we now turn.

Literacy and Social Context

Throughout the investigation in this thesis, it has been very clear that social context, broadly conceived to include the socio-economic and political activity of a culture and of social groups within that culture, affects the nature and development of literacy. A social context for literacy learning includes all the meanings, beliefs, values, attitudes, habits, purposes, and uses which characterise the literacy available to an individual within a particular social or cultural group. The preceding sections of this chapter have described approaches to talk, texts, and writing which constitute means for creating a social context for school-based literacy learning which is likely to foster a critical, transformative literacy. Much of what we need to attend to in the social context of the classroom, with respect to the features salient to literacy

learning, has thereby been implied in what has gone before. In this section, we shall consider what the thesis implies about the characteristics of relations among learners in the social context of the classroom for the achievement of critical-transformative literacy.

In the world outside school, literacy practices are social practices that arise within the context of aspects of life for particular social groups or communities. Individuals in these groups feel a sense of membership. Their social identity is partly constituted by having in common with the group certain attributes which help to define and distinguish them from other groups. Where forms of literate practice are an attribute, individuals may engage in those practices more or less unconsciously or, when they choose membership, willingly. That is, they will participate because participating is how one acquires, asserts and maintains one's membership. Energy and motivation for participation are activated by feeling and knowing one is a member of the group and by valuing that membership for one's sense of identity.

In school, class groups of students commonly lack shared experience of a culture within which they have developed their sense of community membership and individual identity. Classes tend to be socially and culturally diverse. Students in a typical North American High School do not enter with a common set of habits, assumptions or

attitudes toward learning and literacy. The culture of the school is not merely an institutionalized extension of the culture of the social and ethnic groups to which individual students may belong. Membership in the school culture is not given to all by birth or geography but has to be acquired and interiorized. Of course, a whole complex of factors--which it is not my intent to deal with here--influence individual commitment to seeking and maintaining membership in the culture or cultures represented by a school. What matters for us as teachers is to identify ways in which we can create conditions which will enable students from diverse backgrounds to feel like members of a literacy learning community in the classroom and value that membership for their sense of identity.

The notion of the classroom as a learning community does not fit with the patterns of authority traditional in schools nor with a dump-truck view of learning. It is consistent, however, with the views and practices associated with literacy learning which we have examined in this chapter. In a community, members share a commitment to common general goals; they are emotionally connected to each other; they cooperate rather than compete and are thus positively interdependent; they are all participants. In the many instances we have seen exemplified in historical and ethnographic accounts of literacy development, uses of literacy develop, no matter what the purpose, within

communities of people who collaborate for common interests and goals. The textile workers of the Middle Ages, the pamphleteers in 18th century France and the families in Roadville and Trackton participated as groups in the use of literacy. In the classroom, a community in this sense is fostered when students work collaboratively and cooperatively toward shared goals.

Empirical educational research indicates that what is currently termed "cooperative learning" is as effective for student learning in school as it is for learning outside of school. In a culture where the contents and processes of formal school learning (in respect of intellectual demands--the social consequences of competition rather than cooperation are another matter) are coextensive with non-school learning, the need for cooperative approaches may indeed be less. We know, however, that for a range of reasons beyond the scope of this section to address, that that is not the case for most of our students. They need opportunities to experience demonstrations of how to think through ideas collaboratively. Unless we believe that knowledge exists independent of human minds and that children are empty vessels whose intellect progresses from a state of ignorance toward knowledge, we will make frequent use of cooperative approaches to learning. According to Roger and David Johnson (Brandt, 1987), research in cooperative learning is the "oldest research tradition in

American social psychology....There is probably more evidence validating the use of cooperative learning than there is for any other aspect of education (p. 16).

In a cooperative learning situation, interaction and sharing of ideas among students are encouraged, not viewed as cheating, as is often the case in a classroom where students' successful achievement depends on competing with others. As Michael Holzman (1986) points out, "Only in schools are people who fail to decode a text not helped by those around them" (p. 30). Teachers may structure classwork so that students not only feel an obligation to help each other but perceive that they "sink or swim together," to borrow Johnson and Johnson's image. Organized into small groups, for instance, students may discuss a topic, read and comment on each other's writing, negotiate a process for making or doing something, plan a presentation, analyze a poem, or simply help each other with problems. They will nurture each other's literate capacities as they talk about books together, read parts aloud to each other, accept each other's recommendations for reading and compare their responses. In order to engage in such activities seriously and to accept ideas and judgments from their peers, however, students have to be acculturated to a pattern of relations which distributes authority in the classroom community among all participants, not accords it only to the teacher.

Teaching in classrooms which endeavour to be learning

communities is no longer dominated by teachers' presentations. The teacher demonstrates what we have seen to be literate attitudes and habits and structures lessons so that students enact those habits and attitudes themselves in the classroom. Dialogue was a key concept in many of the approaches suggested earlier in this chapter. In genuine dialogic situations, there is exchange based on due consideration of others' ideas. Teachers who encourage dialogue avoid the "guess what's in my mind" kind of games. They listen carefully to what students have to say, recognize when connections and concepts are being grasped at and help by naming and describing what they hear. They hold off closure in order to invite the elaborating which leads to individual understanding. Teachers promote what Anne Haas Dyson (1989) describes as the "flowing" of language among people: "one must promote in them a sense of collegiality--a feeling of community, of being involved with each other and with common ends" (p. 8).

The teacher's relation with students in this setting is complex. It does not deny his or her mature knowledge and experience and responsibilities as an educator. To suppose that those characteristics should be disguised would be both disingenuous and dishonest. A sense of community cannot be fostered, however, unless everyone involved is seen to share in the common enterprise--to be vulnerable to the pressures, susceptible to the enthusiasms and responsible for the

failures as well as the successes. Teachers who, for instance, write to their own assignments alongside their students from time to time and invite students' comments and suggestions allow themselves to be vulnerable. They do not, of course, deliberately write awkwardly or in imitation of their students. What they show is that writing involves thinking through what you want to say, making choices, reflecting and revising to be more accurate or more effective. In so doing, they teach by modelling a writer's inner dialogue with the text and they participate in the community of writers. Perhaps equally importantly, they show that they value writing and find it personally satisfying and useful.

The teacher in a community of learners does not need to pretend to know everything. In fact, it can sometimes be salutary for teachers not to know or be familiar with some material that will be used or investigated in class. With her Grade Five students, for instance, one teacher spent many months investigating marine mammals. The depth and extent of the children's research gave them an exhaustive knowledge that went far beyond what the teacher or, indeed, spokespeople for "Save the Whales" groups were able to offer. The teacher in that context was genuinely learning with the children and able to share their intense enthusiasm as well as help them to write very sophisticated and detailed accounts of the lives of marine mammals

(Chittenden, 1978). By placing themselves in the position of learner from time to time, teachers may also demonstrate arriving at their individual understanding in a clarifying dialogue with the group. In this way, they are teaching while participating in a collegial way with students.

Teachers can further promote a sense of community by inviting students to participate in decisions and choices about aspects of the curriculum and scheduling of activities. Students thus have an opportunity to exercise judgments which have consequences for themselves and the classroom community. They become jointly responsible and have a shared commitment to what they choose. The teacher does not thereby abdicate responsibility. Rather, the teacher acknowledges that judgments are being made and that he or she does not have all the answers or all the ideas and, perhaps most importantly, assumes that as participants who are constantly learning, students will creatively use what they know in order to further that learning. In a ninth grade world history class, for instance, the teacher (Winterer-Papatassos, 1988) consulted students about their year-end project. One student suggested constructing a history for a land mass inserted into the European continent or for an imagined island in the Mediterranean. It turned out that this was a brilliant way to draw on and synthesize a broad base of historical knowledge about Europe. That students took part in generating and making choices in their

work also enhanced the sense of community.

A sense of community develops when members of a group share a commitment to common goals. Sharing presupposes understanding and exchange. It is when members of the group exchange meanings that they can develop understanding of each other and of what their shared goals entail. In the classroom, as we have already noted, students come from socially diverse backgrounds; they bring with them diverse sets of meanings, values and beliefs. They can exchange those meanings with each other both directly and indirectly. In small groups, they have opportunities to articulate their individual experience and ideas and compare with others. Valuable as such exchange is, it is not sufficient. Until recently, for example, literature study at all levels of schooling was almost exclusively confined to works by men; women's writing was minimally represented, if at all. Girls responding to Hemingway's view of the world had to do so as individuals with single voices as if no cultural points of reference existed with which they could be identified and thus not be dismissed as idiosyncratic. Girls in such situations are vastly outnumbered and prevented from full participation. Not only do they as individuals need to hear their experience given language with which they can identify, they need to be able to share that language with their community. Similarly do students need to be represented from cultural entities differing on bases other

than gender--language, nationality, ethnicity, religion, and so on. To do otherwise is to deny genuine participation to all.

When the social context is constructed to encourage a sense of community, the place of the teacher, as we have seen, becomes more complex. The teacher is a knowledgeable person in the learning community, is able to demonstrate what it means to be knowledgeable, and further, is charged with responsibility for evaluating the growing knowledge and capacities of the other members of the learning community, the apprentices--the students. Implications for evaluation follow from the notion of community. What counts as fitting the intents and standards of the enterprise in which members are engaged is known and understood by all. There are criteria for judging worth and worthiness. The teacher, as the most experienced person, will understand those criteria best and be able to articulate them. It does not behove the teacher, however, to withhold that knowledge and thereby make evaluation seem to be arbitrary or mysterious. Students can be involved in deciding on the bases for making judgments about their work. Knowing what counts helps to reduce students' fear of failure and encourages them to take the risks necessary for growth.

Students at all levels show themselves capable, for instance, of identifying and naming characteristics which distinguish good from poor writing. When working together,

they can establish what characteristics they are aiming for and rate themselves on the degree to which they achieved them. As well, they may add things they discover, but had not thought of in advance. The educational purpose of evaluation, after all, is not only to mark boundaries or set ceilings but to help identify what has been accomplished and what one needs to or wants to do next. Work may also need to be evaluated for such non-learning purposes as reporting a grade to parents or administrators. For this purpose also, the students' judgments can be taken into account. In recent years, many educators have written about the negative effects of competitive grading in the classroom and many schemes developed to help teachers adapt their perspectives and strategies for evaluation to conform with their educational purposes. It is not my purpose to review them here nor to debate the forest of issues that evaluation and grading raise in school. Suffice it to say that as members of the learning community, students need to know which evaluation strategies are being used and for what purposes.

The patterns of interaction and the kinds of relation described here largely constitute the principle elements in the social context which seem important for literacy development. At the most concrete level, however, the use of physical space deserves at least a brief mention. The logistics of interaction among students require flexible seating arrangements. Rows of desks bolted to the floor, all

facing toward a podium, are not conducive to a sense of collegiality. We become intimate, not by staring at others' backs, but by reading the expressions on their faces and hearing their voices directed to us. How we choose to position ourselves physically in relation to others is always a statement about our psychological relation as well. While position can certainly deceive, it can do so only because we make assumptions based on the meaning we attach to it. If students are positioned so that they cannot see and hear each other, they are unlikely to think they are supposed to listen. Unless they listen, they cannot work cooperatively. Of course, the nature of interaction and the tone of relationships are not determined by seating arrangements, but allowing them to be consistent with what is intended is in fact supported by research in group dynamics and, as well, makes ordinary sense.

When we attempt to define a social context for literacy development, we see the need to accommodate all learners in a community that allows them to be active members. We acknowledge the fact that "A society is open to modification and change...by those alive within it, and most effectively by those who belong to it centrally and securely and yet hold new and slightly different views from the ones dominantly accepted" (p. 9) as Niblett (1970) has observed. Being active means asserting difference and generating constructive tension, not being socialized to passivity and

compliance. In establishing contexts for exchanging meanings and arriving at individual interpretations, we thus establish the grounds within which individuals can develop in all their particularity while acknowledging the importance of groups to their sense of identity.

Conclusion: Toward a Conceptual Framework

In this final chapter, I have outlined some of the implications for classroom practice that educators might derive from this thesis. For ease of discussion, I proposed implications in terms of particular aspects of language use, sequentially bringing into focal awareness, as Polanyi terms it, the implications for early language development, for uses of talk, reading and writing, and finally, for the characteristics of the social context of literacy learning. The suggested practices are not intended to be recipes for lessons but illustrations of social patterns and social attitudes which seem to be conducive to literacy learning. As such, they portray the learning community of the classroom as a social situation which is itself the source of learning. That source includes the processes, contents, and purposes which are consistent with the theoretical perspectives elaborated in this thesis. They reflect the assumption that human consciousness is shaped by social interaction or more precisely, as Vygotsky (1978) describes it: "Every function in the child's cultural development

appears twice: first on the social level and later in the individual level... All the higher functions originate as actual relations between human individuals" (p. 57). The general implication to be drawn from the thesis is that there is a necessary relationship between the contents and processes of that social relation and the nature of the literacy: means and ends are inseparable. I wish to conclude with a brief discussion of how we might construe that relationship.

The historical record suggests that under certain conditions societies develop a relation to the world through reading and writing. Mediated by texts and textual forms of knowledge, that relation immensely expands the resources available to the individual and social imagination. Through writing, individuals may develop critical awareness and personal knowledge, thus power to renew the culture and to transform the character of that literate relation. Particular forms of social interaction seem to encourage that development. Through the social interaction, particular cultural knowledge becomes accessible to integration within the individual consciousness wherein is forged the individual's expression of culturally developed forms of that knowledge. The habits, skills, and forms of expression associated with literacy are thus culture and context specific and not fixed. They are not essential, but, as Clifford (1988) remarks of individual identity,

conjunctural. Indeed, the disciplinary perspectives examined in this thesis lead us, I suggest, to locate literacy in the dynamic interaction of technical competencies, cultural-textual knowledge, social contexts, and individual consciousness. The particulars we have been looking at comprise the aggregate of the factors influencing literacy development. As factors, their forms and contents are, as we have seen, variable. But, when constituted in particular ways and brought into dynamic relation, they are capable of fostering critical, transformative literacy.

For the teacher in the classroom, the challenge is to hold a view of that dynamic whole in mind while executing the particulars in practice. For the purposes of literacy development, this means that the teacher needs to be working from within a coherent conceptual framework which is both inclusive and comprehensive. One of the purposes of the thesis, it will be recalled, was to articulate a distinctively educational perspective on literacy. Such a perspective should disarm the appeal of an atheoretical eclecticism in teaching practice while exposing the limitations inherent in practice informed by a single disciplinary theory. Certain sociological perspectives, for instance, tend to overestimate the effects of social forces and underestimate the subversive power of human agency. Psychological perspectives typically concentrate on developing cognitive capacities while neglecting the

affective, imaginative, and intentional dimensions of consciousness. Historical analyses establish relationships among events in time which inform the present but, as accounts of the past, are not intended to be interpretations of the present. While disciplinary theories on literacy development offer us a choice of lenses through which to look at practice, they must be subordinate to educational purposes. Methodologies, no less than theories, also need to be subordinate to educational purposes. Teachers need to be guided by their sense of what they are attempting to accomplish; that is, by their understanding of what literacy and being literate should mean for their students. The theories they draw upon and the methodologies they use will follow from that purpose and be congruent with it.

Teachers, after all, need to be as intentioned in their teaching as students in their learning; in neither does mechanical performance lead to literate practice. By articulating and interiorizing a conceptual framework, teachers have a means with which to critically examine practice and theory and a basis on which to act. When we are concerned with literacy development, we cannot confine ourselves to occasional lessons on the timetable; thinking literacy must be our way of thinking. We will be insistently responsive to what we intend to encourage: "a veritable fireworks of particulars"--in a phrase appropriated from James Britton (1985, p. 76)--from the

emerging literate relationship between individual students and the culture to which we strive to give them access. We will hold a clear view of what it means to be literate as a way of being and relating to the world, while recognizing that what it means is always provisional or it is not literacy.

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