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Writing restructures consciousness

The new world of autonomous discourse

A deeper understanding of pristine or primary orality enables us better to understand the new world of writing, what it truly is, and what functionally literate human beings really are: beings whose thought processes do not grow out of simply natural powers but out of these powers as structured, directly or indirectly, by the technology of writing. Without writing, the literate mind would not and could not think as it does, not only when engaged in writing but normally even when it is composing its thoughts in oral form. More than any other single invention, writing has transformed human consciousness.

Writing establishes what has been called 'context-free' language (Hirsch 1977, pp. 21–3, 26) or 'autonomous' discourse (Olson 1980a), discourse which cannot be directly questioned or contested as oral speech can be because written discourse has been detached from its author.

Oral cultures know a kind of autonomous discourse in fixed ritual formulas (Olson 1980a, pp. 187–94; Chafe 1982), as well as in vatic sayings or prophesies, for which the utterer himself or herself is considered only the channel, not the source. The Delphic oracle was not responsible for her oracular utterances, for they were held to be the voice of the god. Writing, and even more print, has some of this vatic quality. Like the oracle or the

prophet, the book relays an utterance from a source, the one who really 'said' or wrote the book. The author might be challenged if only he or she could be reached, but the author cannot be reached in any book. There is no way directly to refute a text. After absolutely total and devastating refutation, it says exactly the same thing as before. This is one reason why 'the book says' is popularly tantamount to 'it is true'. It is also one reason why books have been burnt. A text stating what the whole world knows is false will state falsehood forever, so long as the text exists. Texts are inherently contumacious.

Plato, writing and computers

Most persons are surprised, and many distressed, to learn that essentially the same objections commonly urged today against computers were urged by Plato in the *Phaedrus* (274–7) and in the *Seventh Letter* against writing. Writing, Plato has Socrates say in the *Phaedrus*, is inhuman, pretending to establish outside the mind what in reality can be only in the mind. It is a thing, a manufactured product. The same of course is said of computers. Secondly, Plato's Socrates urges, writing destroys memory. Those who use writing will become forgetful, relying on an external resource for what they lack in internal resources. Writing weakens the mind. Today, parents and others fear that pocket calculators provide an external resource for what ought to be the internal resource of memorized multiplication tables. Calculators weaken the mind, relieve it of the work that keeps it strong. Thirdly, a written text is basically unresponsive. If you ask a person to explain his or her statement, you can get an explanation; if you ask a text, you get back nothing except the same, often stupid, words which called for your question in the first place. In the modern critique of the computer, the same objection is put, 'Garbage in, garbage out'. Fourthly, in keeping with the agonistic mentality of oral cultures, Plato's Socrates also holds it against writing that the written word cannot defend itself as the natural spoken word can: real speech and thought always exist essentially in a context of give-and-take between real persons. Writing is passive, out of it, in an unreal, unnatural world. So are computers.

A fortiori, print is vulnerable to these same charges. Those

who are disturbed by Plato's misgivings about writing will be even more disturbed to find that print created similar misgivings when it was first introduced. Hieronimo Squarciafico, who in fact promoted the printing of the Latin classics, also argued in 1477 that already 'abundance of books makes men less studious' (quoted in Lowry 1979, pp. 29–31): it destroys memory and enfeebles the mind by relieving it of too much work (the pocket-computer complaint once more), downgrading the wise man and wise woman in favor of the pocket compendium. Of course, others saw print as a welcome leveler: everyone becomes a wise man or woman (Lowry 1979, pp. 31–2).

One weakness in Plato's position was that, to make his objections effective, he put them into writing, just as one weakness in anti-print positions is that their proponents, to make their objections more effective, put the objections into print. The same weakness in anti-computer positions is that, to make them effective, their proponents articulate them in articles or books printed from tapes composed on computer terminals. Writing and print and the computer are all ways of technologizing the word. Once the word is technologized, there is no effective way to criticize what technology has done with it without the aid of the highest technology available. Moreover, the new technology is not merely used to convey the critique: in fact, it brought the critique into existence. Plato's philosophically analytic thought, as has been seen (Havelock 1963), including his critique of writing, was possible only because of the effects that writing was beginning to have on mental processes.

In fact, as Havelock has beautifully shown (1963), Plato's entire epistemology was unwittingly a programmed rejection of the old oral, mobile, warm, personally interactive lifeworld of oral culture (represented by the poets, whom he would not allow in his Republic). The term *idea*, form, is visually based, coming from the same root as the Latin *video*, to see, and such English derivatives as vision, visible, or videotape. Platonic form was form conceived of by analogy with visible form. The Platonic ideas are voiceless, immobile, devoid of all warmth, not interactive but isolated, not part of the human lifeworld at all but utterly above and beyond it. Plato of course was not at all fully aware of the unconscious forces at work in his psyche to

produce this reaction, or overreaction, of the literate person to lingering, retardant orality.

Such considerations alert us to the paradoxes that beset the relationships between the original spoken word and all its technological transformations. The reason for the tantalizing involutions here is obviously that intelligence is relentlessly reflexive, so that even the external tools that it uses to implement its workings become 'internalized', that is, part of its own reflexive process.

One of the most startling paradoxes inherent in writing is its close association with death. This association is suggested in Plato's charge that writing is inhuman, thing-like, and that it destroys memory. It is also abundantly evident in countless references to writing (and/or print) traceable in printed dictionaries of quotations, from 2 Corinthians 3:6, 'The letter kills but the spirit gives life' and Horace's reference to his three books of *Odes* as a 'monument' (*Odes* iii.30.1), presaging his own death, on to and beyond Henry Vaughan's assurance to Sir Thomas Bodley that in the Bodleian Library at Oxford 'every book is thy epitaph'. In *Pippa Passes*, Robert Browning calls attention to the still widespread practice of pressing living flowers to death between the pages of printed books, 'faded yellow blossoms/ twixt page and page'. The dead flower, once alive, is the psychic equivalent of the verbal text. The paradox lies in the fact that the deadness of the text, its removal from the living human lifeworld, its rigid visual fixity, assures its endurance and its potential for being resurrected into limitless living contexts by a potentially infinite number of living readers (Ong 1977, pp. 230–71).

Writing is a technology

Plato was thinking of writing as an external, alien technology, as many people today think of the computer. Because we have by today so deeply interiorized writing, made it so much a part of ourselves, as Plato's age had not yet made it fully a part of itself (Havelock 1963), we find it difficult to consider writing to be a technology as we commonly assume printing and the computer to be. Yet writing (and especially alphabetic writing) is a technology, calling for the use of tools and other equipment:

styli or brushes or pens, carefully prepared surfaces such as paper, animal skins, strips of wood, as well as inks or paints, and much more. Clanchy (1979, pp. 88–115) discusses the matter circumstantially, in its western medieval context, in his chapter entitled 'The technology of writing'. Writing is in a way the most drastic of the three technologies. It initiated what print and computers only continue, the reduction of dynamic sound to quiescent space, the separation of the word from the living present, where alone spoken words can exist.

By contrast with natural, oral speech, writing is completely artificial. There is no way to write 'naturally'. Oral speech is fully natural to human beings in the sense that every human being in every culture who is not physiologically or psychologically impaired learns to talk. Talk implements conscious life but it wells up into consciousness out of unconscious depths, though of course with the conscious as well as unconscious co-operation of society. Grammar rules live in the unconscious in the sense that you can know how to use the rules and even how to set up new rules without being able to state what they are.

Writing or script differs as such from speech in that it does not inevitably well up out of the unconscious. The process of putting spoken language into writing is governed by consciously contrived, articulable rules: for example, a certain pictogram will stand for a certain specific word, or *a* will represent a certain phoneme, *b* another, and so on. (This is not to deny that the writer–reader situation created by writing deeply affects unconscious processes involved in composing in writing, once one has learned the explicit, conscious rules. More about this later.)

To say writing is artificial is not to condemn it but to praise it. Like other artificial creations and indeed more than any other, it is utterly invaluable and indeed essential for the realization of fuller, interior, human potentials. Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word. Such transformations can be uplifting. Writing heightens consciousness. Alienation from a natural milieu can be good for us and indeed is in many ways essential for full human life. To live and to understand fully, we need not only proximity but also distance. This writing provides for consciousness as nothing else does.

Technologies are artificial, but – paradox again – artificiality

is natural to human beings. Technology, properly interiorized, does not degrade human life but on the contrary enhances it. The modern orchestra, for example, is the result of high technology. A violin is an instrument, which is to say a tool. An organ is a huge machine, with sources of power – pumps, bellows, electric generators – totally outside its operator. Beethoven's score for his Fifth Symphony consists of very careful directions to highly trained technicians, specifying exactly how to use their tools. *Legato*: do not take your finger off one key until you have hit the next. *Staccato*: hit the key and take your finger off immediately. And so on. As musicologists well know, it is pointless to object to electronic compositions such as Morton Subotnik's *The Wild Bull* on the grounds that the sounds come out of a mechanical contrivance. What do you think the sounds of an organ come out of? Or the sounds of a violin or even of a whistle? The fact is that by using a mechanical contrivance, a violinist or an organist can express something poignantly human that cannot be expressed without the mechanical contrivance. To achieve such expression of course the violinist or organist has to have interiorized the technology, made the tool or machine a second nature, a psychological part of himself or herself. This calls for years of 'practice', learning how to make the tool do what it can do. Such shaping of a tool to oneself, learning a technological skill, is hardly dehumanizing. The use of a technology can enrich the human psyche, enlarge the human spirit, intensify its interior life. Writing is an even more deeply interiorized technology than instrumental musical performance is. But to understand what it is, which means to understand it in relation to its past, to orality, the fact that it is a technology must be honestly faced.

What is 'writing' or 'script'?

Writing, in the strict sense of the word, the technology which has shaped and powered the intellectual activity of modern man, was a very late development in human history. *Homo sapiens* has been on earth perhaps some 50,000 years (Leakey and Lewin 1979, pp. 141 and 168). The first script, or true writing, that

150,000?

we know, was developed among the Sumerians in Mesopotamia only around the year 3500 BC (Diringer 1953; Gelb 1963).

Human beings had been drawing pictures for countless millennia before this. And various recording devices or *aides-mémoire* had been used by various societies: a notched stick, rows of pebbles, other tallying devices such as the quipu of the Incas (a stick with suspended cords onto which other cords were tied), the 'winter count' calendars of the Native American Plains Indians, and so on. But a script is more than a mere memory aid. Even when it is pictographic, a script is more than pictures. Pictures represent objects. A picture of a man and a house and a tree of itself *says* nothing. (If a proper code or set of conventions is supplied, it might: but a code is not picturable, unless with the help of another unpicturable code. Codes ultimately have to be explained by something more than pictures; that is, either in words or in a total human context, humanly understood.) A script in the sense of true writing, as understood here, does not consist of mere pictures, of representations of things, but is a representation of an *utterance*, of words that someone says or is imagined to say.

It is of course possible to count as 'writing' any semiotic mark, that is, any visible or sensible mark which an individual makes and assigns a meaning to. Thus a simple scratch on a rock or a notch on a stick interpretable only by the one who makes it would be 'writing'. If this is what is meant by writing, the antiquity of writing is perhaps comparable to the antiquity of speech. However, investigations of writing which take 'writing' to mean any visible or sensible mark with an assigned meaning merge writing with purely biological behavior. When does a footprint or a deposit of feces or urine (used by many species of animals for communication – Wilson 1975, pp. 228–9) become 'writing'? Using the term 'writing' in this extended sense to include any semiotic marking trivializes its meaning. The critical and unique breakthrough into new worlds of knowledge was achieved within human consciousness not when simple semiotic marking was devised but when a coded system of visible marks was invented whereby a writer could determine the exact words that the reader would generate from the text. This is what we usually mean today by writing in its sharply focused sense.

With writing or script in this full sense, encoded visible

markings engage words fully so that the exquisitely intricate structures and references evolved in sound can be visibly recorded exactly in their specific complexity and, because visibly recorded, can implement production of still more exquisite structures and references, far surpassing the potentials of oral utterance. Writing, in this ordinary sense, was and is the most momentous of all human technological inventions. It is not a mere appendage to speech. Because it moves speech from the oral–aural to a new sensory world, that of vision, it transforms speech and thought as well. Notches on sticks and other *aides-mémoire* lead up to writing, but they do not restructure the human lifeworld as true writing does.

True writing systems can and usually do develop gradually from a cruder use of mere memory aides. Intermediate stages exist. In some coded systems the writer can predict only approximately what the reader will read off, as in the system developed by the Vai in Liberia (Scribner and Cole 1978) or even in ancient Egyptian hieroglyphics. The tightest control of all is achieved by the alphabet, although even this is never quite perfect in all instances. If I mark a document 'read', this might be a past participle (pronounced to rhyme with 'red') indicating that the document has been gone over, or it might be an imperative (pronounced to rhyme with 'reed') indicating that it is to be gone over. Even with the alphabet, extra-textual context is sometimes needed, but only in exceptional cases – how exceptional will depend on how well the alphabet has been tailored to a given language.

Many scripts but only one alphabet

Many scripts across the world have been developed independently of one another (Diringer 1953; Diringer 1960; Gelb 1963): Mesopotamian cuneiform 3500 BC (approximate dates here from Diringer 1962), Egyptian hieroglyphics 3000 BC (with perhaps some influence from cuneiform), Minoan or Mycenean 'Linear B' 1200 BC, Indus Valley script 3000–2400 BC, Chinese script 1500 BC, Mayan script AD 50, Aztec script AD 1400.

Scripts have complex antecedents. Most if not all scripts trace back directly or indirectly to some sort of picture writing, or, sometimes perhaps, at an even more elemental level, to the use

of tokens. It has been suggested that the cuneiform script of the Sumerians, the first of all known scripts (*c.* 3500 BC), grew at least in part out of a system of recording economic transactions by using clay tokens encased in small, hollow but totally closed pod-like containers or bullae, with indentations on the outside representing the tokens inside (Schmandt-Besserat 1978). Thus the symbols on the outside of the bulla – say, seven indentations – carried with them, inside the bulla, evidence of what they represented – say, seven little clay artefacts distinctively shaped, to represent cows, or ewes or other things not yet decipherable – as though words were always proffered with their concrete significations attached. The economic setting of such prechirographic use of tokens could help associate them with writing, for the first cuneiform script, from the same region as the bullae, whatever its exact antecedents, served mostly workaday economic and administrative purposes in urban societies. Urbanization provided the incentive to develop record keeping. Using writing for imaginative creations, as spoken words have been used in tales or lyric, that is, using writing to produce literature in the more specific sense of this term, comes quite late in the history of script.

Pictures can serve simply as *aides-mémoire*, or they can be equipped with a code enabling them to represent more or less exactly specific words in various grammatical relation to each other. Chinese character writing is still today basically made up of pictures, but pictures stylized and codified in intricate ways which make it certainly the most complex writing system the world has ever known. Pictographic communication such as found among early Native American Indians and many others (Mackay 1978, p. 32) did not develop into a true script because the code remained too unfixed. Pictographic representations of several objects served as a kind of allegorical memorandum for parties who were dealing with certain restricted subjects which helped determine in advance how these particular pictures related to each other. But often, even then, the meaning intended did not come entirely clear.

Out of pictographs (a picture of a tree represents the word for a tree), scripts develop other kinds of symbols. One kind is the ideograph, in which the meaning is a concept not directly represented by the picture but established by code: for example,

in the Chinese pictograph a stylized picture of two trees does not represent the words 'two trees' but the word 'woods'; stylized pictures of a woman and child side-by-side represent the word 'good', and so on. The spoken word for woman is [*ny*], for child [*dzə*], for good [*hau*]: the pictorial etymology, as here, need have no relationship to the phonemic etymology. Writers of Chinese relate to their language quite differently from Chinese speakers who cannot write. In a special sense, numerals such as *1*, *2*, *3* are interlinguistic ideographs (though not pictographs): they represent the same concept but not the same sound in languages which have entirely different words for *1*, *2*, *3*. And even within the lexicon of a given language, the signs *1*, *2*, *3* and so on are in a way connected directly with the concept rather than the word: the words for *1* ('one') and *2* ('two') relate to the concepts '1st' and '2nd' but not to the words 'first' and 'second'.

Another kind of pictograph is rebus writing (the picture of the sole of a foot could represent in English also the fish called a sole, sole in the sense of only, or soul as paired with body; pictures of a mill, a walk, and a key in that order could represent the word 'Milwaukee'). Since at this point the symbol represents primarily a sound, a rebus is a kind of phonogram (sound-symbol), but only mediately: the sound is designated not by an abstract coded sign, as a letter of the alphabet, but by a picture of one of the several things the sound signifies.

All pictographic systems, even with ideographs and rebuses, require a dismaying number of symbols. Chinese is the largest, most complex, and richest: the K'anghsi dictionary of Chinese in AD 1716 lists 40,545 characters. No Chinese or Sinologist knows them all, or ever did. Few Chinese who write can write all of the spoken Chinese words that they can understand. To become significantly learned in the Chinese writing system normally takes some twenty years. Such a script is basically time-consuming and élitist. There can be no doubt that the characters will be replaced by the roman alphabet as soon as all the people in the People's Republic of China master the same Chinese language ('dialect'), the Mandarin now being taught everywhere. The loss to literature will be enormous, but not so enormous as a Chinese typewriter using over 40,000 characters.

One advantage of a basically pictographic system is that persons speaking different Chinese 'dialects' (really different

Chinese languages, mutually incomprehensible, though basically of the same structure) who are unable to understand one another's speech can understand one another's writing. They read off different sounds for the same character (picture), somewhat as a Frenchman and a Luba and a Vietnamese and an Englishman will know what each other means by the Arabic numerals 1, 2, 3, and so on, but will not recognize the numeral if pronounced by one of the others. (However, the Chinese characters are basically pictures, though exquisitely stylized, as 1, 2, 3 are not.)

Some languages are written in syllabaries, in which each sign represents a consonant and a following vowel sound. Thus the Japanese Katakana syllabary has five separate symbols respectively for *ka*, *ke*, *ki*, *ko*, *ku*, five others for *ma*, *me*, *mi*, *mo*, *mu*, and so on. The Japanese language happens to be so constituted that it can utilize a syllabary script: its words are made up of parts always consisting of a consonantal sound followed by a vowel sound (*n* functions as a quasi-syllable), with no consonant clusters (as in 'pitchfork', 'equipment'). With its many different kinds of syllables, and its frequent consonant clusters, English could not be effectively managed in a syllabary. Some syllabaries are less developed than Japanese. In that of the Vai in Nigeria, for example, there is not a full one-to-one correspondence between the visual symbols and the units of sound. The writing provides only a kind of map to the utterance it registers, and it is very difficult to read, even for a skilled scribe (Scribner and Cole 1978, p. 456).

Many writing systems are in fact hybrid systems, mixing two or more principles. The Japanese system is hybrid (besides a syllabary, it uses Chinese characters, pronounced in its own non-Chinese way); the Korean system is hybrid (besides *hangul*, a true alphabet, perhaps the most efficient of all alphabets, it uses Chinese characters pronounced *its* own way); the ancient Egyptian hieroglyphic system was hybrid (some symbols were pictographs, some ideographs, some rebuses); Chinese character writing itself is hybrid (mixed pictographs, ideographs, rebuses, and various combinations, often of extreme complexity, cultural richness and poetic beauty). Indeed, because of the tendency of scripts to start with pictographs and move to ideographs and rebuses, perhaps most writing systems other than the alphabet are to some degree hybrid. And even alphabetic writing becomes hybrid when it writes *1* instead of *one*.

The most remarkable fact about the alphabet no doubt is that it was invented only once. It was worked up by a Semitic people or Semitic peoples around the year 1500 BC, in the same general geographic area where the first of all scripts appeared, the cuneiform, but two millennia later than the cuneiform. (Diringer 1962, pp. 121–2, discusses the two variants of the original alphabet, the North Semitic and the South Semitic.) Every alphabet in the world – Hebrew, Ugaritic, Greek, Roman, Cyrillic, Arabic, Tamil, Malayalam, Korean – derives in one way or another from the original Semitic development, though, as in Ugaritic and Korean script, the physical design of the letters may not always be related to the Semitic design.

Hebrew and other Semitic languages, such as Arabic, do not to this day have letters for vowels. A Hebrew newspaper or book still today prints only consonants (and so-called semi-vowels [j] and [w], which are in effect the consonantal forms of [i] and [u]): if we were to follow Hebrew usage in English we would write and print 'cnsnts' for 'consonants'. The letter aleph, adapted by the ancient Greeks to indicate the vowel alpha, which became our roman 'a', is not a vowel but a consonant in Hebrew and other Semitic alphabets, representing a glottal stop (the sound between the two vowel sounds in the English 'huh-uh', meaning 'no'). Late in the history of the Hebrew alphabet, vowel 'points', little dots and dashes below or above the letters to indicate the proper vowel, were added to many texts, often for the benefit of those who did not know the language very well, and today in Israel these 'points' are added to words for very young children learning to read – up to the third grade or so. Languages are organized in many different ways, and the Semitic languages are so constituted that they are easy to read when words are written only with consonants.

This way of writing only with consonants and semi-consonants (*y* as in 'you', *w*) has led some linguists (Gelb 1963; Havelock 1963, p. 129) to call what other linguists call the Hebrew alphabet a syllabary, or perhaps an unvocalized or 'reduced' syllabary. However, it appears somewhat awkward to think of the Hebrew letter beth (*b*) as a syllable when it in fact simply represents the phoneme [b], to which the reader has to

add whatever vowel sound the word and context call for. Besides, when vowel points are used, they are added to the letters (above or below the line) just as vowels are added to our consonants. And modern Israelis and Arabs, who agree on so little else, both generally agree that both are writing letters in an alphabet. For an understanding of the development of writing out of orality, it appears at least unobjectionable to think of the Semitic script simply as an alphabet of consonants (and semivowels) for which readers, as they read, simply and easily supply the appropriate vowels.

When this is all said, however, about the Semitic alphabet, it does appear that the Greeks did something of major psychological importance when they developed the first alphabet complete with vowels. Havelock (1976) believes that this crucial, more nearly total transformation of the word from sound to sight gave ancient Greek culture its intellectual ascendancy over other ancient cultures. The reader of Semitic writing had to draw on non-textual as well as textual data: he had to know the language he was reading in order to know what vowels to supply between the consonants. Semitic writing was still very much immersed in the non-textual human lifeworld. The vocalic Greek alphabet was more remote from that world (as Plato's ideas were to be). It analyzed sound more abstractly into purely spatial components. It could be used to write or read words even from languages one did not know (allowing for some inaccuracies due to phonemic differences between languages). Little children could acquire the Greek alphabet when they were very young and their vocabulary limited. (It has just been noted that for Israeli schoolchildren to about the third grade vowel 'points' have to be added to the ordinary consonantal Hebrew script.) The Greek alphabet was democratizing in the sense that it was easy for everyone to learn. It was also internationalizing in that it provided a way of processing even foreign tongues. This Greek achievement in abstractly analyzing the elusive world of sound into visual equivalents (not perfectly, of course, but in effect fully) both presaged and implemented their further analytic exploits.

It appears that the structure of the Greek language, the fact that it was not based on a system like the Semitic that was hospitable to omission of vowels from writing, turned out

to be a perhaps accidental but crucial intellectual advantage. Kerckhove (1981) has suggested that, more than other writing systems, the completely phonetic alphabet favors left-hemisphere activity in the brain, and thus on neurophysiological grounds fosters abstract, analytic thought.

The reason why the alphabet was invented so late and why it was invented only once can be sensed if we reflect on the nature of sound. For the alphabet operates more directly on sound as sound than the other scripts, reducing sound directly to spatial equivalents, and in smaller, more analytic, more manageable units than a syllabary: instead of one symbol for the sound *ba*, you have two, *b* plus *a*.

Sound, as has earlier been explained, exists only when it is going out of existence. I cannot have all of a word present at once: when I say 'existence', by the time I get to the '-tence', the 'exis-' is gone. The alphabet implies that matters are otherwise, that a word is a thing, not an event, that it is present all at once, and that it can be cut up into little pieces, which can even be written forwards and pronounced backwards: 'p-a-r-t' can be pronounced 'trap'. If you put the word 'part' on a sound tape and reverse the tape, you do not get 'trap', but a completely different sound, neither 'part' nor 'trap'. A picture, say, of a bird does not reduce sound to space, for it represents an object, not a word. It will be the equivalent of any number of words, depending on the language used to interpret it: *oiseau*, *uccello*, *pájaro*, *Vogel*, *sae*, *tori*, 'bird'.

All script represents words as in some way things, quiescent objects, immobile marks for assimilation by vision. Rebuses or phonograms, which occur irregularly in some pictographic writing, represent the sound of one word by the picture of another (the 'sole' of a foot representing the 'soul' as paired with body, in the fictitious example used above). But the rebus (phonogram), though it may represent several things, is still a picture of one of the things it represents. The alphabet, though it probably derives from pictograms, has lost all connection with things as things. It represents sound itself as a thing, transforming the evanescent world of sound to the quiescent, quasi-permanent world of space.

The phonetic alphabet invented by ancient Semites and perfected by ancient Greeks, is by far the most adaptable of all

writing systems in reducing sound to visible form. It is perhaps also the least aesthetic of all major writing systems: it can be beautifully designed, but never so exquisitely as Chinese characters. It is a democratizing script, easy for everybody to learn. Chinese character writing, like many other writing systems, is intrinsically élitist: to master it thoroughly requires protracted leisure. The democratizing quality of the alphabet can be seen in South Korea. In Korean books and newspapers the text is a mixture of alphabetically spelt words and hundreds of different Chinese characters. But all public signs are always written in the alphabet alone, which virtually everyone can read since it is completely mastered in the lower grades of elementary school, whereas the 1800 *han*, or Chinese characters, minimally needed besides the alphabet for reading most literature in Korean, are not commonly all mastered before the end of secondary school.

Perhaps the most remarkable single achievement in the history of the alphabet was in Korea, where in AD 1443 King Sejong of the Yi Dynasty decreed that an alphabet should be devised for Korean. Up to that time Korean had been written only with Chinese characters, laboriously adapted to fit (and interact with) the vocabulary of Korean, a language not at all related to Chinese (though it has many Chinese loan words, mostly so Koreanized as to be incomprehensible to any Chinese). Thousands upon thousands of Koreans – all Koreans who could write – had spent or were spending the better part of their lives mastering the complicated Sino-Korean chirography. They were hardly likely to welcome a new writing system which would render their laboriously acquired skills obsolete. But the Yi Dynasty was powerful and Sejong's decree in the face of massive anticipated resistance suggests that he had comparably powerful ego structures. The accommodation of the alphabet to a given language has generally taken many years, or generations. Sejong's assembly of scholars had the Korean alphabet ready in three years, a masterful achievement, virtually perfect in its accommodation to Korean phonemics and aesthetically designed to produce an alphabetic script with something of the appearance of a text in Chinese characters. But the reception of this remarkable achievement was predictable. The alphabet was used only for unscholarly, practical, vulgarian purposes. 'Serious' writers continued to use the Chinese

character writing in which they had so laboriously trained themselves. Serious literature was élitist and wanted to be known as élitist. Only in the twentieth century, with the greater democratization of Korea, did the alphabet achieve its present (still less than total) ascendancy.

The onset of literacy

When a fully formed script of any sort, alphabetic or other, first makes its way from outside into a particular society, it does so necessarily at first in restricted sectors and with varying effects and implications. Writing is often regarded at first as an instrument of secret and magic power (Goody 1968b, p. 236). Traces of this early attitude toward writing can still show etymologically: the Middle English 'grammarye' or grammar, referring to book-learning, came to mean occult or magical lore, and through one Scottish dialectical form has emerged in our present English vocabulary as 'glamor' (spell-casting power). 'Glamor girls' are really grammar girls. The futhark or runic alphabet of medieval North Europe was commonly associated with magic. Scraps of writing are used as magic amulets (Goody 1968b, pp. 201–3), but they also can be valued simply because of the wonderful permanence they confer on words. The Nigerian novelist Chinua Achebe describes how in an Ibo village the one man who knew how to read hoarded in his house every bit of printed material that came his way – newspapers, cartons, receipts (Achebe 1961, pp. 120–1). It all seemed too remarkable to throw away.

Some societies of limited literacy have regarded writing as dangerous to the unwary reader, demanding a guru-like figure to mediate between reader and text (Goody and Watt 1968, p. 13). Literacy can be restricted to special groups such as the clergy (Tambiah 1968, pp. 113–4). Texts can be felt to have intrinsic religious value: illiterates profit from rubbing the book on their foreheads, or from whirling prayer-wheels bearing texts they cannot read (Goody 1968a, pp. 15–16). Tibetan monks used to sit on the banks of streams 'printing pages of charms and formulas on the surface of the water with woodcut blocks' (Goody 1968a, p. 16, quoting R. B. Eckvall). The still flourishing 'cargo cults' of some South Pacific islands are well

known: illiterates or semi-literates think that the commercial papers – orders, bills of lading, receipts, and the like – that they know figure in shipping operations are magical instruments to make ships and cargo come in from across the sea, and they elaborate various rituals manipulating written texts in the hope that cargo will turn up for their own possession and use (Meggitt 1968, pp. 300–9). In ancient Greek culture Havelock discovers a general pattern of restricted literacy applicable to many other cultures: shortly after the introduction of writing a 'craft literacy' develops (Havelock 1963; cf. Havelock and Herschell 1978). At this stage writing is a trade practiced by craftsmen, whom others hire to write a letter or document as they might hire a stone-mason to build a house, or a shipwright to build a boat. Such was the state of affairs in West African kingdoms, such as Mali, from the Middle Ages into the twentieth century (Wilks 1968; Goody 1968b). At such a craft-literacy stage, there is no need for an individual to know reading and writing any more than any other trade. Only around Plato's time in ancient Greece, more than three centuries after the introduction of the Greek alphabet, was this stage transcended when writing was finally diffused through the Greek population and interiorized enough to affect thought processes generally (Havelock 1963).

The physical properties of early writing materials encouraged the continuance of scribal culture (see Clanchy 1979, pp. 88–115, on 'The technology of writing'). Instead of evenly-surfaced machine-made paper and relatively durable ball-point pens, the early writer had more recalcitrant technological equipment. For writing surfaces, he had wet clay bricks, animal skins (parchment, vellum) scraped free of fat and hair, often smoothed with pumice and whitened with chalk, frequently reprocessed by scraping off an earlier text (palimpsests). Or he had the bark of trees, papyrus (better than most surfaces but still rough by high-technology standards), dried leaves or other vegetation, wax layered onto wooden tables often hinged to form a diptych worn on a belt (these wax tablets were used for notes, the wax being smoothed over again for re-use), wooden rods (Clanchy 1979, p. 95) and other wooden and stone surfaces of various sorts. There were no corner stationery stores selling pads of paper. There was no paper. As inscribing tools the

scribes had various kinds of styli, goose quills which had to be slit and sharpened over and over again with what we still call a 'pen knife', brushes (particularly in East Asia), or various other instruments for incising surfaces and/or spreading inks or paints. Fluid inks were mixed in various ways and readied for use into hollow bovine horns (inkhorns) or in other acid-resistant containers, or, commonly in East Asia, brushes were wetted and dabbed on dry ink blocks, as in watercolor painting.

Special mechanical skills were required for working with such writing materials, and not all 'writers' had such skills suitably developed for protracted composition. Paper made writing physically easier. But paper, manufactured in China probably by the second century BC and diffused by Arabs to the Middle East by the eighth century of the Christian era, was first manufactured in Europe only in the twelfth century.

Longstanding oral mental habits of thinking through one's thoughts aloud encourages dictation, but so did the state of writing technology. In the physical act of writing, the medieval Englishman Orderic Vitalis says, 'the whole body labors' (Clanchy 1979, p. 90). Through the Middle Ages in Europe authors often employed scribes. Composition in writing, working out one's thought pen-in-hand, particularly in briefer compositions, was, of course, practiced to some extent from antiquity, but it became widespread for literary and other prolonged composition at different times in different cultures. It was still rare in eleventh-century England, and, when it occurred, even this late, could be done in a psychological setting so oral that we find it hard to imagine. The eleventh-century Eadmer of St Albans says that, when he composed in writing, he felt he was dictating to himself (Clanchy 1979, p. 218). St Thomas Aquinas, who wrote his own manuscripts, organizes his *Summa theologiae* in quasi-oral format: each section or 'question' begins with a recitation of objections against the position Thomas will take, then Thomas states his position, and finally answers the objections in order. Similarly, an early poet would write down a poem by imagining himself declaiming it to an audience. Few if any novelists today write a novel by imagining themselves declaiming it aloud, though they might be exquisitely aware of the sound effects of the words. High literacy fosters truly written composition, in which the author composes a text which is

precisely a text, puts his or her words together on paper. This gives thought different contours from those of orally sustained thought. More will be said (that is, written) here later about the effects of literacy on thought processes.

From memory to written records

Long after a culture has begun to use writing, it may still not give writing high ratings. A present-day literate usually assumes that written records have more force than spoken words as evidence of a long-past state of affairs, especially in court. Earlier cultures that knew literacy but had not so fully interiorized it, have often assumed quite the opposite. The amount of credence accorded to written records undoubtedly varied from culture to culture, but Clanchy's careful case history of the use of literacy for practical administrative purposes in eleventh- and twelfth-century England (1979) gives an informative sample of how much orality could linger in the presence of writing, even in an administrative milieu.

In the period he studies, Clanchy finds that 'documents did not immediately inspire trust' (Clanchy 1979, p. 230). People had to be persuaded that writing improved the old oral methods sufficiently to warrant all the expense and troublesome techniques it involved. Before the use of documents, collective oral testimony was commonly used to establish, for example, the age of feudal heirs. To settle a dispute in 1127 as to whether the customs dues at the port of Sandwich went to St Augustine's Abbey at Canterbury or to Christ Church, a jury was chosen consisting of twelve men from Dover and twelve from Sandwich, 'mature, wise seniors of many years, having good testimony'. Each juror then swore that, as 'I have received from my ancestors, and I have seen and heard from my youth', the tolls belong to Christ Church (Clanchy 1979, pp. 232–3). They were publicly remembering what others before them had remembered.

Witnesses were *prima facie* more credible than texts because they could be challenged and made to defend their statements, whereas texts could not (this, it will be recalled, was exactly one of Plato's objections to writing). Notarial methods of authenticating documents undertake to build authenticating mechanisms into written texts, but notarial methods develop late in literate cultures, and much later in England than in Italy (Clanchy 1979, pp. 235–6). Written documents themselves were often authenticated not in writing but by symbolic objects (such as a knife, attached to the document by a parchment thong – Clanchy 1979, p. 24). Indeed symbolic objects alone could serve as instruments transferring property. In *c.* 1130, Thomas de Muschamps conveyed his estate of Hetherslaw to the monks at Durham by offering his sword on an altar (Clanchy 1979, p. 25). Even after the Domesday Book (1085–6) and the accompanying increase in written documentation, the story of the Earle Warrenne shows how the old oral state of mind still persisted: before the judges in quo warranto procedures under Edward I (reigned 1272–1306), the Earle Warrenne exhibited not a charter but 'an ancient and rusty sword', protesting that his ancestors had come with William the Conqueror to take England by the sword and that he would defend his lands with the sword. Clanchy points out (1979, pp. 21–2) that the story is somewhat questionable because of certain inconsistencies, but notes also that its persistence attests to an earlier state of mind familiar with the witness value of symbolic gifts.

Early charters conveying land in England were originally not even dated (1979, pp. 231, 236–41), probably for a variety of reasons. Clanchy suggests that the most profound reason was probably that 'dating required the scribe to express an opinion about his place in time' (1979, p. 238), which demanded that he choose a point of reference. What point? Was he to locate this document by reference to the creation of the world? To the Crucifixion? To the birth of Christ? Popes dated documents this way, from Christ's birth, but was it presumptuous to date a secular document as popes dated theirs? In high technology cultures today, everyone lives each day in a frame of abstract computed time enforced by millions of printed calendars, clocks, and watches. In twelfth-century England there were no clocks or watches or wall or desk calendars.

Before writing was deeply interiorized by print, people did not feel themselves situated every moment of their lives in abstract computed time of any sort. It appears unlikely that most persons in medieval or even Renaissance western Europe

would ordinarily have been aware of the number of the current calendar year – from the birth of Christ or any other point in the past. Why should they be? Indecision concerning what point to compute from attested the trivialities of the issue. In a culture with no newspapers or other currently dated material to impinge on consciousness, what would be the point for most people in knowing the current calendar year? The abstract calendar number would relate to nothing in real life. Most persons did not know and never even tried to discover in what calendar year they had been born.

Moreover, charters were undoubtedly assimilated somewhat to symbolic gifts, such as knives or swords. These were identifiable by their looks. And indeed, charters were quite regularly forged to make them look like what a court (however erroneously) felt a charter should look like (Clanchy 1979, p. 249, citing P. H. Sawyer). 'Forgers', Clanchy points out, were not 'occasional deviants on the peripheries of legal practice' but 'experts entrenched at the centre of literary and intellectual culture in the twelfth century.' Of the 164 now extant charters of Edward the Confessor, 44 are certainly forged, only 64 certainly authentic, and the rest uncertainly one or the other.

The verifiable errors resulting from the still radically oral economic and juridical procedures that Clanchy reports were minimal because the fuller past was mostly inaccessible to consciousness. 'Remembered truth was . . . flexible and up to date' (Clanchy 1979, p. 233). As has been seen in instances from modern Nigeria and Ghana (Goody and Watt 1968, pp. 31–4), in an oral economy of thought, matters from the past without any sort of present relevance commonly dropped into oblivion. Customary law, trimmed of material no longer of use, was automatically always up-to-date and thus youthful – a fact which, paradoxically, makes customary law seem inevitable and thus very old (cf. Clanchy 1979, p. 233). Persons whose world view has been formed by high literacy need to remind themselves that in functionally oral cultures the past is not felt as an itemized terrain, peppered with verifiable and disputed 'facts' or bits of information. It is the domain of the ancestors, a resonant source for renewing awareness of present existence, which itself is not an itemized terrain either. Orality knows no lists or charts or figures.

Goody (1977, pp. 52–111) has examined in detail the noetic significance of tables and lists, of which the calendar is one example. Writing makes such apparatus possible. Indeed, writing was in a sense invented largely to make something like lists: by far most of the earliest writing we know, that in the cuneiform script of the Sumerians beginning around 3500 BC, is account-keeping. Primary oral cultures commonly situate their equivalent of lists in narrative, as in the catalogue of the ships and captains in the *Iliad* (ii. 461–879) – not an objective tally but an operational display in a story about a war. In the text of the Torah, which set down in writing thought forms still basically oral, the equivalent of geography (establishing the relationship of one place to another) is put into a formulary action narrative (Numbers 33:16 ff.): 'Setting out from the desert of Sinai, they camped at Kibroth-hattaavah. Setting out from Kibroth-hattaavah, they camped at Hazeroth. Setting out from Hazeroth, they camped at Rithmah . . .', and so on for many more verses. Even genealogies out of such orally framed tradition are in effect commonly narrative. Instead of a recitation of names, we find a sequence of 'begats', of statements of what someone did: 'Irad begat Mahajael, Mehajael begat Methusael, Methusael begat Lamech' (Genesis 4:18). This sort of aggregation derives partly from the oral drive to use formulas, partly from the oral mnemonic drive to exploit balance (recurrence of subject-predicate-object produces a swing which aids recall and which a mere sequence of names would lack), partly from the oral drive to redundancy (each person is mentioned twice, as begetter and begotten), and partly from the oral drive to narrate rather than simply to juxtapose (the persons are not immobilized as in a police line-up, but are doing something – namely, begetting).

These biblical passages obviously are written records, but they come from an orally constituted sensibility and tradition. They are not felt as thing-like, but as reconstitutions of events in time. Orally presented sequences are always occurrences in time, impossible to 'examine', because they are not presented visually but rather are utterances which are heard. In a primary oral culture or a culture with heavy oral residue, even genealogies are not 'lists' of data but rather 'memory of songs sung'. Texts are thing-like, immobilized in visual space, subject to

what Goody calls 'backward scanning' (1977, pp. 49–50). Goody shows in detail how, when anthropologists display on a written or printed surface lists of various items found in oral myths (clans, regions of the earth, kinds of winds, and so on), they actually deform the mental world in which the myths have their own existence. The satisfaction that myths provide is essentially not 'coherent' in a tabular way.

Lists of the sort Goody discusses are of course useful if we are reflectively aware of the distortion they inevitably introduce. Visual presentation of verbalized material in space has its own particular economy, its own laws of motion and structure. Texts in various scripts around the world are read variously from right to left, or left to right, or top to bottom, or all these ways at once as in boustrophedon writing, but never anywhere, so far as is known, from bottom to top. Texts assimilate utterance to the human body. They introduce a feeling for 'headings' in accumulations of knowledge: 'chapter' derives from the Latin *caput*, meaning head (as of the human body). Pages have not only 'heads' but also 'feet', for footnotes. References are given to what is 'above' and 'below' in a text when what is meant is several pages back or farther on. The significance of the vertical and the horizontal in texts deserves serious study. Kerckhove (1981, pp. 10–11 in proofs) suggests that growth in left-hemisphere dominance governed the drift in early Greek writing from right-to-left movement, to boustrophedon movement ('ox-plowing' pattern, one line going right, then a turn around a corner into the next line going left, the letters inverted according to the direction of the line), to *stoichedon* style (vertical lines), and finally to definitive left-to-right movement on a horizontal line. All this is quite a different world of order from anything in the oral sensibility, which has no way of operating with 'headings' or verbal linearity. Across the world the alphabet, the ruthlessly efficient reducer of sound to space, is pressed into direct service for setting up the new space-defined sequences: items are marked *a*, *b*, *c*, and so on to indicate their sequences, and even poems in the early days of literacy are composed with the first letter of the first word of successive lines following the order of the alphabet. The alphabet as a simple sequence of letters is a major bridge between oral mnemonic and literate mnemonics: generally the sequence of the letters of the alphabet is memorized orally and then used for largely visual retrieval of materials, as in indexes.

Charts, which range elements of thought not simply in one line of rank but simultaneously in horizontal and various criss-cross orders, represent a frame of thought even farther removed than lists are from the oral noetic processes which such charts are supposed to represent. The extensive use of lists and particularly of charts so commonplace in our high-technology cultures is a result not simply of writing, but of the deep interiorization of print (Ong 1958b, pp. 307–18, and *passim*), which implements the use of fixed diagrammatic word-charts and other informational uses of neutral space far beyond anything feasible in any writing culture.

Some dynamics of textuality

The condition of words in a text is quite different from their condition in spoken discourse. Although they refer to sounds and are meaningless unless they can be related – externally or in the imagination – to the sounds or, more precisely, the phonemes they encode, written words are isolated from the fuller context in which spoken words come into being. The word in its natural, oral habitat is a part of a real, existential present. Spoken utterance is addressed by a real, living person to another real, living person or real, living persons, at a specific time in a real setting which includes always much more than mere words. Spoken words are always modifications of a total situation which is more than verbal. They never occur alone, in a context simply of words.

Yet words are alone in a text. Moreover, in composing a text, in 'writing' something, the one producing the written utterance is also alone. Writing is a solipsistic operation. I am writing a book which I hope will be read by hundreds of thousands of people, so I must be isolated from everyone. While writing the present book, I have left word that I am 'out' for hours and days – so that no one, including persons who will presumably read the book, can interrupt my solitude.

In a text even the words that are there lack their full phonetic qualities. In oral speech, a word must have one or another intonation or tone of voice – lively, excited, quiet, incensed,

resigned, or whatever. It is impossible to speak a word orally without any intonation. In a text punctuation can signal tone minimally: a question mark or a comma, for example, generally calls for the voice to be raised a bit. Literate tradition, adopted and adapted by skilled critics, can also supply some extratextual clues for intonations, but not complete ones. Actors spend hours determining how actually to utter the words in the text before them. A given passage might be delivered by one actor in a shout, by another in a whisper.

Extratextual context is missing not only for readers but also for the writer. Lack of verifiable context is what makes writing normally so much more agonizing an activity than oral presentation to a real audience. 'The writer's audience is always a fiction' (Ong 1977, pp. 53–81). The writer must set up a role in which absent and often unknown readers can cast themselves. Even in writing to a close friend I have to fictionalize a mood for him, to which he is expected to conform. The reader must also fictionalize the writer. When my friend reads my letter, I may be in an entirely different frame of mind from when I wrote it. Indeed, I may very well be dead. For a text to convey its message, it does not matter whether the author is dead or alive. Most books extant today were written by persons now dead. Spoken utterance comes only from the living.

Even in a personal diary addressed to myself I must fictionalize the addressee. Indeed, the diary demands, in a way, the maximum fictionalizing of the utterer and the addressee. Writing is always a kind of imitation talking, and in a diary I therefore am pretending that I am talking to myself. But I never really talk this way to myself. Nor could I without writing or indeed without print. The personal diary is a very late literary form, in effect unknown until the seventeenth century (Boerner 1969). The kind of verbalized solipsistic reveries it implies are a product of consciousness as shaped by print culture. And for which self am I writing? Myself today? As I think I will be ten years from now? As I hope I will be? For myself as I imagine myself or hope others may imagine me? Questions such as this can and do fill diary writers with anxieties and often enough lead to discontinuation of diaries. The diarist can no longer live with his or her fiction.

The ways in which readers are fictionalized is the underside

of literary history, of which the topside is the history of genres and the handling of character and plot. Early writing provides the reader with conspicuous helps for situating himself imaginatively. It presents philosophical material in dialogues, such as those of Plato's Socrates, which the reader can imagine himself overhearing. Or episodes are to be imagined as told to a live audience on successive days. Later, in the Middle Ages, writing will present philosophical and theological texts in objection-and-response form, so that the reader can imagine an oral disputation. Boccaccio and Chaucer will provide the reader with fictional groups of men and women telling stories to one another, that is, a 'frame story', so that the reader can pretend to be one of the listening company. But who is talking to whom in *Pride and Prejudice* or in *Le Rouge et le noir*, or in *Adam Bede*? Nineteenth-century novelists self-consciously intone, 'dear reader', over and over again to remind themselves that they are not telling a story but writing one in which both author and reader are having difficulty situating themselves. The psychodynamics of writing matured very slowly in narrative.

And what is the reader supposed to make himself out to be in *Finnegans Wake*? Only a reader. But of a special fictional sort. Most readers of English cannot or will not make themselves into the special kind of reader Joyce demands. Some take courses in universities to learn how to fictionalize themselves *à la* Joyce. Although Joyce's text is very oral in the sense that it reads well aloud, the voice and its hearer do not fit into any imaginable real-life setting, but only the imaginative setting of *Finnegans Wake*, which is imaginable only because of the writing and print that has gone before it. *Finnegans Wake* was composed in writing, but for print: with its idiosyncratic spelling and usages, it would be virtually impossible to multiply it accurately in handwritten copies. There is no mimesis here in Aristotle's sense, except ironically. Writing is indeed the seedbed of irony, and the longer the writing (and print) tradition endures, the heavier the ironic growth becomes (Ong 1971, pp. 272–302).

Distance, precision, grapholects and magnavocabularies

The distancing which writing effects develops a new kind of precision in verbalization by removing it from the rich but

chaotic existential context of much oral utterance. Oral performances can be impressive in their magniloquence and communal wisdom, whether they are lengthy, as in formal narrative, or brief and apophthegmatic, as in proverbs. Yet wisdom has to do with a total and relatively infrangible social context. Orally managed language and thought is not noted for analytic precision.

Of course, all language and thought is to some degree analytic: it breaks down the dense continuum of experience. William James's 'big, blooming, buzzing confusion', into more or less separate parts, meaningful segments. But written words sharpen analysis, for the individual words are called on to do more. To make yourself clear without gesture, without facial expression, without intonation, without a real hearer, you have to foresee circumspectly all possible meanings a statement may have for any possible reader in any possible situation, and you have to make your language work so as to come clear all by itself, with no existential context. The need for this exquisite circumspection makes writing the agonizing work it commonly is.

What Goody (1977, p. 128) calls 'backward scanning' makes it possible in writing to eliminate inconsistencies (Goody 1977, pp. 49–50), to choose between words with a reflective selectivity that invests thought and words with new discriminatory powers. In an oral culture, the flow of words, the corresponding flood of thought, the *copia* advocated in Europe by rhetoricians from classical antiquity through the Renaissance, tends to manage discrepancies by glossing them over – the etymology here is telling, *glossa*, tongue, by 'tonguing' them over. With writing, words once 'uttered', outered, put down on the surface, can be eliminated, erased, changed. There is no equivalent for this in an oral performance, no way to erase a spoken word: corrections do not remove an infelicity or an error, they merely supplement it with denial and patchwork. The *bricolage* or patchwork that Lévi-Strauss (1966, 1970) finds characteristic of 'primitive' or 'savage' thought patterns can be seen here to be due to the oral noetic situation. Corrections in oral performance tend to be counterproductive, to render the speaker unconvincing. So you keep them to a minimum or avoid them altogether. In writing, corrections can be tremendously productive, for how can the reader know they have even been made?

Of course, once the chirographically initiated feel for precision and analytic exactitude is interiorized, it can feed back into speech, and does. Although Plato's thought is couched in dialogue form, its exquisite precision is due to the effects of writing on the noetic processes, for the dialogues are in fact written texts. Through a chirographically managed text couched in dialogue form, they move dialectically toward the analytic clarification of issues which Socrates and Plato had inherited in more 'totalized', non-analytic, narratized, oral form.

In *The Greek Concept of Justice: From Its Shadow in Homer to Its Substance in Plato* (1978a), Havelock has treated the movement which Plato's work brought to a head. Nothing of Plato's analytic targeting on an abstract concept of justice is to be found in any known purely oral cultures. Similarly, the deadly targeting on issues and on adversaries' weaknesses in Cicero's orations is the work of a literate mind, although we know that Cicero did not compose his orations in script before he gave them but wrote down afterwards the texts that we now have (Ong 1967b, pp. 56–7). The exquisitely analytic oral disputations in medieval universities and in later scholastic tradition into the present century (Ong 1981, pp. 137–8) were the work of minds honed by writing texts and by reading and commenting on texts, orally and in writing.

By separating the knower from the known (Havelock 1963), writing makes possible increasingly articulate introspectivity, opening the psyche as never before not only to the external objective world quite distinct from itself but also to the interior self against whom the objective world is set. Writing makes possible the great introspective religious traditions such as Buddhism, Judaism, Christianity, and Islam. All these have sacred texts. The ancient Greeks and Romans knew writing and used it, particularly the Greeks, to elaborate philosophical and scientific knowledge. But they developed no sacred texts comparable to the Vedas or the Bible or the Koran, and their religion failed to establish itself in the recesses of the psyche which writing had opened for them. It became only a genteel, archaic literary resource for writers such as Ovid and a framework of external observances, lacking urgent personal meaning.

Writing develops codes in a language different from oral codes in the same language. Basil Bernstein (1974, pp. 134-5, 176, 181, 197–8) distinguishes the 'restricted linguistic code' or 'public language' of the lower-class English dialects in Britain and the 'elaborated linguistic code' or 'private language' of the middle and upper-class dialects. Walt Wolfram (1972) had earlier noted distinctions like Bernstein's between Black American English and standard American English. The restricted linguistic code can be at least as expressive and precise as the elaborated code in contexts which are familiar and shared by speaker and hearer. For dealing with the unfamiliar expressively and precisely, however, the restricted linguistic code will not do; an elaborated linguistic code is absolutely needed. The restricted linguistic code is evidently largely oral in origin and use and, like oral thought and expression generally, operates contextually, close to the human lifeworld: the group whom Bernstein found using this code were messenger boys with no grammar school education. Their expression has a formula-like quality and strings thoughts together not in careful subordination but 'like beads on a frame' (1974, p. 134) – recognizably the formulaic and aggregative mode of oral culture. The elaborated code is one which is formed with the necessary aid of writing, and, for full elaboration, of print. The group Bernstein found using this code were from the six major public schools that provide the most intensive education in reading and writing in Britain (1974, p. 83). Bernstein's 'restricted' and 'elaborated' linguistic codes could be relabeled 'oral-based' and 'text-based' codes respectively. Olson (1977) has shown how orality relegates meaning largely to context whereas writing concentrates meaning in language itself.

Writing and print develop special kinds of dialects. Most languages have never been committed to writing at all, as has been seen (p. 7 above). But certain languages, or more properly dialects, have invested massively in writing. Often, as in England or Germany or Italy, where a cluster of dialects are found, one regional dialectic has developed chirographically beyond all others, for economic, political, religious, or other reasons, and has eventually become a national language. In England this happened to the upper-class London English dialect, in Germany, to High German (the German of the highlands to the south), in Italy to Tuscan. While it is true that these were all at root regional and/or class dialects, their status as chirographically controlled national languages has made them different kinds of dialects or language from those which are not written on a large scale. As Guxman has pointed out (1970, pp. 773–6), a national written language has had to be isolated from its original dialect base, has discarded certain dialectal forms, has developed various layers of vocabulary from sources not dialectal at all, and has developed also certain syntactical peculiarities. This kind of established written language Haugen (1966, pp. 50–71) has aptly styled a 'grapholect'.

A modern grapholect such as 'English', to use the simple term which is commonly used to refer to this grapholect, has been worked over for centuries, first and most intensively, it seems, by the chancery of Henry V (Richardson 1980), then by normative theorists, grammarians, lexicographers, and others. It has been recorded massively in writing and print and now on computers so that those competent in the grapholect today can establish easy contact not only with millions of other persons but also with the thought of centuries past, for the other dialects of English as well as thousands of foreign languages are interpreted in the grapholect. In this sense, the grapholect includes all the other dialects: it explains them as they cannot explain themselves. The grapholect bears the marks of the millions of minds which have used it to share their consciousnesses with one another. Into it has been hammered a massive vocabulary of an order of magnitude impossible for an oral tongue. *Webster's Third New International Dictionary* (1971) states in its Preface that it could have included 'many times' more than the 450,000 words it does include. Assuming that 'many times' must mean at least three times, and rounding out the figures, we can understand that the editors have on hand a record of some million and a half words used in print in English. Oral languages and oral dialects can get along with perhaps five thousand words or less.

The lexical richness of grapholects begins with writing, but its fullness is due to print. For the resources of a modern grapholect are available largely through dictionaries. There are limited word lists of various sorts from very early in the history of writing (Goody 1977, pp. 74–111), but until print is well

established there are no dictionaries that undertake generalized comprehensive accounts of the words in use in any language. It is easy to understand why this is so if you think of what it would mean to make even a few dozen relatively accurate handwritten copies of *Webster's Third* or even of the much smaller *Webster's New Collegiate Dictionary*. Dictionaries such as these are light-years away from the world of oral cultures. Nothing illustrates more strikingly how it is that writing and print alter states of consciousness.

Where grapholects exist, 'correct' grammar and usage are popularly interpreted as the grammar and usage of the grapholect itself to the exclusion of the grammar and usage of other dialects. The sensory bases of the very concept of order are largely visual (Ong 1967b, pp. 108, 136–7), and the fact that the grapholect is written or, *a fortiori*, printed encourages attributing to it a special normative power for keeping language in order. But when other dialects of a given language besides the grapholect vary from the grammar of the grapholect, they are not ungrammatical: they are simply using a different grammar, for language is structure, and it is impossible to use language without a grammar. In the light of this fact, linguists today commonly make the point that all dialects are equal in the sense that none has a grammar intrinsically more 'correct' than that of others. But Hirsch (1977, pp. 43–50) makes the further point that in a profound sense no other dialect, for example, in English or German or Italian, has anything remotely like the resources of the grapholect. It is bad pedagogy to insist that because there is nothing 'wrong' with other dialects, it makes no difference whether or not speakers of another dialect learn the grapholect, which has resources of a totally different order of magnitude.

Interactions: rhetoric and the places

Two special major developments in the west derive from and affect the interaction of writing and orality. These are academic rhetoric and Learned Latin.

In his Volume III of the *Oxford History of English Literature*, C. S. Lewis has observed that 'rhetoric is the greatest barrier between us and our ancestors' (1954, p. 60). Lewis honors the magnitude of the subject by refusing to treat it, despite its overwhelming relevance for the culture of all ages at least up to the Age of Romanticism (Ong 1971, pp. 1–22, 255–83). The study of rhetoric dominant in all western cultures until that time had begun as the core of ancient Greek education and culture. In ancient Greece, the study of 'philosophy', represented by Socrates, Plato and Aristotle, for all its subsequent fecundity, was a relatively minor element in the total Greek culture, never competitive with rhetoric either in the number of its practitioners or in its immediate social effects (Marrou 1956, pp. 194–205), as Socrates' unhappy fate suggests.

Rhetoric was at root the art of public speaking, of oral address, for persuasion (forensic and deliberative rhetoric) or exposition (epideictic rhetoric). The Greek *rhetor* is from the same root as the Latin *orator* and means a public speaker. In the perspectives worked out by Havelock (1963) it would appear obvious that in a very deep sense the rhetorical tradition represented the old oral world and the philosophical tradition the new chirographic structures of thought. Like Plato, C. S. Lewis was in effect unwittingly turning his back on the old oral world. Over the centuries, until the Age of Romanticism (when the thrust of rhetoric was diverted, definitively if not totally, from oral performance to writing), explicit or even implicit commitment to the formal study and formal practice of rhetoric is an index of the amount of residual primary orality in a given culture (Ong 1971, pp. 23–103).

Homeric and the pre-Homeric Greeks, like oral peoples generally, practiced public speaking with great skill long before their skills were reduced to an 'art', that is, to a body of sequentially organized, scientific principles which explained and abetted what verbal persuasion consisted in. Such an 'art' is presented in Aristotle's *Art of Rhetoric* (*technē rhētorikē*). Oral cultures, as has been seen, can have no 'arts' of this scientifically organized sort. No one could or can simply recite extempore a treatise such as Aristotle's *Art of Rhetoric*, as someone in an oral culture would have to do if this sort of understanding were to be implemented. Lengthy oral productions follow more agglomerative, less analytic, patterns. The 'art' of rhetoric, though concerned with oral speech, was, like other 'arts', the product of writing.

Persons from a high-technology culture who become aware of

the vast literature of the past dealing with rhetoric, from classical antiquity through the Middle Ages, the Renaissance, and on into the Age of the Enlightenment (e.g. Kennedy 1980; Murphy 1974; Howell 1956, 1971), of the universal and obsessive interest in the subject through the ages and the amount of time spent studying it, of its vast and intricate terminology for classifying hundreds of figures of speech in Greek and Latin – *antinomasia* or *pronominatio*, *paradiastole* or *distinctio*, *anti-categoria* or *accusatio concertativa*, and so on and on and on – (Lanham 1968; Sonnino 1968) are likely to react with, 'What a waste of time!' But for its first discoverers or inventors, the Sophists of fifth-century Greece, rhetoric was a marvelous thing. It provided a rationale for what was dearest to their hearts, effective and often showy oral performance, something which had been a distinctively human part of human existence for ages but which, before writing, could never have been so reflectively prepared for or accounted for.

Rhetoric retained much of the old oral feeling for thought and expression as basically agonistic and formulaic. This shows clearly in rhetorical teaching about the 'places' (Ong 1967b, pp. 56–87; 1971, pp. 147–87; Howell 1956, Index). With its agonistic heritage, rhetorical teaching assumed that the aim of more or less all discourse was to prove or disprove a point, against some opposition. Developing a subject was thought of as a process of 'invention', that is, of finding in the store of arguments that others had always exploited those arguments which were applicable to your case. These arguments were considered to be lodged or 'seated' (Quintilian's term) in the 'places' (*topoi* in Greek, *loci* in Latin), and were often called the *loci communes* or commonplaces when they were thought of as providing arguments common to any and all subject matter.

From at least the time of Quintilian, *loci communes* was taken in two different senses. First, it referred to the 'seats' of arguments, considered as abstract 'headings' in today's parlance, such as definition, cause, effect, opposities, likenesses, and so on (the assortment varied in length from one author to another). Wanting to develop a 'proof' – we should say simply to develop a line of thought – on any subject, such as loyalty, evil, the guilt of an accused criminal, friendship, war, or whatever, one could always find something to say by defining, looking to causes,

effects, opposites, and all the rest. These headings can be styled the 'analytic commonplaces'. Secondly, *loci communes* or commonplaces referred to collections of sayings (in effect, formulas) on various topics – such as loyalty, decadence, friendship, or whatever – that could be worked into one's own speech-making or writing. In this sense the *loci communes* can be styled 'cumulative commonplaces'. Both the analytic and the cumulative commonplaces, it is clear, kept alive the old oral feeling for thought and expression essentially made up of formulaic or otherwise fixed materials inherited from the past. To say this is not to explicate the whole of the complex doctrine, which itself was integral to the massive art of rhetoric.

Rhetoric of course is essentially antithetical (Durand 1960, pp. 451, 453–9), for the orator speaks in the face of at least implied adversaries. Oratory has deep agonistic roots (Ong 1967b, pp. 192–222; 1981, pp. 119–48). The development of the vast rhetorical tradition was distinctive of the west and was related, whether as cause or effect or both, to the tendency among the Greeks and their cultural epigoni to maximize oppositions, in the mental as in the extramental world: this by contrast with Indians and Chinese, who programmatically minimized them (Lloyd 1966; Oliver 1971).

From Greek antiquity on, the dominance of rhetoric in the academic background produced throughout the literate world an impression, real if often vague, that oratory was the paradigm of all verbal expression, and kept the agonistic pitch of discourse exceedingly high by present-day standards. Poetry itself was often assimilated to epideictic oratory, and was considered to be concerned basically with praise or blame (as much oral, and even written, poetry is even today).

Into the nineteenth century most literary style throughout the west was formed by academic rhetoric, in one way or another, with one notable exception: the literary style of female authors. Of the females who became published writers, as many did from the 1600s on, almost none had any such training. In medieval times and after, the education of girls was often intensive and produced effective managers of households, of sometimes fifty to eighty persons, which were often sizable businesses (Markham 1675, title), but this education was not acquired in academic institutions, which taught rhetoric and all

other subjects in Latin. When they began to enter schools in some numbers during the seventeenth century, girls entered not the main-line Latin schools but the newer vernacular schools. These were practically oriented, for commerce and domestic affairs, whereas the older schools with Latin-based instruction were for those aspiring to be clergy, lawyers, physicians, diplomats, and other public servants. Women writers were no doubt influenced by works that they had read emanating from the Latin-based, academic, rhetorical tradition, but they themselves normally expressed themselves in a different, far less oratorical voice, which had a great deal to do with the rise of the novel.

Interactions: learned languages

The second massive development in the west affecting the interaction of writing and orality was Learned Latin. Learned Latin was a direct result of writing. Between about AD 550 and 700 the Latin spoken as a vernacular in various parts of Europe had evolved into various early forms of Italian, Spanish, Catalan, French, and the other Romance languages. By AD 700, speakers of these offshoots of Latin could no longer understand the old written Latin, intelligible perhaps to some of their greatgrandparents. Their spoken language had moved too far away from its origins. But schooling, and with it most official discourse of Church or state, continued in Latin. There was really no alternative. Europe was a morass of hundreds of languages and dialects, most of them never written to this day. Tribes speaking countless Germanic and Slavic dialects, and even more exotic, non-Indo-European languages such as Magyar and Finnish and Turkish, were moving into western Europe. There was no way to translate the works, literary, scientific, philosophical, medical or theological, taught in schools and universities, into the swarming, oral vernaculars which often had different, mutually unintelligible forms among populations perhaps only fifty miles apart. Until one or another dialect for economic or other reasons became dominant enough to gain adherents even from other dialectical regions (as the East Midland dialect did in England or Hochdeutsch in Germany), the only practical policy was to teach Latin to the

limited numbers of boys going to school. Once a mother tongue, Latin thus became a school language only, spoken not only in the classroom but also, in principle if far from always in fact, everywhere else on the school premises. By prescription of school statutes Latin had become Learned Latin, a language completely controlled by writing, whereas the new Romance vernaculars had developed out of Latin as languages had always developed, orally. Latin had undergone a sound–sight split.

Because of its base in academia, which was totally male – with exceptions so utterly rare as to be quite negligible – Learned Latin had another feature in common with rhetoric besides its classical provenance. For well over a thousand years, it was sex-linked, a language written and spoken only by males, learned outside the home in a tribal setting which was in effect a male puberty rite setting, complete with physical punishment and other kinds of deliberately imposed hardships (Ong 1971, pp. 113–41; 1981, pp. 119–48). It had no direct connection with anyone's unconscious of the sort that mother tongues, learned in infancy, always have.

Learned Latin related to orality and literacy, however, in paradoxical ways. On the one hand, as just noted, it was a chirographically controlled language. Of the millions who spoke it for the next 1400 years, every one was able also to write it. There were no purely oral users. But chirographic control of Learned Latin did not preclude its alliance with orality. Paradoxically, the textuality that kept Latin rooted in classical antiquity thereby kept it rooted also in orality, for the classical ideal of education had been to produce not the effective writer but the *rhetor*, the *orator*, the public speaker. The grammar of Learned Latin came from this old oral world. So did its basic vocabulary, although, like all languages actually in use, it incorporated thousands of new words over the centuries.

Devoid of baby-talk, insulated from the earliest life of childhood where language has its deepest psychic roots, a first language to none of its users, pronounced across Europe in often mutually unintelligible ways but always written the same way, Learned Latin was a striking exemplification of the power of writing for isolating discourse and of the unparalleled productivity of such isolation. Writing, as has earlier been seen, serves

to separate and distance the knower and the known and thus to establish objectivity. It has been suggested (Ong 1977, pp. 24–9) that Learned Latin effects even greater objectivity by establishing knowledge in a medium insulated from the emotion-charged depths of one's mother tongue, thus reducing interference from the human lifeworld and making possible the exquisitely abstract world of medieval scholasticism and of the new mathematical modern science which followed on the scholastic experience. Without Learned Latin, it appears that modern science would have got under way with greater difficulty, if it had got under way at all. Modern science grew in Latin soil, for philosophers and scientists through the time of Sir Isaac Newton commonly both wrote and did their abstract thinking in Latin.

Interaction between such a chirographically controlled language as Learned Latin and the various vernaculars (mother tongues) is still far from being completely understood. There is no way simply to 'translate' a language such as Learned Latin into languages like the vernaculars. Translation was transformation. Interaction produced all sorts of special results. Bauml (1980, p. 264) has called attention, for example, to some of the effects when metaphors from a consciously metaphorical Latin were shifted into less metaphoricized mother tongues.

During this period, other chirographically controlled, sex-linked male languages developed in Europe and Asia where sizable literate populations wanted to share a common intellectual heritage. Pretty much coeval with Learned Latin were Rabbinic Hebrew, Classical Arabic, Sanskrit, and Classical Chinese, with Byzantine Greek a sixth, much less definitively learned language, for vernacular Greek kept close contact with it (Ong 1977, pp. 28–34). These languages were all no longer in use as mother tongues (that is, in the straightforward sense, not used by mothers in raising children). They were never first languages for any individual, were controlled exclusively by writing, were spoken by males only (with negligible exceptions, though perhaps with more exceptions for Classical Chinese than for the others), and were spoken only by those who could write them and who, indeed, had learned them initially by the use of writing. Such languages are no more, and it is difficult today to sense their earlier power. All languages used for

learned discourse today are also mother tongues (or, in the case of Arabic, are more and more assimilating to themselves mother tongues). Nothing shows more convincingly than this disappearance of chirographically controlled language how writing is losing its earlier power monopoly (though not its importance) in today's world.

Tenaciousness of orality

As the paradoxical relationships of orality and literacy in rhetoric and Learned Latin suggest, the transition from orality to literacy was slow (Ong 1967b, pp. 53–87; 1971, pp. 23–48). The Middle Ages used texts far more than ancient Greece and Rome, teachers lectured on texts in the universities, and yet never tested knowledge or intellectual prowess by writing, but always by oral dispute – a practice continued in diminishing ways into the nineteenth century and today still surviving vestigially in the defense of the doctoral dissertation in the fewer and fewer places where this is practiced. Though Renaissance humanism invented modern textual scholarship and presided over the development of letterpress printing, it also harkened back to antiquity and thereby gave new life to orality. English style in the Tudor period (Ong 1971, pp. 23–47) and even much later carried heavy oral residue in its use of epithets, balance, antithesis, formulary structures, and commonplace materials. And so with western European literacy styles generally.

In western classical antiquity, it was taken for granted that a written text of any worth was meant to be and deserved to be read aloud, and the practice of reading texts aloud continued, quite commonly with many variations, through the nineteenth century (Balogh 1926). This practice strongly influenced literary style from antiquity until rather recent times (Balogh 1926; Crosby 1936; Nelson 1976–7; Ahern 1982). Still yearning for the old orality, the nineteenth century developed 'elocution' contests, which tried to repristinate printed texts, using careful artistry to memorize the texts verbatim and recite them so that they would sound like extempore oral productions (Howell 1971, pp. 144–256). Dickens read selections from his novels on the orator's platform. The famous *McGuffey's Readers*, published in the United States in some 120 million copies between

1836 and 1920, were designed as remedial readers to improve not the reading for comprehension which we idealize today, but oral, declamatory reading. The *McGuffey's* specialized in passages from 'sound-conscious' literature concerned with great heroes ('heavy' oral characters). They provided endless oral pronunciation and breathing drills (Lynn 1973, pp. 16, 20).

Rhetoric itself gradually but inevitably migrated from the oral to the chirographic world. From classical antiquity the verbal skills learned in rhetoric were put to use not only in oratory but also in writing. By the sixteenth century rhetoric textbooks were commonly omitting from the traditional five parts of rhetoric (invention, arrangement, style, memory and delivery) the fourth part, memory, which was not applicable to writing. They were also minimizing the last part, delivery (Howell 1956, pp. 146–72, 270, etc.). By and large, they made these changes with specious explanations or no explanation at all. Today, when curricula list rhetoric as a subject, it usually means simply the study of how to write effectively. But no one ever consciously launched a program to give this new direction to rhetoric: the 'art' simply followed the drift of consciousness away from an oral to a writing economy. The drift was completed before it was noticed that anything was happening. Once it was completed, rhetoric was no longer the all-pervasive subject it had once been: education could no longer be described as fundamentally rhetorical as it could be in past ages. The three *R*s – reading, 'riting, and 'rithmetic – representing an essentially nonrhetorical, bookish, commercial and domestic education, gradually took over from the traditional orally grounded, heroic, agonistic education that had generally prepared young men in the past for teaching and professional, ecclesiastical, or political public service. In the process, as rhetoric and Latin went out, women entered more and more into academia, which also became more and more commercially oriented (Ong 1967b, pp. 241–55).

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Print, space and closure

Hearing-dominance yields to sight-dominance

Although this book attends chiefly to oral culture and to the changes in thought and expression introduced by writing, it must give some brief attention to print, for print both reinforces and transforms the effects of writing on thought and expression. Since the shift from oral to written speech is essentially a shift from sound to visual space, here the effects of print on the use of visual space can be the central, though not the only, focus of attention. This focus brings out not only the relationship between print and writing, but also the relationship of print to the orality still residual in writing and early print culture. Moreover, while all the effects of print do not reduce to its effects on the use of visual space, many of the other effects do relate to this use in various ways.

In a work of this scope there is no way even to enumerate all the effects of print. Even a cursory glance at Elizabeth Eisenstein's two volumes, *The Printing Press as an Agent of Change* (1979), makes abundantly evident how diversified and vast the particular effects of print have been. Eisenstein spells out in detail how print made the Italian Renaissance a permanent European Renaissance, how it implemented the Protestant Reformation and reoriented Catholic religious practice, how it affected the development of modern capitalism, implemented western