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Karen Schousboe and Mogens Trolle Larsen

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Interactions between Orality and Literacy in Ancient Egypt[1]

Christopher Eyre
John Baines

1. The Egyptian writing system

One approach to the reality of literacy lies in relating the working of a script to the way it is learnt, and to how it is read. Its origins and history are also relevant, because they may set preconditions for the context and manner of its use (Schenkel 1983). It is not clear whether writing was invented independently in Egypt, but there is no direct systematic dependence on another script. The earliest and the latest hieroglyphic texts work on the same basic principles, although there is constant development. There are historical variations (and indeed variations according to text genre), in the sophistication with which those principles are applied, and in the explicitness with which the script encodes the phonemic and semantic levels of the language.

The pictorial signs of the hieroglyphic script (Gardiner 1957; Schenkel 1976; 1984) fall into two categories - 'semograms' that indicate meaning, and 'phonograms' that encode phonetic information. For practical purposes they may be subdivided into four groups. Pictorial signs that may stand alone for a word (picture of a man, read 'man'), the 'logograms', are relatively rare. They were more common in earlier periods, when written vocabulary, and so the danger of ambiguity was smaller. A set of

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uniliteral, or rather 'uniconsonantal' signs represents the consonantal phonemes of the language (vowels are not specifically encoded). A few dozen multiconsonantal signs represent series of two or three consonants. These are not syllabic signs, and do not carry implications of vowel quality. The consonantal structure of a word is usually written by a combination of uni- and multiconsonantal signs complementing each other. Finally there are taxographic signs: pictorial signs used at the end of words to point to the general sense or the specific meaning of the word (so-called 'determinatives').

Egyptian texts read from right to left

shtp = s + htp + t + p + taxogram.

Hieratic

Demotic

Phonemic signs may have variant readings. Some signs are used as semograms in one context and phonograms in another, and the boundaries between multiconsonantal signs, taxograms, and true 'logograms' are shifting and hard to define. However, these historically conditioned features do not cause real problems in reading. The script seems to have developed from a prehistoric (or rather pre-literate) use of pictures, through the addition of other signs, which were devised originally on a rebus principle. These operated firstly as aids to 'reading' the picture, but also as ways of writing words not susceptible to representation simply as pictures, so that a mixed system developed, capable of representing whole syntactic units of language, and not just single words or ideas. To develop this capacity, the 'aids' became uni- or multiconsonantal signs, and eventually outweigh the truly pictorial element that persists in the taxograms. The script becomes very difficult to read if a balance between these sign classes is not maintained, and Egyptian texts were never written by uniconsonantal signs alone in the fashion of an 'alphabet', although the process of developing single signs to represent individual consonantal phonemes underlies that invention. The origin of the alphabet is disputed, but it probably derived from the development of a script for a west Semitic language in the mid-2nd millenium, consisting of a series of signs that used Egyptian hieroglyphs of

the 'uniconsonantal' type as model or inspiration (Gardiner 1942: 55-64; Millard 1986). Such an internal development never took place in the writing of Egyptian. The alphabet eventually adopted, in the early centuries A.D., was borrowed from Greece.

2. Elementary education

At latest by the early Twelfth Dynasty (c. 2000 BC), the classic period of the Middle Kingdom, a standard system of formal elementary education in literacy was established (Brunner 1957; Williams 1972). The main evidence for its conduct consists of numerous schoolboys' exercises from the New Kingdom village of Deir el-Medina (c. 1300-1100 BC), combined with direct and indirect references in literary texts. The general outlines of the system are not in doubt, although the picture is incomplete, its historical development is difficult to trace, and in important details it may have been different in the earliest periods.

From the Middle Kingdom on, and probably even earlier, hieroglyphs themselves were not the script of education, as they were not the script of literature or administration. Until the late period (c. 650 BC) the hieratic script was used. In principle this was a cursive version of the hieroglyphic script, with a direct relationship between each hieratic sign and its corresponding hieroglyph. In practice hieroglyphs, if learnt at all, were a secondary subject. Rare New Kingdom ostraca from Deir el-Medina preserve hieroglyphic versions of basic school texts that were normally written in hieratic, and this may imply that transcription formed an exercise in learning the pictorial script, but hieroglyphic writing exercises are generally rare. The clear distinction between hieratic and hieroglyphic as subjects for instruction could belong to the early Middle Kingdom, but it may be chance that the few Old Kingdom school exercises are hieroglyphic (Brunner 1957: 77 and fig.5; note also Scott n.d.: pl.3, and the traditional cursive, semi-hieroglyphic writing of texts of the Book of Kemyt, below p. 95). Cursive hieratic tended to draw gradually away from hieroglyphs. At the beginning of the New Kingdom it is possible to trace a renewal of sign forms that drew hieratic temporarily back towards its hieroglyphic originals (Megally 1971: 1-15), but by the end of the New Kingdom the normal tendency was leading in secular texts to the development of the distinct demotic script (c.700BC), which cannot be transcribed directly into hieroglyphs.

The language of the texts used for elementary instruction was classical literary Middle Egyptian, which was used for hieroglyphic texts down to the Roman period. It had ceased to be used for administrative, business, or even literary texts, in late New Kingdom hieratic, which used Late Egyptian for such texts. The vernacular of the New Kingdom differed considerably from Middle Egyptian, which itself had never been a 'true' vernacular. The term 'Late Egyptian' covers a variety of written styles, differing with date, place, and genre, but all substantially influenced in grammar and vocabulary by the vernacular. Written Late Egyptian seems to have been learnt after the basic Middle Egyptian texts, but in the same general way.

The method of instruction may usefully be compared with that of traditional Quranic or Rabbinic schools. It was based on the additive learning of set literary texts. Most of these were classic works of the early Middle Kingdom. 'Useful' textual material was only introduced at a later stage. Thus, in the teaching of Late Egyptian model letters rather than classical works were used as set texts. (For the teaching of demotic the situation was a little different) We cannot know how much ordinary schoolboys absorbed of Middle Egyptian literature, but the best scribes were familiar with the major works, quoting them, or rather echoing their phraseology in the composition of formal and official texts. For the less highly trained these texts may have been little more than reading and writing exercises, and eventual familiarity with them might not even have borne comparison with the ordinary Englishman's memory of the Chaucer or Shakespeare he read at school.

Elementary school exercises consisted of a single, simultaneous process of memorising standard set texts in both oral and written form. A passage of a few lines was copied out and worked over phrase by phrase. Each phrase was a unit of a few words, of convenient length for oral repetition and additive memorising. In schoolboys' copies these units are frequently marked by red pointing. The student presumably learnt each phrase aloud by oral repetition, wrote it, and then progressed to the next, until the whole exercise had been completed. The end of the exercise may be marked by a red 'period' sign, and sometimes by a date. The class then seem to have read and chanted the passage rhythmically in unison, learning the 'text' and its written appearance at the same time. Writing, reading, and reciting were thus closely connected from the beginning. Visual, oral and auditory aspects

of reading were not separated, and all written texts were also heard. The schoolboy's understanding of the script was built up from whole phrases, through words, to individual sense units or morphological units (such as pronominal endings), sign groups, and only in the last resort to individual signs.

Analytical didactic works played no significant part in elementary education. The first work learnt was the Book of Kemyt. This was partly an exercise in pen use and sign formation, for it is almost always written in vertical columns, and an intermediate script of cursive semi-hieroglyphs, long after vertical columns had been abandoned in secular texts. The text is not so much literature as a ragbag of important phrases and formulae put together for teaching purposes, probably at the very beginning of the Middle Kingdom. Nevertheless its format and structure is that of a literary didactic text, and it was used in the way described above. An apparently more analytical category is the class of didactic text termed onomasticon (Gardiner 1947). Such texts purport to list everything in creation in thematic order; they are lists, not dictionaries. Some manuscripts are written as lists in columns; others in continuous lines of text. They are, however, entitled 'teachings' (**sb3yt**), like the classic 'wisdom texts' in the school syllabus, and their didactic use was evidently similar. Passages from them, written on writing boards and ostraca, have the appearance of schoolboys' exercises; one example even has the pointing that frequently marked divisions of school text. The inclusion of lists of rare or unusual and difficult words in texts used as advanced writing exercises is also well attested. The onomastica would thus have been learnt in schools like other literary texts, additively, by copying and chanting. The best pupils absorbed and learnt to recognise and reproduce the lists of titles, place-names, gods and their shrines, features of the material world, and objects that surrounded them in daily life, but they also learnt what the words looked like and how to reproduce them in writing.

The earliest literacy education may have used the 'informal' style typical of any craft apprenticeship, with the pupil copying and ultimately emulating 'father' or 'master' (cf. Scribner and Cole 1981: esp. 65-8), and the organised system developed for classroom use, as known from the New Kingdom, was perhaps a formalisation of this technique. However, as the hieroglyphic and hieratic scripts drew apart at the end of the New Kingdom, there may have developed a more analytical approach to teaching

of the skilled at the secondary stage when hieroglyphs were learnt. This is suggested by the fact that hieroglyphs and hieratic ceased to be commensurable, so that hieroglyphic texts came to be drafted on papyrus in hieroglyphs (e.g. Winter 1967), and by the organisation of a Graeco-Roman period hieroglyphic 'dictionary' (1st-2nd Century AD; refs in Smith and Tait 1983: 209-13), which is analogous to that of the sign lists in modern grammars of Egyptian. The signs are ordered thematically, with transcription (that is, hieratic equivalent), and a reference name based on what is depicted or on the reading of the most common word in which it is used. (A possible fragment of an earlier New Kingdom sign list from Deir el-Medina has a different, less analytical(?) organisation; Pleyte and Rossi 1969-76: pl.144).

A similar impression of late period education is given by the number of preserved fragments of onomastica, 'lexical' texts, and learned listings. A partial organisation by sign category is also found in a hieratic onomasticon of the Graeco-Roman period, although this is composed in Middle Egyptian, and may be based on earlier originals. It would not be implausible to suggest that the onomasticon as such belongs to a very early class of literature, although as yet no very early examples have been found; a form of 'literature' based on the listing of information could potentially be traced back to earlier models than a genre requiring the used of connected sentences. In Egypt, narrative appears in texts at a relatively developed stage of script use (Baines 1983: 577-8). The early importance of lexical lists in Mesopotamia would support such a hypothesis. 'School' works in Demotic (Kaplony-Heckel 1974; Bresciani et al. 1983; Devauchelle 1984; Smith and Tait 1983: 198-213) begin to show alphabet-like ordering. The set texts were not all old classics (which did not exist in demotic as a new script); a higher proportion of everyday, 'useful' texts was added to the more typical wisdom texts and proverbs. Grammatical exercises and paradigms become common. Another practice attested after about 1000 BC is the use of stylistic/linguistic exercises involving composition of similar sentences in Middle and Late Egyptian (Caminos 1968). Such practice may have become increasingly important for advanced work after the New Kingdom.

Foreign educational practice (notably Greek, but also cuneiform and Aramaic) may have been influential, and offers valuable analogies for Egyptian. In cuneiform, sign or word lists appear among the earliest texts. The distinction between the two

genres is blurred, for in the earliest script sign and word overlap to some extent. Such texts later diverged into lexical lists and sign lists. Developed Babylonian cuneiform was a syllabary enlarged by the use of Sumerian 'xenograms', and the initial learning of sign lists seems a natural elementary exercise in a way that it would not be for Egyptian hieratic. Both analytic organisation of cuneiform sign lists according to phoneme, and grammatical paradigms, are attested from Mesopotamia by the Old Babylonian period (c. 1800). Such approaches could not be normal to learning and reading habits for scripts such as New Kingdom hieratic or demotic, which were read by group and not by sign.

3. Orthographic conventions and reading method

Students of hieratic, or later of demotic, were not taught a basic 'alphabet' or sign list. For hieratic this would not necessarily have been an effective method of teaching, or, more accurately, if such a method had been used, the reading process and the consequent development of the script would presumably have followed different lines. The role of sign groups is fundamental to the development of hieratic and of demotic as scripts distinct from hieroglyphs. It can best be seen in the way the initial signs in a word retain distinct shapes, while subsequent signs tend to deteriorate into series of squiggles. Although this is found to some extent in all handwriting, such cursive forms tend in Egyptian script to become the standard writings of the word, and not merely abbreviations of forms that were sometimes written clearly and fully.

These tendencies are especially marked at the end of the New Kingdom and in the Third Intermediate Period (c. 1000-650 BC). At this period the phonetics and grammar of spoken Egyptian were far from those implied by the written language, although the hieroglyphic script and the language which it wrote had in principle remained stable. The pictorial value of taxograms (or 'determinatives') was to a degree lost to writers of hieratic, so that certain taxographic groups tended to become in effect conventionalised word endings that do not have a one-to-one correspondence with any contemporary hieroglyphic spelling. They tend to appear in words for which they were not historically correct or meaningful, although taxograms could properly be transferred from word to word as a normal procedure in hieroglyphic script. However, at this period signs that were in origin phonetic

were sometimes transferred as parts of groups, along with the 'true' taxograms; here the scribe had lost sight of hieroglyphs.

For hieratic, 'error' is not really the right term for many such writings, for they constitute orthographic changes specific to the script, and irrelevant to hieroglyphs. In the hieroglyphic transcription of a hieratic text of this period the orthography can seem wildly eccentric, although even the most extreme examples have some internal logic and consistency (e.g. Volten 1937; Caminos 1977). This development is not simply the result of a decline in educational and scribal standards, and a less general understanding of the classic texts used in school, resulting in the incompetence of all but a few scribes in historically based orthography. It also reflects attempts to produce orthography that would represent better current pronunciation and the vernacular, and be more convenient for administrative purposes. This freer attitude to using sign groups that historically had true taxographic value as mere word endings coincides with a tendency towards 'phonetic' error in the orthographic use of phonograms. Such 'phonetic errors' and non-historical writings can be confusing (e.g. Ward 1981: 371-3) and make texts very difficult for the modern reader. At any rate, the eventual result was the Demotic script, the orthography of which is far from traditional hieroglyphic orthography.

The point of departure for analysing the reading process is the fact that instruction in writing was organised around units longer than the individual sign. Only in a few learned circles - notably the temples of the Graeco-Roman period - were the principles underlying the hieroglyphs exploited systematically to vary orthography. In such cases texts are written in non-standard, sometimes even cryptographic, spellings. The extreme example is a pair of texts in the temple of Esna, in which almost every hieroglyphic sign is in one case a crocodile and in the other a ram. For the modern student some analysis of individual sign usage is integral to learning and using hieroglyphs, and in general a deliberately analytical approach would seem more suitable for use with hieroglyphs than with the hieratic script. The great variety in the fullness of writings and the arrangement of signs in inscriptions of all dates shows that those regularly concerned with the script could analyse their usage. However, a truly analytical approach was not necessary for the ordinary reader in antiquity, once the script was moderately well developed and regularised (by about the 4th Dynasty, c. 2500 BC), and so

long as transcription from hieratic was relatively straightforward. Most hieroglyphs, being used for formal display texts, were transcribed from hieratic originals on papyrus. Since those who read hieroglyphs also read hieratic, the normal reading processes were probably similar so long as both were living complementary scripts (that is, probably until the development of demotic).

In reading, the Egyptian probably began by pronouncing the words which his eye recognised as units, that is, as 'logographs' - groups perceived together as written words. Texts were apparently read by identifying groups of signs, not by spelling out and adding together the sounds of the individual signs as in a phonetic transcription or, in cases of uncertainty, an alphabetic script. After the earliest stages of learning the reader need seldom have had difficulty in word division, for most words end in taxograms. At the same time the regular differentiation of homophonic roots in writing, by the use of differing patterns of phonemic signs and different taxograms, helped the logo- or semographic reading of Egyptian. This is in many ways similar to the approach of an experienced modern reader of English, who recognises words and phrases visually as units rather than adding up their phonemes. Nor is it very different from reading a more 'logographic' script such as Chinese. A skilled reader may move quickly, glossing over signs or words not immediately deciphered, and filling in from the context. In a fully 'logographic' script the reader is in a hopeless position if the unknown words are too many. In a true alphabetic script he can slow down and spell out the words, and can to a degree pronounce without understanding, which may ultimately help him to identify meaning.

With a syllabary rather than an alphabet the practice is similar, but more demanding and often less efficient, especially where the syllabary uses multivalent signs. The reader has more signs to deal with, and often more complex problems in trying out the variant possibilities of unit division and word recognition (cf. Scribner and Cole 1981: 164-5). The regular notation of consonantal structure in the early Semitic consonantal 'alphabets' retains many of the characteristics of a syllabary, since signs may ultimately represent consonant + optional undefined vowel. If the word was not immediately recognisable, the reader would try a variety of vocalic patterns around the written consonantal structure.

Language type and structure, script adequacy, and ease of writing are often considered to be interrelated, but this is not necessarily so in the most direct sense, and as an approach to writing it can be over-deterministic. The lack of vowels in the writing of Semitic languages is not due simply to the importance of roots and the unimportance of vowels to their representation (cf. Ullendorff 1958: 69-72); it can be a serious inconvenience. Modern teaching of literacy in Arabic and Hebrew uses vowel markings far more than is normal for the scripts. In most contexts vowels are marked only where the full spelling out of unfamiliar words is felt necessary. It is rather that the Semitic consonantal 'alphabets' produced semantic units that for reading had each to be worked with as a unit - that is, as a logographic whole - and not simply as the sum of its parts. They do not produce the attempt at fuller phonemic representation that is a real alphabet. To some extent the regular patterning of tri-consonantal roots in the lexical and grammatical structure of Semitic languages may have allowed the balance in their 'alphabetic' writing to lie in the direction of such historically determined logographic features while allowing reasonable reading efficiency, whereas Indo-European languages may require more phonological information for effective reading, but this is an insufficient explanation in itself. It is more important that traditional habits die especially hard in the practice of literacy. The use of a true alphabet would have the same advantages and disadvantages for the representation of Semitic as for other languages, but historical and cultural factors are vital; orthographic reforms are rarely successful when a language's writing system is well established and widely used.

Word division and simple punctuation are common in the early Semitic consonantal scripts, in a way that is not normal earlier for non-alphabetic scripts or later for true alphabets (Millard 1970). Their reading by purely oral spelling out and trial of sound was presumably inefficient. A partly logographic technique was probably necessary (as with modern Arabic and Hebrew), and this will have been aided by the word division. The true alphabet favours an opposite approach, by reducing the logographic element in favour of greater phonemic representation. Lack of word division and punctuation make reading slower and more difficult. This is a serious obstacle to logographic reading in an alphabetic script, and is thus associated with a general style of oral reading through spelling out individual signs and syllables - the

normal style of reading taught, for example in early mediaeval schools (cf. Saenger 1982).

The advantage of encoding vowels is paramount as the uses of writing become more complex. The fuller the writing, the easier it is to deal with the unfamiliar, and hence a larger written vocabulary. Literacy is then potentially less limited. Theoretically all technical restrictions on the size of written vocabulary should disappear for the user of an alphabetic script, although cultural factors provide other limitations, and for all but the most skilled this point will be of more significance for reading than writing the unfamiliar. The same is in principle true for a syllabary, although the extra inconvenience will be a real limitation. For an ordinary scribe using a truly logographic script there are definite limits to vocabulary in reading and writing; this will apply to Egyptian hieratic and demotic, in which unfamiliar spelling easily fails to be related to the normal writing of a word. Even Egyptian found it necessary to develop an apparently phonetic style of "syllabic orthography" for representing foreign words and names in hieroglyphs. The development of the more and more cursive hieratic and demotic scripts worked in the opposite direction to that of the alphabet, making the recognition of sign groups more important and analysis through the serial identification of individual signs more difficult. This trend was advantageous for scribes who dealt with a relatively limited range of texts. The mnemonic advantages of such logographic habits would help deal with familiar classes of text efficiently, although limiting literacy in other ways, and meaning that to reach higher levels of literacy required a very long training, considerable memorising, and constant practice. However, in the context of restricted literacy the general character of the text will mostly have been known in advance.

The issue of the balance of advantage between logographic and phonemic representation in writing is not dead. It is, for instance, at the centre of discussion about English spelling reform. It further involves evaluating how reading technique has altered with the change from script to print. For most of its history the alphabet, as written in script, was typically read by an oral technique involving phonemic recognition and the enunciation of individual signs and syllables, rather than initial concentration on sense units (Saenger 1982). One of the most significant changes associated with the spread of printing is an improvement of visual format; not just clarity of sign form, but also the universal

adoption of word spacing, paragraphing, and punctuation (Ong 1982: 117-23). None are inventions of printing, which comes at a time when silent reading and related improvements in format were well established (Saenger 1982), but the achievement of consistency is crucial, and this was historically spurred by the mechanical and relatively impersonal process of producing the page of printed text. With this can come more effective silent reading; the possibility of scanning through text, of picking out by eye only specific features, and of improving the internal hearing inherent in silent reading. Historically the balance has thus swung back from a more 'phonetic' to a more 'logographic' style of reading, although this is now used in a much more powerful fashion than in the ancient Near East. For this reason logographic features in orthography can have advantages; much of the historical and 'irregular' orthography of English helps the efficient reader to get at meaning visually rather than aurally (e.g. Vachek 1973). In logographic terms this may seem similar to the way that historical non-phonetic orthography is the norm for Egyptian, and logographically central to the reading of hieroglyphs (Edgerton 1941), but the reading technique is qualitatively different.

Distinctions and graduations between silent reading and reading aloud are associated closely with the speed of reading. Short term memory seems to have limited capacity for the written or heard units it needs to store until an 'utterance' is complete (a sentence, clause, 'idea unit'). In principle writing allows such 'utterances' to be expanded in comparison to natural speech (cf. Chafe 1985), since it is possible to re-scan the individual section until understanding is registered, and since for a given span of time it is possible to assimilate more words visually than aurally, provided the format is sufficiently clear (cf. Saenger 1982: 373). Conversely, the slower a text is read the more we need to pronounce the words, aloud or in the head. Slow reading is associated with difficulty in obtaining sense, and with the acoustic search for a satisfactory reading, but it also fixes the provisional reading in the mind until the complete unit of sense has been deciphered. The echoes of an aural stimulus may be better retained than purely visual stimuli for the longer time spans of slower reading.

Silent reading existed in Egypt, as it did rather more commonly in the classical world (Knox 1968), but with limited efficiency and little scope for development. It was 'noiseless' rather than 'silent'

reading, which requires sufficient speed to take in whole 'utterances' before the visual impression of their first elements is lost. This demands a high level of logographic efficiency in recognising the shapes of words and phrases without reading individual signs, and so increases the quantity of text that can be absorbed at one time. Silent reading becomes a process in which perception - or one should rather say performance - of language from text becomes heavily visual, and significantly less auditory, although in varying degrees all 'performance' of written texts is visual and 'logographic' as well as auditory.

4. Literacy and language: syntax and style

Too direct a relationship should never be presumed between spoken language and written text. However oral the reading technique in the ancient world, written language never simply represented, or had a direct relationship with vernacular spoken language, any more than is the case in the modern world (cf. e.g. Ong 1982: 75-7; 165-70). At the beginning writing provided a means of notation, not a representation of speech (Bottero 1982; Schenkel 1983; Cooper forthcoming), and the history of written language in the ancient Near East is that of a means of recording rather than of communication; parallel with spoken language in many respects, but different in its construction and use. In the modern context silent reading may be seen as helping to place written language on a non-oral plane, separate from spoken language. This does not apply to the distinction between written and spoken in the classical world, and still less to ancient Egypt. The importance of true silent reading is quantitive, since by intensifying efficient reading it means that more writing can be used. It is thus also qualitative, since written text becomes a more acceptable and independent means of communication as well as means of record and notation (cf. Clanchy 1979). This sort of silent reading requires a clarity of presentation that is only regularly attained with the wide dissemination of printed texts. In the ancient Near East, especially in the early stages of writing, tabular layout aided scanning and non-verbal assimilation of information, but this method of presentation was seldom used for continuous texts, and only partially offset the complexity of the scripts.

The average position of the readers and writers of a culture, on a scale from slow reading aloud to efficient silent reading, might

be observable in written language. One feature by which 'literate' language may differ from oral language is in the length and complexity of its sentence or utterance structure, and in particular the use of more, and more diverse, embedded and subordinate clauses. In principle 'literate' language can develop greater range and complexity of prosodic patterns and types of subordinate clause. For written coomunication these need explicit grammatical or lexical marking and must follow set patterns if they are to form part of a clear sentence structure, since intonation and gesture cannot provide support. Spoken language is often a hotch potch of individual short utterances, fitted together as much by intonation and gesture as by grammatical or lexical means - the 'bricolage' of the 'savage mind' applied to linguistics and discourse analysis. Between the two poles, slow reading or slow identification of higher sense units ('utterance', clause, sentence) requires strong auditory stimulus: speaking or mouthing the script units (signs, syllables, words) as they are read, in order to assist memory in building up higher units. Thus it is advantageous for those units of 'utterance' to be short and independent. These points can be exemplified by Egyptian evidence.

Traditional grammars of classical Middle Egyptian (e.g. Gardiner 1957: 36; note Ullendorff 1958: 72-3 on Semitic in general) stress the unimportance of formal subordination, and the corresponding importance of parataxis to produce 'virtual' subordinate clauses - the placing of two formally independent 'main' clauses in juxtaposition where a language like English would mark one as subordinate to the other: "The king rages like a panther. His enemies flee". The extent and nature of subordination, and the definition of the basic prosodic unit (or 'sentence'), remain controversial for Middle Egyptian (e.g. Callender 1983), but overt marking of subordinate clauses (of time, circumstance, cause, result) analogous with that of modern European languages is limited in the early stages of Egyptian, and increases during its historical development. By Late Egyptian there is considerable growth in the use of prepositionally introduced clauses, of separate markers of grammatical subordination, and of the relative adjective to introduce relative clauses where earlier participles or 'relative forms' were used. Conversely, a passage of Middle Egyptian seems naturally to break up into short, discrete units - 'idea units'. These seem to interact, with little formal grammatical or lexical marking of relationship, to build up higher semantic units in a process where simple addition plays a leading part.

Such features of language change seem to be common, whether or not they are universal. They raise questions about the relationship between spoken and written language. It is a general assumption that language changes essentially in spoken rather than written forms, and that spoken grammar and syntax are broadly comparable at all levels of society, before mass literacy enables written language to interact widely with spoken norms, to the extent of influencing and even setting standards of spoken usage. Under such an assumption it is difficult to see how a society like ancient Egypt, with very low levels of literacy (Baines and Eyre 1983: 65-74), would generate 'literate' linguistic complexity. The issue of potential general patterns of syntactic development (e.g. Comrie 1981a), like that of potential universals of language change in general (cf. Comrie 1981b: 203- 18), is more complex than that of other, better investigated universals, such as colour terminology (for Egypt see Baines 1985). It is not easy to see precisely how the development and use of writing as such (rather than its external imposition from a dominant culture; cf. Comrie 1981b: 196-7; Kalmar 1985) might directly influence the development of language, and specifically of syntax, nor how such influences might relate to social and cognitive change in a society with very restricted uses of writing. The point of departure for written language is in semi-linguistic notation and formalised speech. For literacy to influence syntactic development would seem to require that written language stand apart and move further away from spoken language; that contrary to normal opinion it develop actively and to some extent independently, and then influence spoken language. This seems possible only in a highly literate society (e.g. Householder 1971). It is to be presumed that non-grammatical factors - both social and cognitive - are involved, and a complex mixture of cultural and linguistic influences must be taken into account. It is apparent in Egyptian material that textual style may be historically conditioned by what had previously been written down, and by the historical development of genres of written text (cf. Helck 1972; Assmann 1983). Conversely, especially tortuous constructions may to be found in argument, dictated letters, and reported speech; such texts are difficult for the modern reader because they are poorly attested and essentially spoken styles.

5. Literacy and literature: 'metrics' and style

This area of interaction between syntax and writing seems to be little explored in terms that are helpful here. For present purposes it may be better to consider the structure and style of literary composition. (For Egyptian literature in relation to writing, Helck 1972; Baines 1983: 577-8; Assmann 1983; Schenkel 1983.) The first cycle of love songs from Papyrus Chester Beatty I (Fox 1985: 52; Lichtheim 1976: 182) identifies separate stanzas by rubricated headings. The first stanza is given here in fairly free translation. As also in the following examples, an attempt is made to represent the spirit and rhythmic structure of the originals, retaining the integrity and order of the units of sense central to the 'metrical' organisation rather than the syntax and the literal meaning of the individual words. A somewhat stilted English style is the unavoidable result.

Beginning of the Sayings of the Great Entertainress
One is <my> sister; without like,
Lovelier than any woman,
See her, like Sirius risen,
As herald of a good year,
Clearly radiant; glowing skin,
Lovely gazing eyes,
Sweetly speak her lips,
Without a word too much,
Tall neck; glowing breast,
True lapis her hair,
Her arms that outshine gold,
Her fingers like lotus (petals?),
Out-curving buttocks; in-curving waist,
Her thighs parade her beauties,
Model walk as she crosses the ground,
She ravishes my heart in her embrace.
She makes the neck of every man
turned to see her.
Joyous any she embraces,
He is like the prince of lovers,
She being seen, as she comes out,
Like that very only One.
[The comparison in the last line is to the goddess of love Hathor, who is also the eye of the sun.]

The manuscript is not written in 'poetic' format with 'line' divisions, but these are marked by red pointing above the hieratic text. In other love song manuscripts the stanza ends may be marked by the same 'period' sign as the section end in a schoolboy's exercise. Yet the written texts of the love songs are hardly school exercises. On one side of this papyrus are the love poems, hymns and business notes. On the other is the story of Horus and Seth, a long, mythologically based narrative. It is from the private library of one of the scribes from Deir el-Medina. The notation acts as a sort of punctuation, marking metrical breaks as an aid to reading, that is, oral reading or singing. The lines consist of an average of 4 or 5 words, and each line forms an independent unit of sense and syntax. 'Enjambement' is so rare as always to raise suspicion of error, although there is one possible case in the passage quoted here: 'She makes the neck of every man / turned to see her'. The overall metrical structure is more complex. The lines divide and relate to one another in groups, here of two and four, elsewhere also in triplets. Individual lines divide into two or three stress units. Without knowledge of the vowels our understanding of the metrical structure of the individual line may be limited, but it was probably based on a stress, not vowel length or quality.

This is evidently a song, that could be performed with musical accompaniment, yet its structure and style are the same as that of many other genres of text. There are manuscripts of the New Kingdom 'Wisdom of Amenemope' written in 'poetic' format. Each 'line' stands separate on the page, and the division into stanzas marked by rubricated headings. These stanzas or chapters, which vary in length from 6 to 36 lines, fall naturally into groups of 2, 3 or 4 lines. Individual lines divide into the normal 2 or 3 units. It is uncertain whether line divisions into 4 units were used. Possible examples of such a division may not be correctly understood. The length of line varies much more than in the love songs, but the number of units of stress is comparable (Grumach 1972: 161-5; Lichtheim 1976: 160-1).

The 26th Stanza
Do not sit in a beer house,
And join one greater than you,
Be he a youth great from his offices,
Or whether an elder by birth.
Befriend yourself a man your equal:

It is from a distance that God helps.
If you see your superior outdoors,
Follow behind him respectfully.
Give a hand to an elder sated with beer.
Respect him as his children (do).
The arm hurts not from baring it.
The back breaks not from bending it.
A man is not impoverished who speaks sweetly,
Or enriched when his words bristle.
The pilot, he sees from afar;
He doesn't act towards his boat's capsize.

The same principles turn out to be applicable to any continuous text. An autobiographical text from the tomb of the Sixth Dynasty official Neferseshemre Sheshi is a paradigmatic example of purely formulaic composition, involving the absolute minimum of individuality. The same lines are found time and time again in texts of the genre. 'Line' divisions are not marked in any way in the original inscription. (Sethe 1933: 198-200; Lichtheim 1973: 17).

I have come out from my town,
I have come down from my estate.
I have done Right for her Lord;
I have satisfied him with what he loves;
I have spoken justly; I have done justice.
I have spoken fair; I have reported fair.
I have taken (my) fair opportunities,
(For) I desired that I should be well in with the world.
I judged litigants to their satisfaction:
I saved the weak from the stronger;
I used my power in this.
I gave bread to the hungry,
Clothing <to the naked>,
Bringing ashore to the boatless.
I buried the one without a son.
I made a ferry for the one without a ferry.
I honoured my father,
I pleased my mother,
I reared their children.
(So) he says;
He who is called Sheshi.

Autobiographical texts, whether formulaic in this way or containing more individual narrative, occur in private tomb and stela inscriptions. Their superficial purpose was to mark ownership and encourage the living to make offering to the deserving dead. They also had an important function in display and prestige. The genre goes back to a very early stage of Egyptian writing. Their formulae are found in almost the earliest continuous texts, and continue to be important until early Roman times. As a genre they appear in the Old Kingdom, and provide the earliest 'literary texts' we know. They are closely related in style and literary development to classes of royal text that first appear in inscriptions of the Middle Kingdom, and were of central importance to the development of written literature in Egypt (Helck 1972; Assmann 1983; Schenkel 1983). Idealising 'praise' or 'self-praise' of the king - whether in the direct form of an address with recitation of virtues (and later specific deeds), or more subtly in the framework of plot - is the central theme of much of this literature (Hermann 1938; Posener 1956; 1976). Any attempt to assess the relationship of such written genres to oral forms of display must be speculative, as is the assessment of the relationship between Egyptian oral and written literature in general (cf. Seibert 1967). However, such a central genre would logically have its roots in oral declamatory 'literature', for which African 'praise poetry' (Finnegan 1970) offers one analogy.

Even tomb texts could be performed orally. A standard appeal to the living for recital of the offering formula stresses that only 'breath of the mouth', is required; no expenditure and no tiring physical effort. The Middle Kingdom stela of Montuwoser (Sethe 1928: 79-80) ends: 'Now as for everybody who will hear this stela, who is among the living, he will say, "It is the truth." Their children will say to <their> children, "It is the truth. There is no lie there." And any scribe who will read out this stela, all people will come up to him.' The vision of curious visitors to the necropolis approaching for the entertainment of hearing an elegant biography read out is not completely unreal.

It can hardly be doubted that these formal inscriptions have an implied context of oral performance, which deeply influenced their structure. The format of such texts - formulaic autobiography and the most closely related classes of royal inscription, which especially include those condemned by historians as 'rhetorical' and comparatively useless - is the speech of the high

official, the king, or sometimes a god. The inscriptions we have are mostly short - occupying no more than a couple of pages in print - and are not themselves direct records of performances, although they may be models or distillations of the practice. After all, part of the point of oral performance is that it is seldom fixed, but expands and contracts with circumstances. Among the elite there may have been much interaction between spoken and written forms of praise, although there is little indication of the circumstances under which rhetorical accounts of exploits - 'biography' or 'autobiography' - might have been performed in public praise or self-praise

The heading to the Armant Stela of Tuthmosis III states that it is a summary of what would be longer in speech: 'Collection of the deeds of bravery and might which this perfect god (=the king) did ...; that which the Lord of Gods, Lord of Armant (=Montu) did for him, that his victories might be magnified, and to cause his activities be related for millions of years to come. ... If one relates the deeds as a list, they are too many to put in writing' (Helck 1955: 1244,15-1245,2). There are also Middle and New Kingdom royal inscriptions that use the topos of 'dialogue' between king and officials to present the officials reciting praise to the king, and the king addressing the officials in self-praise (Hermann 1938). Little is known about the social context in which hymns of praise to Egyptian kings were used, although several are preserved, and the question cannot be pursued here. Yet in evaluating content, as well as linguistic and stylistic structures, it is helpful to evoke this analogy of 'praise' poetry designed for formal, rhythmic performance.

Such texts might be dismissed as unfair examples, genuine 'poetry', not 'prose', although these and related genres form a substantial proportion of Egyptian literature. However, the same stylistic features also occur in simple narratives. The following is the opening of the New Kingdom 'Tale of the Doomed Prince' (Lichtheim 1976: 200-3); line divisions are marked by red pointing on the original.

It is told there was a king;
A male child had not been born to him.
So the king prayed for a son from the gods of his domain.
They decreed that one be born to him.
He slept with his wife in the night.
She [conceived] and became pregnant.

She completed the months of bearing.
Then she bore a male child.
Came then the Hathors,
To fix for him (his) Fates.
They said;
He will die by crocodile,
Or else by snake,
Or equally by dog.
Then they heard, who were by the child.
So they repeated it to the king.

This is not the metre of Classical or Western European tradition, but it is the criteria of oral literature. The extreme position among egyptologists (especially Gerhard Fecht, e.g. 1965; 1982) is that all continuous texts are 'metrical'. As one moves from obvious short songs to long narrative tales the tightness of composition varies (in line length, assonance, balancing of lines and half lines). Syllable count or specific metrical feet seem irrelevant to the system, but the stress count seems to remain regular. The essential structural patterns do not seem to alter. The assertion that all texts are 'metrical' has been too strong for many egyptologists to accept, although the nature of the style itself is evident in outline to all (Lichtheim 1971/2; Burkard 1983).

Most written texts can be sited on a scale between literary composition in metre by rules - a highly literate occupation, that will be exceptional in Egyptian texts - and the composition of texts for fluent, rhythmic performance (cf. Saenger 1982: 370; 380-1; 407-8; 411; Junge 1984: 251-2); texts built additively from small, relatively independent units that do not over-extend the listener's attention span, or cause him to lose the thread if he fails to hear every detail. Egyptian written 'stories' generally have all the devices typical of literature for oral performance, that help to hold or recatch the attention of an audience, and allow the length and detail of a performance to vary according to audience reaction; formulaic phrases, particularly in the introductions to new sections; episodic structure - the plot breaking up into short sections that can be included, omitted, and sometimes transposed without destroying the whole; repetition of important sections in reported speech.

Such 'metricality', the use of formulae, and oral performance as the proper context of a work do not add up to 'oral formulaic' poetry, even under a mild definition; Egyptian literary works do

not fit the Parry-Lord hypothesis. It would not seem helpful to class Egyptian literature as 'intermediate', on a scale between 'oral' and 'literate', although it was both recited and written, nor to try to isolate 'oral residues' in its content and form. The features of literary structure we are discussing must be related to the reading process as well as to oral performance. Learning to read by additive chanting of texts relates to an additive rather than subordinating syntactic ordering of clauses and the use of relatively short and discrete units of sense, whether this is an issue of language or of literary and metrical style (note Kalmar 1985). Simple sense units often add to or contrast with one another in simple patterns. These units may seem oral, but they are also convenient for practical reading.

Formulae are not only helpful in oral performance, whether as compositional or as mnemonic devices. They are also fundamental to much reading, and much written composition. The repetition of vocabulary and grammatical constructions, the 'formulaic' nature of logographic orthography, and the use of complete formulaic units of composition, are all aids to greater fluency in composing and reading script. Here Egyptian teaching methods and orthographic conventions, with their focus on whole words or phrases, put an extra premium on formulaic habits. 'Formulae' make script readable, however tedious they may seem when the text is printed for the silent reader, who reads more quickly, and is concerned more with meaning and less with form and performance. The ideal of varied, non-repetitive discourse, is essentially an ideal of written prose.

In Egyptian literature, more complex and varied syntactic patterns and more difficult styles are usually found in texts with shorter individual units and more obviously 'poetic' character. Narratives have longer units, which appear more 'prosaic', and they have less variety in syntax and vocabulary, so that some are very repetitive in language and structure. In the Middle Kingdom story of the Shipwrecked Sailor (Lichtheim 1973:211-5), almost every other sentence begins with the same verb form, which means, roughly, "It then happened that....". This is as helpful to the eye of the reader or reciter as to the ear of the hearer. However, such syntactically repetitive narrative represents only a single style. It is characteristic of the best written literature from Egypt that a variety of styles are welded together into a single work.

The story of the Eloquent Peasant (Lichtheim 1975: 169-84) places a series of complex rhetorical or poetic addresses of praise and criticism ('praise poems' where the peasant as performer tests the limits of poetic licence) within a simply expressed narrative framework, as the peasant is wronged and looks for aid and redress from an apparently reluctant lord. It is common for longer royal inscriptions of the New Kingdom to vary style or text genre in different sections. The greatest tour-de-force of Middle Kingdom literature, the story of Sinuhe (Lichtheim 1975:222-35), goes furthest in this direction beyond the conventions of simple narrative. It uses a very wide range of literary genres, both narrative and poetic, within the conventional framework of an autobiography, as well as striving for original and striking use of language (cf. Baines 1982). Conversely the Late Egyptian story of Wenamun (Lichtheim 1976: 224-30) presents something like a non-formulaic 'prose' narrative. It may be presumed that these last two texts - virtuoso works whose status as 'fictional literature' rather than 'genuine' tomb autobiography and official report has been questioned by some writers - were consciously composed in writing, in contrast with normal patterns of narrative; but this does not mean they were not expected to be recited in oral performance.

The practicalities and habits of reading place constraints on written style, and so standards of good style should be related to reading habits. They influence what accident has preserved, because they govern what was valued, and copied. They are as important as the specifically auditory aspect of performance, since most major literary manuscripts are likely to be the private copies of individuals and not texts used for repeated declamation. Oral performance is not in conflict with written composition. The classics of Egyptian literature are written compositions, not oral compositions that happen to be recorded in writing. Yet even the most carefully composed and 'literary' religious texts are also for recital in oral performance, which would often be from memory, without the use of a manuscript as a prompt.

Analysis of reading habits, and of learning to read, is critical to identifying what is oral and what is literate in any written tradition, and to comprehending that tradition's role in society. Literacy was not a single invention that immediately changed the life of all who attained it, any more than modern literacy is a social and intellectual panacea. There are many historical gradations of literacy and changes in its potential, from being an extension or

form of memory for recording and a vehicle for the display of prestige, to its eventual status as a quasi-independent means of communication (which it never achieved in Egypt). This slow development is associated with other social and cognitive change. This self-evident interrelationship, whose exploration was pioneered by Jack Goody (1968; 1977), resists close definition. Egyptian evidence does not directly answer the questions of whether literacy is a cause, an enabling factor, or merely a concomitant circumstance of such change, or which changes may be termed consequences of literacy. Our material provides no neat answers to these fundamental questions, but it does suggest something of the reality of oral-literate interchange in the constant passage of language, texts, and written material in general, through both oral and written forms. We hope we have conveyed some of the potential of using primarily textual sources to formulate hypotheses, as well as giving some of the flavour of actual usage. We have looked at this principally through schooling and reading methods (for which comparative evidence supplies vital support), and we have related this approach to the structure of literary texts. An awareness of how writing was used, in the simple sense of writing it down and reading it back, is important for understanding its general position in society. This is a low-level approach to general questions, but may add to the discussion of the increasingly rich material available on different literacies, and help to reinforce awareness that literacy is a process, and not a fixed entity.

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(**Note:** There is insufficient space here for detailed reference to Egyptian textual evidence. The basic study of Brunner (1957) cites many sources for Egyptian education in extenso. For literary and didactic texts in translation see Lichtheim 1973; 1976; 1980.)

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