

Literacy and orality

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a most powerful metaphor in Western thinking, leaving its traces e.g. in molecular biology.

The increase in literacy characteristic of our modern societies may prompt nostalgic attitudes hailing former states of presumably authentic orality. Such tentatives are bound to fail: once a society has become literate, it cannot but recreate orality with the means of literacy – like the gardens we lay out as surrogates for a lost Nature.

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2 Definitions

1 Abstract

Orality and literacy are dialectical concepts, the meaning of one term depending on the assessment of the other one. In addition, both have two aspects: a medial and a conceptual one. While mediality is trivial, the conceptual aspect is best conceived of as a continuum, thus blurring any clear-cut distinction between orality and scripturality. The scale corresponds to a series of ever more complex and demanding textual genres.

The existence of – alphabetic, syllabic, or ideographic – script does not change or achieve anything by itself. In order to unfold its immense creative and changing potential, script has to meet the appropriate cultural – e.g. institutional – conditions. The transformations it may result in are slow – as are all processes impinging on mentality.

One process is the enrichment of alphabetic script by an increasing number of ideographic features and a layout taking profit of the two dimensions of the written page. In mathematics, this resulted in a revolution in the 17th century. In recent times, informatics, as a new branch of mathematics, leaves deep imprints in everyday life. At the same time, alphabetic script was and is

Notions which are mutually dependent are called dialectical. This label applies to *orality* and *literacy*: ‘literacy’ cannot be conceived of without ‘orality’, orality not without ‘literacy’. Hence, their respective meanings depend on how the opposite notion is assessed: if orality is given a positive value, literacy appears as negative, and vice versa.

To give some examples: Marshall McLuhan (1962), relying largely on Eric A. Havelock, started from an oral society which was originally closed, which attached importance to the spoken word, and in which social roles were relatively fixed. He opposed this idealized form of community to Western literate societies which, having transformed oral language into a visible code, were seen as depreciating the spoken word, compelling us at the same time to cope with different social roles. In this context, a particularly negative influence is attributed to the invention of printing. Whereas Jack Goody and Ian Watt (1962) saw the transition from orality to literacy more in the sense of a profit-and-loss account, Walter S. Ong (1982) took an opposite stance underlining the positive aspects of literacy, thus suggesting to us the positive kind of innovation McLuhan was only willing to attribute to the New Age of

television which, in his view, takes already the place of literacy (Raible 1994).

The rash and far too general judgments we can find in recent and even in current scholarly discussion suggest a more cautious attitude. As Aristotle taught us, the first question to be asked in the present context is: what do ‘orality’ and ‘literacy’ mean? Here we have to tell a *medial* from a *conceptual* or *cognitive* aspect: the medial one is trivial – something we utter is either spoken or written. The conceptual aspect is a continuum, intertwining orality and literacy. This *conceptual* side needs some more consideration.

Communication by language is based on social convention. Hence, the utterances we engage in or exchange with others always reflect a socially accepted activity: somebody has to be *welcomed*; we engage in *small talk* with her or him, are asking *questions*, giving *answers*, making *jokes*, engaging in *gossip*, etc. Some more privileged persons *pass judgment* on somebody, make an *injunction* or pronounce a *verdict*. Such outstanding persons may also *give a keynote speech* before a large audience, or a *sermon* to the parish; some people of very high standing address a whole nation in a *State of the Union address*, or even the entire – then Catholic – world in a lengthy *Encyclical* titled e.g. “fides et ratio”.

The italicized terms in the preceding paragraph describe social activities or ‘acts’ accompanied – or even only made possible – by the use of language (‘speech acts’). They represent a continuum of text types which can best be arranged on a scale. Its one end can be termed ‘interactive text’, the other one ‘edited text’ (Biber 1988); other labels are ‘conceptually oral’ and ‘conceptually written’, i.e. highly planned and edited text (Koch & Oesterreicher 1985, 1994). For a similar distinction, Karl Bühler (1934) had already introduced a pair of Greek terms used by Wilhelm von Humboldt in the 19th century: language as *enérgeia* vs language as *érgon*, i.e. language as an activity or process (involving present partners), as opposed to language as something created, produced, edited, for instance a book. What is increasing from one end of this scale to the opposite one is, among other things, the

degree of structuring and, at the same time, the degree of intersubjectivity. Conceptually scriptural texts should be accessible to a large and unspecified public.

The implications of the conceptual scale can best be shown within a three-level approach to language:

	cognitive scale	
	Wilhelm v. Humboldt <i>enérgeia</i> ↔ <i>érgon</i>	
	P. Koch & W. Oesterreicher conceptually ↔ conceptually oral written	
	Douglas Biber interactive ↔ edited text text	
(a) ‘language’ as utterance	e.g. dialog with neighbour	↔ e.g. <i>fides et ratio</i>
(b) ‘language’ as speech act types	e.g. small talk, gossip, joke	↔ e.g. Encyclical, judgment, textbook, novel
(c) ‘language’ as system	makes possible a dialogue etc.	↔ makes possible an Encyclical etc.

Table 101.1 The conceptual continuum and its representation on three levels of ‘language’.

Each one of these three levels should be conceived of as a scale, reflecting exactly the conceptual and cognitive scale holding between orality and literacy: on level (b), we encounter *text types* (e.g. the speech act types mentioned above) with an ever increasing degree of editing and planning. Stylistics and rhetoric belong to this level, rhetoric being, indeed, the art of planning effective texts in subsequent steps. It starts with a general idea and a global strategy (*intellectio, inventio*); then come linear organization (*dispositio*) and memorizing (*memoria*); even the delivery (*pronuntiatio*) is planned.

On level (a), we find the respective realizations, i.e. *utterances* occupying – like small talk – one end of the scale, or, in case of a judgment, a patent specification, or the Encyclical, the other one. (c) is the level of the corresponding *systematic prerequisites*: composing texts belonging to elaborate text types demands a much higher mastery of

language than buying bread or joking with our neighbour. The fact that, in ontogenesis, it takes a dozen or more years until we are eventually able to produce fairly intelligible texts, reflects the – both linguistic and cognitive – demands made by the text types at the other end of the scale (Pontecorvo 1997; Raible 1999).

An Encyclical is written in papal Latin into the bargain, and has then to be translated in a series of other languages. Thus, ascribing a text to a certain textual genre is tantamount to saying that it represents a certain form of thinking, a certain conceptual attitude or framework.

These considerations explain why it is impossible to encounter, on the conceptual level, the same clear-cut distinction we find in medial realization. Conceptually speaking, orality and literacy are thoroughly intertwined. The often postulated “great divide” between orality and literacy, between ‘oral’ and ‘literate’ societies, simply does and cannot exist (Hornberger 1994).

3 Transitional aspects

This holds all the more as the existence of a script does not change or achieve anything by itself. Beyond doubt there is an immense creative and changing *potential* in literacy. But in order to unfold it, literacy has to meet the appropriate cultural – e.g. institutional – conditions. A whole series of inventions we tend to suppose as ‘Western’ (e.g. printing, paper money) were made earlier in China – with different social consequences (Ronan 1978).

There are, nevertheless, some evolutionary tendencies. One of them is that literate societies are likely to develop a greater number of textual genres, along with new – e.g. legal – institutions. This enlarges the conceptual space, shifting considerably the societal acquis of conceptual scripturality (and augmenting the time it takes us to acquire it). There will be neither essays nor editorials, patent specifications, or testaments in an oral society.

The augmentation of textual genres and the extension of the conceptual scale automatically means new demands on the systemic side. This is shown, among other

things, e.g. by the fact that a considerable number of English speech act verbs appear for the first time in Early New English: *to acknowledge, to advocate, to assert, to concede, to remind, to apologize, to question, to request*; or even only in New English: *to remark, to retort, to state, to accept, to guarantee, to volunteer* (Traugott 1987; Raible 1994a). Together with the speech act types already mentioned, these examples enhance at the same time institutional aspects of literacy.

One further general tendency is the slowness of all processes bringing about cultural change. Some examples shall illustrate this.

3.1 Alphabetic writing, orthography, and the invention of printing

There are two kinds of writing systems: those representing formal aspects of speech (*syllabic, alphabetic* script), and those rendering content (*ideographic* script). Writing proper names is a task that regularly leads to syllabic or even alphabetic elements in ideographic script, whereas alphabetic script tends to become ever more ideographic.

By reflecting essential aspects of spoken language, early Greek script is characteristic of early alphabetic writing in general: since we don’t hear pauses between words, *scriptura continua* is (with some exceptions) a quite natural outcome. It prevails in Western texts up to the 8th century A.D. and is linked with reading out loud.

By 1200, all the achievements of what most of us would call modern layout are present in scholastic texts: spaces between words, punctuation, capitals at the beginning of a new sentence, paragraph indentation, emphasis by means of different colors and different script (all of them ideographic features), chapter headings, short summaries in the margin, footnotes, a table of contents, alphabetic registers. As a result, the reader is not lost in an amorphous text. It is only at this time that the general practice of silent reading can begin.

Such developments are due to a feedback loop: the higher the number of readers, the more will their needs be taken into account by the invention of features facilitating the

reading process – as are ideographic elements. This explains why such phenomena can be observed at the end of the 12th century: it was not until then that lay literacy developed to any significant extent.

By this time, we observe an incredible increase in the production of written documents. In the State Archives of Siena, there are for instance about 500 documents from the 12th century, but nearly 17,000 for the 13th. This acceleration of text production coincides with major changes in social, commercial and agricultural organization. Thanks to doings and dealings, the city states of Northern Italy – a similar evolution can be observed in large parts of central Europe (for England: Clanchy 1993) – had already a population surplus. This compelled them to organize life and everyday supply very strictly by written statutes, to include the surrounding areas by treaties, more and more also by the purchase of real estate.

As a consequence, there was an immense need for knowledge: how shall I write a letter, make a speech, a treaty, how do I behave well, in short: ‘how to win friends and influence people?’ This was the time when, at Bologna, Roman Law was rediscovered; when the great Encyclopedias of the Middle Ages were written, when Italian merchants came to invent paper money as well as the new juridical forms of joint stock companies and insurances. In Art and Science, this was the epoch of Gothic architecture and Scholasticism (1100–1450), mediated by the contact with Arabic culture and the discovery of Aristotle.

In this perspective, the invention of printing presents itself much more as a necessary consequence than as an agent of change in the domain of literacy. This holds all the more as there was no major change in book production during the 50 years before and after the invention of printing (Eisenstein 1986). At any rate, the printers only continued the layout standards already fully developed by 1200.

There was, nevertheless, at least one topic fostered by printing: discussion on orthography. On the one hand, printing books for a great variety of unspecified readers inspires thoughts on standardization. On the other one, it goes without saying that all the

achievements made in writing and layout increase the intellectual and the practical effort of the writer. This is why discussions on orthography tend to be dominated, since the 16th century, by elementary school teachers who would like to reduce – for those learning to write – the difficulties brought about by the ideographic tendency under discussion. Usually, the positive side – the facilitation of reading – is not taken into account (Raible 2000).

3.2 Material aspects of the written text

The evolution of layout has an aspect which merits some more attention. Unlike spoken language, written text presents itself in two dimensions. Layout makes use of the respective possibilities in making visible chapters, paragraphs, and so on.

There is one further possibility which leads to modern mathematics. 13th century mathematicians were far from being familiar with the system of notation their successors use today. This system only took shape in a slow process between the 13th and the 17th century. Most of the symbols are the outcome of an intermediate stage presupposing alphabetic literacy: the stage of abbreviation. It leads not only to most familiar signs like & (‘et’), but also to the plus and minus (+,-), the symbol for the square root, etc. It was Descartes who, at the beginning of the 17th century, introduced the modern conventions holding for the symbolization of the unknown element; they facilitated the highly momentous discoveries made during the 17th century: analytic geometry and calculus, resulting in a new ideographic system.

Mathematical ideograms, consequently exploiting the two dimensions of the page, are accessible to simultaneous rather than to linear perception – provided one knows the system. This enormous progress made mathematics the most important complementary discipline to natural sciences, contributing in a decisive way to their role in our modern world (Krämer 1991). This is why, at the beginning of the 17th century, Galileo Galilei tells us that the Book of Nature is written in cipher and that those intending to

read it have to master the language of mathematics.

In recent times, this role has partly passed to a new branch of mathematics, informatics. Texts written in programming languages not only are at least as demanding as complex written texts in natural languages (Raible 1999). At the same time, their influence on modern life is pervasive. Retrospectively, the second part of the 20th century is likely to appear as the age of Claude E. Shannon (b. 1916).

The two dimensions of the written page have been exploited in other ways, for instance in the tables, matrices, and graphs we find in our texts. They are the result of a long process, too. A table is not made for linear perception, but for a global reading approach. Precise information may be found and interpreted according to its relative position in a whole whose structure had to be planned beforehand.

3.3 The written text as a metaphor

The use of written language as a metaphor has a long history, too – witness the Book of Nature (Blumenberg 1999). The metaphorical use starts with the early atomists, Leucippus and Democritus. Their basic idea was that the whole complex, manifold world surrounding us is nothing but appearance, whereas in reality all was thought to consist of atoms and the void between them. According to what Aristotle tells us in his *Metaphysics* (985 b 15ff.), their visible model for the invisible structure of matter was alphabetic script. The variety of the visible world would be due to the fact that the atoms are differently shaped – just as an A differs in shape from an N; that their order may be different – as the sequence AN is different from NA; finally their relative position in space may differ: a rotation of 90 degrees makes an N out of a Z.

The central idea behind this conception is the reduction of immense varieties onto a restricted set of elements (here the 20-odd letters of the Greek alphabet making up for a possibly infinite variety of written texts, an idea exploited e.g. by Jorge Luis Borges in his *La biblioteca de Babel*).

While the Book of Nature became a powerful and influential metaphor since the Middle Ages, the idea of the alphabet as the basis of a code reappears at the end of the 19th century in cell biology (Friedrich Miescher, 1844–1895). It was again put forward in 1943, this time by the Austrian physicist Erwin Schrödinger (1887–1961), in a series of lectures given under the heading “What is life?”, where he suggested a genetic alphabet similar to the Morse code. This idea was confirmed in 1953 by Francis Crick and James Watson who showed that the long strands of DNA (Schrödinger’s punched Morse tapes) have the structure of a double helix, and by the series of important discoveries that followed this breakthrough.

Since that time, the metaphor of language in the form of alphabetic script is omnipresent in molecular biology. The four nucleotide bases abbreviated by A, T, G, and C were called *letters of the genetic alphabet*. RNA-polymerase is *reading* DNA-sequences with their *reading-frames*. This process is called *transcription*, and it happens thanks to *transcription factors*; transcription is accompanied by an immediate process of *proofreading*. The result is called a *copy* subject to further *editing*. The resulting string of mRNA will be *translated* into a polypeptide. This is made possible because the triplets of DNA *encode* or are *coding for* amino acids. The whole process is called *gene expression*. It presupposes a *grammar of biology*.

There is more. The genome of lots of species is being *deciphered*. The result is stored in large *databases* modeling the sequences of nucleotides as sequences of the letters A, T, G, C. The same is true for *protein databases* symbolizing one amino acid by one letter. This is tantamount to saying that sequences of nucleotides or amino acids corresponding to triplets of nucleotides “materialize” – in a somewhat hybrid way – in databases as sequences of letters. Hence, molecular biologists are speaking of *gene libraries*. Recurrent sequences of nucleotide ‘letters’ as well as recurrent sequences of amino acids in proteins are called *motifs*, and the genome itself is seen as an *encyclopedia* (Raible 2000a).

3.4 Some other processes of transition

One of the disadvantages of ‘oral’ cultures is what was called a “collective censorship” (Jakobson & Bogatyrev 1966 [1929]: 4). Texts the audience dislikes fall into oblivion. In literate societies all written texts can be preserved and rediscovered by future generations. This advantage changes into a serious problem with mass media, including the Internet – this is above all a true consequence of printing.

Unless the public simply refrains from reading, there are at least three reactions. Long texts are transformed into shorter (and cheaper) versions. Antiquity knew lots of these text types, calling them *epitomē*, *summarium*, *argumentum* or *hypóthesis* (of a play); later on *catechismus*, *breviarium*, *compendium*. Other genres make a new text out of parts of others. Again, Antiquity started with *florilegium*, *anthología*, *eklogía*, *miscellanea*, *stromatéus* (‘patchwork’), *digests*, *pandektá*; Scholasticism added the *compilatio* and *encyclopaedia*. This tendency is far from having changed in recent times. Modern literary scholars cannot but use one of the vernacular versions of Valentino Bompiani’s *Dizionario delle Opere di tutti i Tempi e di tutte le Letterature*.

A second reaction is an institutional censorship as embodied by all systems of education. They make use of specific *curricula*, *syllabi*, *textbooks*, *introductions*, *primers* in order to transform youth into fully-fledged members of society.

Making texts as attractive as possible, alongside with making their content easily accessible, is a third answer to the problem. The most radical changes in writing can be observed in the history of mass media, i.e. in journalistic writing and in the corresponding genres of television. Scientific writing is another good example: the articles published in the respective journals are structured according to an identical model and endowed with tables, schemes, pictures, whose captions and legends, together with the obligatory *abstract* of the article itself, swiftly inform the readers. The last point shows one of the problems, though: it holds only for those who are already experts in the

matter, with the cognitive demands of such texts increasing at the same time.

The presentation of information in the Internet repeats an evolution that took place in the layout of written text. Witness the plethora of new elements in subsequent releases of hypertext markup language (HTML, XHTML corresponding to the third level in the above scheme) and the introduction of meta-tags leading, for web crawling machines, to the equivalent of subject catalogues in our libraries. The web pages of the Internet basically exploit the acquis of literacy (in traditional texts, ‘footnotes’, page references, a table of content etc. correspond to ‘links’, a major difference being only the quick availability of the objects referred to). New features are the availability of color, sound, and moving items. As printers know from long experience, the use of such gadgets should not be exaggerated, though.

4 A precarious equilibrium

There is no great divide, then, between ‘oral’ and ‘literate societies’, orality and literacy being intertwined on the conceptual level. In addition to this, there is another factor of cultural variation: a social community can dispense with script, not with spoken language. Apart from entirely oral cultures, we are thus always confronted with more or less literate societies. Given the dialectical relationship between orality and literacy, this means a steadily changing state of equilibrium.

There are indicators showing that the precariousness of this equilibrium is felt. As the evolution of culture in general may lead to the slogan ‘back to nature’, the increase in literacy may make us long for the lost paradise of ‘innocent’ orality – witness McLuhan. This desire may materialize in a motto like ‘let us write the way we speak’ (Bader 1994). First examples were Plato’s critique of literacy (*Phaidros* 275 d) and the effectiveness of highly planned Sophist rhetoric which made the public suspicious.

Anyhow, the consequence of such reactions is even more literacy. Since Antiquity, theoreticians of rhetoric know that among the genres of speech *ex improviso* speech is the most artful one. Baldassar Castiglione

(1478–1529), whose Courtier was a model for Europe since Italian Renaissance (Burke 1995), tells us that true art means dissimulation of art (... *quella esser vera arte che non appare esser arte; nè più in altro si ha da poner studio che nel nasconderla*). The same thing holds for the impression of orality called *skaz* that was discovered and recommended by some of the Russian formalists.

What at first sight might appear as paradoxical is quite clear at a closer look. Given the dialectical relationship, in a literate society orality has to be artificially created – just as 17th century authors conceive of nature – in literature and in the Fine Arts – as of ‘the negation of the negation of nature’. Once a culture has adopted literacy, returning to ‘authentic’ orality is impossible.

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