ORTHOGRAPHY

1- ORTHOGRAPHY AND DEFINITIONS

Orthography is a visible and readable representation of language. It is based on the laws and mechanisms underlying a specific script, and also relates to a particular socio-historical framework. Orthography gives linguistic messages a permanency that allows them to travel through time and space; and it also serves many other cultural and personal functions.

Any orthography will involve a linguistic theory. Therefore, since it is determined by linguistic processes, orthography can be said to be an extension of scripts. Specialists do not all agree, however, about how to define ‘scripts’ and ‘orthography’. Some of them take the differences to be negligible and claim that orthography is practically synonymous with ‘scripts’ or ‘spelling’. In fact, although these entities all have some characteristics in common, their specificities have to be taken into account. A word might be sufficiently well formed to qualify as a script or a spelling, but not be acceptable from the point of view of orthography. For a long time, the English have refused ‘alright’ as a valid alternative for ‘all right’, for instance, and the French still hesitate to replace ‘événement’ by ‘évênement’.

2- LINGUISTIC ASPECTS

Orthographies, like scripts, are complex systems, or more specifically, ‘plurisystems’. To fulfill the requirements of literacy, they have to combine several distinct modes of linguistic representation. From this point of view, orthographies and scripts are both based on very similar principles. In particular, they can use only a finite number of fundamental components — ‘phonograms’ — representing the sounds of the language in question to build significant linguistic structures — or ‘semiograms’. This two-fold process contributes to the ‘mixedness’ of orthographies. Any orthography is a blend of phonograms, which can consist of either syllables (Japanese
‘kana’) or phonemes (alphabets), and semiograms, which can consist of either morphemes (Chinese characters) or words (English and French orthographies). English orthography can therefore be described as being ‘logo-alphabetic’ and Chinese orthography, as being ‘morphosyllabic’.

<table>
<thead>
<tr>
<th>SEMIOGRAPHY</th>
<th>PHONOGRAPHY</th>
</tr>
</thead>
<tbody>
<tr>
<td>morphograms</td>
<td>morpho-alphabetic orthographies (Korean Hangul)</td>
</tr>
<tr>
<td>logograms</td>
<td>logo-alphabetic orthographies (English, Arabic)</td>
</tr>
</tbody>
</table>

Orthographical mixedness and linguistic principles

The above typological option contrasts with more classical options where the orthography has been conceived on the basis of a single alphabetic, syllabic or logographic criterion. However, simple linguistic descriptions of this kind are known to have their limitations. The letters of the alphabet mainly play a phonemic role, but they also perform other functions. In French orthography, for example, the letter ‘s’ can be either a phonogram, as in ‘sortir’ (‘to go out’), or a morphogram, when used to form plural nouns and adjectives, as in the phrase ‘mes petits amis’ (‘my little friends’). Likewise, most Chinese characters contain both a radical and a phonetic; whereas in Japanese orthography, syllabic and logographic units are placed side by side. This sort of analysis can be applied to any orthography, even the most transparent ones: the fact that the use of blanks is almost universal provides the best clue to the existence of the semiographic dimension.

Orthographies, like scripts, are constrained by linguistic structures. Too many syllables lead to alphabetical preferences having priority, and morphological properties generally determine the semiographic representations. The isolating tendency of the Chinese language favored the morphographic function of the characters, while the inflections of Romance languages, especially the infrasyllabic ones (the ‘o’ in the Spanish ‘canto’ (‘I sing’), for example), could be more satisfactorily represented by words. Does this mean that language and orthography are closely linked, or that any language is able to fit scripts of all kinds?

The choices made in some countries argue against the latter hypothesis by showing that with a given type of script, some options work better than others. A present-day example of this can be found in Central Asia, where competition is occurring between the Cyrillic, Arabic, and
Roman alphabets. Some languages, including those with a rich vocalic stock, such as Turkish or Azeri, cannot be fully represented by an alphabet designed for Semitic languages, which have a much less complex vocalic structure. On similar lines, when the Ancient Greeks borrowed the Phoenician alphabet, they had to think up a graphic notation for their vowels. If the options available are so highly constrained by an alphabetic tradition, what happens in the case of non alphabetic orthographies?

In literate societies, languages, scripts and orthographies are intertwined and affect each other so strongly that crucial changes can only be made under specific conditions. And the more numerous the users are, the harder any changes at all will be to put into practice, even if they are only minor ones. How, for example, could present-day Japan possibly go about making a reform as drastic as that promoted by King Sejong in Korea about six centuries ago, although the historical backgrounds of the two countries and the linguistic structures involved are similar?

3- Orthography and norms

Orthography is like scripts, but it has other facets. In fact, it has been described more exactly as "a normative selection of the possibilities of script for writing a language in a uniform and standardized way" (Coulmas, 1996: 379). This normative aspect was already present in ‘orthographia’, the Latin word meaning ‘the correct way to write’. This led to the vernacular terms for ‘orthography’ used in 15th century England, and some decades later in France and Europe.

The notion of norms is nevertheless somewhat ambiguous. To function satisfactorily, linguistic communication has to rely on fairly stable forms which fit norms. This is especially true of written language, which is the domain of invariance par excellence. But orthographic norms go much further, since some characters and letters have no synchronic functions, but indicate the real or presumable etymological origins of the words in which they occur. This is the most important characteristic of orthography: the linguistic norms it involves are part and parcel of the cultural aspects so to speak, and the whole operates like a ‘supranorm’.

In our modern societies, because of the mushrooming visuographic needs, written forms have come to be perceived like iconic images. This is the result of a long process of evolution, which was fostered by the invention of printing and the fact that people's social lives began to focus increasingly on the written word. At the beginning, the act of writing was
practised only by professionals (scribes and clerks) and fulfilled specific purposes that allowed for graphic variations. But the increase in reading activities created perceptual habits and orthographic consistency, possibly as the result of cultural attachment, as well as for reasons of cognitive convenience, given the existence of previously accumulated knowledge.

Orthography requires graphic consistency all the more as linguistic communities increase in size. The longer these communities have been established, the farther away they move from mere scripts. In this respect, orthography could be defined as script that has deteriorated with age. A conserving process is triggered by various co-operative factors, such as the fact that orthography tends to conserve extinct patterns of language, the existence of differences between the two design processes involved, the conservatism of written forms, perceptual habits, and so on. If the variants have nevertheless generally disappeared from the orthographic landscape, it is not only because the public authorities have wanted to impose standards, but also because people's perceptual habits have led them to set up cognitive norms. The spread of education and the growing number of users, especially readers, have made this need for invariance increasingly useful.

Consistency actually began to emerge with the birth of orthographies and developed as linguistic communities expanded, even before the invention of printing. In English, for example, orthography began to be standardized very early on, before the beginning of the 15th century, by the scriveners' guilds. The increasing number of linguistic exchanges occurring at that time created a need for standardisation, which gradually transformed written languages into a kind of ‘scriptura franca’. The arbitrariness of orthographic conventions is all the more attractive when the language used is not the users' native one. This has sometimes led to some languages borrowing foreign words as they stand, like ‘football’ in French, ‘e-mail’ in Spanish, or ‘menu’ in English.

Orthographies have rarely emerged as the result of deliberate projects, however. Rather than being planned extraneously, the morphogenesis of writing usually occurs spontaneously in response to various circumstances, apart from the notable exception of Korean Hangul, a truly man-made creation produced in accordance with the will of King Sejong. Most orthographic patterns are long-term constructs resulting from a set of compromises between conflicting options. Some of the designers of these patterns have preferred to keep to the phonemic structure of their languages as closely as possible, while others have refused to give up the components reflecting the history of the words. And the latter have often
won, as shown by the large number of etymological clues which are frequently to be found in orthographies.

This is not to say that any graphic consistency which develops is absolute. In fact, orthography seems to be continually torn between graphic permanency and adaptability to change, which is necessary as well. Speech is by definition susceptible to variation and tends to change more quickly than writing, but writing must maintain its close relationship with speech, because too wide a gap will make the users' task more complicated. This explains why there is always much heated debate on the subject of orthographic conservatism versus reform, and why such reluctance is often felt about any proposals to make linguistic changes.

In Germany, for example, the replacement of ‘eszett’ by ‘ss’ gave rise to great controversy; in China, the debate about the comparative merits of traditional and simplified characters is still going on; in Japan, the number of kanji is an open question; and some lovers of French orthography have declared that replacing the ‘y’ and ‘ph’ in ‘typhon’ by ‘i’ and ‘f’ would turn a typhoon into a little shower.

Literate people are strongly attached to the orthographic supranorm, which makes it difficult to impose any changes even if the damage they would cause to writing would be very slight. In the reforms it is proposed to make, often on the grounds of linguistic principles, this fact is not usually taken into account. This is why reforms have always been (rightly or wrongly) perceived as a threat to transmitted knowledge. In the past, graphic variations were common, and they were widely accepted by the happy few that had access to writing. But the advent of national languages, the production of standard scripts and the development of written communications have all contributed to creating a social institution that adapts more easily to external factors, such as the advent of the modern computer.

4- Current and future research

Nowadays the most important question research workers have to work on concerns the functional uses of orthographies. How could they be made available to a large majority of users and at the same time, continue to convey cultural and intellectual information about the historical origin of words, for instance? To answer these questions, mere descriptions of linguistic systems do not suffice, however relevant they may be. It is now necessary to evaluate the match between the requirements orthographies
should fulfill and how efficiently they are meeting these requirements. It is up to the psycho-linguistics and socio-linguistics to undertake this task.

During the last few years, psycholinguistics have been analyzing at length the acquisition of reading and writing, and have come to three main conclusions: phonography is the key to acquisition; orthography is easier to master when it is regular, as in Spanish, Italian and German; but finally, orthography of all kinds is concerned by this analysis, even when it is less regular, as in the case of French, English and Chinese, for example.

However valid they may be, these findings depend largely on the state of knowledge reached. In fact, very little is known so far about the visual aspects of orthography or the cognitive aspects of semiography in general. Recent studies on morphography have already tended to reduce the excessively heavy stress placed on phonography. In the near future, we can expect psycho-linguistic studies to pay closer attention to the mixedness of orthography and to the great variety of the orthographic components.

Orthography also needs socio-linguistic light to be shed on it. The few surveys available in this field have already shown that orthography rarely leaves its users indifferent. We have noted above how literate societies have come to eliminate graphic variations and are inclined to object to departures from the orthographic norms. However, an effort to overcome these objections has been made in some domains. The authors of critical studies have attempted to restore to ancient texts their original written forms; in school teaching, and sometimes in social groups as well, competing forms tend to be more readily tolerated nowadays.

Mistakes, which used to be ascribed to a lack of knowledge, can now be used as cognitive clues. This reflects an important epistemological change which has occurred in the field of literacy. After being the prerogative of professional scribes, the production of written language is now becoming more democratic, especially since the development of microcomputers. Contrary to what was expected to occur some years ago, the orthographic demands are constantly growing and the fact that mistakes occur systematically in electronic texts (e-mails and chats) is bound to change the orthographic norms more efficiently than any reform.

But even if grammatical and spelling correctors become more and more efficient, these technological aids cannot cope with people's entire written output. The increasing demands for written forms of production will therefore have repercussions on orthographies themselves, especially on those words and rules which are the most difficult to learn and master. And since the very future of orthography may depend on all these aspects, they
need to be better understood. Socio-linguistic studies are therefore required to determine what representations potential users have of their own orthographies, and especially, what the status of the orthographic supranorm may be in linguistic communities.

The same can be said about future historical studies. A good understanding of past morphogenetic facts could help linguists to predict possible forthcoming changes. The authors of some recent less partial and more objective studies than those previously published have described the ideology of standardization and the special treatment which linguistic variations undergo. These studies give us better understanding of the conflict between orthographic conservatism and reform. The vagaries of history help to make us more aware of the great disproportion which exists between the narrow scope of the changes proposed and the furious outbursts they have produced recently, not only in Germany and France, but in all those countries whose inhabitants are subjugated by the whims of their orthographies.

Jean-Pierre JAFFRÉ
Centre National de la Recherche Scientifique, Paris (France)

BIBLIOGRAPHY