Orthography design

by Deborah Weaver

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[Topics: orthography]

1. Introduction

The continual struggle in orthography design is the attempt to satisfy the demands placed on the linguist by linguistic, psycholinguistic, sociolinguistic, and practical factors. Writers in this area have disagreed on the importance of each type of factor. Andrée Sjoberg states that “… linguistic factors are much less important than socio-cultural ones” (1966:273). Richard Venezky, takes the opposite view and says that

…while socio-cultural factors must be considered at some point in the design of a practical writing system, these are subordinate to the linguistic, psychological, and pedagogical variables … (1970:256).

Kenneth Pike takes a middle road, stating

This practical alphabet should be chosen in such a way as to obtain an acceptable balance between phonemic principles and general sociological situations (Pike 1959:208).

This paper will examine each type of factor and its implications for the design of practical orthographies.

2. Linguistic factors

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Within the linguistic world there are two major theories which speak to the problem of orthography design: phonemics and generative phonology. No attempt will be made to argue the validity of either point of view.

**Phonemics**

The major linguistic factor in the view of phonemicists is that “… there should be a one-to-one correspondence between each phoneme and the symbolization of that phoneme” (Pike 1959:208). This is based on the supposition that the reader will always be able to connect one symbol with one sound and, thus, be able to “decode” the written word. The process of comprehension in reading is thus seen as occurring at the surface or phonetic level.

**Generative phonology**

The generative framework assumes that the process of comprehension in reading takes place at an abstract level which underlies the phonetic level. Therefore, their orthographies are based on the underlying form. As orthographies are designed for native speakers and not for outsiders learning the language for the first time, the major purpose of orthographies is to aid in comprehension, not pronunciation. Therefore

… surface phonetic variations which are automatic and which obscure similarities in lexical items are not represented at the lexical level (or in the orthography), but are introduced by the phonological component of the grammar (Chomsky 1970).

**Importance**

Whichever theory one chooses to use, linguistic factors are

… fundamental to the shaping of any orthography—setting the first requirements. To create a scientifically based orthography one must FIRST have a clear grasp of the language’s phonology, grammar, and vocabulary (Sjoberg 1966:264).

A sound phonological and grammatical analysis is a prerequisite before any other factors can be considered.

**3. Psycholinguistic factors**

If the end point of what we are doing is for people to be able to read, then the ultimate test of everything is whether or not it can be read (Gudschinsky 1968:3).

A good orthography meets the following criteria (Marlett 1979):

1. Considers attitude of native speaker toward the structure of his language

2. Considers the relative functional load of phonological features in determining the inventory of symbols

3. Considers the relative degree of difficulty or ease in reading and writing certain types of symbols

Without considering these factors, one may design a linguistically “ideal” orthography which is not functional in literacy. This type of orthography would be self-defeating.

4. Sociolinguistic factors

Andrée Sjoberg divides these into three categories: the linguist’s cultural bias, national factors, and local and regional factors (1966:273).

Linguist’s cultural bias

This simply consists of the cultural bias the linguist has as a result of being shaped by “… a kind of learning that has come to dominate within scientifically based industrial order …” (Sjoberg 1966:265). Because of this, the linguist is usually committed to the democratic system and the spread of mass literacy, as well as to the ideals of science…. This perspective has done much to shape current orthographic efforts (Sjoberg 1966:265).

National factors

According to Sjoberg, this is the major factor, a factor which “… frequently overrides linguistic considerations” (1966:267). National language policies tend to fall into two categories: those which reflect outside influence and those which seek to emulate industrial societies. In the first case, if [ŋ] is determined to be phonemically /ŋ/, the use of /ng/ may be seen to be an attempt to make a language look like English. Therefore, the linguist will possibly need to settle for using /ŋ/ as the symbol. In the second case, however, if [ŋ] is phonemically /ŋ/, national pressure to conform to Western culture many force the linguist to use /ng/ because the national policy rejects orthographies that do not look like English.

Local and regional cultural factors

At this level, Sjoberg identifies five types of factors which may affect orthography design (1966:268–270):

1. Local or regional cultures with a history of resistance to absorption by national society may force choices that make the orthography look different from the national language.

2. The existence of a regional trade language may force adoption of an orthography which is similar to that of the trade language.

3. Survival of an earlier writing system which is no longer used (or only used by very few) but still carries a high degree of prestige may affect choices.

4. Native preference for symbols, due to values, beliefs, and aesthetic considerations, are important.

5. Existence of related dialects forces the linguist to choose to make an orthography for the one which is, ideally, most representative. An orthography may be designed which is usable by all dialects, but not linguistically ideal for any of them.

Importance

Because of the fact that all linguistic work takes place within a national culture and in a local and regional framework, sociolinguistic factors must be taken into consideration. Sjoberg summarizes this in the following statement:

Actually, the symbolization of particular sounds is mostly a product of the interaction between the linguist’s own cultural heritage and the socio-cultural traditions of the particular national society and local preliterate groups with which he is working…Frequently the linguist must arrive at a compromise among the aforementioned variables, with the result that the final solution may be less than satisfactory (1966:270).

5. Practical factors

A final factor is the technological demands of the national culture: typewriters, printing presses and typesetters. Whatever orthography results after the foregoing factors are considered may need to undergo a final revision in order to be reproduced and printed.

6. Conclusion

It can be clearly seen that the design of a practical orthography is no easy task. The linguist must be a skilled diplomat as he strives to meet demands placed on him by a wide variety of factors. Most importantly, the linguist needs to be willing to settle for an orthography that may be less than ideal, linguistically. An orthography which is satisfactory to the speakers of the language by allowing them to learn to read, and which fits into the goals of the national culture is difficult, but not impossible to achieve.

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