

# Language and Linguistic Orthography

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Received: June 12, 2021

Accepted: July 15, 2021

Online Published: July 18, 2021

doi:10.5539/ells.v11n3p40

URL: <https://doi.org/10.5539/ells.v11n3p40>

## Abstract

Orthography is an undeniably unique human achievement; this work aims to provide a comprehensive overview of this achievement, by clarifying the concept of orthography and acknowledging its significance. Besides that, it demonstrates the broader types of orthographies that will face any foreign language learner—language orthography and linguistic orthography—and highlights the distinction between the two. In addition to discussing relevant work on orthography, it concludes with an evaluation of the two types, highlighting the differences in many aspects that are related to function, development and usage. Such work will enhance our understanding of orthography and surely contribute, not only to linguistic, but also to language research in general.

**Keywords:** International Phonetic Alphabet (IPA), language orthography, linguistic orthography, orthography

## 1. Introduction

While language defines humankind, it is orthography that defines civilisations, as it was the basis for the earliest urban societies (Daniels, 1996). The modern science of language, linguistics, has quite properly focused on the structure of spoken language as the main area for research, paying little attention to the orthography of the language itself (Daniels, 1996). Consequently, it is essential to discuss this fundamental issue by clarifying the concept of orthography and demonstrating the broader types. Therefore, this study provides a comprehensive literature review on the language and linguistic orthographies. It also discusses the distinction between the two in relation to function, development and usage.

## 2. Language Orthography

The word orthography originated from the Greek ὀρθός (orthós), ‘correct’, and γράφειν (gráphein) ‘to write’ (Skeat, 1993, p. 318) and referred to ‘correct writing’. This then became the Latin orthographia and later the French ortografie (perhaps 13th century). Language orthography refers to the connection between a language and its own script, which can be defined as ‘the normative aspect of writing systems and covers graphotactic as well as grapheme-phoneme-correspondence rules’, in which ‘alphabetic writing systems may be phonologically shallow or deep, and their orthographies may be ordered along the dimension “regular/irregular”’ (Scheerer, 1986, p. 262). Given the diversity in the writing systems of the world’s languages, several scholarly classifications have been proposed (Gelb, 1963; Sampson, 1985; Defrances, 1989), starting with Gelb’s classification (1963), which rejected the idea of descriptive representational symbols and divided full writing (phonography) into three subdivisions: word syllabic (logographic like Sumerian, Egyptian and Chinese), syllabic (Phoenician, Hebrew, Arabic, Kana and Cherokee) or alphabetic (Greek, Finnish, English, Latvian and French). Equally, Sampson (1985) divided writing into semasiographic (Yukaghir) and glottographic, which in turn was divided into logographic (based on polymorphemic unit like words, or morphemic, like Chinese) or phonographic, which includes syllabic (Kana), segmental (consonantal like Phoenician, Hebrew and Arabic), vocalic consonantal (such as Greek, English and French) or featural, like Korean. Lastly, Defrances’ classification (1989, p. 58), considered the dichotomy between partial and full writing. In his classification, Defrances differentiated between nonwriting and writing in which nonwriting includes dead-end symbols (Uruk IV symbolisations, Yukaghir, cave paintings and Amerindian pictographs), while writing involves rebus symbols that lead to syllabic systems. As far as the syllabic systems are concerned, they are divided into either consonantal systems or two subdivision pure syllabic system (Kana and Cherokee) and a morpho syllabic system (Chinese, Mayan and Sumerian). The consonantal systems are either alphabetic systems or two other

subdivisions, pure consonantal systems (Phoenician, Hebrew and Arabic) or the morpho consonantal system (Egyptian). The alphabetic systems are also divided into pure phonemic systems (Latin, Greek, and Finnish) or morpho phonemic systems (Korean, English and French) (Defrances, 1989, p. 58).

Currently, Defrances's (1989) classification has been broadly simplified into the widely used classification in which language orthography is logographic-phonetic, syllabic or alphabetic, where the distinctions are made on the basis of the relation between a given script or a set of symbols and its language structure. Indeed, Scheerer (1986) states that this relation between the script and its language is what is defined by the term orthography. It is not accidental to signify the kind of script and its language, more precisely, it is not accidental to indicate that the Chinese languages, for instance, have a logographic-phonetic system due to the fact that the typical character in Chinese orthography involves two components: a logographic and a phonetic component (Kartz & Frost, 1992, p. 68). The logographic component gives a visually distinctive indication to the semantics, while the phonetic provides a potential guide to the pronunciation. Thus, the two components jointly specify an entirely unique morpheme (Kartz & Frost, 1992, p. 68). The principle of Chinese orthography is that one symbol represents one morpheme or one unit of meaning that might, for instance, be a word. The symbol for the word 'mouth' in this system is 口 that perhaps is sort of what this word really means, though some symbols are not transparent the meaning of the word such as the symbol for the word 'love' is 爱. Another issue regarding logographic orthography is the difficulty of learning such a system; for instance, you might need to know around 2,000–3,000 symbols in order to read a Chinese newspaper. Perhaps with the absence of a phonetic component in Chinese orthography, the number of characters produced will be more limited than the effectively 4,300 characters used (Kartz & Frost, 1992, p. 68). In contrast to the logographic-phonetic systems, in the syllabic system each symbol correlates to a syllable or mora, such as the Japanese orthography which is a polysyllabic system composed of consistent syllable-like components, called mora (1992, p. 68). This system is effective for languages that have fairly simple syllable structures, such as Japanese, as mentioned before. Lastly, there is the alphabetic system, which is the most widely used system across the world. This system is a standard set of symbols (letters) that represent speech sounds (phonemes). The first known alphabet was the Phoenician alphabet, and currently developed to the most modern alphabets, Latin, Greek, Arabic, Hebrew and Cyrillic (Coulmas, 1989, p. 140). Alphabets are considered useful and easy to learn, in contrast to the logographic and syllabary systems. The crucial issue for learners of a foreign language is whether the orthography represents the distinctive sounds consistently and if it is easy to learn.

### 3. Linguistic Orthography

Alongside the numerous language orthographies, it has been essential to provide precise and explicit information on the sound system of any language, for language learning and teaching purposes, as well as linguistic research that is linguistic orthography. This orthography, or the International Phonetic Alphabet (IPA), was developed and revealed in the 19th century by the international phonetic association. It comprised a set of symbols and diacritics capable of transcribing any given language, though only a subset of these symbols would be required (MacMahon, 1996, p. 821). To clarify the distinction between traditional language orthography and linguistic orthography (IPA), consider the English words 'hat' and 'that', in the traditional orthography of the language they have three and four orthographic symbols (letters), respectively, while in the linguistic transcription using the IPA system, the two words are both represented by three symbols indicating three sounds: [hæt] and [ðæt]. This system of phonetic notation is based mostly on the Latin script, and the main principle of this orthography is ideally to provide one symbol per distinctive sound, though this not necessarily applied in the case of complex sounds (IPA, 1999). Among the symbols of this system, consonants and vowels are represented by 107 symbols, besides 31 diacritics that are mainly used to modify these, with a further 19 symbols specifically used to indicate suprasegmental aspects, such as tone, intonation, length and stress (IPA, 1999). This system is heavily used by many language dictionaries in order to represent pronunciation. Notably, some of this system's symbols have been incorporated into the alphabets of several languages, such as the Africa Alphabet in various sub-Saharan languages, like Akan, Fula, Hausa, the Manding languages and the Gbe languages (MacMahon, 1996).

### 4. Between the Two Orthographies

Language orthography has attracted little attention from linguists and perhaps their justification is that their main focus is on studying the language as it is spoken (Schmandt-Besserat & Erard, 2008, p. 20). With the continuous changes in human language, orthography cannot always keep up and perhaps due to social conservatism and permanent documents that remains as a continual reminder of the past standards (Danieal, 1996). This has created a distance between the spoken language and its written form, causing the potential obstacles that lately found in first and second language acquisition. Several researchers have shown clear evidence that language

orthography affects the phonology of L1 (Alario et al., 2007; Rastle, McCormick et al., 2011). Besides, L2 orthographic systems impact the perception and production of the speech sounds of L2, leading to the non-native-like pronunciation that is normally noticed in the early phases of L2 learning (Bassetti, Escudero, & Hayes-Harb, 2015). Conversely, linguistic orthography has undergone numerous changes and amendments since it was published between the 1890s and the 1940s. Apart from the addition and removal of symbols, changes to the IPA have consisted principally of renaming symbols and categories, and modifying typefaces to what we know today (MacMahon, 1996). These developments and modifications were essentially done to accommodate scientific innovations and discoveries with the radical increase in phonetic knowledge (Maron & Cysouw, 2018).

The distinctions between language orthography (writing) and linguistic orthography (phonetic transcription) can be seen in several aspects, beginning with the universal function of recording speech utterances that is the chief difference between the two orthographies. Linguistic orthography aims to achieve the highest level of accuracy in recording with the 'one symbol per sound' principle as far as possible. On the contrary, language orthography violates this principle as there is a historical justification. Writing was not invented and developed as a means of recording speech, but as a system of communication (Coulmas, 2003). Language orthography is a conventionalised technique of segmenting linguistic utterances resulting linguistic construct from words to phonemes as well as higher level that contain clauses and sentences, while linguistic orthography focuses on sound alone, neglecting grammar (Coulmas, 2003). Linguistic orthography is regarded as superior to language orthographies and this is definitely because of its scientific basis, in contradistinction to conventional language orthography, and the fact that it does not assume the reader's prior knowledge of the language (MacMahon, 1996). Language orthography provides the required information about grammar as well as meaning, while linguistic orthography relies on phonetic information alone, and to any foreign language learner linguistic orthography is a complement to language orthography (Coulmas, 2003).

Linguistic orthography is suitable for foreign language teaching and, owing to its potential advantages, such as systematicity, awareness-raising and autonomous learning alongside the visual aspects of learning and teaching (Mompean & Lintunen, 2015). The systematicity of linguistic orthography, meaning the principle that each symbol denotes one specific, distinctive feature which language orthography ideally should follow, is one of its advantages for foreign language teaching. Language teachers with some previous training in linguistic orthography (IPA) often lack 'practical' phonology courses, representing a bridge between linguistics and language pronunciation teaching (Gilbert, 2010). Thus, this aspect of linguistic orthography, and the irregularities of the spelling systems of language orthography, 'can function as a convenient code with which teachers and learners can discuss issues in pronunciation simply and unambiguously' (Mompean & Lintunen, 2015, p. 6). Indeed, linguistic orthography is flexible enough for language learners and teachers to decide to what degree of phonetic or linguistic detail they wish to represent speech (Mompean & Lintunen, 2015, p. 6). Linguistic orthography raises awareness of pronunciation aspects that language learners often fail to notice, which include the L2 sound inventory, the L2's different accents, phonological and sound-to-spelling distinctions between the L1 learners' first language and their L2, common pronunciation errors and so on (Harmer, 2001). Linguistic orthography is, by definition, the visual representation of speech that greatly enriches the learning and teaching of language pronunciation (Molhort, 1992). The power for autonomous learning that linguistic orthography surely enhances arose from its visual aspect, its potentially awareness-raising feature, hence autonomous language learners learn both inside and outside the classroom, and they know how to use resources independently in both contexts (Hedge, 2000).

It is widely acknowledged that language orthography, in its broader meaning, is a system of communication, and what humans truly communicate is the spoken language, as opposed to communicating nonverbal ideas or meanings (Katz & Frost, 1992). Despite the fact that not all languages have appropriate orthographies, those with respective systems of writing can allow and extend the capabilities of spoken language by enabling the formation of durable forms of speech that can be conveyed across space, for instance in correspondence, and saved over time as in libraries or any other public records (Schmandt-Besserat & Erard, 2008, p. 20). With the various uses of language orthography, linguistic orthography, on the other hand, is not restricted to language learning and teaching purposes. MacMahon (1996, p. 829) mentioned the various professional uses of linguistic orthography on a daily basis, namely by phoneticians, linguists, translators, foreign language learners and teachers, lexicographers, actors, singers, language therapists, pathologists of speech-language and constructed language creators. Remarkably, linguistic orthography is also used to write languages that exist only in spoken form and have no proper writing system (Korpela, 2006, p. 366). Such developed orthography needs to follow certain linguistic conventions (Sebba, 2009, p. 38). It must determine the script and graphic system, the nature of sound-spelling correspondences, the representation of sound in specific positions, the manner in which

homonyms are to be distinguished orthographically, certain features and diacritics and, lastly, the rules for marking the words' boundaries (Mooney & Jones, 2017, p. 14). Whaley and Grenoble (2005, p. 141) have clarified the extent to which this newly developed orthography is better and more successful: 'writing is better viewed as embodying the entire linguistic system, meaning that it connects with and represents other parts of the language—such as morphology, syntax or semantics - and not just phonology'.

## 5. Conclusion

In sum, one can acknowledge the significance of clarifying the various aspects of orthography, whether related to the writing system chosen by a given language or the specific linguistic one, which can precisely transcribe any spoken language. Much work on human orthography with some of the studies reviewed here offers a thorough understanding of language and linguistic orthographies. Based on this comprehensive review, more studies in this field are still needed to confirm previous studies on orthography and writing system. Besides addressing related research in orthography, this review concludes with an evaluation of the two orthographies, which highlights the differences in many aspects, such as development, usage and function. Such a contrast is undeniably essential in enhancing and guiding any further research in orthography that will be able to contribute not only to linguistic, but also to language research in general. One of the most apparent extensions is that the present study calls for further investigation into the notable contribution of linguistic orthography to human language, whether its incorporation into the alphabets of several languages, or being the official orthography for spoken languages that have no proper writing system. Such studies will not only highlight linguistic orthography's contribution, but also consider issues in a broader sense that it was not possible to explore in this research.

## Acknowledgments

The author would like to thank the Research Center at Taibah University, for funding this research project.

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