What Are We Calling "Latin Script"? Name and Reality in the Grammatological Terminology

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Abstract. The main purpose of this paper is to pose a question regarding the term "script" in the grammatological field, in respect of whether accepted referents match up the definition in previous studies. We follow existing definitions, discuss its nature, and test it against a widely known instance, Latin script. We have concluded that what we call by that name is, in many aspects, not integral to be a single "script" in reality. We thus propose an alternative view on its classification and relevance, with some preliminary analysis on this problem.

1. Background

1.1. The Term "Script"

While there are several known controversial concepts in theoretical grammatology (or maybe graphemics; by this term we refer to the semiotics dedicated to "writing") in terms of their definitions, most notoriously grapheme (Kohrt, 1985; Lockwood, 2001), some key terms, to our knowledge including script, have gained general acceptance, rarely been questioned in previous research whenever it has been mentioned.

Script. A collection of letters and other written signs used to represent textual information in one or more writing systems. For example, Russian is written with a subset of the Cyrillic script; Ukranian is written with a different subset. The Japanese writing system uses several scripts.

(The Unicode Consortium, 2016)

The term *script* is reserved for the graphic form of the units of a writing system. Thus, for example, 'The Croatian and Serbian writing systems are very similar, but they employ different scripts, Roman and Cyrillic, respectively.'

(Coulmas, 2003, p. 35)

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Y. Haralambous (Ed.), *Graphemics in the 21st Century. Brest, June 13-15, 2018. Proceedings* Grapholinguistics and Its Applications (ISSN: 2534-5192), Vol. 1. Fluxus Editions, Brest, 2019, p. 91–109. https://doi.org/10.36824/2018-graf-wang ISBN: 978-2-9570549-0-9, e-ISBN: 978-2-9570549-1-6

A "script" is just a set of distinct marks conventionally used to represent the written form of one or more languages. [...] Thus we will speak of the "Roman script" or the "Chinese script." A writing system however is a script used to represent a particular language. [...] We will use the terms "orthography" and "writing system" interchangeably. (Sproat, 2000, p. 25)

script 1 In the study of writing, the graphic form of a writing system. [...] A writing system needs a script for its physical representation [...]. For example, the Roman, Cyrillic, Greek, Russian and runic scripts [...].

(Coulmas, 1996, p. 454)

They all agree that a script is a collection of written symbols that serves writing systems or orthographies, by which they refer to mechanisms bridging between a particular language and a graphic representation, as shown in a definition below.

Writing System. A set of rules for using one or more scripts to write a particular language. Examples include the American English writing system, the British English writing system, the French writing system, and the Japanese (The Unicode Consortium, n.d.) writing system.

Some authors, as far as we could find, do not explicitly give a definition, but still implicitly assume similar frameworks, as they occasionally make remarks like "Why is Czech written in the Roman alphabet" (Rogers, 2005, p. 182). Similarly in DeFrancis (1989) or Daniels (2009).

Others have slightly different set of terminology, such as:

orthography script

conventional spelling of texts, and the principles therefor writing system a signary together with an associated orthography in this book, equivalent to writing system

(Daniels and Bright, 1996, pp. xliii-xlv)

Daniels (2018, p. 155), however, has modified the definitions as the following, which he states to be "hopefully uncontroversial".

- (1) orthography (2) script
- conventional spelling of texts, and the principles therefor a particular collection of characters (or signs), used to avoid specifying abjad, alphabet, etc.
- (3) writing system a script together with an associated orthography

It is also worth noting that Sampson (1985; 2015) explicitly treats terms including script and writing system equivalent. That said, the books still seem to implicitly assume that something is shared among writing systems: "keeping the Roman alphabet [...] but departing from the standard English spelling".

One interesting thing we would like to point out is that, as one can also see from the above, definitions of script are usually accompanied by several instances authors think are notable examples of it, in which Roman (Latin), Cyrillic, and Chinese scripts seem to be most commonly referred to.

1.2. Terminology in This Paper

This paper will use *script*, *orthography*, and *writing system* thereafter in accord with the definition of Daniels (2018) cited in Section 1.1. We also replace *writing system* with *alphabet* in this paper when referring to specific writing system (e.g., *English alphabet*) for convenience sake, as most of the discussion involves alphabetic writing systems. Letters are marked in angular brackets (e.g., <A>) when the glyph or grapheme etc. represented by them are in discussion, without any extra notation, as each meaning should be unambiguous from the context.

Latin script, which will be the central topic of this paper, is also widely known in several aliases, such as Latin alphabet, Roman script, or Roman alphabet. This paper will consistently use the name "Latin script," regardless of what it is addressed by other authors, as we consider them synonymous in this paper. The names might represent different connotation with historical stages, but the discussion is mostly concerned with recent, if not contemporary materials that no confusion would be expected from the possible contrast.

2. The Nature of a Script

2.1. The Emic Nature of Script

As we have previously seen in Section 1.1, a script is over all understood as "a set of graphical forms used in writing systems." Now the question is whether each "graphical form" stands for a concrete, objective shape that can be identified across scripts, or a conceptual, subjective item that can only be defined inside a system of script? We believe that the elements in the inventory of a script must be the latter—in other words, *emic* units as introduced by Pike (1954).

The fact can be confirmed by a couple of simple observations. Figure 1 shows a logo once employed as the official logo of NASA (National Aeronautics and Space Administration) of USA. In the picture, the entire graphical shape is intended to be read as "NASA," but the parts corresponds to <A> are realized without the bar in the middle. It, of course, causes little difficulty being recognized as an instance of <A> nevertheless. This, however, can be a little different when we are writing in Greek script, because the system differentiates <A> (Alpha) and <A> (Lambda) exactly by that feature. Greek readers would also recognize the shape itself, but a design that equalizes the two is simply wrong. Thus we can say that a script is not made by picking out needed pieces out of the sea of any imaginable graphical shape. We can accept every kind of shape, may it be untypical, just different system might impose different judgment.



FIGURE 1. An old logo of NASA

There will be another question: is it not that where scripts differ is only how to draw lines between numerous elements, each of which is still a concrete shape which one has encountered? What we see in Figure 2 is a passage intended to be meaningful as English, but each distinct shape corresponding to a letter is made to largely resemble katakana and kanji's skeleton in Japanese writing. Most readers who read English and not Japanese should be able to understand the sentences, although they presumably have never seen such rendering of English alphabet before¹. It may sound surprising, but they are so similar to what usual Japanese characters look like that is almost illegible to those who chiefly read Japanese. From this example we can see that the recognition of each element is not founded on actual instances, but on some essential features the element has in the script.

With these above, we can regard a script as a system that has its own rule set of distinction, and a limited number of elements which are differentiated from each other by internal rules.

2.2. The Writing System-Independence

As in Section 1.1, the common perception is that a script can serve for multiple writing systems, and a writing system may utilize one or more scripts. Meanwhile, we have confirmed in Section 2.1 that a script is by nature an emic system.

The relation between a script and a writing system is comparable to that between a sound system (phonological system) and a language. Basically, the former is a subsystem of the latter. Yet there is a main difference, namely that a script is thought to be shareable between many

^{1.} In case whoever has difficulty reading it: the intended reading is hey guys / can't you read / this sentence? / why can't? 'cause you are japanese (obscure casing).

カモン GUソラ こんけ、ナンロロ なモムワ ナカエラ ラモウナモウにモ?

山ナン こんけナ? ゲンロコモ ソロロ ムヤモ ゴムアムウモラモ

FIGURE 2. Passage in a faux-Japanese² Latin typeface (XYZ4096, 2015)

writing systems. The quality of being independent from writing systems (on the flip side, a writing system can have multiple scripts) is an interesting aspect of script, a unique notion in grammatology. In the world of language, a sound system is usually not considered sharable among multiple spoken languages.

In the same time, it comes with a question: how to determine if scripts used in two writing systems are the same? We could hardly find linguistic literature that discusses the problem, as phonology has been rarely compared across languages. It is an unusual idea to assume many languages share the same sound system or inventory.

2.3. Comparing a Script

Because a script can be shared by writing systems, we need means to compare scripts of different writing systems in order to know whether they are identical. A hint comes from Roy Harris's works. His theory on writing is, as pointed out by Daniels (1996), admittedly somewhat distant from the "mainstream" writing systems studies cited in Section 1.1, partly because it is tightly combined with the underlying *integrationist*

^{2.} Note by the Editor. Alessandrini (1979, p. 44) gives the name exotypes to "Latin typefaces that simulate non-Latin scripts," like in the case of this example. (Haralambous, 2007, p. 414).

framework. Despite that, many of his semiotic descriptions are equally meaningful even if we do not presuppose his perspective. He refers to two concepts: *notation* and *script*.

- notation:

A notation may serve as a basis for more than one scripts.

(Harris, 2000, p. 92)

A notation may, in principle, serve to articulate any number of different writing systems. Whatever value the figure 5 has [...], it remains recognizable as a member of the series of characters belonging to the notation we call 'Arabic numerals'. (Harris, 1995, p. 102)

- script:

[T]he typical range of forming and processing activities involved in dealing with letters, numerals, syllabaries, etc. [...] based on the recognition and relative sequencing of the members of an inventory of characters, differentiated [...] by their form. (ibid., p. 93)

Except that his scope of discussion includes non-glottographic (i.e., which does not translate into oral languages) writing as well, his *notation* and *script* highly resembles *script* and *writing system* in this paper, respectively³. On top of that, Harris (2000, p. 106) provides criteria of a notation.

- 1. Each member of the set has a specific form which sets it apart from all others in the set.
- 2. Between any two members there is either a relation of equivalence or a relation of priority. Thus every member has a determinate position with respect to all other members in the set.
- 3. Membership of the set is closed.

Based on this, we can draw up our criteria to determine when it should be an identical script, summarized as follows:

- 1. The set has the same repertoire of members.
- 2. The set has the same boundaries / rules of distinction among its members.
- 3. The set has the same set of internal relationships among its members.

The criteria has been modified from Harris's original one by a few points. Firstly, asserting that membership of a script is closed may be too strong, because, while it is probably theory-dependent, some actual writing systems are apparently using an indeterminate number of signs.

^{3.} Beware that our script corresponds to Harris's notation, not his script.

We lower the hurdle to the level that a consistent mapping of each members will suffice, and merged it into our first and second conditions. Secondly, the second item of Harris's is too focused on one-dimensional relationship, and we want to augment it to cover any interrelated contrast and/or connection, which is resolved into our second and third conditions. Finally, Harris's first item becomes a part of our second condition.

3. The "Latin Script" Problem

3.1. Question

Latin script is often cited as the most widespread script that used by majority of the world's languages (Knight, 1996; SIL International, n.d.). Meanwhile, it is also routinely said that Latin script has been kept monolithic.

[T]hese local forms were always considered to be forms of a single Roman alphabet shared by all western European cultures[...]. If we compare this with the Greek [...] those variants frequently became independent scripts: Coptic, Gothic, Cyrillic, etc. [...] [I]n India a single early script gave rise to a very large number of different scripts. Western Europe, however, maintained a sense of cultural unity which preserved the Roman alphabet intact.

(Rogers, 2005, pp. 175–176)

It declares a belief, that despite the diversity in form and of writing systems adopted in western European languages, they are all founded on an identical set of symbols called Latin script. Is this belief, whereby people call the massive existence in one name "Latin script," true and valid in the light of its actual function? Could we trust it as a sound grammatological concept? We would like to examine this statement against our criteria described in Section 2.3.

It is to be noted that in subsequent discussions we will only be interested about its solidarity as a script, not other factors related to writing systems. That means we try to isolate what is relevant to comparison of script-level behavior, in the way along the line of previous sections. Topics about correspondence with oral languages and usage of punctuation are out of scope. Some features that characterize a writing system, namely writing direction, digraphs, capitalization, and other rules on combinations of letters in spelling (graphotactics) are excluded because they can be explained as orthographical phenomena. Mentioning differences induced by diacritical elements is also avoided, because we do not have conviction that it does not fall under orthography but script in principle, being merely a vertical version of combination.

3.2. Range of the Latin Script

In order to discuss various properties of Latin script, we must have a definition of the extent it is used. However, there are few exhaustive descriptions available on the extension of the script. Documentations we can temporarily rely on are Wikipedia, which lists around 150 alphabets counted as Latin script's applications, or ScriptSource (SIL International, n.d.), which lists around 4,500 of them. Here, we will delegate the specification of (commonly acknowledged) Latin-script and non-Latin-script writing systems to those sources for the purpose of discussion.

3.3. Examination

3.3.1. Repertoire

ISO basic Latin, recognizing 26 letters, each with two variants—upper and lower cases, could provide us a reasonable starting point of discussion on Latin script repertoire.

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz

Although the set gains most widespread currency in the Latin-script world, many languages add, drop, or both add and drop base characters, besides the majority of Latin-script orthographies that mandatorily employ diacritics to augment their character sets. This varied coverage, putting other factors aside, presents a difficulty delimiting the extension of Latin script, since as with the classical Sorites paradox, we would be not able to decide how many letters could be added/reduced before an orthography starts/ceases to be a Latin-based writing system. This concern is, unfortunately, something real.

If we are allowed to believe a chart on Wikipedia,⁴ the only two letters that 81 Latin-script orthographies (when accessed back on 2018) agree to have in common are <A> and <I>. What if we adopted it as the minimal requirement of Latin script? Then Belarusian alphabet would be a member by having <A>/<a> and <I>/<i>, contrary to most readers' expectation! What is worse is, at the time of writing of this article, the list has been expanded to include 100 alphabets, the only shared letter of which is <A>.

Can we, on the other hand, define the system by the largest superset? Cherokee script has 5 letters indistinguishable with the basic Latin

 $^{4.\ {\}tt https://en.wikipedia.org/wiki/List_of_Latin-script_alphabets.}$

letters (by roman type) in both upper and lower cases, and 17 if limited to the upper case⁵. Even compared to modern Cyrillic inventory, in which less than 10 letters at maximum match that of Latin under the same conditions, it exhibits a great degree of commonality with Latin. Does it mean that Cherokee script is qualified to be incorporated as a variation of Latin? Of course, Cherokee comprises a much larger repertoire of characters that counts over 80, which discounts the fraction of similar letters out of its entirety. But then, what if we had a writing system that used up a large number of additional peculiar letters, which is already partially practiced by some existing African, as well as European alphabets that belong to the Latin script group?

3.3.2. Distinction

When we are using a Latin letter in a language, is it the "same" sign we use to write another Latin-based language? Since we have excluded differences in so-called grapheme-phoneme (or we might name it more broadly, "graphic-acoustic") correspondence, which is naturally idiosyncratic to each orthography, we should reword the question: does a Latin letter share a set of distinctive features throughout Latin-based writing system? This is practically reduceable to a question whether an instance of letter written under an orthography is perceivable as the same letter under another, without misunderstanding.

Perhaps one of the most outstanding, systematic discrepancies among Latin-script writing systems is about the tittle on $\langle I \rangle$. Turkish alphabet, with some followers of it, stipulates the dot above $\langle I \rangle$ to be distinctive, therefore it has two sets of letters $\langle I \rangle/\langle i \rangle$ and $\langle \dot{I} \rangle/\langle i \rangle$ to represent distinct phonemes in the language, where most other Latin-based writing systems ignore the difference, in addition to the fact that $\langle I \rangle/\langle i \rangle$ is the standard glyph pair for them in printing. In Turkey, we are never short of examples that (presumably) local literates inadequately stretch their rule to foreign writings. Figure 3 shows a four-language signboard in the all-caps style, which is particularly curious because while the English translation—with no diacritics needed—contains no $\langle \dot{I} \rangle$, French and German translations—both requiring some diacritics—are printed with all capital $\langle i \rangle$'s as $\langle \dot{I} \rangle$.

The orthographically demanded split of <I> and <İ> has further significance beyond the letters themselves. According to the study of Özer (2016), over the half of subjects (college students attending the calligraphy class) put a tittle above the capital J, although it is an "error," nonconforming to the prescriptive orthography of Turkish (Figure 6). This

^{5.} The reckoning is based on the number of glyphs rendered identical in the Phoreus Cherokee typeface, which is designed consistently through Latin and Cherokee letters, and reportedly in cooperation with the Cherokee Nation (Jamra, 2015).



AZİZE BARBARA ŞAPELİ

KAYA BLOKUNUN ARKASINDADIR HAÇ PLANLI, İKİ SÜTUNLU, BATI, **ELMALI KİLİSE'NİN BULUNDUGU** HAÇ KOLLARI BEŞİK TONOZLU, **KUZEY VE GÜNEY**

UYGULANMIŞTIR. DUVARLARDA VE KUBBEDE ZENGIN GEOMETRIK MOTIFLER KIRMIZI BOYA İLE DOĞRUDAN KAYA ÜZERINE BULUNMAKTADIR.

MERKEZİ KUBBELİ, DOĞU HAÇ KOLU VE DOĞUDAKİ İKİ KÖŞE MEKANI KUBBELİDİR. BİR ANA İKİ YAN APSİSİ

DUVARLARDA TAŞ İZLENİMİ VEREN MOTIFLER, MITOLOJIK HAYVANLAR MOTIFLER DE YERALMAKTADIR. KİLİSE 11. YÜZYILIN İKİNCİ YARISINA TARIHLENMEKTEDIR. RESMEDILMIŞTIR. AYRICA VE ASKERI SEMBOLLER

HEODORE; BATI HAÇ KOLUNDA İSE KOLUNDA AT ÜZERİNDE EJDERLE SAVAŞAN AZIZ GEORGE VE AZIZ SAHNELERI:ANA APSISTE ISA PANTOKRATOR; KUZEY HAG **AZIZE BARBARA TASVIRI** BULUNMAKTADIR

CHAPEL OF ST. BARBARA

EAST ARM, AND THE EAST CORNERS THE ROCK HOUSING ELMALI (APPLE) NORTH, SOUTH AND WEST ARMS OF THIS CHURCH IS SITUATED BEHIND VAULTED, AND THE CENTRE, THE PLAN, WITH TWO COLUMNS. THE ARE DOMED. THERE ARE A MAIN, CHURCH. IT HAS A CRUCIFORM CENTRAL APSE AND TWO SIDE THE CRUCIFORM ARE BARREL APSES.

MOTIFS INCLUDING GEOMETRICAL DIRECTLY ONTO THE ROCK. THE MOTIFS WERE PAINTED IN RED DECORATED IN A VARIETY OF WALLS AND THE DOME ARE

ANIMALS AND MILITARY SYMBOLS. RESEMBLING STONEWORK. THIS THE WALLS ALSO HAVE MOTIFS CHURCH DATES BACK TO THE PATTERNS, MYTHOLOGICAL SECOND

CHRIST PANTOCRATOR, ON THE NORTH ARM ARE ST.GEORGE AND THE DRAGON AND ST THEODORE SCENES: ON THE MAIN APSE IS AND ON THE WEST ARM IS ST BARBARA.

DE SAINTE BARBE.

HALF OF THE 11TH CENTURY.

LA CHAPELLE DE SAINTE BARBE

CETTE CHAPELLE DATE DE LA DEUXIÈME PARTIE DU XI ÈME SIÈCLE ET SE TROUVE DERRIÈRE LE BLOC DE ROCHER OÙ PREND PLACE L'ÉGLISE ELMALI. SON ARCHITECTURE EST DE PLAN EN CROIX, LES CÔTÉS

NEBENAPSIDEN. SUD-, WEST- UND

GRUNDRIB, ZWEI SAULEN, EINE

HAUPT- UND ZWEI

LIEGT HINTER DEM FELSEN MIT

DIE ST. BARBARA-KIRCHE

DER ELMALI-KIRCHE. SIE HAT

EINEN KREUZFÖRMIGEN

JORDFLUGEL SIND ÜBERVÖLBT,

DIE MITTE UND DER OSTFLÜGEL

ÜBERKUPPELT. GEOMETRISCHE

MOTIVE UND FABELWESEN IN

NORD, SUD ET OUEST

REICHER ZAHL SIND MİT ROTER FARBE AUF DEN UNVERPUTZTEN

COMPRENIENT UNE VOUTE EN
BERCEAU, UN DÓME CENTRAL ET
DEUX AUTRES DÓMES SUR LES
PARTIES EST, AINSI QU'UNE
ABSIDE CENTRALE ET DEUX
ABSIDES LATERALES, LES
FRESQUES ONT ÉTÉ PEINTES
DIRECTEMENT SUR LA ROCHE
DANS LES TONS ROUGES. SUR
LES MURS ÉT LES DÔMES, DES
FIGURATIONS GÉOMÉTRIQUES,
DES ANIMAUX MYTHOLOGIQUES
ET DES SYMBOLES MILITAIRES
ET DES SYMBOLES MILITAIRES **ONT ÉTÉ REPRODUITS**

VORTAUSCHEN SOLL. DIE KIRCHE

GEMALT, DAS MAUERWERK

AUF DIE WÄNDE AUFGETRAGEN. AUßERDEM WURDE EIN MUSTER

FELS UNTER DER KUPPEL UND

LES SCÈNES REPRÉSENTÉES: SUR
L'ABSIDE CENTRALE; JESUS
PANTOCRATOR, SUR L'AÎLE NORD,
SAÎNT GEORGES TERRASSANT LE
DRAGON ET SAÎNT THÉODORE;
SUR L'AÎLE QUEST, LE PORTRAÎT HÄLFTE DES 11. JAHRHUNDERTS. STAMMT AUS DER ZWEITEN

KÄMPFEND, ST.THEODORUS UND PFERD UND MIT DEM DRACHEN DIE FRESKEN STELLEN JESUS FLUGEL ST. GEORG AUF DEM HAUPTAPSIS, IM RECHTEN IM RECHTEN FLÜGEL ST. PANTOKRATOR AN DER BARBARA DAR.

FIGURE 3. A signboard in Turkey with dotted I



FIGURE 4. Variations of ij (Tubantia – beeld RD, Anton Dommerholt)



Figure 5. Variations of \dot{Z} (My another account, 2014)

example clearly shows the result of an analogical induction that what the capital of $\langle j \rangle$ should look like, when that of $\langle i \rangle$ is $\langle \dot{I} \rangle$. We can say that the Turkish system has afforded the conceptualization of tittles as a diacritic, unlike other branches of Latin-script alphabets.

	j	² j	³ <i>j</i>	⁴	5	° j	, j	8	J J	10 J	Doğru Harf	Harflerde Yapılan Yanlışlar	Öğrenci Sayısı
	11	12 .	13 ,	14 0	15	16	17 ,	18	19	20 .		Noktalı yapanlar	22
7	1	F	J	J	1	J	I	J	I	J		Alt uzantısını bombeli yapmayanlar	31
8	21 ,	²² T	23 1	24	25	26 T	27	28 T	29	30 ÷	7	Harfi sıralamasında yazmayanlar	1
	d	J	J	J		J	J	J	2	J	d	Başlangıç bölümünü bombeli yapanlar	2
	31	32	33	34 j	35	36	37	.1	39 j	40 1		Başlangıç dalgasını hiç yapmayanlar	5
	V	0	O	1			0	U	0			Düzgün olmayanlar	38

FIGURE 6. Handwritten J's of undergraduate Turks (Özer, 2016)

We can still find examples if we narrow down the scope to Indo-European languages. For example, the <V>-like glyph is often written in the place of what is usually represented by digraph <IJ> in Dutch (Figure 4), while most of non-Dutch, suppose English, readers would equate it with <Y>. In another case, <Z> and <Z> are distinct letters in Polish because the latter is a variant of < $\dot{z}>$ (Figure 5), against the conception in some writing systems such as that of English.

These discrepancies signify the difference of distinctive criteria. If an English and a Turkish, an English and a Dutch, or an English and a Polish reader disagree with the identity of a certain glyph, those systems cannot be identical. The situation is comparable to that where the same sample of voice steadily invokes associations with different phonemes for two speakers: they are considered to have different sound systems, which means they speak different languages or dialects.

3.3.3. Ordering

Latin script maintains a certain relatively stable sorting order, which appears to be a hopeful trait to characterize the system if putting aside the status of letters with diacritics. However, according to Comrie (1996), the Lithuanian alphabet disagrees with ISO basic alphabet by putting <Y> between <I> and <J> (because <Y> represents the long vowel of <I>), and so does the Estonian alphabet, with <Z> between <S> and <T> (<Z> being a foreign letter whose sound is akin to that of <S>).

3.3.4. Case

Casing does not account for the uniqueness of Latin script by its own, yet is still possible to be an auxiliary measure. Most variations of Latin script certainly are bicameral, but casing in Saanich alphabet is very



FIGURE 7. Misspelled broken script in Germany (Kobayashi, 2012)

marginal, if not nonexistent. It consists of 38 uppercase glyphs with lowercase <s>, while <s> exclusively marks the third person possesive suffix, which is not exchangeable with the uppercase counterpart (Harvey, 2009).

3.3.5. Diachrony

We would like to make some mention of related matters in the diachronic perspective. It is frequently argued that historical glyphs appearing in old documents are also variants of Latin script. Is it true that they are merely allographic to modern glyphs of the script?

Firstly, of course, we have issues in identity of character set, where the classical repertoire of Latin script lacks <I>-<J> and <U>-<V> distinctions alongside an independent <W>, as compared to ISO basic alphabet. But can we still deem that the remaining letters are conceptually unaltered over the course of time?

Akira Kobayashi, a Germany-based typographer, has reported his interesting discovery on broken script (a.k.a. Gothic or Fraktur) misuse (Kobayashi, 2012). Figure 7 shows a sticker intended to be read "Eintracht Frankfurt," but actually typeset "Eintracht Frantzfurt". This kind of error suggests whoever in charge of this product understands broken script glyph shape merely by imposing an Antiqua (i.e., contemporary)

H 11 (SUNZE SANG	YO A
	TALERI PAINT	
H 1 1	ホワイト	1745
H 2 2	ブラック	1747
H 3 3	レッド	1503
H 8 8	シルバー	1546
H 12 33	フや消しブラッワ	1749
H 18 28	黒鉄色	1415
H32 40	フールドクレー(1)	
H 35 80	コバルトブルー	2715
H 47 41	しッドプラウン	1533
H 60 16	濃緑色	
H 70 60	RLMグレー02	1591
H 301 301	グレーFS36081	
H 305 305	グレーFS36118	
H 314 314	ブルーFS35622	1731

FIGURE 8. Misspelled Japanese manual (Kimura-mo, 2017)

mental image, and such knowledge does not automatically provide correct discrimination ability of the broken script. Such a situation is, in fact, typically observed when a writer tries to handle non-native writing systems. Figure 8 is a well-known example among Japanese scale model hobbyists, where the imported brand regularly confuses similar-looking characters in Japanese. The cause of such confusion in this case is clearly the unfamiliarity of the writer with Japanese scripts⁶. Even though it has been only seventy years since the ban of broken script in Germany, does not the fact people make similar mistakes imply that the broken script is already a foreign script to the current population? The problem here is practically same as the one we mentioned in Section 3.3.2, and poses a serious question of alledged solidarity of historical Latin script varieties.

3.3.6. Others

Despite all internal differences adduced above, we can observe greater commonalities shared by (at least modern) members of the Latin-script sphere, such as vertical layout including ascender and descender, basic

^{6.} The errors include mistaking U (shi) for V (re), \mathcal{I} (fu) for \mathcal{I} (tsu), and \mathcal{I} (wa) for \mathcal{I} (ku).

anatomy of letterforms including stroke and dot, as well as their conjunctions, set of known stylistic variations including italic and boldface. Moreover, if we loosen restriction taking the rough correlation between shape and expected phonetic/phonological value into account, the overall similarity appears more manifest.

So, are these common features altogether sufficient to define Latin script? We consider that it will be also difficult to defend this hypothesis against the notion such as (modern) Cyrillic script, a sibling of Latin script, which already has various features in common, not to mention several homographs with similar phonetic output.

There is another possible argument, namely that even when one acknowledges incomplete agreement of each point stated in previous sections, one can still make up a valid definition by combining the common internal relations above with elements confirmed free of distinctiveness gap, i.e., "particular letters α and β , if exist, must be in the repertoire in this order, and/or n% of characters must be compatible with a certain set..." The problem with this approach is that it is overly artificial and ad hoc if considering the wild disparity in repertoire, especially without guarantee to be true for future applications of the script.

Shrinking the scope of "Latin script" and regarding most of writing systems virtually as multi-script systems of "Latin" and some idiosyncratic scripts may also be a solution (see Sections 1.1, 2.2), but it ends up in the same problem whether one can distinguish similar scripts by the remaining features.

4. Discussion

After the examination in Section 3.3, we understand that it is hard to justify what has been called the Latin script as a well-defined solid idea. Is there a viable way to encompass the traditional notion of Latin script in its entirety, without letting it be a ship of Theseus? Or do we have to discard the idea from grammatology? We believe the notion equivalent or akin to the current understanding of Latin script still has relevance and importance, just in some other ways.

We think what explains the current situation of Latin script better is such words like family resemblance by Wittgenstein (2009) or prototype by cognitive linguists (Taylor, 1995). The cognacy inside those writing systems is undeniable, only it is intermediated by mutual similarity between certain single systems, instead of a standard to conform. It forms a vague but continous concept as much as a rainbow with all of its gradation. After all, the historical truth is that its identity as Latin script has been handed down through repetitive borrowing, adaptation, and/or systematic imitation, rather than consistent rules.

Therefore, we propose to treat the concept Latin script as a genealogical clade, an analogue of family or branch in comparative linguistics. That is, we argue against the view that writing systems described in Section 3.2 shares a common system called Latin script, in favor of one that what they have are multiple "sister scripts" that are related yet still incommensurable, whereas the concept Latin script traditionally covers remains as a category to explain their homological similarities. We can also place it as a macro-script that wraps up its variation, if taken synchronically. This paradigm, on one hand, encourages us to turn our eyes to actual usage and environment within a specific writing system (including interactions between glottic symbols and punctuation, regional variation of handwriting, etc.) rather than imposing the common "Latin script" framework, while on the other hand, draws our attention to the dynamism of historical development and diffusion: from which, and to which, a script tradition of a writing system is transferred, which represents a true richness the ever-evolving Latin-script world.

As for why the idea of a homogenous Latin script has been retained, it is suggested that, paradoxically, it is due to common belief. If one remembers the words of Rogers (2005) cited in Section 3.1, he said: "Western Europe, however, maintained a sense of cultural unity which preserved the Roman alphabet intact." We would say it is more likely that, the "Roman alphabet" is an artifact of the cultural unity. The shared cultural, religional, and technological background has made people believe in its identity independently of what it is in reality. And it is certainly understandable, because various technologies and social institutions that enable the art of writing play essential roles in actualization and sustainment of each writing system. In this sense, an explanation found in the SIL International website grasps the essence very nicely:

script—a maximal collection of characters used for writing languages or for transcribing linguistic data that share common characteristics of appearance, share a common set of typical behaviours, have a common bistory of development, and that would be identified as being related by some community of users. Examples: Roman (or Latin) script, Arabic script, Cyrillic script, Thai script, Devanagari script, Chinese script, etc. (Lyons et al. 2001; emphasized by the author)

We find that this definition represents a more correct way to capture the current multi-faceted status of this concept. It is not a purely grammatological notion as it may seem, but something influenced by sociological perception, especially at the field site.

This situation is reminiscent of the parlance regarding regional language protection in China. In Europe, the advocates of minority languages are eager to address their systems as "languages," emphasizing difference with their neighbors, even when they are in the middle of a continuum. The Chinese counterparts, however, keep calling theirs "dialects" even in the most enthusiastic tone. The wording is upholded by a

common cultural belief, which in turn is backed up by their ethnic identity, that the entire spread of Chinese is a single language, although its major "dialects" have little mutual intellegibility.

As we revisit Latin script, what has supported its existence can be likewise named as the greater sociological intervention, or to say, the "common sense," over the purely grammatological analysis. Regardless of how we are going to cope with Latin script in the future, we strongly believe that we must reappraise the crude reality laid out in front of us concerning its consistency with its value in our theoretical world, rather than simply affirming or repackaging traditional ideas with a new appearance. We also suppose that a similar discussion could be made against other major groups entitled as single "script," as well as other entities given a name in previous grammatological research. What we discussed in this paper is probably the tip of the iceberg, and much more would be still left hidden.

Lastly, we emphasize the fact that we are not trying to get rid of *script* from the schema defined in Section 1.2, or to incorporate its faculty into another concept. We did not verify whether different writing systems are able to share the same script or not. Topics like whether a concept *script* is valid or useful, and if so, whether it should be subordinated to each writing system or not, are untouched in this paper, though we recognize the importance of such questions that need to be explored in the future. What we have shown at this point is that the alleged vast uniformity of Latin script is unlikely to stand.

5. Conclusion

After having reviewed the current definitions of *script* and its expected nature, our argument is: the entity we call *Latin script* when we use terms *script* and *writing system* to state "(English/French/Indonesian etc.) writing system uses Latin script" is:

- theoretically problematic if regarded as a consistent concept, applied uniformly across writing systems which is supposed to use it
- a socially motivated idea, unlikely to be a valid single script for grammatological analyses
- better positioned as a genealogical grouping or a macro-system (macro-script)

It is expected that similar claims are likewise to be made concerning most cross-regional "scripts," such as Arabic, Cyrillic, or Chinese. How actually scripts of the world can be alternatively established would be an important task and remains to be seen in the future. We also hope that those categorical entities descended from traditional abstraction should undergo due scrutiny and refinement so that they can be fitted for further academic discussion.

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