Writing English with Chinese characters: an eccentric view of what the written Japanese language is like

Nathan Hagen, 2024-Sep-02 Utsunomiya University, 7-2-1 Yoto, Utsunomiya, Tochigi, Japan 321-8585 E-mail: nh@hagenlab.org

Abstract: We make an attempt at showing an English speaking audience what the Japanese language feels like, without having to teach Japanese. We can do this by showing how to write English using Chinese characters instead of, or mixed in with, alphabetic characters. Doing this requires a lot of adjustments and difficult choices — choices that Japanese scholars must have had to make when adopting the Chinese writing system for their native language.

Japanese is widely regarded as being a difficult language for native English speakers to learn. In fact, the U.S. Foreign Service Institute, in its published ranking of world languages by their estimated time to achieve proficiency, puts Japanese in a special category entirely on its own. While European languages such as Norwegian and Spanish are estimated to require a native English speaker about 24 weeks of study (at 25 hours of study per week), German is estimated to require 30 weeks, Greek, Russian, and Turkish about 44 weeks, and Arabic, Chinese and Korean about 88 weeks. Japanese, on the other hand, is listed as ">88 weeks", but how much greater than 88? If my own personal experience is any guide, then something like 160 weeks would be close to the number. But I suspect that I'm somewhat slow, so if we pick somewhere in the middle then perhaps 120 weeks is a better estimate.

So, why is the Japanese language so hard to learn? The spoken language is actually not so difficult. It has a range of sounds that resembles those of Spanish, and has a very limited use of tones (pitch accents). The real difficulty with becoming proficient lies in the writing system. So, how did the Japanese language acquire such a complex writing system?

Two of the prominent writing systems that exist today — the Western alphabetic system and the Chinese logographic system — take very different approaches to communicating language, and although a significant fraction of modern Chinese learn some minimal form about alphabetic writing, few people in the Western cultural sphere learn anything at all about the Chinese writing system. One goal of this article is thus to introduce this new system to those who have never seen it before, and to give a feel for what it is like to use it. And all the while, we can still stick to using English!

While the early Chinese writing system was extremely influential and spread throughout much of East Asia, most regions outside of the modern borders of China have since reduced or eliminated their use of logograms and have switched to alternative writing systems. Japan, however, is a prominent exception (the

only other such exceptions being Taiwan and Singapore). Perhaps one reason that the Chinese system has been less widely adopted than the alphabetic system is that it places heavier demands on raw visual memorization. Another reason, though this reason is equally shared by the alphabetic writing system, is that the system evolved from a language in which it is well-adapted. If we try to insert it into a different language, then we find the need to make messy adaptations.

It is probably not a surprise, therefore, that anyone learning the Japanese written language quickly comes to feel that the Chinese writing system did not fit the Japanese language very well. The two are not closely related linguistically, and have different grammatical constructions. As a result, the process of adopting the Chinese writing system must have required a lot of adjustment. We shall explore just how this must have felt — how to adopt a writing system into a language that is not well suited to it, and how this effects the adopting language. While we will be doing this here for English, it gives a good feel for what the Japanese language feels like from the inside.

1 Writing with logograms

Since we will be discussing a lot about how words and spoken and written, it will help to start by introducing the characters for speak (言) and write (書). But what if we want to use past tense for these verbs? While we can now use the character 書e in place of the English for the present tense, it might not be clear how we can make use of this for *wrote*. But this is mainly because the verb is irregular. If it were regular, then the past tense would be *writed* — the same thing but with a *-ed* at the end of it. So, let's write the past tense as 書ed by adjusting the characters attached the end, just as Japanese likely did for at least some of its verbs. Similarly, the regularized past tense of 言 would be *speaked*, and therefore 書ten

as $\stackrel{\text{speak}}{\equiv}$ d. Or, if we want to preserve the sound structure of the language at all costs, we could write this as $\stackrel{\text{speak}}{\equiv}$ in present tense but $\stackrel{\text{speak}}{\equiv}$ in past tense. If we don't keep the hint on top of the character, then we just need to remember which pronunciation form to use in each context. Japanese definitely makes a lot of use of that irritating approach.

This kind of inflection of characters to produce contextual endings is actually something that English already does, in the way that we use numbers. If we see "2" we think "two", but "20" is now "twenty", and "2nd" is "second", as in "He came in 2nd place."[1]

Next, we define the symbol for a "character" (or "symbol") (字). Whichever one of these two words this symbol 字 represents, we could leave entirely up to context (as is sometimes done in Japanese), but let's change the endcharact symbol ing to indicate the choice we want, as in 字er versus 字ol. In order to talk about languages (語s), if we also define write England (英), Japan (和), and China (漢), we can 書e language Eng. lang. Jap. lang. about the corresponding 語's as 英語 and the 和語. (I am abbreviating in order to make the hinting fit.) Or, to Engl Japan refer to an 英ish or 和ese person (人), we write 英人 and Chin. charact 和人. By combining 漢字 ers, we can quickly modify words. So, if we want to 言 about an 英語言ing 人, Language Eng. language Eng. language Eng. language Japanese ers, we can quickly modify talk Eng. language Eng. language Eng. language Japanese ers, we can see how the hints flex Japanese are 柔 ible, and this too follows a similar path to 和語 usage.

We will be comparing things, and so we need to define 字ols for good (良), bad (悪), and not (不). These first two are 不常 ("irregular" = 不常) adjectives, and so we need to decide what to do with "better" and "best". We can 書e these as 良er and 良est, and just remember to pronounce (言音: talk-sound) them as "better" and "best". In other words, we decide that the 字ol does 不 define the 言音iation, but that the 言音iation is determined by context of what word (句) it is being used in. This is an all-too-familiar choice for 英語 users. So, we follow the same process for defining bad, worse, and bad bad worst: 悪, 悪er, 悪est. We keep in mind that each 字er pronunc irregular has a base 言音iation, and an 不常 location-dependent 音. While one could 書e hints like 悪se and 悪st, this becomes quite messy as our vocabulary expands. Over time, as we all get used to 書ing in the new system, we can expect that people (等 人) will slowly adjust to modifying their 言音iation to "baddest" and throw away the current 不常 form of "worst". The 書ing syslanguage tem is therefore nudging the 語 to become more 常. Perhaps it is all for the 良er.

In my experience, when the 語 ion with a 和 人 turns Jap-lang. to the 和語, they like to claim that 和語 is 良er because compress writ Eng. speakers it allows for more 縮 ed 書 ing. Naturally, 英語人 find this 不convincing. First of all, this should be an argulus Chinese entire logogram ment for 用ing 漢語, which is 全 ly 漢字s, rather than Japanese 和語, which mixes 漢字s with other 字ols, just like we are doing now. 及 不 only that, but why should 縮 ion be the criterion for the 良est 書ing system?

One advantage of our new 書ing 系 is that whereas sound-element-character-list English writ alphabetic (alphabet = 音 素 字 表) 英語書es both person and language writ Japanese the 人及 the 語 as "Japanese", here we 書e them as 和人 Japanese or 和語, such that the 書ten form clearly distinguishes between the two even though the 音素字表ic form does not common Japanese 不. This is a 常 feature of 和語, though it can sometimes difficult symb us be 難 to remember which 字ol to 用e when.

English know 英語 is 知 n for being 柔 ible with its nouns (名詞), verbs (動詞), 及 adjectives (形容詞). When 言 ing about a 人 who supports the 赤 team, we can call him "a 赤", 換 ing the 名詞 into an adjective. Similarly, something that is "wet" can wet the tongue (形容詞 \rightarrow 動詞), 及 if we 言 "a 濡", we can immediately 想e that it is perhaps wet wet person noun it means a 濡 place or maybe a 濡 人. The 名詞 form is clearly marked for us by the indefinite particle "a" — one of the particle's main functions. We also often use stress syllable location or variations in 言音iation to differennoun adjective and verb tiate between 名詞s, 形容詞s, 及 動詞s. For example, we writ house noun and verb 書 e "家" for both a 名詞 (the place we live) 及 a 動詞 (to provide shelter), but 言音e them as haus 及 hauz. Perlanguage speakers haps this is why many Asian 語 言 人 (among 多 他 s, I assume) feel annoyed by the seemingly-random (well, to them it seems so) use of definite 及 indefinite particles English in 英語.

If we are feeling 熱 tic here, we can 增 some more 字 ers to reduce our dependence on the 音素字表. We can define an "adjectivizing/adverbalizing" 字ol 的, such

that strong (強) becomes 強的, giving us that -ly endalphabet ing. Thus 音素字表 ic becomes 音素字表的, fortunate winfortunateand unfortunately (運) becomes 不 運及 不運的. No more messy endings! Among the population (人 数) of 英語言人 s, less-enthusias there may be some 少 熱tic holdouts who will cling to alphabetic the use of 音素字表的 endings, though. But an enthusiastic academic may want to charge through regardless of the consequences. This 新 系 is giving us such 強! So we also 增 a "verbalizer" 字ol that 換s a 名詞 into a 動詞: Japanese alot with 換 ing 名詞s into 動詞s. But, hey, compress we are aiming for 縮 ion, right?

Someone resisting the 新 language will 拉外: this is going 過遠. These 新 字ers are complicated 及 take 過長 writ to 書e. Just take a look at the 字 er we 用e for "use". Just writ alphabetic charact and 書ing the 音素字表的 字 ers u 及 s, they continue, is far fast 早 er than writing 用. Enthusiasts would reply, however, power compress two that the real 強 here is the 縮 ion: we are replacing 二 字 ers with only 一.

2 Names (名s) in the new system

One place where 漢語字ers do a 悪 job is dealing with foreign (外国: outside-country) 語名es. While you can get away with 名ing cities, say, as northern capital (北京) or river metropolis (川都) in your own 国y, continuing foreign countr quick quick in this vein for 外国ies早ly becomes confusing. We要a way of 用ing our字 ter系 to describe名es in some way foreigner that reflects what 外国人s call them. If some far off 国 capital city calls their 京都 some strange名e like "London", then how shall we deal with that?

In 和, their choice was extremely practical. They China adopted some of the practices of 漢—this was, after all, where they learned how to 書e in the first place—but mostly they just threw up their 手s and decided 不用e Chin. charact the 漢語字ers for this at all. They came up with a native syllabary, something much like an 音素字表, and to 書e name and pronounc Aes just like they are 言音ed. Or, well, how they are 言音ed by 和語人, of course.

From what I 分 , the 漢語人 went 全-in. They have these 字ers for 書ing, and that's 全 they have to work with. So they made the only choices available 下 those restrictions: they either invent 字ols for each and every

mew 新 location, or they 用e some of their 字ols 全的for their pronunc言音iation and 不 for their meaning. From what I can tell, both are involved: Vietnam = 越, United States = 米, France = 仏, Germany = 独、Iceland = 氷, Ireland = 愛, Norway = 諾, etc. If we did this in 英語 using our Latin countr (拉語) 及 Greek (希語) roots, then a 国y called "Myrmedonia" would be 書ten like myrme-dom-ia (ant-house-word country). We just realize from context that the 句 is not referring to ants (myrmex-) and houses (domus) but rather to a 国y.

3 Forming compound words (連句)

A feature of the 英語 that native 言人s make 常用e of is the 多数 of 拉語及希語 句素s that are 早的 compound word bined to create 連句s. Thus, if we were to 用e the familiar prefix pyro-及 suffix -phobia, we create the word pyrophobia whose meaning is 早的分 ed even if the reader see compound word 読人 has never 見n it before. More unusual 連句s, with much narrower meanings are also possible. Thus, even if we were to 見 the unfamiliar 句 peripyrochromatic we could already guess that this seems to refer to the color (色) at the edge (境) of a fire (火)—a guess we could easily improve on if the 書er supplies the proper context. Maybe the 書人 is some researcher who 学ies fire 火, and who is trying to point out some feature of the color 色 dedge 色 dedge (which is a phenomenon that actually is stud 学ied, by the way).

On reflection, we can 見 that the behavior of these 句 Latin and Greek 素s, largely borrowed from 拉語及希語, perform a function in 英語 which is quite similar to how the 漢語 字ers are used in Japanese: since each 漢語 字er (in principle, if not in actual practice) represents a concept, placing compound word multiple 字ers together generates a 連 句. Thus peripyrochromatic would be 書ten as 火境色的 (fire-boundary-color-related).

We can also consider, however, that 不全句素s are from 拉語及希語. There are a 大数 of Anglo-Saxon roots as well (burn [焼], king [王], land [土]), though speaker speaker hink word roots (sunburn [日焼], heartburn [心焼], eyeburn [目焼]; kingmaker [王作人], unkingly [不王的]; overland, landlocked). These are often so 早的 stuck together, that it may be 不透 whether one should 用e a hyphen, as in double-cross or doublecross, half-wit or halfwit. Some native 英語言人 s will come to 見

some as 句 roots if they happen to 知 something of an-Germanic language other 独 的 語: (for-bid) (hus-band), (kinder-garten) (pumper-nickel).

As a result of its total fluency with creating compound words, 漢語 and Japanese speakers are often Eng. speaker huge number puzzled by the 英語言人's assertion about the 大 数 English of 句s in the 英語 vocabulary. But we can 始 to 見 the 元 of the confusion: if we can invent 句s like unkingly language compression understand 不 王 的 語 縮 — and actually be 分 ed — then counting 句s starts to lose meaning. If we have, say, 4000 different characters available to choose from, and allow 句s of up to 5 characters long (a number which is much less than those languages limit themselves in practice) then we come up with $4000^5 \approx 10^{18}$. While this is something of an overestimate (we would not make any sense of 句s like 不不不不不) it is still so far beyond the word English number of 句s 英語 provides that the number of 句s in 英語 would seem close to zero in this context. Of course, the truth is that the comparison is quite unfair, word since 英語 speakers count 句s from a dictionary — where one would search in vain for comprehensible (well, to word some) 句s such as the 上 "peripyrochromatic". If we want a fairer comparison, we would allow free use of the Latin and Greek word elements 拉語及希語句素 (should we call that a word)? If we know that myrmex- is the 拉語 root for ants, then we 知 too that a myrmecophiliologiphobe is a \bigwedge who is scared of 人人 that study ants.

4 Abbreviations in the logogram (漢字) system

A 常 complaint one hears (聞) about modern 英語 is familiand about its profusion of acronyms. 人人 have learned the utility of 短ing 不要的 長 phrasing that AFAICT language doesn't really disrupt the overall 語 much, IMHO, because acronyms are generally awkward to 言 音e. They stand out as different from 常句s. This 限 s their diffusion into the 語. Occasionally, however, one encounters an acronym that is so良, and so用eful, that it 換 s into a word One one of its own. — example is LASER, which also spawned a related 動詞 ("to lase").

Since the 中語 字ers adopted directly from 漢, on the other 手, are so easy to clump together, one finds it very easy to invent 句s on the fly, or to throw together strings of 字ers to create 長句s, much in the way that

European language German German 独語 is famous for doing among the 欧 語 s. 独語 is an "agglutinative" 語. However, much as we showed 上 Latin and Greek word elements with 拉語及希語句素, once the 句s become unwieldy then 人人 will 見 for a shortcut. In 和, these shortcuts take the form of removing 字ers from a 長 句 two fourharact ing only 二 to 四 字ers that are distinctive (do 不 show 上 pronunc in other 句 s, or with a 言音iation that may be confused with some other 句 in the current context) and retain some of the feeling of the original 長 form. While this 音s fine, its proliferation is at a scale far beyond that of acronyms in 英語, and there is no easy way to distinguish between the original forms of the 句s and their 短ed forms. Eventually, 人人 will come to forget the original forms and remember only the 短ion. But the problem with this is that we are left with a collection of long 字ers whose individual meanings are no 長 er 透的 connected to the 上全 meaning of the 句.

English For example, in 英語 we 短 the United Nations to U.N., making sure to 用e periods in order to indicate word element the 短ion and not the 句 素 "un-". In 和語, this is 国際連合 (international-connect-fit), which gets 短ed to 国連, which literally means nation-connect. We lose a bit of the original sense there, but not 過悪. Howlanguage ever, more specialized 語 tends to be more 短ed. At universities, a department of Applied Physics would be 応用物理学 (apply-use-physics) but usually 短ed as 応物 (apply-thing), which 不長er makes sense by itself. Likewise, Applied Chemistry (応用化学, apply-usechemistry) becomes 応化 (apply-change). Someone unfamiliar with these can easily mistake them as words abbreviat rather than 短 ions, but if the sentence were something like "I am going to 言 to the head of apply-change" or "Apply-change is restructuring", you might be forgiven for 考ing you mis-聞d what I said.

Over time, you can 想e that such 短 ions take on a word life of their own and become 句s. Indeed, the 句 for electronic calculator is the unwieldy 「電気式卓上計算機」 (electric-style table-top calculation-machine) which abbreviat 分 ably gets 短 ed, but becomes 「電卓」 (electric-table) word which makes no sense whatever as a 句 that should be built from two concepts. Or how about the 短 ion 「国保 long word 連」 (nation-protect-connect) for the annoyingly 長 句「国民健康保険団体連合会」,but which refers to an insursystem ance 系 for national government employees. You can 見

how, if this got 外 of 手, it 始s to cause havoc with the logic of the 語. And so it does.

But the 悪dest perpetrators of these 語 atrocities are un all-out compress 不 questionably the journalists, who go 全外 to 縮 their writ small
書ing into as 小 a space as possible, to an extent that Eng. lang.
would likely make their 英語 counterparts envious. For foreign reader read a 外国読人, this makes 読ing newspaper articles quite a chore.

5 Going all out on compression

You can 見 that as we 増 more 及 more 字ers to our 系, writ we can reduce the 数 of 字ers we use for 書ing. Once we get 用ed to it, and we 不長er 要 the hinting 上 the 字er, short number requir then maybe this will 短en the 数 of pages that books 要e. littlenthusias writ compress However, with a 小 熱 m, we can milk this 書ing 縮 ion thing furth 物 even 長er. By condensing it down, we can create the dulce leche of 書 系s. And taking it 全 the way to its white dwarf star writ extreme, we can create the dulce leche of 書 ing systems. Unfortunately eat white dwarf star write dwarf star write dwarf star white dwarf star write dwarf star white dwarf star whi

Since we are going to push way beyond what the ancient Chinese ever envisioned, we are now jettisoning their characters and building our own. We moderns walk around all the time with computers in our pockets, and no longer have any need to put pen to paper for writing, we can go far beyond what paper-based writing could ever achieve. Now, if we are aiming for making symbols that compress information down into a single symbol, well, what kind of symbol are we talking about? Any word, after all can be regarded as a symbol—and we can put a box around each word to reinforce the concept. These symbols might not all be the same size, but us alphabet users are already used to that—after all, an "i" is much narrower than a "w".

So, if we think of each word as being an individual symbol, then the "compress individual concepts down into individual symbols" gang in East Asia should now see that we're not so different after all. We just don't fit our symbols into squares, and alphabet-derived symbols are much more flexible, in addition to giving strong hints to their pronunciation, so that the memorization requirements are much relaxed. Advanced technology, that. But if compression is what you want, compression you shall have. After all, why stop at a word as an individual symbol? What about a sentence? A paragraph? Even better, a page? Each page has the same shape,

right? So, if we want uniformly-shaped symbols, then we can take a page of text and, well, that's our symbol. Is the symbol too big? No problem. We have computers—just tell your computer display to shrink it down to fit into whatever space you like. In fact, here are the pages of this article: Five pages, five symbols. It's all there—just zoom right in. And now our writing system has achieved a wonderful compression. One book now fits onto a single page. An entire library onto the pages of one book. But then again, we could just digitize it, converting text to a much more efficient format.

Now we have come full circle. Once we see words as individual symbols, we alphabettors can say that we have way more symbols than the logogram users do, and therefore more possible combinations. If they could achieve $4000^5 \approx 10^{18}$ combinations, the English dictionary with its million words, taken five at a time, can do $10^{65} = 10^{30}$ which is so many more than they can achieve that it makes their vocabulary look like zero. They reply, however, that this isn't fair. Alphabetic words contain more than single logogram symbols do, so we should be comparing their "words" to our words, and so their vocabulary would then leap up to $4000^{55} \approx$ 10⁹⁰. We counter, however, that 25 of their symbols is like a sentence in our alphabetic writing, and so that's not a fair comparison. For a full sentence of 20 words, we should allow something like $10^{65^{20}} = 10^{600}$. Hey, that's not fair, they retort. They have sentences too.... Through this mock debate, the pointlessness in the compressibility argument becomes clear.

6 Conclusion

The advantages and disadvantages of adapting the Chinese characters to writing English are evident. The trouble with memorizing all of the many various shapes. The inconsistency in the "hinting", and the fact that different people can potentially pronounce the same character differently depending on their interpretation of the context. The need for a secondary writing system to allow verbs and adjectives to inflect. The fluidity with word-boundaries and the ease of creating new words. All of these are likewise features of the Japanese writing system. And many of the difficult decisions that we have seen would go into adapting the Chinese writing system to English likely reflect what early Japanese scholars had to do.

Finally, we should make sure not to go too far with showing the difficulties of using Chinese script, since similar adjustments are also required for languages adopting the alphabetic system. We can see this, for example, in the large number of diacritics used in modern Vietnamese writing, in order to force it to express the extra vowel sounds and tonal structures that are not present in the circle of Latin-based languages.

A Postscript

One inspiration for writing this article was a blog post "If English was written like Chinese" by Mark Rosenfelder. Rosenfelder's post, however, focuses mainly on character creation, rather than adoption of writing from Chinese. So his approach show something more like what the English language writing system would have looked like if we had started out like the Egyptians did — from pictographics that then could have been simplified over time into logograms, as the Chinese system did (and as the demotic script evolved from the ancient Egyptian hierogyphs, and bits of which survive even into modern times inside the Coptic script).

References

- [1] . This example closely follows that posed by a comment on Reddit. Unfortunately, I can no longer locate it to credit its author.
- [2] . This example is adapted (and closely follows) that from Tae Kim's blog article "Which is harder? Japanese or Chinese?", located at: https://www.guidetojapanese.org/blog/2006/07/20/which-is-harder-japanese-or-chinese/