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A comparison of morphogram-driven linguistic innovations throughout the Sinographic Cosmopolis and beyond

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Abstract. This paper looks at six types of borrowings and contact-induced innovations in the Sinographic Cosmopolis that were driven by the use of morphograms as a borrowing medium. Namely, I look at the following phenomena, using examples from Sinitic languages, Korean, Japanese and Vietnamese: pseudo-readings (Sinoxenic character readings with no apparent Sinitic model), loan derivations (patterns of derivation following a lexically flexible sinogram model), semantic modification (the reassociation of sinograms with words bearing no semantic relation), spelling innovation (the ad hoc use of sinograms as rebuses), loan styles (the use of Literary Sinitic as a means of encoding vernacular languages) and hybrid styles (a style of writing mixing Literary Sinitic and vernacular elements). Parallels are drawn with other contact scenarios involving morphographic scripts, such as Sumerian cuneiform in the ancient Middle East, emphasizing the often-overlooked role of written medium as an innovative force in language contact.

Keywords. language contact; borrowing; sinograms; morphograms; writing styles; Sinographic Cosmopolis

1. Introduction. Starting with the seminal analyses of borrowing by Werner Betz and Einar Haugen in the mid-20th century, numerous attempts have been made by linguists to classify borrowings based on the various ways in which donor language forms are adopted into a recipient language. In his analysis of Latin borrowings in the Old High German interlinear translation of *Regula Sancti Benedicti* 'Rule of Saint Benedict' (Codex Sangallensis 916), Betz divided loans into *Lehnwort* 'loanword' and *Lehnprägung* 'loan coinage'. The former term was used for words from the donor borrowed as phonological units in their original or adapted shape into the recipient (the traditional sense of "loanword"), with the later reserved for words, phrases, meanings or grammatical constructions from the donor reproduced part-by-part using native morphemes in the recipient (Betz 1949). Haugen, in an analysis of (mostly) North American immigrant languages, divided borrowings into "importation" and "substitution", roughly corresponding with Betz's *Lehnwort* and *Lehnprägung* (Haugen 1950) (Figure 1).

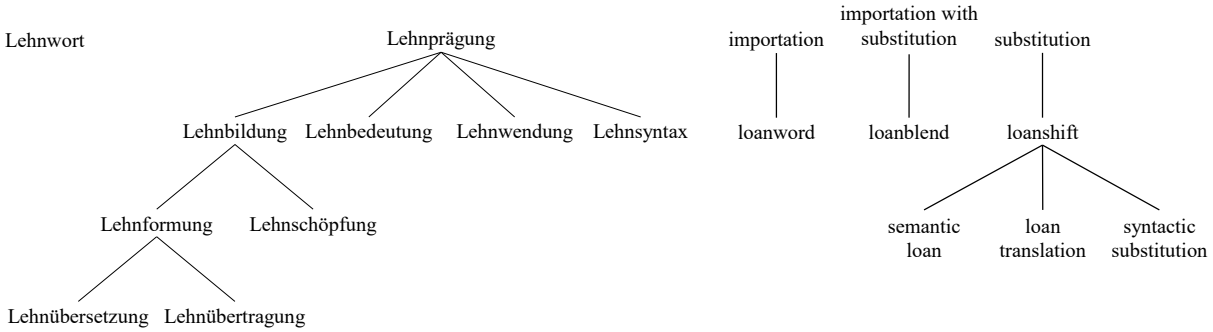

Figure 1. Betz (left) and Haugen (right)'s classifications of borrowings

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While more recent studies on language contact have updated Betz and Haugen's terminology—e.g., "borrowing" vs. "replication" (Heine & Kuteva 2005), "matter replication" vs. "pattern replication" (Matras & Sakel 2007) or "importation" vs. "imitation" (Zisk 2015, 2017)—the basic principle of dividing loans into direct reproductions of donor forms and indirect reproductions using native elements in the recipient has largely remained unchanged for roughly 75 years. Zisk (2019) expanded upon this model by adding two further "secondary", or "post-borrowing", strategies to the mix: "integration" and "innovation". Integration involves the combination of donor and recipient material to produce hybrid forms, while innovation occurs when donor material is used as building blocks, or grammatically and semantically modified, within the recipient to produce novel forms alien to the donor.

The most recent iteration of this model, Zisk (forthcoming), classifies borrowings and contact-induced innovations into the four categories of importation, imitation, integration and innovation, divided across seven linguistic domains (lexicon, phonology, morphology, syntax, semantics, writing and stylistics), depending on which aspect of the recipient each borrowed or innovated form primarily influences (Table 1). Focusing on Literary Sinitic borrowings and contact-induced innovations in Japanese, this most recent model places an emphasis on the medium of borrowing: i.e., whether contact occurred via the spoken or written language, and in the case of the latter, whether this written medium was a phonographic or morphographic script. This is in contrast to previous classifications, which have focused almost exclusively on lexical and grammatical borrowing via the spoken language or phonographic scripts.

strategies / domains		lexicon	phonology	morphology	syntax	semantics	writing	stylistics
primary borrowings	importation	loanword loan phrase	loan phone loan phoneme loan phonotactics	loan affix			loan character loan script	loan style
	imitation	word-level loan translation phrase-level loan translation loan derivation		(loan conversion)	loan construction	loan meaning		
secondary borrowings	integration	hybrid word hybrid phrase		(reanalyzed loanword)			script mixing	hybrid style
	innovation	pseudo-loanword pseudo-loan phrase	pseudo-reading	morphological modification	syntactic modification	semantic modification	pseudo-loan character adapted script spelling innovation	

Table 1. Literary Sinitic borrowings in Japanese (Zisk forthcoming)

The current study examines six of the categories posited in Zisk (forthcoming), and featured in Table 1, that exhibit a particularly strong correlation with sinograms, the morphographic script that served as the medium of borrowing between Literary Sinitic and Japanese. Comparisons are

made with languages such as Korean and Vietnamese to determine whether such phenomena are limited to Japanese or observed more widely throughout the Sinographic Cosmopolis (the region of East Asia in which Literary Sinitic was traditionally used as written lingua franca: King 2021, 2023a, etc.). Further parallels are then drawn with languages of the ancient Middle East such as Hittite or Old Persian, for which Sumerian cuneiform functioned as a borrowing medium, in an attempt to shed light on the role of medium in borrowing.

The six phenomena observed in this paper are as follows:

- (1) Pseudo-readings: Sinoxenic character readings with no apparent Sinitic model.
- (2) Loan derivations: groups of expressions, derived from a common root, used as vernacular readings of a sinogram possessing a high level of lexical flexibility in Literary Sinitic.
- (3) Semantic modification: the reassociation of a sinogram with a word or concept in the vernacular it did not originally represent.
- (4) Spelling innovation: the ad hoc use of sinograms as rebuses to express a phonologically or semantically related word.
- (5) Loan styles: the use of Literary Sinitic as a written medium to indirectly represent a vernacular language.
- (6) Hybrid styles: the mixture of Literary Sinitic and vernacular elements to create a style of writing that is neither fully foreign nor native.

Broken down by borrowing strategy, (1), (3) and (4) involve innovation, while (2) involves imitation, (5) importation, and (6) integration. Viewed by linguistic domain, (1) is primarily tied to phonology, (2) to lexicon and morphology, (3) to semantics, and (4) to writing, while (5) and (6) are linked to stylistics.

2. Pseudo-readings. When borrowed by the neighboring peoples of China, sinograms were traditionally adopted along with their Sinitic readings, which were based on Old Chinese, Middle Chinese or some variation thereof. Over time, these readings were adapted to conform to the phonology of the recipient languages, giving rise to various systems of sinogram readings commonly referred to as "Sinoxenic", such as Sino-Japanese, Sino-Korean and Sino-Vietnamese. While most Sinoxenic readings have a clear Old or Middle Chinese model, there are instances in which no Sinitic model can be identified for a given reading. In the current study, I refer to such "modeless" Sinoxenic readings as "pseudo-readings".

Pseudo-readings are commonly the byproduct of misinterpretations of the phonetic components of sinograms. Examples from Japanese include *yu* for 輸 'transfer' (e.g., *yunyuu* 輸入 'import', *yušucu* 輸出 'export'), where *šu* (← MC *syu*) is expected, or *moo* for 耗 'wear down' (e.g., *šoomoo* 消耗 'consume, waste'), where *koo* (← MC *xawH*) is expected. The former results from analysis with the Middle Chinese phonetic *yuX* 俞 ~ 俞 'yes!, increasingly' in characters such as *yuH* 喻 'liken to' or *yu* 愉 'enjoy', all of which are read as *yu* in Sino-Japanese. The latter is based on the Middle Chinese phonetic *maw* 毛 'hair', which is read as *moo* when used as an independent character in Sino-Japanese. In both cases, the pseudo-reading results from analysis with a phonetic based on the Middle Chinese readings of other related characters.

Looking to other sinographic languages, we find the phenomenon of the pseudo-reading in both Sino-Korean and Sino-Vietnamese. The characters 粘 'stick to, sticky' and 歐 ~ 謳 'vomit', for example, are read as *cem* and *kwu*, respectively, in Sino-Korean, where *nyem* (← MC *nrjem*) and *wu* (← MC *'uw*) are expected. Similar to the examples of 輸 and 耗 given above, both of these readings are misinterpretations arising from analysis with the more common reading of the

phonetics 占 ‘(to) divine’ and 區 ‘divide, division’, *cem* (← MC *tsyemH*) and *kwu* (← MC *khju*) (Tsuji 1997: 1–2).

A particularly interesting example from Sino-Vietnamese is the character 株 ‘tree trunk’. The expected Sino-Vietnamese reading for this character is *tru* (← MC *trju*); however, through a series of extralinguistic events, this character ended up with the seemingly unrelated reading *châu*. According to Shimizu (2010: 7), the initial *ch* is the result of analogy with the character 珠 ‘jewel’, which also bears the phonetic 朱 ‘vermillion’, and is read as *châu* in Sino-Japanese. The story does not end here, though. The Middle Chinese reading of 珠 is *tsyu* (initial *tsy* + rime *ju*), and while *ch* is the expected Sino-Vietnamese reflex of *tsy*, the expected reflex of *ju* is *u* (e.g., *ngu* 虞 ← MC *ngju* ‘predict, worry’).

As Shimizu explains, in the 13th century, 珠 was classified as a taboo character due to its occurrence in the name of a maternal relative of Trần Anh Tông (reigned 1314–1320), the 4th emperor of the Trần dynasty. As was common with naming taboo customs of the time, not only 珠, but also homophonous characters such as 株 had to be modified to avoid disrespect. On the orthographic level, this resulted in 株 being written without its final stroke (in the Hộ Thành Mountain inscription from 1342, for example, it appears as 𣚚, where 不 is a variant of 木 and the hollow dot marks omission), and on the phonological level, this resulted in changing the vowel from *u* to *âu* (Shimizu 2010: 6–13).

While I am yet to find an example from the Cuneiform World, pseudo-readings also exist in contact scenarios involving phonographic scripts, albeit to a lesser degree. An example that quickly comes to mind is the medieval European pronunciation of the tetragrammaton [j-h-w-h] יהוה—now widely held to have originally been pronounced *yahweh* [jahˈweːh]—as *yəhōwāh* [jəˈhoːwaːh] (cf. English *Jehovah*). This reading is mistakenly derived from the vowel points added to יהוה in the Masoretic Text, meant to indicate the vowels of *ʾă̱ḏōnāi* [ʔěðoːˈnaːi] ‘my lord’, which was traditionally recited in place of the true name of God (*Oxford English Dictionary*, 2nd edn.). So-called “spelling loans” (Irwin 2011: 79–80) in Present-day Japanese, such as *jamaika* [d͡ʒamaˈika] for English *Jamaica* or *wikipedia* [βʲikʲipeˈdʲia] for English *Wikipedia*, could also be considered pseudo-readings in the broad sense.

3. Loan derivations. In addition to reading sinograms and Literary Sinitic through the medium of Sino-Japanese, the Japanese also ascribed native Japanese readings to most sinograms. Then, through a process known as *kundoku* 訓讀 ‘vernacular reading’, Literary Sinitic texts were interpreted word-by-word, character-by-character, into Japanese using both Sino-Japanese and native Japanese readings (see Frellesvig 2010: 258–274, Kin 2001: 8–84 or Zisk 2023 for a summary of *kundoku* in English).

Literary Sinitic being a predominantly isolating language with a high level of lexical flexibility and Japanese a largely agglutinative language with overt morphology for distinguishing word classes, it was often the case that a single sinogram was given multiple native Japanese readings depending on its part of speech in Literary Sinitic. A common strategy for translating such lexically flexible sinograms in Japanese was to derive from a single nominal or verbal root a group of morphologically related words for expressing each word class of the sinogram. I will refer to these derived words as “loan derivations”, a term I first used in Zisk (2015). Loan derivations can be formed through concatenative derivation (i.e., the addition of verbal suffixes or enclitics to form new words) or, much less commonly, conversion (i.e., zero derivation). In the current study, I will focus on the former. Well-known examples still used in Present-day Japanese include the instrumental case marker *=o moQ-te*, derived from the verb *moc-u* ‘hold’ under

the influence of MC *yiX* 以 ‘use, control, INSTRUMENTAL’, or the conjunctive adverb *oyob-i* ‘and’, derived from the verb *oyob-u* ‘reach’ under the influence of MC *gip* 及 ‘reach, and’.

The most obvious parallels for such loan derivations can be found in Korean, a language that, similar to Japanese, is known for having a long tradition of vernacular reading, traditionally referred to as *kugyŏl* 口訣 (etymology disputed) (see Handel 2019: 78–87, Kin 2021: 85–141 or Chung 2022 for a summary of *kugyŏl* in English). According to Chung (2022: 134–138), *kugyŏl* is known to have been practiced as far back as the 7th century, even though the earliest surviving glossed texts in Korea only date to the 10th century or later, meaning that the practice likely predates *kundoku* in Japan. Numerous parallels can be drawn between the Japanese and Korean vernacular reading and glossing traditions, including the tendency of both traditions to employ loan derivations as a strategy for translating lexically flexible sinograms.

From a typological perspective, Korean is an agglutinative language, similar to Japanese, and thus it is only natural that the loan derivation would be employed in a similar manner. What is most striking, though, is that we find the exact same characters being translated in nearly the exact same way between the two languages—further evidence that vernacular reading was transmitted from Korea to Japan. For example, just as *=o moQ-te* was used as a translation for 以 as an instrumental particle, there is an instrumental case marker *=(u)lo sse* in Korean, derived from the verb *ssu-ta* ‘do, use’, that was historically used to translate 以. Likewise, there is a conjunctive adverb *mich* ‘and’ (← Middle Korean *mìs*) in Korean, derived from the stem of the Middle Korean verb *mìs-tá* ‘reach’, modelled after 及. (Yi 1947: 192–193, Lee & Ramsey 2011: 234–235, Yáng 2016). In the case of *=o moQ-te* and *=(u)lo sse*, both forms consist of a case marker particle (the accusative *=o* in Japanese, the instrumental *=(u)lo* in Korean) followed by the sequential form of the verb for ‘hold’ or ‘use’. The patterns of derivation for *oyob-i* and *mich* are also similar, the former taking the serial, or *renyōkei*, ‘adverbial’, form of the verb *oyob-u*, and the latter the stem of the verb *mìs-tá* (in Middle Korean, the stem of a verb could act as an adverb), to derive con-junctional adverbs.

Loan derivations also occur in non-morphogram-driven contact scenarios, although examples seem to be much rarer. Heine & Kuteva (2003: 556–557) give the example of the indefinite article *bat* in Basque. This article is derived from the numeral for ‘one’ (originally a noun or adjective), likely under the influence of French or Gascon, both of which have an identical numeral-derived indefinite article. Likewise, Burridge (2007: 189–190) gives examples of discourse markers in Pennsylvania German such as *ennichweg* ‘anyway’ (*ennich* ‘few, some’ + *weg* ‘way’) or *weeschte* ‘you know’ (2nd person singular present of *wisse* ‘know’), modelled after the identical expressions in English. The former is an example of a nominal phrase that has changed into a conjunctive adverb, while the latter shows a verb that has changed into an interjection. In both Heine & Kuteva’s and Burridge’s examples, the forms in question have undergone conversion rather than concatenative derivation like in the examples from Japanese and Korean given above, but the underlying principle—a change in word class triggered by a lexically flexible model in the donor—remains the same.

4. Semantic modification. It is common for loanwords to undergo some degree of semantic modification—in the form of semantic broadening, semantic narrowing, amelioration, pejoration, metaphorization, etc.—after being borrowed. Literary Sinitic borrowings in Japanese are no exception, with many Sino-Japanese words showing considerable semantic divergence from their Literary Sinitic etyma. A phenomenon unique to morphogram-driven contact, however, is

semantic modification of the characters themselves: i.e., the reassociation of a morphogram with a word or concept that it did not originally represent in the donor.

When ascribing native readings to a borrowed morphogram, there is nearly always going to be some degree of semantic inequivalence. Take the character 神 (MC *zyin*), for example. In Literary Sinitic, 神 can express a wide range of meanings including, 'god', 'spirit', 'mysterious power', 'soul' or 'virtuous person'. Out of these meanings, however, typically only 'god' can be expressed by Japanese *kami*, the native reading ascribed to 神 (Zisk 2019: 44). Meanwhile, *kami* could express the meaning 'dangerous animal' (snake, tiger, etc.) in Old Japanese, a meaning that is not observed in Literary Sinitic for 神, and there are examples of 神 being used in this sense in the 8th century text, *Man'yōshū* 'Collection of myriad leaves'.

A less common—but still significant—occurrence is the application of a native reading with little or no semantic relation to a sinogram, a phenomenon that has traditionally been referred to in the Japanese literature as a *kokkun* 'lit. national reading' and which I call here a "fabricated reading". An example of a fabricated reading in Japanese is seen with the character 宛 (MC *jwon*) 'bend over, bent', which is given the native reading *ate-ru* 'apply, assign, appropriate, direct at'. This reading, which has no relation to the original meaning of the sinogram, is held to have arisen from confusion between the characters 宛 and 充 (MC *tsyhuwng*) 'fill, assign, appropriate', which appear graphically similar when written in cursive script (Inui 2003: 373–394, Zisk 2019: 47–49).

The custom of ascribing native readings to borrowed morphograms is one that is observed not only throughout the Sinographic Cosmopolis but in the ancient Middle East as well. Drawing on the parallel of the term for such readings in Japanese, *kun-yomi* 'lit. interpretation reading', Ikeda (2007) refers to this phenomenon as "kunogenesis". In addition to Japanese, kunogenesis is attested via sinograms in Korean (Lee & Ramsey 2000: 47–48, Nam 2012: 48–51, Handel 2019: 78–97), Old Uyghur (Shōgaito 2021: 177–183) and Vietnamese (Lã 1997, Nguyễn 2008: 197–198), and via Sumerian cuneiform in Akkadian (Ikeda 2007, Vance 2014), Hittite (Marquardt 2011: 8 – 9, Weeden 2011: 3–9) and various other languages of Ancient Mesopotamia, Anatolia and Syria.

Apart from morphograms which express the most straight-forward of concepts, some degree of semantic inequivalence is unavoidable when using a morphogram fashioned for one language to express words in another. An example from Old Korean (native readings are rarely used in Modern Korean) is observed with the character 在 (MC *zojX*) 'exist, be', which is used to write the verb *kiä* 'exist, put' (cf. Modern Korean *kyeysi-ta* 'stay' [honorific]), that also functions as a progressive or resultative auxiliary (Nam 2012: 61). An example from the Cuneiform World is seen in the Sumerogram ALAM 𒀭𒀭 'figure, image, statue', which can correspond to Hittite *ersi-* 'image' but also *sena-* 'figure, puppet', the latter word being synonymous but not identical to the original Sumerian in meaning (Weeden 2011: 4).

While overall much rarer, examples of fabricated readings can also be found in other morphogram-driven contact scenarios. Ayukai (1931) gives 32 examples of what he calls *zokkunji* 'sinograms with folk usages' in Korean, comparing them to Japanese *kokkun*. A particularly interesting example is the sinogram 串 (MC *kwaenH*) 'pierce, bore through', which is used in multiple Korean toponyms to represent the native morpheme *koc* 'cape' (e.g., *homikoc* 虎尾串 'lit. tiger's tail cape', *cangsankoc* 長山串 'lit. long mountain cape', *welkoc* 月串 'lit. moon cape', etc.). According to Ayukai (1931: 247–248), this character became associated with Middle

Korean *kwóc* ‘skewer’, which could also be used in the sense of ‘cape’ (i.e., that which juts out into the sea like a skewer), through confusion with the character 弗 (MC *tsrheanX*) ‘skewer’.

This novel usage of 串 is also observed in Japanese, where the character is given the reading *kuši* ‘skewer’, and as demonstrated by Ishibashi (2004), is found in Japanese toponyms, where it shares the meaning of ‘cape’ with Korean *koc* (e.g., *takakuši* 高串 ‘lit. tall cape’, *kušizaki* 串崎 ‘lit. cape cape’, *kušinoura* 串の浦 ‘lit. cape bay’, etc.). Thus, in the case of 串, we are likely witnessing the borrowing of a fabricated reading across sinographic languages.

5. Spelling innovation. While native readings may be ascribed to borrowed morphograms on an ad hoc basis at first, kunogenesis eventually leads to the development of established readings: i.e., readings which are largely accepted throughout literate society. In the case of Japanese, native words are typically written in hiragana or their established sinogram notation, with Sino-Japanese written in sinograms, and non-Sinitic borrowings in katakana (see Irwin & Zisk 2019: 99–101 for a discussion of conventional script domains). There are cases, however, in which sinograms are applied to native and non-Sinitic borrowings in an ad hoc manner going against established orthographic conventions. In Japanese, sinogram notations, or “spellings”, involving such unconventional use of sinograms are commonly referred as *ateji* ‘lit. appropriated characters’. Here, I will refer to them as “spelling innovations”.

Spelling innovations can be phonetic, in which case a word is expressed phonographically through semantically unrelated sinograms (e.g., *takusaN* ‘much, many’ written as 澤山 [*taku* 澤 ‘wetlands, mountain stream’ + *saN* 山 ‘mountain’]), or semantic, in which a word is expressed morphographically but with a sinogram or sinograms diverging from the established morphographic notation (e.g., 悪夢 ‘nightmare’, 幻想 ‘fantasy’, 未来 ‘future’, 希望 ‘hope’, etc. all used to write *yume* ‘dream’, which is conventionally written as 夢 ‘dream’; Sasahara 2012: 829–830). In some cases, both methods may be combined through a phenomenon known as “phono-semantic matching” (Zuckermann 2003: 34–35), in which phonetically similar sinograms with compatible semantics are used to express a word: e.g., 型錄 [*kata* ‘type’ + 錄 *roku* ‘record(ing)’] used to write *katarogu* ‘catalog’ (← English *catalog*).

Such spelling innovations can be viewed as an extension of what has commonly been referred to as the “rebus principle”, a major formation strategy in morphographic scripts. The rebus principle involves the borrowing of a preexisting character for its sound (or, less commonly, meaning) to represent an unrelated word—typically more abstract in nature—with no written representation. The rebus principle is observed in all of the major morphographic scripts of the world from Sumerian cuneiform and Egyptian hieroglyphs in the ancient Middle East, to Mayan and Aztec writing in Mesoamerica, and sinograms in the East (DeFrancis 1984: 138–139, Ramsey 1989: 135–137, Daniels & Bright 1996, etc.).

While the vast majority of rebuses are phonetic in nature, semantic rebuses are by no means unique to Japanese. Nakahara (1928) and Kōno (1977) give examples of semantic rebuses from ancient Chinese, Egyptian and Sumerian writing. In Sumerian cuneiform, for example, the symbol UTU 𒌓 for ‘sun’, can also be used to write the synonyms UD ‘day’, BABBAR ‘white’ and ZALAG ‘bright’ (Nakahara 1928: x, Kōno 1977: 197). Likewise, in addition to expressing the word *rʿ* ‘sun’, the Egyptian hieroglyph 𓇳 can also be used to write the word *hrw* ‘day’ (usually together with phonetic elements: Figure 2) (Kōno 1977: 197). An example from Old Chinese is the character 禾 originally used for OC *[ɢ]ˁoj (→ MC *hwa*) ‘millet, rice plant’, extended to OC *C.nˁi[ŋ] (→ MC *nen*) ‘harvest, year’ (Kōno 1977: 199–200).

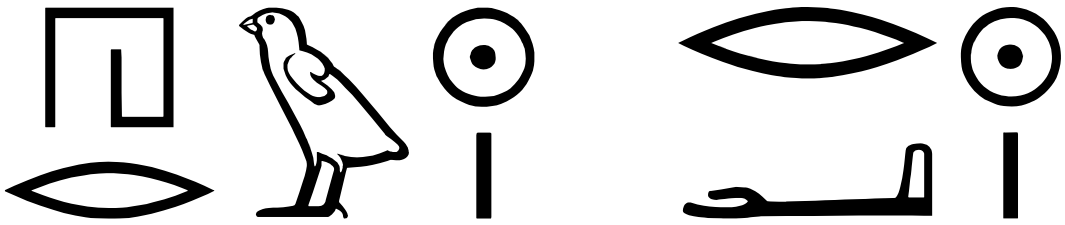

Figure 2: Egyptian hieroglyphs for *rʿ* ‘sun’ (left) and *hrw* ‘day’ (right)

What is noteworthy about the Japanese situation is that *ateji* are commonly employed for words already possessing established sinogram notations. This differs from the examples given above, in which each of the target words originally had no designated morphogram. In other words, what separates *ateji* from rebuses in the traditional sense is that *ateji* are often spontaneous, or ad hoc, and employed as a stylistic choice, rather than out of necessity. So, the next question is, do we find similar examples of ad hoc rebuses in other morphographic languages? Looking first at Literary Sinitic, we find the answer to be a resounding “yes”.

Starting with phonetic rebuses, there are numerous examples of two or more homophonous or phonetically similar sinograms that can be used interchangeably in Literary Sinitic texts. Such interchangeable characters are referred to as *tōngjiǎzì* 通假字 ‘regular phonetic rebus’ in the Chinese tradition and include examples such as 有 (OC *[*ɢ*]*ʷeʔ* → MC *hjuwX*) ‘exist, have’ and 又 (OC *[*ɢ*]*ʷeʔ-s* → MC *ɦjuwH*) ‘also, again’ or 材 (OC *[*dz*]*ˁə* → MC *dzoj*) ‘lumber, materials’ and 裁 (OC *[*dz*]*ˁə* → MC *dzoj*) ‘cut (fabric), manage’. There are also more ad hoc examples, such as 紀 (OC **k(r)əʔ* → MC *kiX*) ‘manage, order’ used in place of 杞 (OC **C.qʰ(r)əʔ* → MC *khiX*) ‘Chinese boxthorn’ once in *Shījīng* ‘Classic of poetry’ (Chén 1994: 233–235).

Ad hoc semantic rebuses are also observed—albeit to a lesser degree—in Literary Sinitic. In what has been referred to as *tóngyì huàndú* 同義換讀 ‘synonymous interchangeable reading’, there are cases in which a reading typically ascribed to one character is replaced with that of another synonymous character (Shěn 1988 [1947], Qiū 2022: 389–394, etc.). An example of this can be seen with the characters 俛 (MC *mjenX*), 頫 (MC *thewH*) and 俯 (MC *pjuX*), all of which possess the meaning of ‘lower one’s head’. According to Qiú (2022: 389–390), 俛 and 頫 borrowed the reading *pjuX* from 俯 due to their synonymy with the character, this reading becoming accepted to the point that the general consensus among scholars in antiquity was that 俛, 頫 and 俯 were all simply variants of the same character.

While there do not seem to be any examples of semantic rebuses in Standard Beijing Mandarin, similar phenomena have been reported in other varieties of Sinitic. In what has been referred to as *xùndú* 訓讀 ‘interpretive reading’ (cf. Japanese *kundoku*) in Chinese dialectology, sinograms expressing words that are common in Mandarin but obscure in another variety of Sinitic may have their received readings replaced with more familiar synonyms. The first study to report this phenomenon, Zhān (1982 [1957]), gives the example of Hainanese *dong*^{35} 懂 ‘understand, know’ and *tek*^{33} 識 ‘know’, being read as *ɓak*^{5} 別 ‘separate, discern’. Since Zhān’s initial observation, numerous other examples of *xùndú* have been reported from Hainanese and other varieties of Sinitic: e.g., Hainanese *ngang*^{213} 眼 ‘eyeball’ read as *mak*^{3} 目 ‘eye’ or *tiu*^{3} 首 ‘head, leader, primary’ read as *hau*^{21} 頭 ‘head’ (Murakami 1999: 61–62); Amoy *tã*^{51} 打 ‘strike’ read as *pʻaʔ*^{32} 拍 ‘beat’ (Murakami 2016: 685–686); Cantonese *wɔ*^{53} 鍋 ‘cooking pot’ read as *wɔk*^{22} 鑊 ‘wok’ (Murakami 2016: 688).

6. Loan styles. Given the high prestige of Literary Sinitic in Japan historically, it should come as no surprise that many formal styles of writing heavily incorporated Literary Sinitic features. Such "mixed", or hybrid, styles will be discussed in the next section. What may come as a surprise, however, is that Literary Sinitic in its unaltered form could actually be used as a medium for indirectly encoding a Japanese text. In other words, an author could devise a text in Japanese, record it in Literary Sinitic, and then an educated reader would be able to reproduce the Japanese text using the *kundoku* method. In the current study, I refer to such a style of encoding one language through the written medium of another as a "loan style".

The earliest evidence we have for Literary Sinitic being used as a loan style in Japan comes from *Nihon shoki* 'Chronicles of Japan' (720). It is well documented that, although being written entirely in coherent Literary Sinitic, *Nihon shoki* was recited in Japanese—using the *kundoku* method—as an official court ceremony starting just a year after its completion in 721. Several manuscripts containing notes from these ceremonies, as well as manuscripts of *Nihon shoki* with *kundoku* glosses, have been handed down, providing us with an idea of how the text would have been read in antiquity. Manuscripts of numerous other Literary Sinitic texts composed in Japan have also been passed down with *kundoku* glosses, and after printing became mainstream in the 17th century, it was common to print such Literary Sinitic texts together with *kundoku* glosses to facilitate reading, strongly suggesting that such texts were meant to encode Japanese.

While such a practice of encoding one language through the medium of another may seem unintuitive at first glance, there is actually a large amount of evidence pointing to similar practices in the ancient Middle East. King (2021) compares *kundoku* in Japan and *kugyŏl* in Korea to "alloglottography", or "the practice of using one language in writing and another in reading" (Coulmas 1996: 8), and we can expand the comparison here to include Literary Si-nitic as a loan style for recording Japanese. The term "alloglottography" was originally coined by Gerhevitch (1979), who described a contact scenario in which Elamite was used as a medium to record Old Persian. Since Gerhevitch's original study, numerous other examples of alloglottography from the ancient Middle East have been provided by other scholars: e.g., Sumerian as a medium for Semitic (Civil & Gonzalo 1999) or Akkadian (Civil 1984, Gonzalo 2007: 44–45), Aramaic as a medium for Old Persian (de Blois 2007), etc.

It is well known that the practice of reading Literary Sinitic in the vernacular was common throughout the Sinographic Cosmopolis in antiquity. In addition to Japanese (via *kundoku*) and Korean (via *kugyŏl*), vernacular reading has been attested in Old Uyghur (Shōgaito 2021) and, to a lesser extent, Vietnamese (Nguyễn 2021). Whether Literary Sinitic texts composed by speakers of such languages were written with the intention of encoding the vernacular—i.e., as a form of loan style, or alloglottography—and, if so, to what degree such practices were established throughout these societies, are questions that require further attention. Even given the ancient Middle Eastern parallels alone, it is apparent that loan styles were a common phenomenon in contact scenarios involving morphographic media.

7. Hybrid styles. A phenomenon which goes hand and hand with the loan style is the hybrid style. Here, I use the term "hybrid style" to refer to a writing style employing lexical, grammatical and (ortho)graphic elements from both a donor and recipient language to create a style that is neither fully native nor fully foreign.

Starting with Japanese, we find multiple writing styles, such as *hentai kanbun* 變體漢文 'lit. deviant Literary Sinitic' or *wakan konkō-bun* 和漢混淆文 'lit. Japanese-Sinitic hybrid style', that could be classified as hybrid styles. The term *hentai kanbun* (along with other terms) has been traditionally used by Japanese linguists to describe a body of texts written entirely or

predominantly in sinograms but incorporating Japanese word order, distinct Japanese lexicon not observed in continental Literary Sinitic texts, and other various "Japanisms" (Japanese style honorifics, complex predicates, etc.). Such texts should not be viewed as a deviant form of Literary Sinitic, however, but rather a form of "morphographically written Japanese" (Schreiber 2023). *Wakan konkō-bun*, on the other hand, has been used to describe a group of texts written in a mixture of sinograms and kana that are clearly Japanese on the surface, but are heavily influenced by *kundoku* and incorporate copious amounts of Sino-Japanese vocabulary, Literary Sinitic imitations (indirect borrowings) and a high level of morphography, including non-sequential writing (e.g., 不知 [NEGATIVE know] for *šir-azu* [know-NEGATIVE]).

Turning to the broader Sinographic Cosmopolis, we immediately find parallels to the hybrid script in Korea and Vietnam. Starting with Korea, in addition to the *kugyŏl* sources mentioned earlier, several other types of sources employing sinograms to transcribe Old and Middle Korean have been handed down to us. One of these, *idu* 吏讀 'lit. clerical reading', is particularly reminiscent of Japanese *wakan konkō-bun*. Written in a mixture of sinogram morphograms and phonograms, *idu* texts feature a core of Sino-Korean vocabulary linked together by native Korean functional morphemes (verbal suffixes, enclitics, the Middle Korean pro-verb *hò-tá* 'do', etc.) (Lee & Ramsey 2011: 53–58, Nam 2012: 42–45, Handel 2019: 88–97, 110–113, etc.).

The parallels between Japanese and Korean do not stop here. Often included in the discussion of Korean sinography is a third type of writing, known as *sok hanmun* 俗漢文 'lit. vulgar Literary Sinitic' or *pyŏnch'e hanmun* 變體漢文 (cf. Japanese *hentai kanbun*), which is essentially a variant, or vernacularized, style of Literary Sinitic influenced by Korean (Nam 2012: 42–44, King 2023b, 2023c: 117–119). Unlike *idu*, which employs sinogram phonograms to represent Korean functional morphemes, apart from proper nouns, *sok hanmun* is written entirely morphographically. Thus, an immediate parallel can be drawn with Japanese *hentai kanbun*. We should be careful when making assumptions about the underlying language of *sok hanmun* texts, however. As King (2023b: 380) cautions, "unlike the case in Japan […] where it is clear that many so-called *hentai kanbun* 變體漢文 texts were written as Japanese texts to be read in Japanese, there is rarely ever a straightforward answer to these questions in Korea".

A final comparison with Korean is often made between the genre of texts known as *ŏnhae* 諺解 'lit. vernacular commentaries' and Japanese *kakikudashi-bun* 'lit. written out text' (the written form of a *kundoku* text read aloud) (O 2004: 4–5, Joho 2014, Kin 2021: 87–89). The term *ŏnhae* is used to describe Korean translations and commentaries of Literary Sinitic texts (mostly Buddhist and Confucian) written in a mixture of sinograms and hangul. First appearing in the 15th century, *ŏnhae* typically consist of a Literary Sinitic text with the pronunciation of each character given in hangul, presented passage-by-passage alongside a contemporary Korean translation.

Joho (2014) describes this genre of texts as a successor to the *kugyŏl* tradition and Kin (2021: 96–98) even gives an example of a sutra *ŏnhae* for which the text is a near one-to-one match with that of a *kugyŏl* gloss of the same sutra. An (1973: 75) describes the language of these commentaries as a "hybrid of Korean and Literary Sinitic" (*kuk-hanmun honyong* 國漢文混用), noting that the texts are often direct translations of Literary Sinitic incorporating copious amounts of Sino-Korean vocabulary. In summary, he states, "overall, the language observed in Middle Korean hangul texts should be viewed as a 'sinicized' rather than pure form of Korean, and such texts could be said to have a pseudo-archaic 'literary' character to them, as they draw on a long tradition of *kugyŏl* practices" (An 1973: 75–76; translation by author).

While not as striking as the Korean parallels, hybrid styles are also observed in Vietnamese writing. The most straightforward example can be found in the genre of texts commonly referred to as *giải âm* 解音 'lit. sound commentaries'. Similar to Korean *ŏnhae*, Vietnamese *giải âm* consist of a Literary Sinitic main text with a Vietnamese translation in chữ Nôm (a sinogram-based morphographic writing system used to record Vietnamese) added after each passage. Washizawa (2017: 78) describes the Vietnamese translation in such commentaries as usually being a direct translation of the Literary Sinitic main text, stating that the language of the text differed considerably from the spoken Vietnamese of the time in its overall style, lexicon and usage of grammatical function words. Similar to *ŏnhae*, several scholars have compared the style of writing found in *giải âm* to Japanese *kakikudashi-bun* (Kawamoto 1998: 82–83, Washizawa 2023).

Recently, through a comprehensive analysis of the *giải âm*, *Luận ngữ ước giải* 論語約解 'Concise commentary of the *Analects*' (c. 17th–18th century), Nguyễn (2025) revealed that the chữ Nôm translation was largely a direct rendition of the Literary Sinitic main text, with little room for translational license. Apart from the supplementation of grammatical subjects or objects for coherence, the chữ Nôm translation largely mirrors the Literary Sinitic main text, with a core of Literary Sinitic vocabulary supported by Vietnamese functional morphemes (particles, classifiers, nominalizers, etc.).

The status of a Vietnamese equivalent to *hentai kanbun* is less clear. As Shimizu (2017: 163) explains, "Official documents composed in Vietnam were typically written in Chinese-style Literary Sinitic. Since Vietnamese is much closer to Chinese from a typologically perspective than Japanese is, Literary Sinitic composed by Vietnamese speakers was nearly indiscernible from proper Literary Sinitic" (translation by author). Nguyễn (2017) argues for the existence of *hentai kanbun*-like texts in Vietnam, providing examples from epigraphs starting in the 12th century. However, as Nguyễn's main criterion for classifying a text as *hentai kanbun* is the inclusion of chữ Nôm elements—including abundant use of phonograms—a more accurate parallel here may be Japanese *wakan konkō-bun* rather than *hentai kanbun*.

Turning our attention beyond the Sinographic Cosmopolis, we find numerous parallels to the hybrid style in other cultures too. Weeden (2011: 10–13), for example, notes that phonetic spellings of Sumerian and Akkadian words in Hittite cuneiform texts suggest that Akkadograms and, to a lesser extent, Summerograms in such texts may have been read in their original pronunciation. If so, with such texts, we may be dealing with a situation similar to *wakan konkō-bun*, in which a core of morphographic Sumerian and/or Akkadian lexical morphemes is supported by phonographic Hittite functional morphemes.

The parallels are not limited to morphographic languages. In a discussion of hybridity in writing, King (2023c) draws parallels between morphographically written Japanese (*hentai kanbun*) and Korean "variant Sinitic" (*sok hanmun*, or *pyŏnch'e hanmun*) with "regionalized", or "vernacularized", variants of Sanskrit and Latin. One could also add more modern examples such as Arabicized Persian or Turkic, Latinized English (so-called "Johnsonese") or Latinized Spanish (so-called "Culteranismo" or "Gongorismo") to the list.

8. Conclusion. This study took a look at six types of borrowings or contact-induced innovations introduced to Japanese through contact with Literary Sinitic, all of which are intrinsically linked with a morphographic borrowing medium: i.e., sinograms. Through comparison with other languages of the Sinographic Cosmopolis (Korean and Vietnamese) and the Cuneiform World (Sumerian, Akkadian, Old Persian, Hittite, etc.), it was shown that each of these borrowing phenomena are also observed in other contact scenarios involving morphographic media.

Furthermore, it was shown that, while limited, some of the phenomena are also observed in contact scenarios involving phonographic media.

Due to the author's limited knowledge of languages other than Japanese and Literary Sinitic, many assumptions had to be made regarding the level of similarity between Japanese and the parallels from other languages. Moving forward, it is crucial to conduct a deeper analysis, particularly of the cuneiform parallels, and to incorporate additional examples of morphographic writing, such as those of early Mesoamerica, in the sample. A comprehensive comparison with cases of contact through spoken language or phonographic scripts would also be ideal for more accurately elucidating the role of medium in language contact and borrowing.

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