

Aspects of the Japanese Writing System

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In the late 1940s the Japanese writing system underwent a series of reforms. Despite these reforms, which were successful in bringing about a substantial degree of simplification, the writing system for modern Japanese still retains the dubious distinction of being the most complicated in use in the modern world.

The intricate nature of the system derives partly from the large number of relatively intricate written signs which a logogram script such as kanji (Chinese characters) inevitably requires, partly from the fact that kanji in Japanese regularly have more than one way of being read (how a kanji is to be read in any given case is determined on the basis of context), and partly from the pluralistic nature of the writing system (kanji together with two Japanese syllabaries). The situation is exacerbated by kanji usage for names, which traditionally frequently involve special readings or obscure kanji. In recent years legislation has been passed which simplifies kanji usage for given names of new-born children, but difficulties are still posed by family names and place names, not to mention the given names of deceased persons or individuals of the older generation.

In this special issue five aspects of the Japanese writing system are discussed. Anthony Backhouse (Monash University) discusses certain general features of the writing system in a way which should be of interest to specialist and non-specialist alike. Nanette Twine (Griffith University) depicts how, under Western influence, punctuation was adopted in Japanese texts in the late nineteenth and early twentieth century. James Unger (University of Hawaii at Manoa) has contributed two articles: one dealing with the problem of computer input in Japanese, the other describing a specialised variety of written Japanese—Japanese braille. The article by Chris Seeley (University of Canterbury) deals with modifications to the Japanese script since 1900. The guest editor of this special issue is

much indebted to Jim Unger for his energetic correspondence on several of these topics.

Down to the present, little has been written in the West on the Japanese writing system other than basic descriptions such as are found in Japanese language textbooks for Westerners. It is hoped, therefore, that the present issue of *Visible Language* will serve to focus attention on and stimulate interest in this general topic.

For the guidance of general readers who are not familiar with the Japanese language or its writing system, the five articles in this issue are preceded by a very brief sketch of the history of writing in Japan, followed by a short description of the basic features of modern Japanese writing, plus one or two observations on public opinion in Japan on the subject of the writing system.

A small number of frequently occurring romanized Japanese words (e.g., kanji, kana) are as a rule not italicized here, nor are the names of major Japanese organizations and institutions.

For further information on the Japanese language and its writing system, see R.A. Miller, *The Japanese Language* (University of Chicago Press, 1967); for the writing system alone, see the Introduction to W. Hadamitzky & M. Spahn, *Kanji and Kana: A Handbook and Dictionary of the Japanese Writing System* (Charles E. Tuttle & Co., 1981); for script reform in late nineteenth-century Japan, see N. Twine, "Toward Simplicity: Script Reform Movements in the Meiji Period".

Historical Context

Originally the Japanese had no writing system of their own, and so at an early stage in relations with China (ca. 400 AD) the system used by the Chinese was borrowed. The Chinese script is based on the morphemic principle; that is, each 'character' (Jap.: kanji) represents in writing a unit of the language such as *ren* "person", *da* "big", and *shui* "water". The Chinese and Japanese languages are completely different in structure, and so although the Chinese script was adequate as a means of representing the Chinese language in writing, it was ill-suited when it came to representing Japanese, a language with a wide variety of inflectional categories.

Because of the difficulties involved, it appears that initially at least the Chinese script was employed in Japan to write only Chinese, not Japanese. At that earliest stage the task of reading and writing was entrusted to scribes who were immigrants to Japan from the Korean peninsula and China or the descendants of such persons. As time passed, gradually a small number of Japanese acquired the literate skills. According to the

Nihon shoki (720), native Japanese scholars were already taking an active part in the compilation of at least some documents by the late seventh century. Even from the earliest period, when writing in Chinese style in Japan there naturally arose the need to represent Japanese proper names in texts in some way. This was done by utilising a technique already in use in China, namely, using kanji not for their meaning, but for their sound value—i.e., as phonograms. Thus, for example, the kanji 伊 and 太 (*i* and *t'ai* respectively in Middle Chinese, the literary variety of Chinese which formed a standard dialect during the seventh century) were borrowed to represent the Japanese proper noun *Ita-* (incomplete name to be found on a Japanese sword inscription, ca. sixth century). From about 700 onwards this method was sometimes employed to write not just isolated names but continuous sequences of Japanese. Use of kanji in this way was, however, rather cumbersome, as a relatively complicated sign was required to represent each syllable of Japanese. In addition to this, there was a lack of prestige attaching to the Japanese written style, and for some time the Japanese continued to write largely either in Chinese style, or in a hybrid style which showed the linguistic influence of both Chinese and Japanese.

At the outset Chinese texts are thought to have been read in Japan as Chinese. As small numbers of native Japanese began to read and write, they tended to accompany the Chinese rendering by a Japanese translation, rearranging the order of characters as appropriate and supplying additional elements required by the conventions of Japanese grammar. At first the process of rearranging a Chinese text was done mentally, but from about 800 Japanese Buddhist priests began to add kanji in their phonogram function in order to serve as a memory aid to help with the Japanese rendering. In the oldest surviving texts marked in this way the phonograms are unabbreviated ('full') kanji, but very soon abbreviated forms were being used also. Two basic methods were used for abbreviation: cursivizing and isolating techniques (the isolating technique is so called here because graphs of this type were created by isolating and using just one part of a 'parent' graph which was more complicated in shape). The following are a few examples of abbreviated phonograms taken from a manuscript of the *Jōjitsuron* (a Chinese Buddhist text) annotated in Japan in 828:

| isolating phonogram | syllable represented |
|---------------------|----------------------|
| 尹 (derived from 伊) | <i>i</i> |
| ム (derived from 牟) | <i>mu</i> |
| 才 (derived from 才) | <i>o</i> |

| cursivized phonogram | syllable represented |
|----------------------|----------------------|
| ぬ (derived from 奴) | nu |
| に (derived from 為) | wi |
| え (derived from 江) | ye |

The *Jōjitsuron* is annotated with both isolating and cursivized phonograms. Before long, however, the former (forerunners of signs in the modern kata-kana syllabary) predominated in the glosses to Chinese Buddhist texts, while the latter (forerunners of the hiragana syllabary) became increasingly cursivized and simpler in shape (a development which took place mainly in the realm of secular texts), and came to be used quite extensively for writing narrative prose (*monogatari*), private letters, *waka* poetry, and other informal texts in the Japanese style.

The development of the two kana syllabaries represents a very important milestone in the history of writing in Japan. However, for the majority of texts of an official or scholarly nature, the Chinese or hybrid styles continued to be preferred (cf. the use of Latin for scholarly writings in mediaeval Europe).

Modern Japanese Writing

Early in the first part of the twentieth century a written style based on modern colloquial Japanese came into widespread use, replacing earlier archaic styles. The normal orthography for modern Japanese texts is a combination of kanji and kana.

Kanji are related to the morphemes of Japanese by a system of 'readings'. Readings are of two types: *on* and *kun*. A *kun* reading represents a Japanese morpheme corresponding to the meaning of a particular kanji and which has come to be associated with that kanji, for instance 東 "east" *higashi*, 馬 "horse" *uma*.

The *on* reading of a kanji is based on its pronunciation in Chinese. The *on* readings of the above two kanji are *tō* and *ba* respectively, and these occur in *Tōkyō* 東京 "Tokyo" (lit. "eastern capital") and *bariki* 馬力 "horse-power" (the second kanji used in writing *bariki* has the meaning "strength"). Words of this type, which involve morphemes of Chinese origin, tend to be written in kanji rather than kana. Kanji are also frequently employed to write certain common native Japanese nouns, and verb and adjective stems.

Kana (Japanese syllabic signs) are of two types: *katakana* and *hiragana*. *Katakana*, which are angular in appearance, are employed for writing loanwords (other than those of Chinese origin), and have several other specific uses. *Hiragana*, which have a flowing visual aspect, constitute the more widely-used syllabary, and are employed to write inflectional

endings, grammatical function-words (particles), some nouns, etc. Since late 1946 a system of kana usage based on the pronunciation in modern standard Japanese has been in use; this replaced an earlier unwieldy system based on historical principles.

The way in which kanji and kana are combined in writing modern Japanese is perhaps best illustrated by and actual example such as the following: 弟さんよ いつその自動車を買いましてか

Otōto-san wa itsu sono jidōsha o kaimashita ka ("When did your younger brother buy that new car?). Kanji are used here to represent the Sino-Japanese noun *jidōsha* "car", the (native Japanese) noun *otōto* "younger brother", and for the stems of *atarashii* "new" and *kau* "buy". Kana are used for: the polite suffix *-san*, *itsu* "when?", the particles *o* and *ka*, the demonstrative *sono* "that", and the endings *-shii* and *-mashita*. The above Japanese sentence would typically be written in the way just described, but there is some fluctuation in actual usage (see the article by Anthony Backhouse.)

From late 1946 the number of kanji in general use was considerably restricted. As a result of this simplification, certain Sino-Japanese words which were traditionally written with very uncommon kanji were in some cases rewritten with homophonous kanji having a higher frequency of use. In cases where no suitable replacement kanji were available, such items were either subsequently written in kana, or tended to drop out of common use.

The ensuing decline in the use of certain less common Sino-Japanese words has led some writers and other intellectuals to regard the postwar orthographic reforms as an unfortunate set of moves leading to a deterioration in the general standard of writing and learning. Representative of this group is the Japan Literati Association, which is in favour of at least about 3000 kanji being adopted for general use instead of the present list of 1945 kanji (see the article by Chris Seeley).

Certain other individuals and groups, on the other hand, regard the writing system as being too complicated still, and would like to see a reduction in the number of kanji in everyday use. Generally speaking, school teachers, who are confronted every day with pupils who are severely pressed to assimilate the prescribed curriculum, tend towards this view.

Given these opposing viewpoints, it would be impossible to modify the Japanese writing system in such a way as to please all parties. There does, though, appear to exist a fairly widespread feeling that the number of kanji in general use should not exceed 2000, and in this sense the current kanji list (the *Jōyō kanji* List) may be said to reflect the mood of a substantial proportion of the Japanese people.

The current kanji list contains almost one hundred more kanji than its predecessor which was in use for 35 years from 1946. While this represents only a small overall increase, shortly after World War II the Japanese considered *reducing* the number of kanji in common use to about 1000. The question of how this recent development is to be interpreted is a difficult one, but it may perhaps be appropriate to regard this new trend as being equivalent to a vote of confidence by the Japanese of the 1980s in their own writing system, complicated though it is.

Aspects of the Graphological Structure of Japanese

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Certain important general features of the graphological structure of modern Japanese are reviewed. The Japanese writing system is characterized in particular by its plurality of scripts and by the distinctive nature of the kanji (character) script. Three major structural repercussions of these properties in the normal orthography are surveyed: firstly, the differential function of the various scripts in distinguishing grammatical from lexical items and, within the lexicon, in marking membership of different lexical strata; secondly, the integrative role of the kanji script in motivating, by way of graphological linkage, the learned Sino-Japanese vocabulary in terms of the neutral native vocabulary; and finally, the differential role played by kanji in two important types of homophony.

1. The aim of this article is to describe some of the major structural features of the modern Japanese written language as they are manifested at the level of graphology. As the work of Vachek has long since made clear, a written language is properly viewed as an entity in its own right, structured and patterned in ways which are at least partly independent of the corresponding spoken language.¹ Our central concern is with the place occupied in this patterning by the graphological resources of the language: how does the Japanese writing system serve to reflect, and in some cases create, structure in the written language?

2. The main features of the Japanese writing system which will concern us are, firstly, its plurality of scripts, and secondly, the nature of the kanji (character) script. For the benefit of readers unfamiliar with the system, these features may be briefly summarized.

Written Japanese employs three basic scripts, one morphographic (kanji) and two phonographic (hiragana and katakana). To these have been added, in more recent times, Arabic numerals (used in horizontal writing in place of kanji numerals) and Roman capitals (cf. SL 'steam locomotive', OL 'office girl', 3DK 'having three rooms plus a dining room-cum-kitchen', etc.²). As in Chinese,³ characters in Japanese basically constitute a morphemic script, the major difference being that in Japanese a given character commonly represents several morphemes rather than a single

morpheme. The prototypical situation may be illustrated by the kanji 川, corresponding to the pair of morphemes *sen* 'river' and *kawa* 'river'. This kanji is typical in that (a) it represents two morphemes, (b) etymologically, both Sino-Japanese (*sen*) and native (*kawa*) morphemes are involved, and (c) the morphemes are synonymous. However, many kanji deviate along one or more dimensions of this pattern.

3. Before looking at more particular structural features, it is worth pointing out certain general consequences for the Japanese written language which follow from the nature of the writing system as outlined above.

Firstly, the presence of a plurality of scripts makes for a potential flexibility of orthography on a scale which is inconceivable in the case of more familiar writing systems. Thus, while written Japanese normally combines the three basic scripts referred to, the language can theoretically be written purely in kana (but see 4.3 below); indeed it is so written in, for example, certain types of children's literature (hiragana), in telegrams (katakana), etc. Aside from such extreme cases this kind of flexibility is quite generally exploited in various degrees in different written genres, and the stylistic implications of this variation deserve closer study than they have received. In discussing the system here we shall appeal to the notion of 'normal' orthographic practice as set out in Government recommendations and reflected in dictionaries based thereon, but the underlying variation should not be forgotten. Note that some such variation is found even in such highly standardized areas as newspapers: a sample based on one year's editions (1966) of the *Asahi*, *Mainichi*, and *Yomiuri* newspapers showed orthographic variation in over 14% of words, and almost two-thirds of this total involved alternation between kanji and one of the kana scripts.⁴

Secondly, the coexistence of different scripts has led to the not uncommon practice of using two scripts in tandem, one acting as a gloss or commentary on the other. (This immediately adds a further dimension to the variation referred to above: as well as being written in one script or another, a word may also be written in two scripts at once.) The central case here is the use of one of the kana scripts (usually hiragana) alongside individual kanji to provide additional identification of the morpheme in difficult or ambiguous cases, a practice which prompted Sansom's well-known characterization of Japanese writing.⁵ But the facility is exploited beyond this central case. For example, hiragana (as the script learned earliest) is used to gloss katakana in children's literature; and more importantly, the superimposition of kana on kanji is extended from the basic function of specifying the correct 'existing' reading to that of

appending a 'new' reading, thereby effecting a kind of amalgam, in the written medium, of two distinct linguistic items.⁶

Finally, from a more diachronic perspective, it is worth commenting briefly here on the highly open-ended nature of the Japanese writing system. Borrowing and change operate in this area of language as in others, and clearly no writing system can be described as fully closed in this sense. However the nature of the Japanese system appears to render it more open than most. In a broad sense this is reflected in the incorporation, in relatively recent times, of Arabic numerals and Roman capitals as new borrowed inventories in the system. More narrowly, the kanji script itself is open-ended in that it permits the construction of new graphemes on the basis of the structural principles inherent in the script. Many such graphemes have, of course, been coined in Japan over the centuries, and several are established elements of the normal modern orthography. A further recent illustration of this open-endedness will be mentioned in 4.1 below.

4. Under the sub-headings in this section we propose to review some of the more prominent structural features of modern written Japanese as they involve graphology. We must emphasize again that, as indicated above, our discussion and illustrations will in general be based on 'normal' orthographic practice as set out in recent Government recommendations.⁷

4.1 Stratification. Our concern here is with the differential function of the scripts. The Japanese writing system offers particularly clear opportunities for marking structural divisions, and in modern usage the three basic scripts serve to distinguish, firstly, grammatical and lexical elements and, secondly, different strata within the lexicon.

The first general principle is that grammatical elements are written in hiragana. This applies most clearly to core grammatical elements such as enclitics and inflectional affixes but extends well beyond these to take in most items belonging to closed systems. Examples include spatial deictics (*kore* 'this', *sore* 'that', *are* 'that', etc.), auxiliary verbs (*miru* 'try doing', *oku* 'do for future use', etc.), and conjunctions (*shikashi* 'but', etc.). Inconsistencies are certainly present (for example, *shikashi* 'but' is normally written in hiragana, but *tadashi* 'however' is optionally written in kanji) and the borderline between grammar and lexicon is in any case indistinct, but there can be no doubt about the strength of this principle in modern written Japanese.⁸ Note, too, that it is grammatical elements which provide the most extreme exceptions to the regular sound/kana correspondence rules: the topic particle *wa* (written *ha*), the case particles *e* (written *he*) and *o* (written with a unique grapheme), and the auxiliary element *yuu* (written *iu*) all constitute unique irregularities.⁹

Turning to the lexicon, the second general principle is that kanji are used to write neutral vocabulary; lexical items falling outside the sphere of kanji are written in the kana scripts, and are thereby graphologically branded as belonging to marked lexical strata.¹⁰ It is the lexicon, therefore, that serves as the locus for the full interplay of the basic scripts.

Thus, firstly, Sino-Japanese items and the neutral core of native Japanese items are in principle written in kanji.¹¹ (In actual usage some neutral native items show a preference for hiragana: the clearest examples turn out to lie close to the borderline with grammar, or else to be members of homophonous sets (cf, 4.3).) Outside the sphere of kanji stand expressive and mimetic items on the one hand, and Western loanwords on the other. Expressive items typically encode the emotional or affective attitude of the speaker and are colloquial in style: some examples are *butsu* 'clout', *chippoke* 'small', *hebo* 'bungling', *chachi* 'flimsy'.¹² Mimetic items (*giongitaigo*) are a clearly defined morphological group of words denoting sounds, movements, sensations, and the like: cf. *pokin* 'with a snap', *bettari* '(adhere) stickily', *jirojiro* '(stare) fixedly', *gyorogyoro* '(look) gogglingly', etc. Both expressives and mimetics are, etymologically, virtually all native Japanese, but structurally they are clearly distinguishable from the neutral native vocabulary and share a good many features in common.¹³ Graphologically, they are written in kana: in general, the norm prescribes katakana for mimetics denoting sounds (i.e., onomatopes) and hiragana for other mimetics and for expressives, but in current usage katakana appears to be gaining ground.¹⁴ Western loanwords are also written in katakana, but it is important to note that they do not fall exactly together with onomatopes in this respect: the katakana script used with Westernisms in the modern language includes various supplementary conventions, and this supplemented script thereby functions as a graphological marker of this particular stratum.¹⁵ The conventions concerned, which consist essentially in an extended repertory and range of use of diacritics, may be seen as another recent example of the open-endedness of the Japanese writing system noted in 3 above.

The differential functions of the scripts outlined here are summarized in the following table:

| | | |
|---------|--------------------------|-------------------|
| GRAMMAR | | Hiragana |
| | Neutral | Kanji |
| LEXICON | Expressives, Mimetics | Hiragana/Katakana |
| | Westernisms | Extended katakana |

4.2 Native/Sino-Japanese homography. In what follows we transfer our attention from the overall system to certain structurally significant aspects of the kanji script. Here we are concerned with an integrative function of that script.

As noted in 4.1 above, in general kanji are used to represent both Sino-Japanese (SJ) items and items of the neutral native vocabulary (NJ). To repeat the example given in 2, the kanji 川 represents both the SJ morpheme *sen* 'river' and the NJ morpheme *kawa* 'river'. (From the viewpoint of the kanji concerned, the associated SJ and NJ morphemes are said to constitute its *on*-reading and *kun*-reading respectively: in these terms, *sen* is the *on*-reading and *kawa* the *kun*-reading of 川.)

The fact that kanji are used in this way in Japanese means that in general SJ and NJ items, though formally unrelated in the spoken language, are graphologically linked in written Japanese. And since the SJ and NJ items linked through a given kanji are as a rule closely related in meaning, the bond is normally also a semantic one. A particularly significant consequence of this situation is that in Japanese the learned vocabulary, which is composed largely of SJ items, tends to be semantically transparent, graphologically, vis-a-vis the ordinary native vocabulary.

This point has been made on several occasions by Suzuki, who has emphasized the advantage Japanese enjoys in this regard in comparison with a language like English, where the learned vocabulary based on Latin and Greek is formally unrelated to the basic vocabulary in both the spoken and written mediums.¹⁶ To repeat one of Suzuki's examples, the SJ term *tantoo* 短頭 'brachycephalic' is graphologically linked to the NJ words *mijikai* 短かい 'short' and *atama* 頭 'head', whereas there is no formal link amongst the corresponding English words.¹⁷

This is clearly a highly important feature of the graphological structure of Japanese, and it provides a strong argument in favour of the particular nature of the Japanese writing system.¹⁸ Not that it applies throughout the whole modern kanji script: as already noted, the semantic transparency referred to clearly depends on (a) a kanji having both an *on*- and a *kun*-reading, and (b) the SJ and NJ morphemes being synonymous or at least closely related in meaning. Of the currently prescribed 1,945 *jooyookanji*, 737 are assigned only *on*-readings and 40 only *kun*-readings, leaving 1,168 kanji (60% of the total) to provide graphological SJ/NJ linkage.¹⁹ Semantic relatedness is a difficult property to quantify: however, clear exceptions are not easy to find, and synonymy or near-synonymy is undoubtedly the rule.

4.3 Two kinds of homophony. It can easily be seen that the two main features of the Japanese writing system—viz. the presence of several scripts and the nature of the kanji script—both serve to magnify the potential of the language for homophony (in the sense of ‘same sound, different writing’). In the first case like-sounding items may be distinguished in writing by being represented in different scripts; in the second, a morphographic script will by its very nature distinguish distinguish morphemes independently of their phonological shape.

Clearly, examples of inter-script homophony may arise out of the graphological stratification discussed in 4.1: thus, *soko* **そこ** ‘that place’ (grammar) vs. *soko* **底** ‘bottom (of sea, etc.)’ (lexicon), *oku* **おく** ‘do for future use’ (auxiliary verb: grammar) vs. *oku* **置く** ‘put’ (main verb: lexicon); and, within the lexicon, *erai* **偉い** ‘great’ (neutral NJ) vs. *erai* **えらい** ‘terrible’ (expressive), *sooseiji* **双生児** ‘twin’ (SJ) vs. *sooseiji* **ソーセージ** ‘sausage’ (Western loan), etc. Such cases, though structurally important, are in practice relatively infrequent. By contrast, kanji homophony is rife in Japanese, and it is this differential function of the kanji script that will occupy us here.

The fact that kanji are used to represent both SJ and neutral NJ items makes for three potential types of homophony in terms of these lexical groups, namely SJ, NJ, and SJ/NJ homophony. SJ/NJ homophones are in fact relatively rare, due to the different phonological characteristics of the two groups, but homophony within each group is both common and structurally important.

SJ homophones are extremely numerous, reflecting the highly restricted number (less than 300) of phonological shapes of SJ morphemes. Discussions of this topic tend to concentrate on the morphemic level, pointing out the many different characters used to represent a given SJ morphemic shape.²⁰ Since SJ words are canonically dimorphemic, the magnitude of the phenomenon at word level is clearly reduced, but it nevertheless remains considerable. Thus, a typical smaller Japanese-English dictionary lists 8 homophonous SJ words pronounced *koosei*, 10 pronounced *kootei*, 10 pronounced *kooki*, and 11 pronounced *kikoo*,²¹ and these figures would rise further with the inclusion of more specialized vocabulary. Were it not for the graphological differentiation among such items made possible by the morphemic script, this would represent an intolerable level of formal identity. The role of the kanji script in supporting the characteristic high proportion of SJ items in the written language is quite obvious, and an all-kana orthography (cf. 3 above) faces important limitations in this area.

Unlike SJ homophones, the great majority (and structurally the most important group) of NJ homophones consist of near-synonyms. Here are some examples: *abura* 油 'oil', 脂 'fat'; *kawa* 皮 'skin', 革 'leather'; *hayai* 早い 'early', 速い 'fast'; *atsui* 熱い 'hot (to the touch)', 暑い 'hot (of ambient temperature etc.)'; *semeru* 攻める 'attack', 責める 'criticize'; *naku* 泣く 'cry(= weep)', 鳴く 'cry (of animals)'. In these cases words which, in an analysis of spoken Japanese alone, would be regarded as single items with a wide range of meaning (e.g., *abura* 'fat, whether liquid or solid', etc.) are in the written language differentiated into two formal items each with a narrower meaning. That is to say, meanings are formally distinguished among NJ items in writing which are not so distinguished in speech, and to this extent the kanji script has effected a semantic re-structuring, along Chinese lines, of the native vocabulary.

These distinctions, of course, stem from the NJ/SJ graphological link discussed in 4.2, and they are echoed and reinforced in SJ items: thus, the distinction made in *abura* 油 'oil' vs. 脂 'fat' reflects that seen in such SJ words as *shokubutsuyu* 植物油 'vegetable oil' (with 油) vs. *shiboo* 脂肪 'fat (in meat, on body, etc.)' (with 脂). The distinctions, however, are not always as clear as in the examples illustrated. The NJ adjective *katai* 'hard, firm, stiff', for example, is assigned three kanji in the norm, viz. 固, 堅 and 石硬,²² and the illustrative examples in the relevant official publication include the phrases *katai ishi* 'hard stone' (with 石硬) but *katai zaimoku* 'hard timber' (with 堅).²³ The semantic distinction in these particular examples is difficult to pinpoint, and the division here is not clarified in SJ items: SJ terms such as *koodo* 硬度 'hardness' and *kooshitsu* 硬質 'hard' (with 硬) denote hardness as a physical quality of substances in general, including wood. The various spelling dictionaries (*yoojiyogoji-ten*) on the market generally attempt to supplement the illustrative phrases provided in the Government directive with semantic explanations. Takeda (1975:83), for example, has the following notes under the entry for *katai* on the use of the two kanji:

石硬 : Mainly refers to the property of not bending or denting when force is applied (to stone, metal, etc.)

堅 : Mainly refers to the solidity of substance of objects

Apart from the indication on collocability, however, the distinction remains far from clear, and in area such as this the writing system is, in the last resort, indeterminate: which kanji, for example, is to be used for *katai*

in describing the hardness of an object composed of both metal and wood?

As we have indicated, this type of NJ homophony is the natural accompaniment of the NJ/SJ homography discussed in 4.2. As we saw there, the graphological integration of these two sections of the vocabulary has the advantage of creating transparency in Sino-Japanese words. On the other side of the coin, however, the incorporation through kanji of SJ semantic distinctions into the native vocabulary leads on occasion to undecidable choices for the writer. This is a point of instability in the system, and the general theoretical and practical difficulties of these NJ homophones have often been pointed out. Miyajima, for example, sees the recommendations of the norm in this whole area as running counter to the principle of 'one word, one spelling' which he discerns as gaining ground in actual usage. He produces many actual examples from literature which indicate that the recommended distinctions are commonly ignored in practice, a single basic kanji being used throughout at the expense of others of more restricted distribution.²⁴ In addition, as noted in 4.1, there is a tendency in current usage towards writing NJ homophones in hiragana.²⁵ The extent of such variation and the precise nature of individual cases require further study, but clearly any wholesale trend here towards 'one word, one spelling', particularly in the direction of hiragana, would serve to weaken the NJ/SJ link and have important consequences for the graphological structure of Japanese in general.

5. This concludes our survey of some of the major structural features of written Japanese as they involve the writing system. Starting from the two outstanding characteristics of the system, namely its mixture of scripts and the nature of kanji, we have attempted, hopefully in terms accessible also to the non-specialist in Japanese, to bring together some of the structural links and divisions in which it plays a central role.

Though we have had occasion to mention significant contrasts with actual usage, our discussion has in general been in terms of the 'norm'. As we have emphasized in 3, a good deal of work remains to be done on the stylistic options afforded by the flexibility of the system, but of course any such work must take the norm, or at least some 'unmarked' usage fairly near it, as its starting point.

My thanks are due to Harold Rowe for his comments on an earlier version of this article.

1. On the autonomous status of the written norm, cf. Vachek, 1939; 1945-1949; 1973.
2. In speech these words are pronounced *esueru*, *ooeru*, and *sandiikee*, respectively. For cited Japanese forms we follow the Hepburn system of romanization, except that we write long vowels double.
3. Cf. Kratochvil, 1968: 146-162 on the nature of the Chinese writing system.
4. See Kokuritsu Kokugo Kenkyuujō, 1983: 33-36.
5. 'One hesitates for an epithet to describe a system of writing which is so complex that it needs the aid of another system to explain it.' (Sansom, 1928: 44)
6. Some examples and discussion can be found in Martin, 1972: 95-97.
7. On the orthographic form of individual words we follow Takeda (1975), which incorporates Government recommendations up to that date. Our examples have not been affected by subsequent directives.
8. Cf. Miyajima's discussion (1977: 209-217) on this point. Miyajima is mainly concerned to point out inconsistencies around the borderline in actual usage, as well as the influence of other factors such as frequency of use in favouring kana. But he does not deny the status of the general principle.
9. Graphological differentiation of grammar and lexicon is, of course, a familiar feature of written language: compare the well-known avoidance of two-letter lexical words in English reflected in pairs of grammatical and lexical homophones such as *in/inn*, *be/bee*, *by/buy*, etc. (cf. Venezky, 1970: 57; Vachek, 1973: 54; Bolinger, 1975: 475). Vachek comments (1973: 54, fn. 26) that 'it appears perfectly natural that the words of the former category (i.e., our lexical elements: AEB) ... were to symbolize their greater semantic and communicative weight by a more impressive graphemic extent of their written forms'. In the case of Japanese, it appears no less natural that this distinction be basically symbolized by the opposition between the morphographic and phonographic scripts.
10. By 'lexical items falling outside the sphere of kanji' we refer to lexical groups which are systematically excluded from kanji representation: as specified below, these comprise mimetics, expressives, and Western loans. Individual members of other groups may lack kanji as a result of, for example, the official reductions in the recommended kanji inventory, but these sporadic exceptions are not our concern here.
11. In the case of inflected native items it is, of course, the stem which is represented in kanji, inflectional (i.e., grammatical) endings being written in hiragana.
12. On expressives in Japanese, see Backhouse, 1983.
13. Cf. Backhouse, 1983: 69-70.
14. For some actual examples of variation see Kokuritsu Kokugo Kenkyuujō, 1983: 45-46.
15. As with grammatical vs. lexical differentiation (cf. note 9), graphological marking within the lexicon is generally attested. Cf. Vachek's remarks concerning English in e.g. 1971: 215.
16. See Suzuki, 1978a, especially 24-27. See also Suzuki, 1975, especially 182-191, for a discussion in English.
17. Suzuki, 1975: 190.
18. Miyajima (1977), who sees no practical objection to writing all NJ items in kana, appears to overlook the importance of this NJ/SJ link.
19. Figures from M. Nomura, 'Jooyokanji no onkun', *Keiryookokugogaku* 13, 1981, as summarized in Miyajima (1982: 251).

20. Thus Suzuki (1978b: 173) mentions that, even in a smaller dictionary, the SJ morpheme shape *koo* is represented by 75 different kanji.

21. Yamada, 1968. Some of these SJ 'homophones' are in fact distinguished actually, but this is irrelevant to the problem of written differentiation at issue here: prosodic differences are regularly ignored in phonographic writing systems, and all these words would be formally identical in kana.

22. We ignore the additional kanji 糞 here, which is mainly restricted to representing *-gatai* as a suffix.

23. See Kokugoshingikai, 1972.

24. See Miyajima, 1977: 204-209. As indicated above (cf. note 18), Miyajima concentrates here on problems of writing NJ items and does not discuss the related issue of NJ/SJ homography.

25. See the examples and discussion in Kokuritsu Kokugo Kenyuujo, 1983: 43-44. Attested examples of 'incorrect' kanji usage are also given, on 53-54.

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