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# The Phonological and Morphological Integration of English Borrowings in Modern Japanese

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## Abstract

The study discusses how the modernization of the Japanese lexicon has been helped, and in some cases, hindered, by the influence of foreign loanwords or *gairaigo*. The subject of *gairaigo*'s influence on Japanese has not been investigated in a systematic manner and according to modern linguistic principles and procedures. As such this study hopes to contribute in some measure to an understanding of the nature of that contact. The main purpose of this study is to examine the linguistic processes, namely phonological and morphological processes, by which English has influenced the lexical expansions of the Japanese language and to investigate the integration of borrowed innovations and their impact on the structure of Japanese.

## Introduction

According to Weinreich, "When two or more languages will be said to be in contact if they are used alternately by the same person. .the language contact is considered by some anthropologist as but one aspect of culture contact." (1953: 1-5). Thus, social scientists and anthropologists have been fascinated with the mushrooming of Japan which as a 'new nation' in the post-war world, has placed tremendous stress on the importance of foreign language, especially English, during the last 50 years. Whilst promoting and developing its national language, *nihongo*, the use of English and other foreign languages have been expanding. It is therefore inevitable that the latter should have left its marks on *nihongo*.

### Purpose of the Study

This study, then, will show how, in one aspect of its language development, the modernization of the Japanese lexicon, has been helped, and in some cases, hindered, by the influence of foreign loanwords or *gairaigo*.

The subject of *gairaigo*'s influence on Japanese has not been investigated in a systematic manner and according to modern linguistic principles and procedures. As such this study hopes to contribute in some measure to an understanding of the nature of that contact.

It is also hoped that this study will add to the rapidly increasing literature on language contact and will make possible comparisons with other linguistic studies for an explication of the process of lexical innovation, particularly of borrowing, which has played such an important role in the shaping of the modern Japanese language.

Thus, the main purpose of this study is to examine the linguistic processes, namely phonological and morphological processes, by which English has influenced the lexical expansions of the Japanese language and to investigate the integration of borrowed innovations and their impact on the structure of Japanese.

### The Historical Contact

Japan came into some contact with European languages and cultures during the 14<sup>th</sup> and 16<sup>th</sup> centuries, through Christian missionaries. In 1640, Japan adopted a national policy of isolation to protect itself against barbaric foreign influences. Foreigners were cast out and there was a concerted effort to stamp out all foreign influences. During the period from 1640 to 1853, there was virtually no contact with the West apart from some limited trading with the Dutch.

In 1853, the American Commodore Mathews Perry landed in Edo Bay (now Tokyo Bay) with his fleet. This event marks the beginning of the present period, which is linguistically speaking, the most significant period in terms of Japan's contact with the West. During the Meiji Era, that is, between 1868 and 1912, Japan developed a new interest in the West. The Meiji government recognized the need for industrialization and turned to the West for the technology which it realized would be necessary if they want to move towards the future. Trade and commercial ties were established. Japanese scholars went abroad and foreign experts were brought in. The government also initiated compulsory literacy and education programs which made education available on a much broader scale.

Since the Meiji Era, there has been a more or less steady flow of English words into Japanese. This flow, however, was punctuated by periods of resistance, particularly during the 1930s and 1940s, when the militaristic government attempted to purge the language of loanwords from the 'enemy languages'. During this period, officials attempted to replace loanwords with loan translations and compound words based on Chinese elements. An example of *beisubouru* 'baseball' was replaced by *yakyuu*, derived from *ya* 'field' and *kyuu* 'ball'. This is one of the few replacements which survive; most of the 'reformed words' fell out of use after the war (Miller, 1967).

Since the end of World War II, several factors have promoted the spread and use of English in Japan. The past 50 years has seen unprecedented industrial growth, and this has been accompanied by increasing trade relations between Japan and other countries, especially the United States. There has also been a substantial rise in the standard of living, which has in turn led to higher levels of education for a larger segment of the population. It has also brought more Japanese into contact with the English language through the mass media. The present popularity of English in Japan is due in large measure to Japan's economic prosperity and rapid industrialization.

### Linguistic Integration of English Borrowings

Trager (1972: 110) points out that when loans are taken over from one language to another, "there is always some departure from the original in the phonology, morphology and semantics." The question of whether the importation of English loanwords has affected the structure of Japanese is also pertinent at this point. From the phonemic point of view, when words borrowed from English are taken into Japanese and used in a Japanese sentence, they are subjected to a fairly thorough process of integration. Grammatically speaking, however, most Western loanwords are used as nouns, and since nouns in Japanese are not subject to any declension or inflection according to gender, number or case, there is no grammatical difficulty in the use of these borrowed words. When the loanwords are used as verbs or adjectives, however, they are accompanied by the suffixes peculiar to Japanese verbs and adjectives, that is *~suru* and *~na*, respectively. From the point of view of vocabulary, such words are sometimes shortened, or made into compounds in a way not existing in English, while their meaning also show some shifts from the original from time to time.

### Phonological Integration

One indication of the degree to which loanwords have been assimilated in Japanese is through phonological assimilation, which is complete, making them

phonologically indistinguishable from native Japanese words. The most important difference, phonologically, between Japanese and English is that Japanese disallows consonant clusters. Consequently, when English loanwords are introduced into Japanese there is usually a vowel epenthesis to make the loanword conform to the canonical CVCV pattern of Japanese, for instance,

school	>	<i>sukuru</i>
soprano	>	<i>sopurano</i>
Salt Lake	>	<i>soruto reiku</i>

There are countless similar examples. This vowel epenthesis and other processes involved in phonological assimilation are the subject of an insightful dissertation by Lovins (1973), that the Japanisation of borrowed words usually involves the insertion of vowels, the replacement of non-Japanese sounds with the approximate sounds which are found in Japanese, a change of accent, spelling, pronunciation and other transformation. The following sections will illustrate some of the major forms of transformation.

#### Insertion of a Vowel

If we express a vowel by V and a consonant by C, respectively, the phonetic structure of a Japanese syllable is described either as V or CV. Consonants are not used in succession, but a consonant is usually followed by a vowel. For this reason, it is difficult to reproduce in Japanese a group of consonants as it exists at the beginning of the word 'strike' or at the end of the word 'text'. Each of these consonants must be succeeded by a vowel. The following examples will readily show the transformation from English to Japanese.

strike	>	<i>sutor<u>a</u>iku</i>
text	>	<i>tekisuto</i>

An inserted vowel on the other hand is influenced by the vowel placed before or after it. For instance:

salad	>	<i>sarada</i>
cake	>	<i>keeki</i>
stick	>	<i>sutekki</i>
stop	>	<i>sutoppu</i>
truck	>	<i>torakku</i>

It can be seen that some of the Japanese words cited above contain long consonants such as ~kk~, ~pp~ for instance.

### Replacement of a Sound

This concerns the treatment of sounds which exist in English but not in Japanese. There are two means of sound replacement: one is to substitute the English sound with a corresponding one in Japanese, and the other is to substitute with a sound which is not found in Japanese but is still relatively easy to pronounce for the native speaker. Some examples of substitution with different sounds are the English [ th ] and [ dh ] with [ s ] and [ z ] in Japanese, or [ ng ] in English with [ ngu ] in Japanese.

theory	>	<i>seorri</i>
all weather	>	<i>ooru uezza</i>
song	>	<i>songu</i>

Because Japanese does not distinguish [ r ] from [ l ], both are pronounced in the same way. It should be noted, in this respect, that [ r ] in Japanese is phonetically not quite the same with the [ r ] in English.

light	>	<i>raito</i>
right	>	<i>raito</i>
fry	>	<i>furai</i>
fly	>	<i>furai</i>

Some English vowels, such as [ æ ] and [ ê ], are also missing in Japanese.

bat	>	<i>batto</i>
captain	>	<i>kyaputen</i>
personal	>	<i>paasonaru</i>

The sounds [ ti ], [ di ], [ fa ], [ fi ], [ fe ] and [ fo ] are examples of sound sequences appearing only in Western loanwords. In this respect, [ f ] is not labiodental but bilabial [ ð ].

party	>	<i>paati</i>
diesel	>	<i>diizeru</i>
fccling	>	<i>firingu</i>
telephone	>	<i>terefon</i>

The [ v ] sound is difficult for the Japanese to pronounce and to hear, so [ b ] is usually substituted for it.

Valentine	>	<i>barentain</i>
variation	>	<i>barieeshon</i>
vision	>	<i>bijon</i>

### Accent

The English language has stress accent, whereas Japanese is modulated by pitch accent. In some cases, the pitch accent in Japanese coincides with the stress accent of the English original as illustrated below:

mis'sion	>	<i>mi'sshon</i>
ori'ginal	>	<i>o'ri'jinaru</i>

However, there are many cases where the location of the pitch accent and the stress accent are not identical.

pa'tent	>	<i>pa'tento</i>
man'ager	>	<i>ma'ne'ejaa</i>
sau'sage	>	<i>so'ose'ejii</i>

### Spelling Pronunciation

This occurs, for instance, when the pronunciation of '~age' [eidz] in English is applied to words in which ~age is an unstressed suffix.

image	>	<i>imeeji</i>
average	>	<i>abereeji</i>
damage	>	<i>dameeji</i>

Some English words ending in '~ate' are pronounced in the same way that 'late' or 'date' are pronounced.

delicate	>	<i>derikeeto</i>
private	>	<i>puraibeeto</i>

### Orthographic Differences

The preceding examples demonstrate words originating in English which have undergone very significant transformations when they are used in Japanese. While assimilation makes loanwords perceptually indistinguishable from Japanese words phonologically, a distinction between Japanese words and

loanwords is maintained orthographically. Japanese uses three different writing systems, they are *kanji* (Chinese ideographs), and two phonetically-based syllabaries *hiragana* and *katakana*. However, a word may be written using only one or the other. *Hiragana* is generally used for writing morphological affixes, function words and words that are infrequently used. *Katakana*, the second phonetic syllabary, has symbols which represent the same set of phonemes as the symbols of *hiragana* syllabary. It is used principally, though not exclusively, for writing loanwords. Thus, orthographically, loanwords are clearly set apart from other words.

### Morphological Integration

Another major indication of the degree to which loanwords have become assimilated in Japanese is their morphological assimilation, which like the phonological assimilation is complete, making them morphologically indistinguishable from native Japanese words. The following sections will provide examples of such assimilations.

#### Compound Words

Compounding involves the formation of new lexical items by combining two loanwords, example, *sarariiman* (businessman) from 'salary' and 'man', *aisukyandii* (popsicle) from 'ice' and 'candy', and *peipaadoraiba*, meaning 'person who has a driving license but doesn't drive', from 'paper' and 'driver'. In these compound formations, noun + noun combinations are the most frequent, but adjective + noun combinations are also found, for example, *goorudenawaa* from 'golden' and 'hour' meaning 'television prime time'.

There are also cases of hybridization in which a compound is formed from one Japanese item and one English item. Again, noun + noun combination are the most numerous, but there are also instances of English words being combined with Japanese affixes, for example, *oni-koochi* (devil coach), *shokku-ryoohoo* (shock remedy) and *koochi-tachi* 'coach + Japanese plural marker'.

Japanese contains many compound words of the English origin. Some of them have the same form as in English, while others are not found in English at all. For instance, the following compound words comprising the word 'check' are used in the same way in Japanese as in English.

check-in	>	<i>chekku-in</i>
check-out	>	<i>chekku-auto</i>
checklist	>	<i>chekku-risuto</i>

On the other hand, there are a number of Japanese words which, while produced by combining English, are nevertheless peculiar to Japanese but are not used in English. Among these words, there are some the usage of which partly corresponds to and partly differs from the English usage. Examples are:

office girl	>	<i>ofisu redi</i> (office lady)
baton twirler	>	<i>baton gaaru</i> (baton girl)
beach umbrella	>	<i>biichi parasoru</i> (beach parasol)
emergency brake	>	<i>saido bureeki</i> (side break)
fancy cake	>	<i>dekoreeshon keeki</i> (decoration cake)
rear-view mirror	>	<i>bakku miraa</i> (back mirror)

With others, the elements used are the same, although the order is reversed, such as:

theater restaurant	>	<i>resutoran siataa</i> (restaurant theater)
off season	>	<i>siizun ofu</i> (season off)
made to order	>	<i>oodaa meedo</i> (order made)
fried potatoes	>	<i>potato furaido</i> (potato fry)
tea with lemon	>	<i>remon tii</i> (lemon tea)



In some instances, changes in the order of words and change of the word itself can be found in the same compound word. For example, to designate English 'centre piece', Japanese derived a word by the first putting *center* last and then replacing *piece* with a completely different word, *teburu* (table), so that the end product now becomes *teburu sentaa*. Similar examples are:

to reach home	>	<i>hoomu in</i> (home in)
sandwich table	>	<i>mikkusu sando</i> (mix sand)
making new model	>	<i>moderu chenji</i> (model change)

Some of the loanwords take a compound form, although they are not compound words in English. In most of these words, the second part denotes what is called in logic a genus concept.

guard	>	<i>gaadoman</i> (guard man)
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In this example, the English 'guard' is rendered in the Japanese borrowing as *gaadoo*, and picks up *man*, which corresponds to 'man' in English. This occurs because it is difficult to understand the word *gaadoo* alone, and the difficulty is resolved by adding *man* to show it relates to human being.

In the same vein, we have

tartan	>	<i>taatan chekku</i> (tartan check)
dance	>	<i>dansu paatii</i> (dance party)
diescl	>	<i>diiseru kaa</i> (diescl car)
hula	>	<i>fura dansu</i> (hula dance)
blazer	>	<i>bureza kooto</i> (blazer coat)

reception > *resepushon paatii*  
(reception party)

A similar phenomenon can be seen in English as well. For instance, the Japanese words 'noh' and 'kabuki' mean the traditional plays, but this cannot readily be understood by an English speaking world, so they are expressed as 'noh plays' or 'kabuki plays'. Such Japanese words already accepted English as geisha girls or go-game are used without 'girls' or 'game' in Japan. Some of the borrowings show no similarity to their English equivalents at all and for this reason they are typical of Japanese-made loanwords.

traffic signal > *goo-sutoppu*  
(go stop)

gearshift > *chenji rebaa*  
(change lever)

ticket agency > *puree gaido*  
(play guide)

winshield > *furonto garasu*  
(front glass)

soap opera > *hoomu dorama*  
(home drama)

### Truncation

Truncation is a process that is customary in Japanese words and it is also customary in Japanese in order to abbreviate a long word. The most common way is to combine the first or sometimes the first two phonetic syllables. For instance, the polite form of morning greeting *ohayoo gozaimasu* (good morning) may be shortened to *osu* by retaining the first syllable of *ohayoo* and the last syllable of *gozaimasu* and deleting the intervening part. This abrogated form may be used when addressing people of the same or lower social rank, with whom the speaker is familiar. Other examples are:

*tookyoo-daiigaku* > *toodai*  
(Tokyo University)

*kokusai-rengo* > *kokuren*  
(United Nations)

The same method is sometimes applied to Western loan words to produce their abbreviations. Below are four examples:

professional wrestling	>	<i>pu●resu</i>
general strike	>	<i>zenesuto</i>
sound track	>	<i>santora</i>
mass communication	>	<i>masukomi</i>

Generally speaking, Western loan words tend to be long because vowels are attached to every consonant. For this reason, truncation is frequently made. Apart from the types of abbreviation mentioned above, there are three other ways of shortening loan words. The first part of a word may be dropped, while in other cases one can omit the middle or last part.

We can cite the following examples among the truncation or abbreviation made by omitting the first part of loan words. The parentheses indicate the omitted part.

inferiority complex	>	<inferioriti> <i>konpurekkusu</i>
bottleneck	>	<botoru> <i>nekku</i>
motorbike	>	<mootaa> <i>baiku</i>
platform	>	<puratto> <i>hoomu</i>
varnish	>	<wa> <i>nisu</i>

Examples of truncation produced by dropping the middle part of the word are:

soft ice cream	>	<i>sofuto</i> <aisu> <i>kuriimu</i>
ballpoint	>	<i>booru</i> <pointo> <i>pen</i>

The following are examples of abbreviation in which the last part is dropped.

apartment	>	<i>apaato</i> < <i>mento</i> >
overcoat	>	<i>oobaa</i> < <i>kooto</i> >
stainless steel	>	<i>sutenresu</i> < <i>sutiiru</i> >
notebook	>	<i>nooto</i> < <i>bukku</i> >
front desk	>	<i>furonto</i> < <i>desuku</i> >
inflation	>	<i>infure</i> < <i>eshon</i> >
television	>	<i>terebi</i> < <i>jon</i> >
body building	>	<i>bodiibiru</i> < <i>dingu</i> >

Another variation of truncation in Japanese is the use of acronyms. In cases such as *pii-aru* (PR – public relations), the use of acronyms in Japanese reflects their use in English. But in other cases, their use is innovative, as in D.P.E. ‘developing, printing and enlarging, for photographs.

### Conclusion

In some respects, this discussion may be impressionistic and incomplete, but what has been attempted is to provide an overview of the use of English in Japan from phonological and morphological perspectives. The historical circumstances as well as the current forces which either inhibit or promote the spread and use of English have been briefly examined. A large section has been devoted to describing the form and use of loanwords, since they are the principal manifestation of the use of English in Japan.

The present discussion has also shown that through borrowing, the influence of English has pervaded all linguistic levels of Japanese. Thus, the English contact does not merely involve the filling of linguistic gaps and meeting the needs of an industrial and post-industrial society but also involves the linguistic processes namely the phonological and morphological processes.

Important to highlight here is that the influence of English on Japanese is not just a thing of the past but is still an on-going process and their occurrences will increase. There is much scope for further study in this area. In years to come, some of the areas that need investigation are a fuller description of loanword phonology and the analysis of English influence on Japanese syntax.

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