

Atsui or *Hotto* Coffee?:
Further Testing of the Extended
Native vs. Foreign Dichotomy in
Contemporary Japanese

Kobe University
Graduate School of Humanities
Bordilovskaya Anna

Outline

1. Background of Research
2. Previous Studies:
 - Sociolinguistic Approach
 - Extension of HFND
3. Methodology
 - Case Studies
 - Corpus Analysis Approach
 - Collocation Patterns
4. Results
 - Case Study 1: Loan Color Terms
 - Case Study 2: Other Adjective-derived *Gairaigo*
5. Conclusion and Discussion
6. Further Research
7. References



1. Background and 2. Previous Studies

1. Background of Research

- Contemporary Japanese lexicon is abundant with near synonyms of different origin: Japanese (*Wago*), Chinese (*Kango*) and European, mostly English (*Gairaigo*).
- *Wago* and *Kango* near synonyms are differentiated by historically developed stylistic constraint: Sino-origin synonyms are mainly used in written speech as opposing to Japanese-origin words which are mostly used in oral speech.
- With recent influx of words from English and other European languages the differentiation between *Wago* and *Gairaigo* near synonyms has become an acute issue, requiring a deeper research.

2. Previous Studies

Sociolinguistic Approach

Leo Loveday in his study *Language contact in Japan: a sociolinguistic history* (1996) suggested that the occurrence of the synonymic pairs *Wago/Kango* – *Gairaigo* is the result of the “Westernization of Japanese culture” and these pairs exist “in semantic opposition where a word referring to a Western phenomenon is English-based and ‘complementary’ with a word deriving from (Sino-) Japanese and referring to a related version of the phenomenon belonging to native culture“. This hypothesis will be further referred to as the Hypothesis of Foreign vs. Native Dichotomy (HFND).

Extension of HFND

Bordilovskaya (2012) suggested that HFND is true not only for concrete nouns but also for adjective-derived modifiers at the level of collocations.

Thus, the Extended Hypothesis of Foreign vs. Native Dichotomy (eHFND) suggests that *Gairaigo* modifiers are used for the description of foreign-originated phenomena and are more likely to collocate with *Gairaigo* nouns in attributive position. Similarly, *Wago/Kango* adjectives are used to describe the native-originated phenomena, that is, we expect *Wago/Kango* adjectives to be more inclined to collocate with *Wago/Kango* rather than with *Gairaigo* nouns.



3. Methodology

Methodology: Case Studies

In this study we present the results of testing of eHFND by analyzing the frequency data of collocations of *Wago/Kango* and *Gairaigo* near synonymic modifiers in Contemporary Japanese. We examine two sets of data:

- Case Study 1: Loan Color Terms (Bordilovskaya, 2012) eight pairs of native and loan color terms;
- Case Study 2: Some other basic adjective-derived *Gairaigo* and *Wago/Kango* near synonyms (a set of four pairs of near synonyms).

Corpus Analysis Approach

The corpus-based analysis of GAIRAIGO collocation patterns is the main method of the present study. The corpus used for analysis is on-line BCCWJ KOTONOHA (Balanced Corpus of Contemporary Written Japanese), since it presents a well-balanced corpus of Contemporary Japanese and includes not only printed sources (such as newspapers, magazines and literature), but also web resources (such as Yahoo blogs and Yahoo answers).

Collocation Patterns

- KOTONOHA corpus was searched for 4 collocation patterns:

Pat. 1: attributive *Gairaigo* + *NO* + *Gairaigo* noun

Pat. 2: attributive *Gairaigo* + *NO* + *Wago/Kango* noun

Pat. 3: attributive *Wago/Kango* + (*NO*) *+ *Gairaigo* noun

Pat. 4: attributive *Wago/Kango* + (*NO*) *+ *Wago/Kango* noun

For example: *HOWAITO NO* noun... and *SHIROI* noun ...

- The Japanese language allows of various attributive structures, therefore, to avoid ambiguity we limit the number of case study pairs. For example, we do not study collocations such as *SHIRO* + *NO* + noun because such constructions are mostly used in compounds (e.g. *GIN* + *SHIRO* + *NO* etc) or in complex attributes (e.g. *AKA* • *MIDORI* • *SHIRO* + *NO* + *SANSHOKU* etc).

*Some of the *WAGO/KANGO* in attributive position do not require *NO*-case marker.



4.Results

Case Study 1: Loan Color Terms

Tables 1 through 8 present collocation frequency data for the following *Wago/Kango* – *Gairaigo* pairs of near synonyms: *HOWAITO/SHIROI* (*white*), *BURAKKU/KUROI* (*black*), *REDDO/AKAI* (*red*), *IERŌ/KIIRO* (*yellow*), *BURAUN/CHAIRO* (*brown*), *PĀPURU/MURASAKIRO* (*purple*), *GURĒ/HAIRO* (*grey*), and *PINKU/MOMOIRO* (*pink*), respectively.

Color Terms Collocation Data 1

Table 1: HOWAITO vs. SHIROI collocation.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Howaito	23 (77%)	7 (23%)	30 (100%)
Shiroi	47 (30%)	109 (70%)	156 (100%)
Total	70	116	186

Table 2: BURAKKU vs. KUROI collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Burakku	14 (70%)	6 (30%)	20 (100%)
Kuroi	87 (23%)	295 (77%)	382 (100%)
Total	101	301	402

Table 3: REDDO vs. AKAI collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Reddo	2 (50%)	2 (50%)	4 (100%)
Akai	87 (26%)	247 (74%)	334 (100%)
Total	89	249	338

Table 4: IERO: vs. KIIRO collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Iero:	16 (67%)	8 (33%)	24 (100%)
Kiirro	136 (32%)	294 (68%)	430 (100%)
Total	152	302	454

Color Terms Collocation Data 2

Table 5: BURAUN vs. CHAIRO collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Buraun	26 (65%)	14 (35%)	40 (100%)
Chairo	110 (28%)	289 (72%)	399 (100%)
Total	136	303	439

Table 6: PA:PURU vs. MURASAKIIRO collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Pa:puru	12 (71%)	5 (29%)	17 (100%)
Murasakiiro	50 (24%)	161 (74%)	211 (100%)
Total	62	166	228

Table 7: GURE:/GUREI vs. HAIIRO collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Gure:/Gurei	207 (60%)	136 (40%)	343 (100%)
Haiiro	66 (23%)	225 (74%)	291 (100%)
Total	273	361	634

Table 8: PINKU vs. MOMOIRO collocations.

	Gairaigo nouns (%)	Wago/kango nouns (%)	Total
Pinku	232 (58%)	169 (42%)	401 (100%)
Momoiro	15 (35%)	28 (65%)	43 (100%)
Total	247	197	444

Data Analysis 1

The Chi-square test of independence of categorical data has been applied to the data in Tables 1 through 8. The Chi-square test revealed statistically significant dependence between origin of adjective/adjectival and origin of noun for

HOWAITO/SHIROI ($\chi^2(1, 186) = 23.218, p < 0.001$),

BURAKKU/KUROI ($\chi^2(1, 402) = 22.531, p < 0.001$),

IERŌ/KIIRO ($\chi^2(1, 454) = 12.531, p < 0.001$),

BURAUN/CHAIRO ($\chi^2(1, 439) = 23.822, p < 0.001$),

GURĒ/HAIRO ($\chi^2(1, 634) = 91.114, p < 0.001$) and

PINKU/MOMOIRO ($\chi^2(1, 444) = 8.303, p < 0.001$).

For *REDDO/AKAI* and *PĀPURU/MURASAKIRO* due to the small sample size Fisher's exact test was applied, it revealed significant dependencies ($p < 0.001$) for *PĀPURU/MURASAKIRO* pair, but not for *REDDO/AKAI*

Case Study 2: Other Adjective-derived Gairaigo

- Four pairs of *Wago/Kango* – *Gairaigo* near synonyms were subjected to the above mentioned analysis to define the tendencies in collocation for *Gairaigo* adjectivals, other than color terms.
- The data for *Gairaigo* and *Wago/Kango* near synonymic pairs (HOTTO/ATSUI (hot), YANGU/WAKAI (young), RONGU/NAGAI (long) and SHŌTO/MIJIKAI (short)) are presented in Table 9 on the following slide.

Collocation Data for Gairaigo adjectivals

Table 9: Garaigo adjectivals collocations

Attribute	<i>Gairaigo</i> nouns (%)	<i>Wago/Kango</i> nouns (%)	Total
<i>HOTTO</i>	6 (75%)	2 (25%)	8 (100%)
<i>ATSUI</i>	33 (43%)	44 (57%)	77 (100%)
Total	39	46	85
<i>YANGU</i>	7 (100%)	0 (0%)	7 (100%)
<i>WAKAI</i>	16 (7%)	210 (93%)	226 (100%)
Total	23	210	233
<i>RONGU</i>	16 (61,5%)	10 (38,5%)	26 (100%)
<i>NAGAI</i>	13 (14%)	80 (86%)	93 (100%)
Total	29	90	119
<i>SHŌTO</i>	12 (100%)	0	12 (100%)
<i>MIJIKAI</i>	30 (46%)	35 (54%)	65 (100%)
Total	42	35	77

Data Analysis 2

The Chi-square test revealed statistically significant dependence between the origin of the attribute and the origin of the noun for *HOTTO* vs. *ATSUI* ($\chi^2(1,226) = 234.02$, $p < 0.001$), for *YANGU* vs. *WAKAI* ($\chi^2(1,233) = 65.89$, $p < 0.001$), for *RONGU* vs. *NAGAI* ($\chi^2(1,119) = 24.93$, $p < 0.001$) and for *SHŌTO* vs. *MIJIKAI* ($\chi^2(1,77) = 11.84$, $p = 0.001$).

Furthermore, *NAGAI* and *WAKAI* significantly ($p < 0.001$) more often collocate with *Wago/Kango* nouns. For *YANGU* and *SHŌTO* it was possible to find collocations only with *Gairaigo* nouns. For *HOTTO*, *ATSUI*, *RONGU* and *MIJIKAI* there is a non-significant tendency to collocate more often with nouns of the same origin. These results confirm eHNFD for the selected sample of *Gairaigo* different from basic color terms.



5. Discussion and Conclusion

Discussion and Conclusion 1

In present study we have introduced a new approach to differentiation between (Sino-)Japanese and English origin near synonyms. In contrast to the previous studies, which were based on questionnaires, our approach stems from statistical analysis of corpus data.

We have shown that there is an obvious bias in the structure of collocations: nouns and adjectives/adjectivals of the same origin (*Wago/Kango* or *Gairaigo*) tend to appear together more often than nouns and adjectives/adjectivals of different origins.

Discussion and Conclusion 2

In general, for color terms for seven pairs out of eight,

except for *REDDO* vs. *AKAI*, and for all four pairs of other English-origin *Gairaigo* adjectivals we have found statistical evidence for dependencies in categorical data.

These data show that not only loan color terms, but some other *Gairaigo* derived from English adjectives demonstrate the preference for collocating with *Gairaigo*

nouns, rather than *Wago/Kango* nouns.

Discussion and Conclusion 3

Summarizing, we consider that this volume of evidence is enough to support our Extended hypothesis, derived from original Loveday's Foreign vs. Native Dichotomy (Loveday, 1996). On the other hand, our hypothesis refers to the structure consisting of two words, i.e. adjectives/ adjectivals plus nouns, while Loveday (Loveday, 1996) has investigated only concrete *Gairaigo* and *Wago/Kango* nouns referring either to foreign or native objects, respectively. Therefore, we illustrated an existence of Foreign vs. Native Dichotomy at the level of collocations.

Further Research

- At the present stage of research, two sets of data for *Gairaigo* adjectivals demonstrated similar tendencies in collocation preferences. Thus, we suggest that the increase of data set can give more information about *Gairaigo* collocation in Contemporary Japanese.
- It is also necessary to have a deeper insight into the cognitive mechanisms of the process of assimilation in Contemporary Japanese.

References

- Berlin, B. & Paul K. (1991). *Basic Color Terms: Their universality and evolution*. California: University of California Press.
- Bordilovskaya A. (2012). A study of loan color terms collocation in modern Japanese. *In Proceedings of the Thirty Fourth Annual Conference of the Cognitive Science Society*, pp. 1362-1367.
- Deese, J. (1973). Cognitive structure and affect in language. In P. Pliner, L. Kranes & T. Alloway (eds.) *Communication and Affect*. London. Academic Press.
- Hardin, C.L. & Maffi L. (1997). *Color categories in thought and language*. Cambridge: Cambridge University Press.
- Loveday, L. J. (1996). *Language contact in Japan: a sociolinguistic history*. Oxford: Clarendon Press.
- Stanlaw, J. (2004). *Japanese English: Language and culture contact*. Hong Kong: Hong Kong University Press.
- KOTONOHA BCCWJ <https://chunagon.ninjal.ac.jp>