

Japanese Expressions that Include English Expressions ^{*}

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Abstract: We extracted English expressions that appear in Japanese sentences in newspaper articles and on the Internet. The results obtained from the newspaper articles showed that the preposition “in” has been regularly used for more than ten years, and it is still regularly used now. The results obtained from the Internet articles showed there were many kinds of English expressions from various parts of speech. We extracted some interesting expressions that included English prepositions and verb phrases. These were interesting because they had different word orders to the normal order in Japanese expressions. Comparing the extracted English and katakana expressions, we found that the expressions that are commonly used in Japanese are often written in the katakana syllabary and that the expressions that are not so often used in Japanese, such as prepositions, are hardly ever written in the katakana syllabary.

Keyword: English expression, katakana expression, newspaper article, Internet

1. Introduction

We often see English expressions inserted in Japanese sentences, such as “コンサート in 東京” (“コンサート”=concert, “東京”=Tokyo). We extracted such expressions that were written in kanji, katakana, hiragana, and Roman alphabet characters or combinations of these characters from articles in the Mainichi Shinbun (a major daily Japanese language newspaper) and on the Internet. From the same sources, we also extracted expressions that used katakana characters instead of English characters, such as “博覧会イン京都” (“博覧会”= exposition, “イン”=in, “京都”=Kyoto). The study of such expressions is useful for linguists studying the development process of languages (Ito (2001), Daulton (2003), and Murata et al. (2004)).

2. Automatic extraction of English and Katakana expressions

We used computers to extract candidate expressions in Japanese that included English expressions from Mainichi Shinbun articles published between 1991 and 2005 and from about 2 GB of Internet articles. We then checked the candidate expressions by hand to select the actual expressions we would use in our research.

We initially extracted expressions from Mainichi Shinbun articles. We took only the expressions that contained brackets. This is because expressions that include English

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expressions in Japanese sentences often appear in brackets. We automatically extracted expressions that satisfied the following conditions: i) included both Japanese characters in hiragana, katakana, and kanji and characters in the Roman alphabet, ii) the adjacent characters to English expressions are Japanese characters, or English expressions appear at the beginning of the expressions or the end of the expressions, iii) the second to last characters of the English expression were not capitalized, and iv) English expressions that consisted of more than one character. The condition ii) is used because there were many cases where the expressions were just replaced with Japanese expressions such as “過労死 (karoushi) 病” (“過労死”=“overwork death”, “karoushi” is the reading of “過労死”, “病”=disease), and we excluded such expressions. The condition iii) is used because there were many cases where expressions consisted of capitalized characters that were probably abbreviations, such as “OPEC” and “ASEAN”, and we excluded such expressions. We used only the cases where an English expression inserted into a Japanese sentence consisted of one word. This is because English expressions that consist of multiple words are often quotations of English phrases or sentences and are not expressions where the Japanese and English languages merge. We extracted expressions that did not contain appropriate spaces, such as “Welcometo”. We did not use expressions where the English expression was a noun, a proper noun, a symbol, or adjective that was modified by adding the Japanese suffixes “na” (for an adjective) and “suru” (for a verb). This is because the deleted expressions are popular in the conventional Japanese language. (In this study, we extracted “de”, although it is not English but French. This is because its frequency is high and it is also an interesting expression.)

We arranged the final list of expressions in order of frequency (see Table 1). “V”, “AJ”, “AV”, “PP”, “CJ”, “AR”, “PO”, and “PH” (in the table below) indicate verbs, adjectives, adverbs, prepositions, conjunctions, articles, possessive pronouns, and phrases, respectively.

Next, we extracted expressions from articles on the Internet. We used the same conditions as above and one additional condition: the first character of an English expression at the beginning of the sentence had to be capitalized. The results are shown in Table 2. Here, the extracted results are arranged by parts of speech. The table shows the English expression, its frequency, and some examples for each expression. In the example, the corresponding part of the English expression is marked with a *. Table 2 shows the results in descending order of frequency. The table only contains expressions that appeared more than 10 times.

Finally, we extracted from Mainichi Shinbun and Internet articles Japanese expressions that contained katakana expressions. We next constructed a list of the English expressions written in katakana characters. Using only katakana expressions, we compiled a list of expressions in order of frequency (Tables 3 and 4).

We plotted graphs showing the average (we call it *average value*) of the average, mode, and median years when the extracted expressions appeared (Figures 1 and 2). In the figures, each expression is displayed in ascending order of the average value. We added the total number of expression and the average value to each expression in the figures. Therefore, expressions that appeared in the earlier years are displayed higher on the graph, while expressions that appeared in the later years are displayed lower.

3. Discussion

Table 1 shows that English prepositions have been used for more than 10 years. The use of the expression “in” rapidly increased in 1994. After that, it appeared more than 10 times each year. “Let’s” has also been used for more than 10 years; however, it stopped appearing in 2000. The prepositions “at”, “of”, “with”, “from”, “by”, “of”, “with”, “from”, “by”, and “to” have been also used for a relatively long time.

We extracted various English expressions that form various parts of speech from articles on the Internet (Table 2). Prepositions appear the most frequently, followed by conjunctions. Adjectives are third. After that, in descending order of frequency, come phrases, adverbs,

Table 1: English expressions in Mainichi Shinbun articles

| 1991 | | | 1992 | | | 1993 | | | 1994 | | | 1995 | | |
|----------|----|----|---------|----|----|-------|----|----|------|----|----|-------|----|----|
| in | PP | 2 | in | PP | 4 | Let s | PH | 1 | in | PP | 12 | in | PP | 21 |
| Let s | PH | 1 | The | AR | 1 | in | PP | 1 | the | AR | 1 | and | CJ | 1 |
| at | PP | 1 | Handy | AJ | 1 | vs | PP | 1 | m y | PO | 1 | From | PP | 1 |
| de | PP | 1 | New | AJ | 1 | w ith | PP | 1 | by | PP | 1 | by | PP | 1 |
| vs | PP | 1 | of | PP | 1 | | | | de | PP | 1 | from | PP | 1 |
| | | | | | | | | | to | PP | 1 | to | PP | 1 |
| | | | | | | | | | | | | w ith | PP | 1 |
| 1996 | | | 1997 | | | 1998 | | | 1999 | | | 2000 | | |
| in | PP | 15 | in | PP | 28 | in | PP | 21 | in | PP | 22 | in | PP | 19 |
| Dear | AJ | 3 | W ith | PP | 2 | de | PP | 6 | de | PP | 3 | de | PP | 9 |
| That s | PH | 2 | Dear | AJ | 1 | The | AR | 3 | M y | PO | 2 | at | PP | 2 |
| New | AJ | 2 | J r | AJ | 1 | Let s | PH | 1 | vs | PP | 2 | from | PP | 2 |
| Let s | PH | 1 | for | PP | 1 | ing | CJ | 1 | lt s | PH | 1 | w ith | PP | 2 |
| de | PP | 1 | vs | PP | 1 | By | PP | 1 | New | AJ | 1 | and | CJ | 1 |
| to | PP | 1 | w ith | PP | 1 | for | PP | 1 | ing | CJ | 1 | by | PP | 1 |
| vs | PP | 1 | Forever | AD | 1 | to | PP | 1 | or | CJ | 1 | to | PP | 1 |
| w ith | PP | 1 | | | | w ith | PP | 1 | from | PP | 1 | | | |
| Be | V | 1 | | | | | | | | | | | | |
| 2001 | | | 2002 | | | 2003 | | | 2004 | | | 2005 | | |
| in | PP | 32 | in | PP | 13 | in | PP | 17 | in | PP | 12 | in | PP | 12 |
| de | PP | 6 | de | PP | 7 | de | PP | 5 | de | PP | 6 | w ith | PP | 3 |
| New | AJ | 2 | New | AJ | 2 | by | PP | 4 | of | PP | 2 | Good | AJ | 1 |
| from | PP | 2 | and | CJ | 1 | J r | AJ | 1 | From | PP | 1 | New | AJ | 1 |
| to | PP | 2 | from | PP | 1 | The | AR | 1 | J r | AJ | 1 | The | AR | 1 |
| the | AR | 1 | w ith | PP | 1 | | | | New | AJ | 1 | m y | PO | 1 |
| That s | PH | 1 | | | | | | | to | PP | 1 | the | AR | 1 |
| What s | PH | 1 | | | | | | | | | | | | |
| D igital | AJ | 1 | | | | | | | | | | | | |
| can | AX | 1 | | | | | | | | | | | | |
| De | PP | 1 | | | | | | | | | | | | |
| W ith | PP | 1 | | | | | | | | | | | | |
| for | PP | 1 | | | | | | | | | | | | |
| vs | PP | 1 | | | | | | | | | | | | |
| aga in | AD | 1 | | | | | | | | | | | | |

Table 2: English expressions on the Internet

| | | | | |
|---|---|------|-----|--|
| <u>Prepositions (34 types, 16352 tokens in total)</u> | | with | 533 | [PERSON] * オーケストラ ([PERSON] * orchestra) |
| in | 4852 キャンペーン * 渋谷 (campaign * Shibuya) | for | 461 | デー タ * ピアノ・レッスン (data * piano lesson) |
| by | 2504 現地レポート * [PERSON] (on-site report * [PERSON]) | to | 360 | 固定電話 * 固定電話 (fixed-line phone * fixed-line phone) |
| vs | 1894 [PERSON] * [PERSON] | from | 354 | 文部科学省の働き * [PERSON] (activities of Ministry of Education, Culture, Sports, Science and Technology * [PERSON]) |
| de | 1290 メール * ゲット! (mail * get!) | | | |
| in | 1276 ジャズトリオ * 神戸 (jazz trio * Kobe) | | | |
| vs | 888 山形市民 * 天童市民 (Yamagata citizens * Tendo citizens) | | | |

Table 2: English expressions on the Internet (cont.)

| | | | |
|---|--|----------|---|
| <u>Prepositions (34 types, 16352 tokens in total) (cont.)</u> | | new | 72 * アルバム (* album) |
| by | 269 医療施設 * [ORGANIZATION] (medical facility * [ORGANIZATION]) | Online | 67 * 作文教室 (* writing class) |
| at | 254 忘年会 * 難波 (year-end party * Namba) | back | 65 * ナンバー (* number) |
| vs. | 254 湘南 * 新潟 (Shonan * Niigata) | Free | 52 * 座談室 (* round-table meeting room) |
| de | 240 ネット * しょっぶ (net * shop) | New | 74 * ステッカー (* sticker) |
| on | 189 奥津 * メディア (Okutsu * media) | all | 50 * ほっかいどう (* Hokkaido) |
| From | 145 * こうち (* Kochi) | more | 47 * レッドハットニュース (* Red Hat news) |
| of | 77 編集部 * 速報ニュース (editorial office * breaking news) | free | 45 * 素材 (* material) |
| By | 75 * [PERSON] | public | 42 * 参加 (* entry) |
| to | 60 ドア * ドア (door * door) | next | 41 個展 * 開催 (personal exhibition * holding) |
| For | 44 * ビギナーズ (* beginners) | Open | 40 * フォーラム (* forum) |
| To | 42 * 軽井沢 (* Karuizawa) | Weekly | 39 * レポート (* report) |
| with | 42 [PERSON] * [PERSON] | active | 35 * 手段 (* measures) |
| By | 27 * 監督 (* director) | close | 34 全て * です (be all *) |
| About | 26 * 文学部 (* literature department) | good | 34 * ウェイキ (* wake) |
| about | 25 * 海洋堂 (* Kaiyodo) | Dear | 33 * [PERSON] |
| for | 25 コンサート * [ORGANIZATION] (concert * [ORGANIZATION]) | Special | 29 * キャンペーン (* campaign) |
| on | 24 アンケート集計 * ネット (summary of questionnaire * network) | Digital | 27 * 出力 (* output) |
| Vs. | 21 * [ORGANIZATION] | cool | 27 * ブランド (* brand) |
| since | 20 * 平成11年9月27日 (* September 27, 1999) | official | 26 * サイト (* site) |
| at | 20 コンテスト * [LOCATION] (contest * [LOCATION]) | Personal | 25 * モデル (* model) |
| With | 17 * [PERSON] | Cool | 24 * サイト (* site) |
| from | 17 独り言 * [PERSON] (soliloquy * [PERSON]) | Jr. | 24 * 選手権 (* championship) |
| by. | 14 * [PERSON] | Back | 23 * モデル (* model) |
| In | 13 * [LOCATION] | Next | 23 * シーズン (* season) |
| <u>Conjunctions (4 types, 3458 tokens in total)</u> | | virtual | 23 * 体験 (* experience) |
| or | 2236 交換 * 差し上げます (exchange * give) | weekly | 22 * パッケージ (* package) |
| and | 641 [PERSON] * [PERSON] | Happy | 21 * 懸賞らいふ! (* days with prize) |
| or | 541 おかゆ * ご飯 (porridge * rice) | digital | 20 * 回路 (* circuit) |
| and | 40 パスタ * ワイン (pasta * wine) | mobile | 20 * 端末 (* terminal) |
| <u>Adjectives (59 types, 3066 tokens in total)</u> | | special | 20 * 企画 (* enterprise) |
| new | 582 * おまかせプラン (* prepared plan) | Best | 19 * 記録 (* record) |
| New | 399 * ぐるりん阿蘇 (* touring Aso) | happy | 18 * ハート (* heart) |
| main | 158 * 作品 (* work) | Mobile | 17 * 端末 (* terminal) |
| open | 133 * 会議 (* conference) | closed | 16 * 会議 (* meeting) |
| online | 130 * 雑誌 (* magazine) | Jr | 16 * フルーツ教室 (* flute class) |
| good | 111 * 性能バランス (* performance balance) | Virtual | 15 * ゼミ訪問 (* visit to seminar) |
| No | 72 * 残業DAY (* overtime working day) | inline | 15 * 画像 (* image) |
| Super | 72 * アモルファス (* amorphous) | personal | 15 * ホームページサーバ (* homepage server) |
| | | Good | 14 * リフォーム (* reform) |
| | | Hot | 14 * リスト (* list) |
| | | Monthly | 14 * セミナー (* seminar) |
| | | short | 14 * ブーツ (* boots) |
| | | Big | 13 * プレゼント (* present) |
| | | Easy | 13 * 登録 (* registration) |
| | | Global | 13 * 企業 (* company) |
| | | offline | 13 * 状態 (* status) |
| | | Hyper | 12 * 和紙 (* Japanese paper) |

Table 2: English expressions on the Internet (cont.)

| | | | |
|--|--|--|--|
| <u>Adjectives (59 types, 3066 tokens in total) (cont.)</u> | | only | 63 土日 * (Saturdays and Sundays *) |
| super | 12 * 特急 (* limited express) | all | 50 同業者 * (* peer) |
| Daily | 11 * ランキング (* ranking) | off | 30 500円 * (500 yen *) |
| High | 11 * レベル (* level) | only | 16 英語 * (English *) |
| <u>Phrases (23 types, 909 tokens in total)</u> | | <u>Articles (3 types, 364 tokens in total)</u> | |
| Welcometo | 294 * 腕時計資料室 (* wrist watch archives) | The | 201 * 沖縄 (* Okinawa) |
| What's | 114 * けいば (* horse race) | the | 115 * 古書 (* old book) |
| Let's | 75 * スタート! (* start!) | The | 48 * 日本列島 (* Japanese archipelago) |
| Presentedby | 34 * 関東バス (* Kanto Bus) | <u>Possessive pronouns (4 types, 357 tokens in total)</u> | |
| writtenby | 32 * [PERSON] | My | 181 * コレクション (* collection) |
| Let's | 31 * テニス! (* play tennis!) | My | 77 * ページ (* page) |
| Howto | 29 * アクセス (* access) | my | 69 * テーマ (* theme) |
| Producedby | 29 * [ORGANIZATION] | my | 30 * ページ (* page) |
| Writtenby | 28 * [PERSON] | <u>Verbs (9 types, 246 tokens in total)</u> | |
| producedby | 27 * [ORGANIZATION] | start | 56 * インターネット (* Internet) |
| photoby | 25 * [ORGANIZATION] | Welcome | 48 * えひめ (* Ehime) |
| welcometo | 24 * 情報科学部 (* information science department) | Do | 29 * 中国茶 (* Chinese tea) |
| Poweredby | 23 * [PERSON] | welcome | 28 * [ORGANIZATION]病院 (* [ORGANIZATION] hospital) |
| Backto | 22 * 広島大HP (* Hiroshima Prefecture University homepage) | Get | 25 * 懸賞 (* prize) |
| It's | 18 * オススメ!! (* recommended!!) | love | 22 * 熊本電波 (* Kumamoto radio wave) |
| postedby | 17 * [PERSON] | enjoy | 16 * 講座 (* course) |
| foryou | 15 メッセージ * (* message) | Welcome | 12 * [ORGANIZATION]ホームページ (* [ORGANIZATION] homepage) |
| presentedby | 14 * [ORGANIZATION] | Love | 10 * みやざき (* Miyazaki) |
| Textby | 12 * [PERSON] | <u>Suffixes (2 types, 202 tokens in total)</u> | |
| what's | 12 * ろうきん? (* Labour Bank?) | ing | 148 俳句 * (haiku *) |
| Whats | 12 * ろうきん (* Labour Bank) | ing | 54 職 * 全国版求人情報 (work * job information for all regions) |
| That's | 11 * インタビュー (* interview) | <u>Interrogative pronouns (1 type, 10 tokens in total)</u> | |
| howto | 11 * 物 (* related things) | What | 10 * 共栄会 (* Kyoueikai) |
| <u>Adverbs (7 types, 593 tokens in total)</u> | | | |
| up | 208 9,000円 * (9,000 yen *) | | |
| off | 131 10パーセント * (10 percent *) | | |
| not | 95 * オススメ (* recommended) | | |

Table 3: Katakana expressions in Mainichi Shinbun

| 1991 | | | 1992 | | | 1993 | | |
|------------------|----|----|------------------|----|----|-----------------|----|----|
| アップ (up) | AD | 11 | デジタル (digital) | AJ | 11 | アップ (up) | AD | 21 |
| ニュー (new) | AJ | 7 | スーパー (super) | AJ | 7 | スーパー (super) | AJ | 8 |
| グローバル (global) | AJ | 5 | ニュー (new) | AJ | 7 | デジタル (digital) | AJ | 6 |
| スーパー (super) | AJ | 3 | アップ (up) | AD | 7 | ジュニア (junior) | AJ | 4 |
| デジタル (digital) | AJ | 3 | パーソナル (personal) | AJ | 6 | ニュー (new) | AJ | 4 |
| ジュニア (junior) | AJ | 2 | オール (all) | AJ | 3 | ザ (the) | AR | 3 |
| パーソナル (personal) | AJ | 2 | ジュニア (junior) | AJ | 3 | オール (all) | AJ | 3 |
| ベスト (best) | AJ | 2 | ノー (no) | AJ | 3 | オンライン (online) | AJ | 2 |
| ザ (the) | AR | 1 | ベスト (best) | AJ | 3 | グローバル (global) | AJ | 2 |
| ハウツー (how to) | PH | 1 | オープン (open) | AJ | 2 | ザッツ (that's) | PH | 1 |
| オープン (open) | AJ | 1 | グローバル (global) | AJ | 2 | オープン (open) | AJ | 1 |
| オール (all) | AJ | 1 | スペシャル (special) | AJ | 2 | ハンディー (handy) | AJ | 1 |
| ノー (no) | AJ | 1 | ハイパー (hyper) | AJ | 2 | バーチャル (virtual) | AJ | 1 |
| ウエルカム (welcome) | V | 1 | ハウツー (how to) | PH | 1 | フリー (free) | AJ | 1 |
| | | | アンド (and) | CJ | 1 | ベスト (best) | AJ | 1 |
| | | | ウエルカム (welcome) | V | 1 | イン (in) | PP | 1 |
| | | | | | | オンリー (only) | AD | 1 |

Table 3: Katakana expressions in Mainichi Shinbun (cont.)

| 1994 | | | 1995 | | | 1996 | | |
|-------------------|----|----|-------------------|----|----|-------------------|----|----|
| アップ (up) | AD | 22 | オール (all) | AJ | 20 | アップ (up) | AD | 20 |
| デジタル (digital) | AJ | 14 | デジタル (digital) | AJ | 12 | デジタル (digital) | AJ | 19 |
| スーパー (super) | AJ | 12 | アップ (up) | AD | 12 | グローバル (global) | AJ | 10 |
| オール (all) | AJ | 4 | スーパー (super) | AJ | 9 | スーパー (super) | AJ | 8 |
| オンライン (online) | AJ | 3 | グローバル (global) | AJ | 5 | オール (all) | AJ | 6 |
| グローバル (global) | AJ | 3 | オンライン (online) | AJ | 4 | バーチャル (virtual) | AJ | 5 |
| ジュニア (junior/Jr.) | AJ | 3 | オープン (open) | AJ | 3 | ニュー (new) | AJ | 4 |
| オープン (open) | AJ | 1 | ニュー (new) | AJ | 3 | オープン (open) | AJ | 2 |
| オフライン (offline) | AJ | 1 | イン (in) | PP | 2 | オンライン (online) | AJ | 2 |
| ニュー (new) | AJ | 1 | イツツ (it's) | PH | 1 | ジュニア (junior) | AJ | 2 |
| ノー (no) | AJ | 1 | ハウツー (how to) | PH | 1 | ビッグ (big) | AJ | 2 |
| バーチャル (virtual) | AJ | 1 | レッツ (let's) | PH | 1 | ベスト (best) | AJ | 2 |
| パーソナル (personal) | AJ | 1 | キッズ (kids) | AJ | 1 | イン (in) | PP | 2 |
| ベスト (best) | AJ | 1 | ジュニア (junior) | AJ | 1 | ザ (the) | AR | 1 |
| ウエルカム (welcome) | V | 1 | スペシャル (special) | AJ | 1 | アクティブ (active) | AJ | 1 |
| エンジョイ (enjoy) | V | 1 | ビッグ (big) | AJ | 1 | クローズ (close) | AJ | 1 |
| アゲイン (again) | AD | 1 | ベスト (best) | AJ | 1 | スペシャル (special) | AJ | 1 |
| | | | イング (ing) | CJ | 1 | ハイパー (hyper) | AJ | 1 |
| | | | ウエルカム (welcome) | V | 1 | マイ (my) | PO | 1 |
| | | | サポート (support) | V | 1 | | | |
| 1997 | | | 1998 | | | 1999 | | |
| デジタル (digital) | AJ | 42 | デジタル (digital) | AJ | 27 | デジタル (digital) | AJ | 39 |
| アップ (up) | AD | 22 | グローバル (global) | AJ | 15 | グローバル (global) | AJ | 31 |
| グローバル (global) | AJ | 18 | アップ (up) | AD | 10 | スーパー (super) | AJ | 10 |
| スーパー (super) | AJ | 14 | スーパー (super) | AJ | 9 | アップ (up) | AD | 10 |
| オール (all) | AJ | 11 | オール (all) | AJ | 8 | オール (all) | AJ | 9 |
| バーチャル (virtual) | AJ | 8 | ニュー (new) | AJ | 6 | オンライン (online) | AJ | 8 |
| ニュー (new) | AJ | 5 | バーチャル (virtual) | AJ | 3 | ジュニア (junior) | AJ | 6 |
| オープン (open) | AJ | 2 | モバイル (mobile) | AJ | 3 | バーチャル (virtual) | AJ | 3 |
| オンライン (online) | AJ | 2 | オンライン (online) | AJ | 2 | キッズ (kids) | AJ | 2 |
| ビッグ (big) | AJ | 2 | キッズ (kids) | AJ | 2 | ネクスト (next) | AJ | 2 |
| スペシャル (special) | AJ | 1 | ジュニア (junior) | AJ | 2 | マンスリー (monthly) | AJ | 2 |
| ノー (no) | AJ | 1 | ノー (no) | AJ | 2 | モバイル (mobile) | AJ | 2 |
| メイン (main) | AJ | 1 | アクティブ (active) | AJ | 1 | ニュー (new) | AJ | 1 |
| モバイル (mobile) | AJ | 1 | デジタル (digital) | AJ | 1 | ノー (no) | AJ | 1 |
| イン (in) | PP | 1 | ナイス (nice) | AJ | 1 | ハッピー (happy) | AJ | 1 |
| | | | ベスト (best) | AJ | 1 | ベスト (best) | AJ | 1 |
| | | | マンスリー (monthly) | AJ | 1 | エンジョイ (enjoy) | V | 1 |
| | | | イン (in) | PP | 1 | | | |
| | | | フォーエヴァー (forever) | AD | 1 | | | |
| 2000 | | | 2001 | | | 2002 | | |
| デジタル (digital) | AJ | 46 | グローバル (global) | AJ | 24 | グローバル (global) | AJ | 18 |
| グローバル (global) | AJ | 23 | デジタル (digital) | AJ | 17 | デジタル (digital) | AJ | 17 |
| スーパー (super) | AJ | 17 | スーパー (super) | AJ | 12 | ジュニア (junior) | AJ | 8 |
| オール (all) | AJ | 10 | アップ (up) | AD | 12 | アップ (up) | AD | 8 |
| アップ (up) | AD | 8 | ベスト (best) | AJ | 5 | スーパー (super) | AJ | 7 |
| モバイル (mobile) | AJ | 7 | ジュニア (junior) | AJ | 4 | ニュー (new) | AJ | 7 |
| オンライン (online) | AJ | 5 | オール (all) | AJ | 3 | オンライン (online) | AJ | 5 |
| バーチャル (virtual) | AJ | 4 | オンライン (online) | AJ | 3 | スペシャル (special) | AJ | 3 |
| ジュニア (junior) | AJ | 3 | バーチャル (virtual) | AJ | 3 | モバイル (mobile) | AJ | 3 |
| ニュー (new) | AJ | 3 | モバイル (mobile) | AJ | 3 | オール (all) | AJ | 2 |
| ハイパー (hyper) | AJ | 3 | イン (in) | PP | 3 | キッズ (kids) | AJ | 2 |
| キッズ (kids) | AJ | 2 | アクティブ (active) | AJ | 2 | ノー (no) | AJ | 2 |
| アクティブ (active) | AJ | 1 | キッズ (kids) | AJ | 2 | バーチャル (virtual) | AJ | 2 |
| ノー (no) | AJ | 1 | ザ (the) | AR | 1 | イン (in) | PP | 2 |
| マンスリー (monthly) | AJ | 1 | クローズド (closed) | AJ | 1 | フォーエヴァー (forever) | AD | 2 |
| イン (in) | PP | 1 | ハンディー (handy) | AJ | 1 | アクティブ (active) | AJ | 1 |
| オンリー (only) | AD | 1 | フリー (free) | AJ | 1 | ビッグ (big) | AJ | 1 |
| | | | マイ (my) | PO | 1 | ベスト (best) | AJ | 1 |
| | | | アゲイン (again) | AD | 1 | ウエルカム (welcome) | V | 1 |
| | | | オンリー (only) | AD | 1 | | | |

Table 3: Katakana expressions in Mainichi Shinbun (cont.)

| 2003 | | | 2004 | | | 2005 | | |
|-----------------|----|----|-----------------|----|----|-----------------|----|----|
| デジタル (digital) | AJ | 30 | スーパー (super) | AJ | 33 | スーパー (super) | AJ | 28 |
| ベスト(best) | AJ | 30 | ベスト(best) | AJ | 29 | ベスト(best) | AJ | 28 |
| スーパー (super) | AJ | 28 | デジタル (digital) | AJ | 24 | デジタル (digital) | AJ | 22 |
| グローバル (global) | AJ | 10 | グローバル (global) | AJ | 13 | グローバル (global) | AJ | 14 |
| ジュニア (junior) | AJ | 7 | オール (all) | AJ | 7 | オール (all) | AJ | 13 |
| ニュー (new) | AJ | 6 | バーチャル (virtual) | AJ | 4 | ノー (no) | AJ | 11 |
| オンライン (online) | AJ | 4 | モバイル (mobile) | AJ | 3 | ジュニア (junior) | AJ | 5 |
| バーチャル (virtual) | AJ | 3 | アンド (and) | CJ | 1 | マイ (my) | PO | 5 |
| イン (in) | PP | 2 | デジタル (digital) | AJ | 1 | オンライン (online) | AJ | 3 |
| オール (all) | AJ | 2 | ニュー (new) | AJ | 1 | モバイル (mobile) | AJ | 3 |
| マイ (my) | PO | 2 | ビッグ (big) | AJ | 1 | バーチャル (virtual) | AJ | 2 |
| フロム (from) | PP | 1 | マイ (my) | PO | 1 | バイ (by) | PP | 1 |
| モバイル (mobile) | AJ | 1 | | | | | | |

Table 4: Katakana expressions in articles from the Internet

| | | | |
|---|--|--|---|
| <u>Adjectives (40 types, 64867 tokens in total)</u> | | ウイークリー (weekly) | 20 * 検索 (* retrieval) |
| デジタル (digital) | 15319 * 処理 (* treatment) | スーパー (super) | 19 * 熱分析システム (* heat analysis system) |
| オンライン (online) | 12223 * 写真集 (* photo collection) | アクティブ (active) | 10 * 発想 (* idea) |
| メイン (main) | 7982 * 曲選出 (* music selection) | <u>Adverbs (5 types, 23258 tokens in total)</u> | |
| フリー (free) | 3953 * 素材 (* material) | アップ (up) | 19615 何点 * (how many points *) |
| ベスト(best) | 3543 * 盤 (* album) | オフ (off) | 3373 日本語入力 * (Japanese-language input *) |
| モバイル (mobile) | 3230 * 端末 (* terminal) | オンリー (only) | 243 読み物 * (reading *) |
| デジタル (digital) | 2241 * 画像 (* image) | アゲイン (again) | 26 長野 * (Nagano *) |
| スペシャル (special) | 1677 * 料金 (* fee) | オンリー (only) | 1 [PERSON] * ([PERSON] *) |
| グローバル (global) | 1636 * 企業 (* company) | <u>Prepositions (6 types, 1816 tokens in total)</u> | |
| ホット(hot) | 1578 * 情報 (* information) | イン (in) | 1214 探検隊 * [LOCATION] (expedition * [LOCATION]) |
| アクティブ (active) | 1442 * 商社 (* trading company) | デ (de) | 129 ネット * わーく (net * work) |
| スーパー (super) | 1395 * 不況 (* depression) | アバウト (about) | 66 * 八日市 (* Yokaichi) |
| ジュニア (junior) | 1247 * 選手権 (* championship) | フロム (from) | 24 * 沖縄推進機構 (* Okinawa Initiative) |
| オフライン (offline) | 769 * 質問フォーム (* questionnaire form) | オブ (of) | 良品 * 京都 (good item * Kyoto) |
| クール (cool) | 754 * 解説 (* comment) | トウ (to) | フロム市長 * 職員 (from the Mayor * officers) |
| ハンディ (handy) | 574 * 機 (* machine) | <u>Verbs (3 types, 741 tokens in total)</u> | |
| バーチャル (virtual) | 569 * 博物館 (* museum) | エンジョイ (enjoy) | 611 * ふくい (* Fukui) |
| ビッグ (big) | 517 * 当選 (* win) | ウエルカム (welcome) | 73 * へいあん (* Heian) |
| ハッピー (happy) | 499 * [ORGANIZATION] | ウエルカム (welcome) | 57 * 東久留米 (* Higashikurume) |
| ニュー (new) | 481 * 軽量骨材 (* lightweight aggregate) | <u>Possessive pronouns (1 type, 270 tokens in total)</u> | |
| オフィシャル (official) | 384 * 応援歌 (* fight song) | マイ (my) | 270 * 切手 (* stamp) |
| インライン (inline) | 343 * 入力 (* input) | <u>Articles (1 type, 178 tokens in total)</u> | |
| パーソナル (personal) | 287 * 感覚 (* sense) | ザ (the) | 178 なるほど * 信州 (I see. * Shinshu) |
| オール (all) | 269 * 専任教師 (* full-time teacher) | | |
| ショート(short) | 269 * 丈 (* length) | | |
| クローズ (close) | 264 * 状態 (* status) | | |
| グッド(good) | 260 * ぐんまの新鮮野菜 (* fresh vegetables in Gumma) | | |
| パブリック (public) | 236 * 空間 (* space) | | |
| ハイパー (hyper) | 186 * 調査隊 (* expedition) | | |
| ノー (no) | 178 * 試験 (* examination) | | |
| デイリー (daily) | 160 * 情報 (* information) | | |
| マンスリー (monthly) | 91 * 壁紙 (* wallpaper) | | |
| ネクスト(next) | 81 * 牌 (* tile) | | |
| ハンディー (handy) | 73 * 機器 (* device) | | |
| クローズド(closed) | 57 * 期間 (* period) | | |
| イージー (easy) | 30 * 操作 (* operation) | | |
| エクストラ (extra) | 21 * 告知ページ (* information page) | | |

Table 4: Katakana expressions in articles from the Internet (cont.)

| Phrases (3 types, 83 tokens in total) | | Suffixes (1 type, 28 tokens in total) | |
|---------------------------------------|--|---------------------------------------|-----------------|
| レッツ (let's) | 73 * 不動産 (* real estate) | イング (ing) | 28 遊 * (play *) |
| ザッツ (that's) | 8 * 下町考 (* thinking about downtown) | | |
| ウェルカムトゥ (welcome to) | 2 * お台場ラジオ会館 | | |

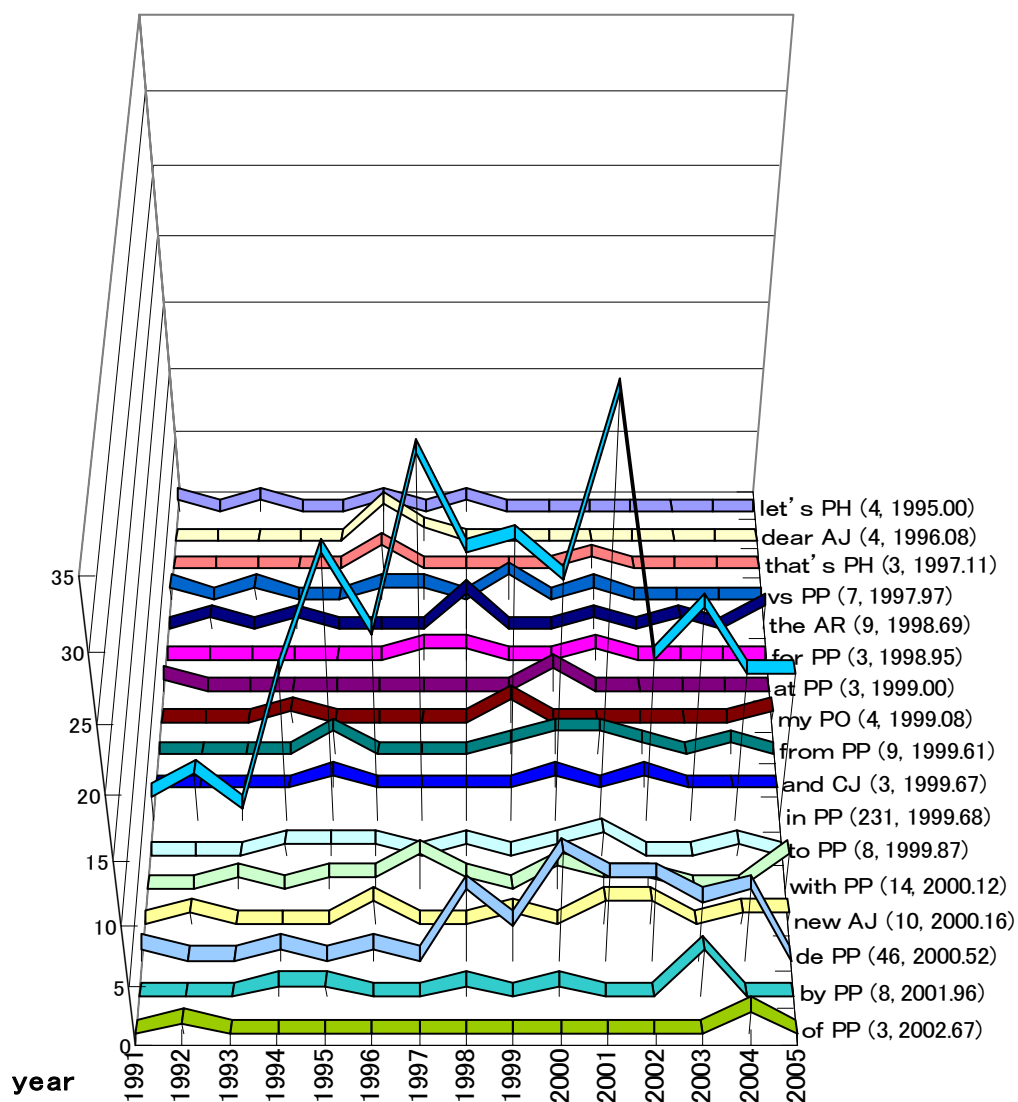


Figure 1: Change in the number of English expressions in Mainichi Shinbun (The two numbers in the parentheses indicate the total number of expressions and the average value of appeared years.)

articles, possessive pronouns, suffixes, verbs, and interrogative pronouns.

The expressions using prepositions, phrases, and verbs from articles on the Internet (Table 2) have a word order that is different from the usual Japanese language word order. For example, “キャンペーン in 渋谷” (“キャンペーン”=campaign, “渋谷”=Shibuya (location name)), “What's けいば” (“けいば”=“horse race”), and “Welcome えひめ” (“えひめ”=Ehime (location

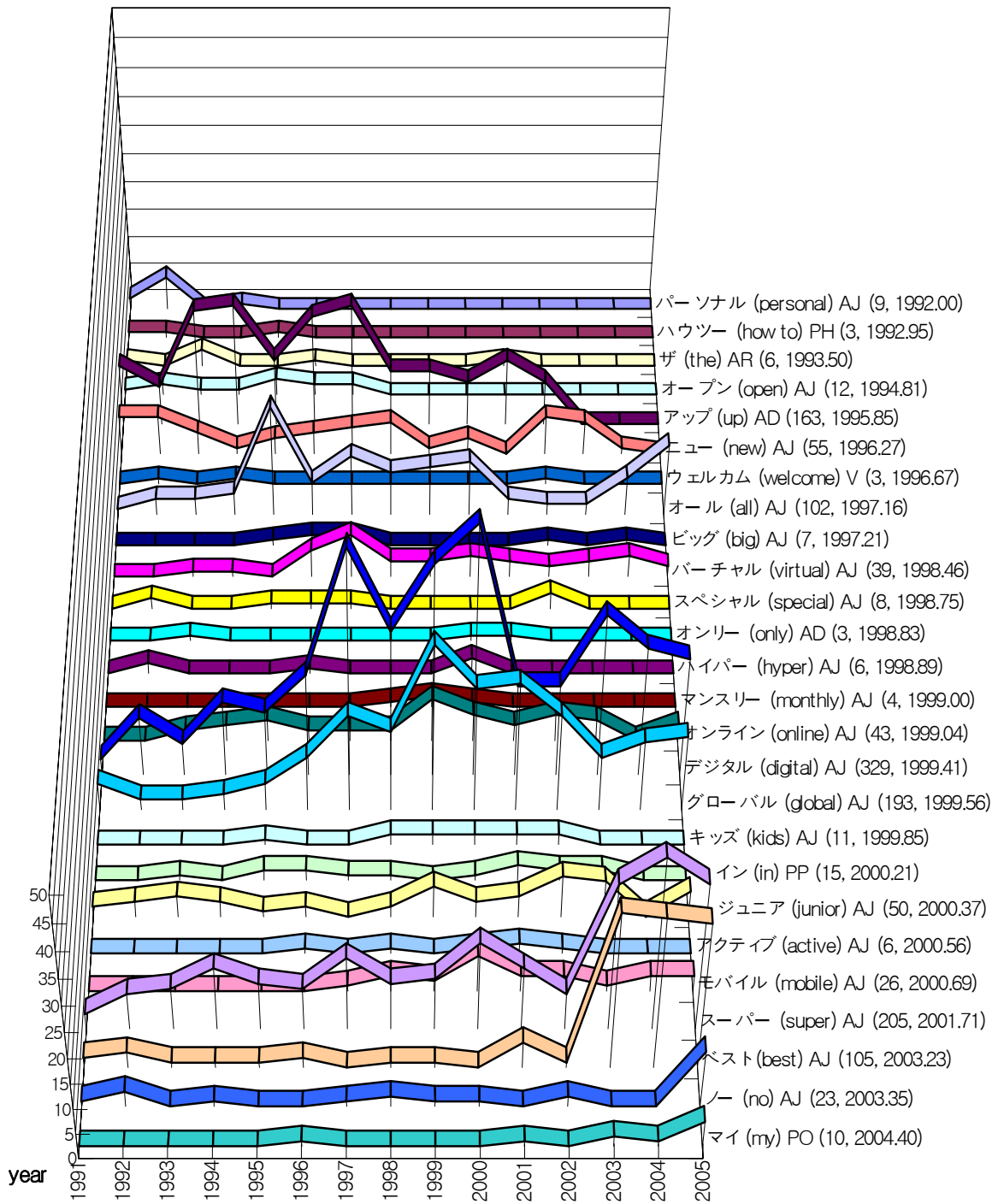


Figure 2: Change in the number of Katakana expressions in Mainichi Shinbun (The two numbers in the parentheses indicate the total number of expressions and the average value of appeared years.)

name)). The Japanese standard word order is “渋谷でのキャンペーン” (“渋谷”=Shibuya (location name)), “での”=in, “キャンペーン”=campaign), “けいばとは何” (“けいば”=“horse race”, “とは”=be, “何”=what), and “えひめへようこそ” (“えひめ”=Ehime(location name),

“へ”=to, “ようこそ”=welcome), respectively. The reason for the change in word order is because in English the important thing is usually at the beginning of a sentence, so it is convenient to construct compact expressions in this way.

This kind of the word order difference has already been seen in Japanese expressions of Chinese origin, such as “於東京” (“於”=in, “東京”=Tokyo), “必履修” (“必”=require, “履修”=“take a course”), and “対テロ” (“対”= against or to, “テロ”=terror). Expressions like “キャンペーン in 渋谷” are possibly due to the tolerant and flexible characteristic of Japanese language which permits expressions like “於東京”.

Table 3 shows the frequency with which katakana expressions appear in Mainichi Shinbun articles. Adjectives and adverbs have appeared with high frequencies for a long time. The table shows that katakana expressions containing adjectives and adverbs have been used more often than other parts of speech. The article “the” and the verb “welcome” have been used for a long time.

By comparing the frequency of English expressions with that of katakana expressions using the data in Tables 2 and 4, we found that adverbs and adjectives, such as “アップ” (up) and “デジタル” (digital), that are often used in Japanese are often expressed using katakana and that prepositions that are not used so often in Japanese are not often expressed using katakana. That is, we found a trend in which English expressions that have been used often in Japanese are likely to be expressed with katakana and English expressions that have not been used often in Japanese are likely to be expressed using the Roman alphabet.

We can see many English expressions in the parts of speech that are not adjectives and adverbs. These are prepositions, conjunctions, phrases, articles, possessive pronouns, suffixes, verbs, and interrogative pronouns. We think these expressions have not yet entered the Japanese language, and they are new expression styles. In terms of adjectives and adverbs, we can see many English expressions for the adjectives “new” and “old” and the adverbs “all” and “not”. Thus, the adjectives and adverbs may be special expressions.

4. Conclusions

We extracted Japanese expressions that included English expressions from Mainichi Shinbun articles that appeared over a 15-year period and from 2 GB of Internet articles. We found that the preposition “in” has been used often for more than ten years. We extracted from Internet articles many kinds of English expressions that contained various parts of speech. We also extracted interesting expressions that used English prepositions or verb phrases. These interesting expressions had different word orders to ordinary Japanese sentences. From comparing the extracted English and katakana expressions, we suggest that English expressions that are common in Japanese are likely to be written in katakana and that English expressions that are not common in Japanese are likely to be written in the Roman syllabary.

References

- Ito Masamitsu. 2001. The Judgment Standard for Distinguishing Loan Words of Western Origin from Western Words in Japanese Pop Songs, *Mathematical Linguistics*, Vol.23, No.2, 110-131. (in Japanese)
- Daulton Frank. 2003. Loanwords in the Media, *Annual report of Ryukoku University International Center*, Vol.12, 59-72.
- Murata Masaki, Mika Shindo, Qing Ma and Hitoshi Isahara. 2004. Conversion between English Parts of Speech Using a Word Dictionary, *The 25th Conference of the International Computer Archive of Modern and Medieval English (ICAME25)*, 78-79.