

# Corpus analysis of gratitude expressions in Japanese language

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**Abstract:** This paper deals with the topic of grammatical patterns and expressions with which one can express gratitude in the Japanese language. The research results: in 1) creating a list of Japanese language expressions and grammatical patterns for expressing gratitude, 2) analyzing the frequency and usage of the expressions and patterns using two Japanese language corpora, NWJC and BCCWJ, 3) categorizing analyzed phrases and patterns based on their function and basic form, and 4) providing some suggestions on how expressions and patterns can be incorporated into Japanese language curricula focusing at the beginner's level.

**Keywords:** gratitude expressions, Japanese language, corpus analysis, expressing gratitude, NWJC, BCCWJ, list of expressions and patterns, Japanese language curriculum

## 1. Introduction

The research on expressions of gratitude in various languages reveals how important it is to know when to express gratitude and when not to, which expressions are most appropriate in which situations, but also how differently these expressions are used by native speakers and learners (e.g. Ebsworth and Bodman 1986, Hill et al. 1986). Recently with the availability of Japanese language corpora, it became possible to further explore expressions and grammatical patterns with which one can express gratitude in the Japanese language from an empirical perspective. Therefore, this research aims at the following: 1) to create a list of Japanese language expressions and grammatical patterns which can be used to express gratitude, 2) to analyze the frequency and usage of the expressions and patterns using Japanese language corpora, specifically by analyzing the NWJC (NINJAL web Japanese corpus) and the BCCWJ (Balanced Corpus of Contemporary Written Japanese), 4) to categorize the analyzed phrases and patterns, and 4) to suggest expressions and patterns to be additionally incorporated into Japanese language textbooks and learning materials.

## 2. The list of Japanese language expressions and grammatical patterns

For the purpose of this research, a list of Japanese language expressions and grammatical patterns was created using the following criteria. A phrase or grammatical pattern would be eligible to be added to the list if: 1. An expression or grammatical pattern is mentioned in one of the referred research papers about expressing gratitude in Japanese.; 2. An expression or grammatical pattern appeared as a search result for the query of: 'thank you' in the online Japanese dictionary Jisho, with the exception of phrases marked as: slang, jocular, or humorous term, as being from another language, or a specific dialect, for example: 'From Italian 'grazie'', or if the expression was specifically stated to be sumo related.; 3. An expression or grammatical pattern is listed in the referred books and textbooks as a phrase or pattern that can be used to express gratitude. The referred references are listed at the end of the paper.

The results of this research provide an exhaustive list of 44 grammatical patterns and phrases, which were then, further on, analyzed using two Japanese language corpora, the NWJC (NINJAL web Japanese corpus) and the BCCWJ (Balanced Corpus of Contemporary Written Japanese).

## 3. Analysis of gratitude expressions and their frequency in Japanese language corpora

### 3.1 Methodology of tallying phrase frequencies

For the purpose of this research, string search using BonTen was employed as a means to catalogue the frequencies of the aforementioned 44 phrases in the NWJC and BCCWJ. However, given the fact that string search outputs results for the search query character-by-character and that alternative writings exist for phrases in the Japanese language, multiple writings for any given phrase were taken into consideration. All presented alternative writings for a given phrase on the online Japanese dictionary Jisho were taken into consideration, making the final frequency of a given phrase equal the sum of the frequencies of all of the phrase's alternative writings. Furthermore, as there are cases in which the string of characters of an entire phrase overlaps with another phrase, simple subtraction was employed in such cases to avoid tallying the same phrase more than once.

### 3.2 Ranking based data representation

The data obtained neatly via the method described above corresponds to two distinct rankings of phrase frequency, one for each corpus. Ideally, the two rankings could be merged into one simply by adding up the frequencies of a phrase for each corpus. However, given that the NWJC is several orders of magnitude more extensive than the BCCWJ, opting for this method would only cause the NWJC to overshadow the BCCWJ. As an alternative, the ratio of a given phrase frequency and the sum of all phrase frequencies considered in this research for a given corpus was used as a score to determine which search results were most frequent across both corpora. In the following table, the phrases are ordered by the sum of their relative frequency in the NWJC and BCCWJ, in which ‘No’ refers to the phrase rank, ‘Expression’ lists the given expression, ‘Writings’ states how many alternate writings were used in the analysis, ‘NWJC’ and ‘BCCWJ’ state the frequency of the phrase in each corpus respectively, and ‘%SUM’ states the sum of the phrase’s relative frequency across both corpora. To save space, only the first 30 phrases are displayed in Table 1.

**Table 1: Frequencies of gratitude expressions in the NWJC and BCCWJ**

No	Expression	Writings	NWJC	BCCWJ	%SUM
1	感謝	1	1739913	4391	26.004519
2	どうも	1	1095496	4736	23.033195
3	有難うございました	3	1613622	2314	18.176651
4	有り難う	3	1240311	2965	17.97954
5	頂きます	3	2235258	690	16.680638
6	有難うございます	5	1691843	1173	14.823939
7	済みません	2	854698	2433	13.706698
8	御免なさい	3	673271	1860	10.606131
9	申し訳ない	4	525464	1150	7.2585389
10	お疲れ様	4	736509	676	7.0119594
11	御免	3	382800	1336	6.9710916
12	申し訳ありません	3	317872	753	4.5846183
13	助かります	2	276082	738	4.2656655
14	ごめんね	1	265533	574	3.6438723
15	助かりました	2	245235	585	3.5507305
16	ありがと	1	356869	352	3.4801882
17	お陰様で	7	268092	262	2.6062104
18	どうも有難う	3	174423	376	2.3900403
19	ご苦労様	5	99633	346	1.8085631
20	ご苦労	3	50097	434	1.7878688
21	お世話になりました	1	160007	223	1.7805859
22	申し訳ございません	3	135387	260	1.7475394
23	感謝しています	1	99755	198	1.3093294
24	お疲れ	3	105471	97	1.0047962
25	済まない	2	41650	118	0.6660388
26	ご馳走様でした	4	31702	118	0.6021765
27	誠に有難うございます	5	49685	60	0.5216677
28	ご馳走様	4	32222	84	0.490646
29	サンキュ	5	3884	131	0.4675163
30	どうも有難うございます	5	42733	52	0.4500107

In the above results, ‘arigatou’ and the related phrases (see below ‘arigatou category’) are most prominent in expressing gratitude, while other phrases require further examination as their frequency is expected to include other language usages apart from gratitude. For example, the most frequent term ‘kansha’ still needs to be reexamined and subcategories in its usages.

The remaining 14 phrases from the list of gratitude expressions are: ご親切に, 心から感謝申し上げます, 毎度あり, 感謝いたしております, すいません, 毎度有難うございます, 大変お世話になりありがとうございました, 感謝の言葉ありません, ご親切にどうも, 感謝の言葉もございません, お待たせしました, 懾り様, ありがとさん and それはどうも.

On the other hand, the following phrases are not part of the created list of 44 gratitude expressions that were analyzed, but were discovered and collected later on during research: お礼を申し上げます, 厚くお礼を申し上げます, お礼の申し上げようもございません, 恐れ入ります, 恐縮です, 感謝の念に尽きません, 感謝の念に堪えません.

### 3.3 Discrepancies between the two corpora

Comparing the frequencies of the analyzed phrases observed for each corpus, little to no discrepancies can be found. The exceptions to this are the two phrases with the highest differences in ranking between the NWJC and BCCWJ rankings, namely: ‘itadakimasu’ and ‘sankyu’. While ‘itadakimasu’ is the most frequent, analyzed phrase in the BCCWJ, it is only ranked 12 in the NWJC. On the other hand, the BCCWJ is biased against ‘sankyu’ in which it is the 34th most frequent phrase, compared to it being the 24th most frequent phrase in the NWJC. Aside from these two outliers however, the average deviation between the two rankings is only 2.45, meaning that the final Table 1, based on the sum of the relative percentages should be a good representation of both the NWJC and BCCWJ.

## 4. Classifying expressions into categories

The phrases and patterns can be classified into several categories, based on the function of the expressions and on the common grammatical pattern in use. The categories are presented in order of highest cumulative relative frequency, calculated as the sum of all relative frequencies (%SUM) of the analyzed category constituents.

### 4.1 Arigatou category (80.98)

Considering that it constitutes almost half of all analyzed usages of phrases that potentially express gratitude, it is hard to question the decision of many Japanese language textbooks to include ‘arigatou’ and its variants as one of the first expressions taught to readers (Banno, 2002; Makino, 2003). In this category, expressions such as ‘arigatou gozaimashita’, ‘doumo arigatou’, ‘maido ari’, ‘arigato san’ and ‘makoto ni arigatou gozaimasu’ are included. As ‘arigatou’ is most frequently used in the BCCWJ and is the general phrase for expressing gratitude in Japanese (Iio, 2017) it is examined in more detail in Section 5.

### 4.2 Shazai-kei (49.24)

The shazai-kei can be defined as a set of Japanese phrases with which one usually apologizes or expresses feelings such as regret or repentance with, but can also be used to express gratitude, in which case the feeling of indebtedness seems to be implied (Ide, 1998; Coulmas, 1981). For this reason, in stark contrast to the ‘arigato’ category, it must be noted that phrases of the shazai-kei have a deceptively high relative frequency as not all usages of shazai-kei phrases imply or express gratitude. In fact, only a small portion of usages of phrases constituting the shazai-kei express gratitude, but there are also usages that are borderline and could encompass more feelings, such as gratitude and apology (Ide, 1998). Therefore, further detailed analysis would be needed to differentiate usages of ‘sumimasen’ as an expression of gratitude and as an expression of regret or repentance. Some phrases which are part of the shazai-kei which were analyzed in this research include: ‘sumimasen’, ‘suimasen’, ‘gomen’, ‘gomen ne’, ‘moushiwake arimasen’ and ‘moushiwake gozaimasen’.

### 4.3 Kansha category (27.46)

The kansha category can be viewed analogously to the arigatou category, in the sense that a single core phrase, such as ‘arigatou gozaimasu’ in the prior category, is a key element for all other phrases of the category. The core word in this case is, as the name suggests, ‘kansha’ and the other constituents of this group are derived by modifying this core word. Similar to the shazai-kei however, it must be noted that the

word ‘kansha’ itself has a deceptively high position in Table 1, since not all records of the words ‘kansha’ imply or express gratitude. On the other hand, the chance of other expanded phrases including ‘kansha’ being used to express gratitude is much higher compared to the word ‘kansha’ itself. Some of these phrases which were analyzed as part of this research include: ‘kansha shite imasu’, ‘kansha no kotoba mo arimasen’, and ‘kokoro kara kansha moushiagemasu’.

#### 4.4 Sama category (15.31)

While there are many possible ways to group phrases of gratitude in the Japanese language, the final one discussed in this paper is the ‘sama’ category. Constituents of this group are defined in this research as Japanese gratitude phrases of the grammatical form: ‘(o/go) + noun + (sama)’. Despite the honorific ‘sama’ being a core element of the phrases in this category, it may sometimes be omitted in the act of shortening, as can be seen in the examples: ‘o tsukare sama’, ‘o tsukare’, and ‘go kurou sama’, ‘go kurou’. As can be seen in Table1, variations that include the honorific ‘sama’ are more frequent across both corpora, the only exception being that ‘go kurou’ is more frequent than ‘go kurou sama’ in the BCCWJ.

#### 5. Discovering variations and alternative forms using corpora

As described in Section 3.1 and 3.2, prior to corpus search each expression is checked for its orthographic variations in the online dictionary Jisho. For example, in case of the frequent gratitude expression ‘arigatou gozaimasu’ five different orthographic variations are considered: 1) ありがとうございます, 2) 有難うございます, 3) 有り難うございます, 4) 有難う御座います, 5) 有り難う御座います.

Further detailed analysis of corpus examples with the expressions revealed more alternatives in their form, layered structure and combinations with other forms. The core phrase ‘arigatou’ is examined by analyzing randomly selected examples from the BCCWJ and following variations were discovered and grouped into five subcategories as shown in Table 2. ‘S’ in the table refers to ‘a sentence’.

**Table 2: Subcategories of the core expression ‘arigatou’**

Subgroups of 'arigatou'	Major variations
Core expressions	ありがとう ありがとうございます ありがとうございました ありがと
Intensified core expressions	本当にありがとうございます 本当にありがとうございました どうもありがとうございます どうもありがとうございました 色々とありがとうございます いた いつもありがとう
Core expressions with giving/receiving phrases	～てくれてありがとう ～てくださった皆さんありがとうございます お～いただいた方、ありがとうございます (お答え) ご～を頂きありがとうございます (多くのご支援・ご協力) ～くれた～ありがとう ありがとう、～てくれて S、ありがとう (いい機会をこさえてもらったよ、ありがとう) ～頂いた皆様、ありがとう御座います (回答) いっぱいもらっちゃった、ありがとう
Intensified core expressions with giving/receiving phrases	いつも～いただきましてありがとうございます ご～までしていただき、本当にありがとう ここまで～くださった皆さんありがとうございます ～してくださった方々、本当にありがとうございました (応援して) いつも～いただいでいて、本当にありがとうございます
Core expressions in combination with apology (+ intensified)	～ず申し訳ありませんが、本当にありがとうございます

Various factors are combined to form layered extensions of core expression ‘arigatou’. The core expressions differ in the level of formality/informality, in the level of politeness and the temporal aspect of the action that evokes a gratitude expression. They are typically used as follows: 1) independently, such as: 有り難う。2) with a reference to an addressee or a group of addressees (e.g. 'san/chan/sensei/minasama/okyakusama...' before or after the expression, such as 皆様ありがとうございます。3)

following the noun with or without the particle 'wo' or with a comma (more polite expressions use polite prefixes o/go before the noun), such as ご質問ありがとうございます。 or リンゴをありがとう。4) sometimes reason for gratitude is added before or after the expression. The core expressions with their typical usages can be intensified, or can be combined with giving and receiving phrases, or sometimes even both. The variations differ again depending on the level of formality/informality, on the level of politeness, the temporal aspect of the action, but also on the feeling of the indebtedness, as described by Coulmas (1981).

## **6. Implications for Japanese language learning**

Analysis of representation of gratitude expressions in Minna no Nihongo 1 and 2 textbooks for the beginner level revealed the following. The core gratitude expressions 'Arigatou', 'Arigatou gozaimasu' and 'Arigatou gozaimashita' are quite often incorporated into the dialogs and practice C. This stands also for the intensified expressions 'Doumo arigatou gozaimasu/gozaimashita' or their informal shortened form 'Doumo'. Besides that, the shazai-kei phrases 'Sumimasen' and 'Doumo sumimasen' are occasionally incorporated into the dialogs of the textbooks, while more emphasis could be put on their practice. However, instead of repeating core phrases over and over again through various dialogs, it would be useful to incorporate more variations that were discovered in the corpora: e. g. with intensifiers 'hontou ni arigatou gozaimasu/gozaimashita', 'iroiro to arigatou gozaimashita' as well as giving and receiving phrases, such as 'te kurete arigatou gozaimasu', 'moratte, arigatou', but also more variety in core phrase forms such as 'N+wo+arigatou', or 'an addressee + arigatou'.

The following gratitude expressions were also found in the textbooks: 'Minasan, hontou ni iroiro o sewa ni narimashita', 'Gochisousama deshita'. These phrases could be also incorporated into practice which would better prepare students for production of these phrases in a particular situation. Finally, the final 50th lesson of the book is dedicated to gratitude expressions and contains a sample of a thank-you mail with very useful expressions for language learners (e. g. 'Ouen shite kudasatta minasama ni kokoro kara kansha itashimasu', '...minasama ni gomeiwaku wo okake shimashita ga, hontou ni shinsetsu ni shite itadakimashita', 'Okagesama de... Arigatou gozaimashita.').

Finally, it would be useful for learners that the grammar books accompanying the textbooks provide, besides translations of all the phrases, also explanations on their usage or subtle differences between -masu and -mashita variations of the phrases. Also, it would be useful to provide interculturally relevant explanations on 'Sumimasen' and 'Doumo sumimasen' as gratitude expressions.

## **7. Conclusion and further work**

Firstly, this paper describes the creation of a list of expressions and grammatical patterns that express gratitude in Japanese based on relevant research papers, dictionary terms and textbooks for Japanese language learners. Then, the gratitude expressions are analyzed for their frequency and typical usage within the two Japanese language corpora, NWJC and BCCWJ. As the expressions are grouped into categories, the examples of alternative writings and a layered structure of the expressions are detected. Finally, the Japanese language textbooks are examined for expressions of gratitude used and suggestions are made on how expressions and patterns can be incorporated into Japanese language textbooks.

In future research we want to incorporate other resources and corpus data to provide a longer and more exhaustive list of gratitude expressions along with their orthographic alternatives and various forms. Besides frequency and typical usage, it would be necessary to analyze each expression for its function within discourse and adjust their occurrence and usage in line with their meaning and form within a context. Finally, more Japanese language learning textbooks covering various levels need to be analyzed and compared against corpus-based analysis results in order to provide suggestions for improving language curriculum.

This research has a potential to contribute towards an empirically based systematization of various expressions and grammatical patterns that are used for expressing gratitude in Japanese language. With more extensive analysis it can be a valuable resource for further content enhancement of Japanese language learning materials including computer-assisted language learning systems. In addition, it can potentially contribute to research on the speech act behavior of gratitude expressions and on further exploration of cross-cultural differences of such expressions.

## Literature

Coulmas, F. 1981. Poison to your soul: thanks and apologies contrastively viewed. In: Coulmas, F. (Ed.) *Conversational Routine*. Mouton. 69–91.

Ebsworth, M., and Bodman, J. 1986. 'I very appreciate': Expressions of gratitude by native and non-native speakers of American English. *Applied Linguistics*, 7. 167-185.

Hill, B., Ide., Ikuta, S., Kawasaki, A. and Ogino, T. 1986. Universals in linguistic politeness; Quantitative evidence from Japanese and American English. *Journal of Pragmatics*, 10. 347-371.

Ide, R. 1998. „Sorry for your kindness“: Japanese interactional ritual in public discourse. *Journal of Pragmatics*, 29. 509-529.

Iio, M. [飯尾, 牧子]. 2017. 「感謝を表す表現: 「ありがとう」と「すみません」大学生におけるコミュニケーション様式の一考察『東洋学園大学紀要』26(1). 55-68.

Rambukpitiya, D. 2014. 日本語母語話者とシンハラ語母語話者の感謝場面における「人間関係」についての理解と感謝表現『日本語教育』158 巻. 112-130.

## References used for creating the list of gratitude expressions:

3A Corporation. 2012. *Minna no Nihongo Shokyū I Dai 2-han Honsatsu (Main text)*. Tokyo : Surīe Nettowāku

3A Corporation. 2012. *Minna no Nihongo Shokyū II Dai 2-han Honsatsu (Main text)*. Tokyo : Surīe Nettowāku

Banno, E., at al. 2002. *Genki : An integrated course in elementary Japanese Genki I*. Tokyo :The Japan Times.

Banno, E., at al. 2004. *Genki : An integrated course in elementary Japanese Genki II*. Tokyo :The Japan Times.

Ichikawa, Y. [市川 保子]. 2018. 『日本語類義表現と使い方のポイントー表現意図から考える』9 東京: スリーエーネットワーク

Iio, M. [飯尾, 牧子]. 2017. 「感謝を表す表現: 「ありがとう」と「すみません」大学生におけるコミュニケーション様式の一考察『東洋学園大学紀要』26(1). 55-68.

Online Japanese dictionary Jisho: <https://jisho.org> (visited 20. 6. 2021.)

Rambukpitiya, D. 2014. 日本語母語話者とシンハラ語母語話者の感謝場面における「人間関係」についての理解と感謝表現『日本語教育』158 巻. 112-130.

Sunakawa, Y.; Gurūpu Jamashii.; et al. 1998. *Nihongo Bunkei Jiten*. Tōkyō: Kuroshio Shuppan

Ukida, S. [浮田三郎]. 1995. 「感謝表現にみる発想法の特徴: 日本語と他の言語の表現を対照比較して」『広島大学留学生センター』5 巻. 1-13.