Koronashokku: Loanwords in Japanese and the Covid-19 pandemic

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Abstract

Foreign loanwords have come to form a substantial portion of the contemporary Japanese vocabulary. While many studies have been undertaken on language borrowing, the phenomenon of global events, disasters and socio-economic movements precipitating their inception is underexplored. The purpose of this paper is to build on the prior research on well-established loanwords by examining novel usage in the specific context of the Covid-19 pandemic. Data was obtained using tweeted replies to coronavirus-related articles in order to identify which novel loanwords have come into use due to Covid-19. Subsequently, to determine comprehension rates and attitudes, a survey was carried out using 121 participants drawn from members of the Japanese public. It found a low comprehension rate of the novel loanwords, particularly amongst participants over 60 years of age. Drawing from these results, the utility of novel loanwords related to Covid-19 is called into question.

Keywords: Linguistic borrowing, English loanwords, Japanese language, comprehension, Twitter, Covid-19, language policy

1. Introduction

Throughout the 20th and 21st centuries, Japanese identity has developed a strong association with disaster. From the bombings of Hiroshima and Nagasaki in 1945, to the Fukushima Daiichi nuclear disaster in 2011, unprecedented crises profoundly influenced the Japanese nation. This is particularly evident in the arena of language as discussion of that which is wholly novel necessitates new vocabulary. In times of crisis, it is not only important to describe and report on events, but also to convey vital information to those who are affected.[1]

Perhaps the most common way for a language to create vocabulary is to borrow from a source language to produce a so-called "loanword". Indeed, this process can be triggered by disaster: one of the higher frequency Japanese loanwords in English — tsunami — is the result of linguistic borrowing (Liberman 2011). However, in more recent times, the flow of loanword creation tends to run in the other direction. Japanese words of English origin such as *oiru shokku* オイルショック (oil shock) and *baburu keizai* バブル経済 (bubble economy) came to be well known in the 1970s and 1980s respectively as the result of economic phenomena, while *raifurain* ライフライン (lifeline - essential utilities or critical infrastructure) experienced use in the advent of the Kobe earthquake (Ōnishi &

Kajiki 1995). Evidently, disaster, emergency, and socio-economic shocks have already been key factors in the creation of loanword vocabulary.

Japan now faces the same crisis that has engulfed the rest of the world: the Covid-19 pandemic. In much the same way that those in English-speaking domains have had to incorporate new coinages (social distancing), the revival of antiquated words (furlough), and scientific jargon (flattening the curve), the Japanese have likewise had to adapt to an influx of new terminology. Due to the singular international nature of the crisis, these terms are often foreign in origin. As such, the novel virus gives rise to novel loanwords.

The origin and derivation of loanwords (from here LWs) or *gairaigo* have attracted a wealth of academic attention (Loveday 1986; Stanlaw 2004), yet the role of major events in their creation and proliferation is underexplored. In addition, while much research has gone into investigating the comprehension of and attitudes towards high-frequency LWs in Japanese (see Ishino 1983; Ishiwata 1989; Shibata 1993; Honna 1995; NHK 2001; NINJAL 2006), LWs of novel conception are less well explored.

This study is an investigation into the phenomena of loanwords born of crisis and focusses upon the language surrounding the Covid-19 pandemic. I aim to clarify the position of novel loanwords in the Japanese language and their utility in public life whilst also shedding light on the historical interrelation of crises and linguistic borrowing.

2. What is a loanword?
Japanese, largely due to contact with various other languages, has an ever-expanding vocabulary. Foreign LWs have become so prevalent in modern Japanese that, at the turn of the century, they were estimated to constitute around 10% of the language (Hogan 2003). While LWs are common in most of the world's languages, Japanese is often held up as a notable case due to the high frequency of foreign word borrowing.

Originally, the Japanese language came from a variety of sources, and its vocabulary can be categorised into three different groups according to their source; these are:

- *wago* 和語 (words of native Japanese origin)
- *kango* 漢語 (words of Chinese origin)
- *gairaigo* 外来語 (words of foreign, non-Chinese origin)

This paper is concerned with the third of these word types: *gairaigo* (Umesao, Kindaichi & Hinohara 1989). *Gairaigo* is orthographically represented using *katakana* (one of two phonetic scripts in Japanese), though it can also be denoted using *rōmaji* (Roman letters) and is even occasionally given its own *kanji* (Chinese characters).[2]

In modern times, *gairaigo* has been dominated by English, yet this was not always the case. Indeed, several other European languages have claimed greater shares of Japanese foreign vocabulary than English in the past (Yazaki 1964). From the Spanish and Portuguese religious terminology that entered the archipelago in the Middle Ages, to the Dutch language of commerce in the 17th century that still remains in use today (kōhī 珈

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[2] This is usually reserved for much older loanwords such as *tabako* 煙草 (tobacco).

珈 (coffee) and bīru ビール (beer)), borrowing patterns are not random and the distribution of LWs in the Japanese lexicon is often a reflection of Japan's relationship with other nations at different points in time. However, in the late 19th century, several other languages eventually came to supersede Dutch as the language of diplomacy and foreign relations. Chief among these was English.

When the Meiji restoration eventually brought an end to Japan's renowned period of *Sakoku* (isolationist foreign policy) in 1868, the new government also opened the doors to Western influence. While French and German were also studied at this time, borrowing from English outstripped its competitors in the post-war era, largely due to the occupation of Japan by the United States. A study of 90 Japanese magazines by the National Language Research Institute (NLRI) in 1956 revealed that around 80% of total LWs were derived from English (NLRI 1964), while more recent studies have put the proportion as high as 94.1% (Tomoda 1999). The dominance of English in borrowing is in no way unique to Japanese, yet it stands out due to its sheer ubiquity.

3. *Gairaigo* in the media

Although Japan has never gone so far as to recognise English as an official language, the presence of the world's foremost lingua franca candidate is certainly visible in the country's media culture. Certain fields such as pop music, advertising and product design provide particularly fertile soil for English to take root.

The prevalence of English and other *gairaigo* in Japanese advertising is well-established, though the reasons for this are manifold and still debated. In his seminal 1989 work *Symbolic Values of Foreign Language Use*, Harald Haarmann points to the visual power of *katakana*, a view also espoused by Rebuck (2002) who emphasises that because *gairaigo* is written using *katakana*, it draws the attention of Japanese readers who are more used to seeing the higher frequency scripts of *hiragana* and *kanji*.

Furthermore, English can carry an air of prestige (Stanlaw 1987), and so its use in advertising has the effect of giving products an exotic or sophisticated image. In her survey of loanwords in advertising, Takashi (1991) categorized LWs by function and found that "words used for special effect" were the most common. She concluded that the "special effect" of *gairaigo* was to bestow products with a fresh mood as she observed a greater proportion of LWs in advertisements for modern products than traditional ones (Takashi 1991). This aligns with Haarmann (1986) who claimed that the role of *gairaigo* in a copywriter's arsenal is actually more about conveying the desired imagery than it is about communicating information.

However, it is not only commercial texts that utilise loanwords. Along with advertising, Haarmann (1989: 65) also lists the "use of English in Japanese mass media" among his "domains of English in modern Japanese society". While one might assume that the news would wish to be as comprehensible as possible and might therefore avoid excessive use of LWs, many critics feel that the proportion of *gairaigo* in the news media is still too great (Mizutani 2003), and there is even a perception that the media tries to achieve a higher register by using esoteric loanwords. As a result, the level of *gairaigo* usage in the news has come under heavy criticism from commentators (Ōno, Morimoto & Suzuki 2001; Yoshimi 2018).

In fact, the Japanese public themselves have often voiced their discontent regarding the frequent use of *gairaigo* in the media. This made the headlines in 2013 when a 71-year-old man sought compensation from the national broadcaster NHK for the emotional distress caused by the inordinate use of *gairaigo* on the air. He claimed that his inability to comprehend adopted words—such as those based on "risk," and "trouble"— led to "mental distress" as he could not understand the content of programs (Osaki 2013).

Such outrage at foreign terms has occasionally been echoed by politicians, the very people who are themselves often accused of *gairaigo* abuse. Indeed, many were quick to point out this ironic fact when Abe Shinzo, the recently retired Prime Minister of Japan renowned for his nationalistic views, claimed that to "create a 'beautiful Japan' we must first remember how wonderful our nation is," and that "we will start a new, future-oriented *purojekuto* (project) aimed at strategically promoting the new Japanese *kantorii aidentiti* (country identity)" (Otake 2007). Abe's unconscious choice of wording demonstrates a simple fact: that *gairaigo* has become so firmly embedded in higher register Japanese such as political rhetoric, that any ideologically based hesitancy to use it is superseded.

4. Previous research on *gairaigo*
4.1. Categorisation
When attempting to categorise loanwords, researchers of *gairaigo* have developed various groupings. For example, Honna (1995) based his seven divisions of *gairaigo* on borrowing patterns and the processes through which *gairaigo* is derived.[3] However, in these complex systems of categorisation, several issues emerge such as overlapping categories, homophones, and changes in meaning over time. A functional categorisation of loanwords is provided by Myers-Scotton (2006), who created a dichotomy called "core/cultural" which is based on both borrowing type and function. Cultural borrowing refers to LWs that fill a gap in the lexicon as they denote objects or concepts that are novel to the culture; these are equivalent to what Tomoda (2005) called lexical-gap fillers. Core borrowing, on the other hand, indicates LWs that duplicate a word already in existence in the recipient language but are often used for special effect. To take a commonly used example in Japanese, the word *shoppu* ショップ 'shop', would fall into the category of core borrowing as it already has a *kango* Japanese equivalent: *mise* 店. Conversely, the word for convenience store (コンビニ, *konbini*), had no direct native Japanese equivalent at the time of its conception and is therefore an example of cultural borrowing.

The "core/cultural" divide is perhaps the most objective means of classifying LWs. Its concrete foundation on the pre-existence of a referent in Japanese culture is less given to ambiguity than the overlapping categories of borrowing types. My decision to use this method of categorisation in the following research was also based on the fact that this paper aims not to identify how novel loanwords are derived, but rather what effect they have (see Section 9).

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[3] Semantic shift and narrowing, Japanese English, combinations of Japanese words and English loanwords, contractions, acronyms, abbreviations of compound words, and word play.

4.2. Comprehension

Much of the practical discussion of *gairaigo* has focused on recognition and understanding of LW terms as well as generational differences in comprehension (Tomari 1985; Shibata 1993; NHK 2001; NINJAL 2006; Horikawa 2012).

Many investigations and surveys on the question of comprehension were conducted in the 20th century. For example, the national broadcaster NHK carried out a survey in order to assess recognition and understanding of *gairaigo* by the Japanese public using LWs that were commonly found in the media. While the average rate of recognition stood at 77%, the comprehension rate was significantly lower at 50%. This was because several loanwords were subject to misunderstanding. For example, *disukaunto* ディスカウント (discount) was misconstrued as meaning 'very cheap' (Ishino, Maruta & Tsuchiya 1988). A 1995 survey conducted by Ōnishi & Kajiki using 15 LWs found a lower rate of recognition at 59%, and comprehension at just 36%.

However, the 'comprehension rates' described above, were derived using the original English definition of the LWs as a yardstick for measuring understanding. This method does not consider the common phenomenon of semantic shift that often occurs when LWs are adopted. This means that comprehension may have been higher if they had measured it within a Japanese context (Tomoda 2005). However, even when asked to self-report on their comprehension of *gairaigo* more recently, 28.1% of the Japanese republic reported trouble understanding LWs broadcast on TV (Yamashita & Katō 2000).

When making comparisons in LW comprehension across age groups, stark differences come to light. For example, a 1988 NHK survey revealed a 35% difference in comprehension between those aged 25-29 (63%) and those aged 60 years and over (28%) (Ishino, Maruta & Tsuchiya 1988). Indeed, it seems that the older the generation, the more they struggle with comprehension, as revealed by Loveday (1996), who found the comprehension of LWs in those aged 70–79 to be just 9.2%.

In 2006, the National Institute for Japanese Language and Linguistics gathered data from the Japanese public (NINJAL 2006). Horikawa (2012) tested the overall comprehension of 52 of the more high-frequency LWs and came up with an overall comprehension figure of 63.5%. However, participants aged 60 years and older were found to have a comprehension rate of just of 43.9% (Horikawa 2012). She found that rates between different LWs varied greatly, ranging from 6.3% to 92.6% comprehension.

In her breakdown of NINJAL's results, Horikawa also analysed the types of borrowing using Myers-Scotton's (2006) core/cultural dichotomy. The difference in comprehension between the age ≥ 60 group and the overall group was largest for cultural borrowings, but it was not as great for core borrowings. Horikawa explains this by referring to the more complex process that is involved in learning vocabulary derived from cultural borrowing; a Japanese native speaker must first "learn the content of the referent itself before they are able to connect the meaning and the word" (Horikawa 2012: 61). These findings suggest that the participants over 60 years of age struggled to understand the LWs derived via cultural borrowing as they lacked the prior knowledge of the objects or concepts to which the LWs refer.

4.3. Attitudes

English can function as a prestige and status marker (Haarmann 1989), yet this is at odds with the highly monocultural and monolingual character of Japanese society (see Heinrich 2012). Such a juxtaposition brings about polarised opinions and commentators tend to be divided into two camps: those who accept the LW influx as a welcome signal of positive change and those who view the LWs as a malignant force that corrupts Japan's language and erodes its culture.

Arguments in support of *gairaigo* usage often focus on the way LWs can enrich the Japanese lexicon and provide additional nuance (Ishino 1983; Kajima 1994; Bordilovskaya 2012). Other commentators have connected the influx of *gairaigo* with internationalisation, cosmopolitanism, and increased English proficiency (Ogaeri 1960; Ishiwata 1989; Honna 1995). Some in the academic world, however, view *gairaigo* more pragmatically: as an inevitable product of globalisation which should be welcomed if Japan is to progress as a nation (Shibata 1993).

There are also many condemnatory stances towards *gairaigo*. Indeed, there is a view that the overuse of LWs tarnishes the Japanese language, or as Loveday (1996: 208) puts it "(the opinion that) the current extent of Western borrowings is leading to language 'decline' and is taken as a sign that the Japanese have lost faith in their own linguistic creativity". This interpretation is manifest in the idea that giving in to Western influence is liable to lead to an erosion of culture that invites confusion and exhibits shallowness (Ishii 1998; Ōno, Morimoto & Suzuki 2001).

Opponents of *gairaigo* usage have tended to focus on lack of comprehension and the social division this could cause. Similarly, the overuse of *gairaigo* by government bodies has even led to calls from scholars for the adoption of an exclusionist policy to LWs modelled on the French approach (Mizutani & Ōno 1995). These grievances are commonly aired by language purists such as the aforementioned NHK viewer and those who submit *tousho* (letters to the editor) that newspapers receive in abundance, berating them for their excessive quantity of *gairaigo* (Yahagi 2013; Yoshimi 2018).

To explain the polarity of views evidenced above, Irwin (2011: 199–200), proposed that the Japanese populace are party to a so-called "love/hate relationship" with LWs. This relationship manifests itself in the societal belief that *gairaigo* is simultaneously an indispensable tool for creating a more advanced, democratic society, at the same time as being a linguistically imperialistic or even colonialist threat to Japanese culture and tradition (Irwin 2011: 200).

4.4. Summary

While the research on loanword types, comprehension, and attitudes may seem comprehensive, the never-ceasing production of new loanwords means that there will always be space for studies that focus on newly derived vocabulary. This led me to believe that the trends revealed in previous research, such as a low comprehension rates in older generations and polarised attitudes, may also be prevalent, or even more extreme, in Covid-19 related LWs.

Whilst reading prior studies on LWs, I noticed a gap in research related to demographic variables other than age. Bearing this in mind, I decided to include the variable of location in my own research in an attempt to highlight further demographic differences in comprehension and attitudes towards loanwords. Furthermore, I found that very few attitude studies directly compared attitudes towards loanwords and their native Japanese equivalents. This led me to believe that a study which did so could reveal insights into the utility and value of loanwords.

5. Background to the research

Covid-19 related loanwords began emerging very early in the pandemic. On the 25th of March 2020, Tokyo Governor Koike Yuriko held a press conference to address a rapid increase in Covid-19 infections in the capital. She warned residents to stay at home so as not to cause an *ōbāshūto* オーバーシュート (overshoot), an English LW taken to mean a sudden explosive rise in cases. While not out of character for the former TV newsreader, Koike's repeated use of LWs such as *rokkudaun* ロックダウン (lockdown) and *kurasutā* クラスター (cluster), sparked arguments over the suitability of this terminology in such a deeply important broadcast, when universal comprehension was so vital (Brasor 2020).

On one side of the argument were opponents to *gairaigo* usage such as then Defence Minister Kono Taro, who tweeted his concern that discussion of the coronavirus crisis involved foreign LWs that are largely incomprehensible to the average Japanese citizen (Yamashita 2020). Kono insisted that public officials should find more easily understood native Japanese terms instead.

The translator Reizei Akihiko, on the other hand, believed that the use of Japanese equivalents to Koike's LWs would actually cause more confusion. In his essay in defence of Koike, he theorised that her use of the LWs allowed her to better convey a "sense of crisis" (Reizei 2020). This, he argued, is because a Japanese equivalent in current use such as *shūdan kansen* 集団感染 'cluster of infections', is already associated with the yearly seasonal flu, and thus may inappropriately encourage a false sense of normality.

This is not the first time that a crisis put *gairaigo* usage in the spotlight. In the wake of the Great Kansai Earthquake of 1995, the news media came under fire for its use of loanwords such as *infura* インフラ (infrastructure) and *raifurain* ライフライン (lifeline utilities, i.e. water, electricity, gas) in resources aimed at survivors (Tomoda 2005). This criticism may well have been justified, as illustrated by Ōnishi & Kajiki (1995) who found that *infura* インフラ was understood by just 34% of those who recognised it and that 43% of participants believed it to have the same meaning as the loanword *infure* インフレ (inflation). It is reasonable to say that a lack of comprehension of such words in a time of crisis could lead to increased anxiety rather than clarity and assurance.

Two days after the governor's appearance on television, a Tokyo Shimbun reporter decided to put Koike's loanwords to the test and took to the streets of the capital to ask young people if they understood the governor's message. The results were similar to those found by Ōnishi & Kajiki in the aftermath of the 1995 earthquake. One high school-aged respondent believed that "lockdown" was a synonym for the virus, while another 19-year-old interviewee answered that Koike's phrasing meant he felt the announcement had no connection to his own life (Brasor 2020).

In the following sections, I will aim to build on the informal research performed by journalists that has already been undertaken on this topic. The aim is to explore which LWs have entered the Japanese vocabulary due to the Covid-19 pandemic, to categorise them and then to ascertain the levels of comprehension and attitudes towards them in order to determine their appropriateness for usage in the media and reporting. There are three primary research questions explored in the two case studies described in the following sections:

1) Which novel loanwords have emerged as the result of the Covid-19 crisis?
2) Are these novel loanwords comprehensible to Japanese speakers?
3) What attitudes are associated with these novel loanwords?

6. Case study: part one
6.1. Sourcing and identifying novel loanwords

In order to answer the first of my research questions and obtain data for the others, I decided to use Twitter data. Having reached 4.9 million registered users as of July 2020, Twitter was the second-most engaged-with social media platform in Japan after Line (Statista, 2020) and is commonly used for the proliferation and discussion of news items. Twitter could therefore guarantee data that involved authentic public discussion of Covid-19 in the form of user replies to news articles.

The final data used for this study was comprised of the user replies to 100 tweets from 5 of Japan's largest news sources. User replies were chosen as opposed to tweets from the news sources themselves so as to study the language of the Japanese public, rather than that of the media. Historical tweets were retrieved from Twitter's API through a process called scraping. Tweepy, an open-source Python package, was utilised to refine the tweets through the use of parameters. I selected articles containing the keyword *koronauirusu* コロナウイルス tweeted by the newspapers Asahi Shimbun (@asahi), Mainichi Shimbun (@mainichi), Sankei Shimbun (@Sankei_news) and the Nikkei Shimbun (@nikkei), as well as the national broadcaster NHK (@nhk_news) from March the 22nd - 29th, the week that saw Japan's first rapid spike in Covid-19 cases ("Tokyo governor urges" 2020).[4]

I then used a combination of UniDic (Den et al. 2010) and Mecab (Kudou 2013) to modify the data. These are corpus analysis tools designed to prepare Japanese, which lacks spaces, for Natural Language Processing. UniDic, facilitates tokenisation by splitting Japanese text into individual units. These units are divided into words and non-word units (letters, punctuation marks and symbols). The word units are then assigned several descriptive fields by the programme which includes the lexeme, written form, part of speech and word type. I utilised the "part of speech" description in order to separate word units from non-word units and discard the latter from the study, then used the "word type" description to sort the words by their origin: Japanese, Chinese or *gairaigo*.

Once I had isolated the *gairaigo*. the next step was to identify and extract "novel loanwords" (henceforth NLWs) related to coronavirus. Firstly, to ascertain words with a

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[4] I also considered The Yomiuri Shimbun but chose to exclude it as its online presence is minimal and does not generate enough user interaction to be useful to this study.

greater relevance to the discussion of coronavirus I excluded proper nouns such as country, place, and company names. I also excluded the word *koronauirusu* コロナウイルス (coronavirus) itself.

Secondly, as a means of addressing the question of novel usage I removed the LWs that are already a regular part of the Japanese lexicon. To standardise this classification, I only used LWs without an entry in the *Sanseidō kokugo jiten*, a general-purpose Japanese dictionary (Kenbo et al. 2013).

Some of the most frequently mentioned LWs in the data including *risuku* リスク (risk – 20 times), *panikku* パニック (panic – 15 times) and *piiku* ピーク (peak – 3 times), may have relevance in the context of the Covid-19 pandemic, but they could not be included as examples of novel usage as they are already well-established LWs. This process of refinement left the list of loanwords seen below in the results section (Table 1) which were used in the second part of the study.

Table 1: Individual novel loanwords ordered by frequency

Transcription	Katakana	English translation	Count	Borrowing type
Rokkudaun	ロックダウン	Lockdown	34	Core
Kurasutā (kurasuta)	クラスター (クラスタ)	Cluster	30 (33)	Core
Ōbāshūto	オーバーシュート	Overshoot	25	Core
Pandemikku	パンデミック	Pandemic	11	Core
Ebidensu	エビデンス	Evidence	10	Core
Feikunyūsu	フェイクニュース	fake news	4	Core/Cultural
Fēsushiirudo	フェースシールド	face shield	3	Cultural
Masugomi	マスゴミ	mass comms + rubbish (portmanteau)	2	Cultural
Koronashokku	コロナショック	coronavirus shock	2	Cultural
Koronapanikku	コロナパニック	coronavirus panic	2	Cultural
Autobureiku	アウトブレイク	Outbreak	2	Core
Fakutochekku	ファクトチェック	fact check	2	Core
Chainauirusu	チャイナウイルス	China virus	2	Cultural
Suteihōmu	ステイホーム	stay home	2	Core
Heitosupiichi	ヘイトスピーチ	hate speech	2	Core/cultural
Afutākorona	アフターコロナ	post-coronavirus	1	Cultural
Conpuraiansu	コンプライアンス	compliance	1	Core
Monitaringu	モニタリング	monitoring	1	Core
Orinpikkufāsuto	オリンピックファースト	Olympics first	1	Cultural
Japanfāsuto	ジャパンファースト	Japan first	1	Core/Cultural
Medianoriterashii	メディアリテラシー	media literacy	1	Cultural
Total words: 21			142	

6.2. Results

The words were categorised using Myers-Scotton's (2006) "core/cultural" dichotomy which is based on function and the absence or presence of a Japanese equivalent (henceforth JE). In addition, a third category — core/cultural borrowing — suggested by Horikawa (2012) combines the first two:

1) **Core borrowing:** LWs that have JEs already in existence.
2) **Cultural borrowing:** LWs that fill gaps in the Japanese lexicon as they refer to objects or concepts that are new to Japanese culture.
3) **Core/cultural borrowing:** LWs that could refer to multiple objects or concepts, some of which existed in Japanese culture before and some of which did not.

Core borrowing was responsible for around half of word types (11) but as much as 85.2% of the total NLW token. Cultural borrowing, however, provided a little under 10% with core/cultural borrowing making up just 4.9%. Horikawa's (2012) results for high-frequency English LWs also followed this pattern, with core borrowing tokens outweighing cultural borrowing tokens 2 to 1. Takashi's (1992) study on LWs in advertising found similar results with 45% of LW tokens classified as 'special-effect givers' (core borrowing), while only 16% served the function of filling a lexical gap (cultural borrowing).

The majority of NLWs have low frequencies and are unlikely to become candidates for entering the Japanese vocabulary. Furthermore, if we pick out several of the examples of NLWs, many appear to be portmanteau words, such as *koronashokku* (corona + shock) and *masugomi* (mass communication + rubbish), made from two other loanwords and intended as a fleeting piece of wordplay to satirise a specific cultural event.

However, at the top of the table we do see several NLWs with high token counts. It is these which account for the dominance of core borrowing. This shows that much of the borrowing is occurring for, in the words of Takashi (1992), "special effect". The nature of this special effect will be tested and discussed in the attitudes section of the second part of this case study, however the prevalence of core borrowing (the use of words which have existing JEs) does already call into question the utility of these words at the level of mass communication when weighed against difficulties in comprehension.

7. Case study: part two
7.1. Methodology

In order to answer the second and third of this paper's research questions, I decided to use a questionnaire that collected a combination of qualitative and quantitative data. This allowed me to gauge the comprehension rates and attitudes towards the NLWs related to Covid-19.

This study follows a number of others examining comprehension of LWs in Japanese, specifically Ōnishi & Kajiki (1995) and NINJAL (2006) amongst others. The study will test the hypothesis that Japanese speakers have difficulty understanding LWs and that older generations and those residing outside of Tokyo have more trouble than the general population with comprehension.

The questionnaire was made up of six sections and directed at the native Japanese speaking population. It was therefore presented entirely in Japanese. It was created using Google Forms' web-based survey function and distributed online through social media, forums, and personal contacts. Responses were recorded for two weeks from August 4 to August 18, 2020.

It must be acknowledged here that the questionnaire relied on participants to self-report on their own comprehension of loanwords. This is potentially problematic due to well-known issues with self-report studies such as exaggeration and social desirability (Northrup 1996).[5] In future surveys, techniques such as true-or-false or multiple-choice questions and presenting the NLWs in context could be used to improve validity and create a more realistic test of the respondents' comprehension.

7.2. Participants
Of the 121 total participants 119 chose to disclose their gender, resulting in 41 men and 78 women. In terms of age groupings, 64 were 18-29, 19 were 30-39, 5 were 40-49, 16 were 50-59 and 17 were aged 60 and above. All participants were native speakers of Japanese and living in Japan; 25 were Tokyo residents and 96 lived elsewhere.

7.3. Questionnaire
The questionnaire was divided into 7 sections. The first section was the informed consent form, the second asked participants their basic demographic information: sex, age, residence. The next five sections asked participants to self-report on their comprehension of a NLW both before the Covid-19 outbreak and in the present as seen in Figure 1.

This page was presented to each participant five times, addressing a different NLW each time. The target vocabularies were chosen from the five most frequently occurring NLWs as per the results from the first part of this case study, these were as follows:

1) *pandemikku* パンデミック (pandemic)
2) *rokkudaun* ロックダウン (lockdown)
3) *kurasutā* クラスター (cluster)
4) *ōbāshūto* オーバーシュート (overshoot)
5) *ebidensu* エビデンス (evidence)

Using the quantitative data gathered from these questions, I was able to calculate comprehension rates for each of the NLWs separately and take an average for all five. I could then compare the comprehension rates for the participants overall with those in the "age ≥ 60" category and those who were Tokyo residents.

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[5] Due to similar concerns about reliability, the results produced by asking participants to recall their comprehension of loanwords 6 months prior to when the questionnaire was distributed were omitted.

Figure 1. Example page from the questionnaire (English translation)

Table 2: Native Japanese equivalents for NLWs

Novel loanword	Native Japanese equivalent
pandemikku パンデミック	*sekaiteki dairyūkou* 世界的大流行
rokkudaun ロックダウン	*toshi heisa* 都市封鎖
kurasutā クラスター	*shūdan kansen* 集団感染
ōbāshūto オーバーシュート	*kansen bakuhatsu* 感染爆発
ebidensu エビデンス	*konkyo* 根拠

After self-reporting on their comprehension of each NLW, the participants were then asked to compare the NLWs with their Japanese equivalents. The JEs to each NLW seen in Table 2 were selected based on the suggestions of critic Reizei (2020). These open-ended questions were optional, so answers were not required for participants' responses to be recorded.

7.4. Comprehension results

The overall average comprehension rate for the five NLWs was 35.7%, while the average comprehension rate for participants over 60 years old was far lower at 17.6%. Tokyo residents, however, showed a distinct advantage in comprehension with an average rate of 46%, 10.3% above the overall comprehension rate. The average comprehension rates found in this study were far lower than those found by Horikawa in her study of high-frequency LWs using data from NINJAL's 2006 survey (Horikawa 2012: 59). However, both studies also showed an average difference between the overall group and over-60s of almost 20%.

Comprehension also varied greatly depending upon the word. While *rokkudaun* (lockdown) was understood by just over half of the participants and 29.4% of those aged 60 or over, *ōbāshūto* (overshoot) was understood by only 10.7% of all participants and was not understood by anyone aged 60 or above. The comprehension rates were generally better for NLWs that appeared more frequently in the Twitter data, though *ōbāshūto* was a marked outlier.

If we compare the NLWs in Table 3 with high-frequency loanwords that were found to have similar comprehension rates in Horikawa's investigation (Table 4) we notice an interesting trend. The majority of high-frequency loanwords with lower comprehension rates in Horikawa's study were related to computers or the internet. It is therefore possible to make an analogy between the comprehension of NLWs related to the coronavirus pandemic in 2020 and high frequency LWs related to computers and the internet in 2006 when NINJAL collected the data for Horikawa's study.

Table 3: Comprehension rates for NLWs

LW (Romanised)	Katakana	English translation	Frequency count in data	Borrowing type	Total comp rate (%)	60+ comp rate (%)	Tokyo resident comp rate (%)
rokkudaun	ロックダウン	lockdown	34	Core	52.1	29.4	68.0
kurasutā	クラスター	cluster	33	Core	48.8	35.3	52.0
ebidensu	エビデンス	evidence	11	Core	38.8	5.9	60.0
pandemikku	パンデミック	pandemic	10	Core	28.1	17.6	40.0
ōbāshūto	オーバーシュート	overshoot	30	Core	10.7	0.0	12.0
Average					**35.7**	**17.6**	**46**
Average found by Horikawa (2012)					**63.5**	**43.9**	**N/A**

Table 4: High-frequency LWs with an overall comprehension rate of under 50% as recorded in the *Language Attitude and Pervasion Survey* (NINJAL 2006) adapted from (Horikawa 2012)

Loanword Romanised	Katakana	English translation	Borrowing type	Overall comp rate (%)	age ≥ 60 comp rate (%)
Fōramu	フォーラム	Forum	Core	46.8	31.6
Dētābēsu	データーベース	Database	Cultural	45.6	21.5
Gurōbaru	グローバル	Global	Core	41.3	18.7
Tsūru	ツール	Tool	Core/Cult	40.9	18.7
Purobaidā	プロバイダー	Provider	Cultural	40.6	15.2
Daunrōdo	ダウンロード	Download	Cultural	40.6	8.2
Rinku	リンク	Link	Core/Cult	38.5	10.4
Saito	サイト	Site	Cultural	34.4	7.8
Inishiachibu	イニシアチブ	Initiative	Core	27.4	15.0
Kontentsu	コンテンツ	Contents	Core/Cult	23.0	8.8

7.5. Attitudes results

The participants were also asked to compare the NLWs with their Japanese equivalents as listed in Section 7.3. Of the 605 possible responses to the open-ended questions, I received 59 responses. Of these responses, I found that on 29 occasions the respondent received the same impression from the NLW and JE, on 18 occasions they felt the words were synonymic, while the remaining 12 responses were neutral (Figure 2).
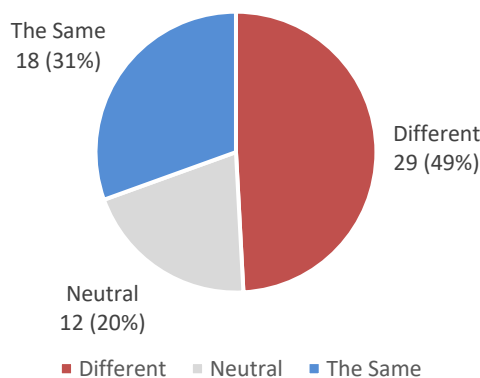

The Same 18 (31%)
Different 29 (49%)
Neutral 12 (20%)
■ Different ■ Neutral ■ The Same

Figure 2. Impression of the NLWs vs. JEs

7.5.1. Comprehensibility
Of the 7 responses that referred to comprehensibility, 6 respondents said that they found the JE easier to understand than the NLW. They reported the following on this matter:

> "I don't understand the nuance of *'ebidensu'*, if they have the same meaning, I don't get why the Japanese government use that word instead of '*konkyo'*."
> (Male aged 18-29)

In contrast to this, only one response claimed that the NLW was easier to understand. This provides further evidence to support the qualitative data in this study as well as the plentiful previous research (see Ishino & Yasuhira 1991; Ōnishi & Kajiki 1995; Yamashita & Katō 2000), which concludes that comprehension problems relating to *gairaigo* are common.

7.5.2. Severity
13 participants commented on their perceived sense of severity regarding the pairs of words. 8 claimed that the NLW sounded more severe; of these, 5 referred to the word *pandemikku*. Most participants gave similar reasons for this:

> "I feel that *pandemikku* has more of a nuance that infection is spreading quickly."
> (Male aged 18-29)

> "With *pandemikku* I feel a greater sense of danger."
> (Female aged 50-59)

Here we can see the practical benefits of using the NLWs that Reizei (2020) referred to in his essay in defence of Governor Koike's use of English LWs. The participants quoted above attest to a sense of crisis being conveyed by the NLWs. However, 5 participants claimed that two of the NLWs (*kurasutā* and *ōbāshūto*) actually had a softer impression and that the JEs sounded more severe:

> "I feel more of a sense of warning from the kanji version (than *ōbāshūto*)."
> (Female aged 50-59)

> "With *kurasutā* I have an image of a smaller scale infection cluster."
> (Male aged 18-29)

Given the feedback from respondents, I believe there are potentially two reasons for this. Firstly, because Japanese people can read and abstract meaning from the *kanji* that are used to write the JEs, they get a more immediate sense of danger, they do not even need to fully comprehend the word as a whole. Secondly, because *kurasutā and ōbāshūto* can have other potential applications or referents (see below), their meanings are broader and so their efficacy at conveying a sense of danger is diluted.

7.5.3. Broadness/narrowness

On the topic of broadness there was an even split with 3 participants believing that the NLW carries a broader definition and 3 believing that the JE did. 2 participants believed that *pandemikku* has a much narrower meaning than its JE:

> "*Pandemikku* refers to an infectious disease but *sekaiteki dairyūkou* can possibly refer to other things like the spread of a song or trend."
> (Female aged 30-39)

Here we see what Ishino (1983) and Bordilovskaya (2012) embraced as the enriching effect that LWs can have upon the Japanese vocabulary. By using the NLW, one is able to achieve additional nuance in their speech and point at more specific referents allowing for clearer use of language. However, much like the responses regarding severity, I found that other participants actually believed the NLWs words *kurasutā* and *ōbāshūto* to be less effective in the discussion of Covid-19:

> "I have sometimes heard *ōbāshūto,* for example in economics TV programmes (…) in most cases I think it is used to mean 'going too far'."
> (Male aged 40-49)

This is because both have an additional domain of use, separate to their JEs. For *ōbāshūto* this is economics and, as I was informed by one participant, *kurasutā* can also be used as *otaku* (nerd) terminology to mean a gathering of a certain type of people (usually a fandom).

7.6. Discussion

The overall comprehension rate of 35.7% provides an answer to the second research question in that it proves that the NLWs are largely incomprehensible to, or at least not fully understandable by, the average Japanese citizen. Overall, the results of this study agree with then Defence Minister Kono Taro in his concern that discussion of the coronavirus crisis involved an excess of foreign LWs which precipitates misunderstanding (Yamashita 2020). Meanwhile, the concern about low levels of comprehension of LWs in the older generations that prompted the research of Ishino, Maruta & Tsuchiya (1988) and Loveday (1996), was proven to be relevant in the current age due to the extremely low average comprehension rate of 17.6% amongst those aged 60 and above in this research.

The results also suggest that age is not the only factor to have an influence on NLW comprehension. Tokyo residents considerably outperformed the average, perhaps as the result of better English language education and exposure to a more cosmopolitan life. This feeds into the idea championed by opponents of *gairaigo* such as Mizutani & Ōno (1995), that *gairaigo* could fuel social division.

It also seems there will be great variance in longevity as vocabulary. An overall comprehension rate of 52.1% suggest that a word like *"rokkudaun"* has potential sticking power, whereas "*ōbāshūto*" is unlikely to outlast the Covid-19 pandemic with a comprehension rate of just 10.7%. Even Tokyo residents seem to have forgotten Governor

Koike's speech, with a comprehension rate of 12.0% regarding "*ōbāshūto*" by August 2020. Indeed, the short lifespan of some LWs is recognised as a part of the naturalisation process of borrowing (Matsuda 1986; Tomoda 1999).

It was difficult to answer the third research question based on the results of the open-ended attitudes questions. While they did show that these NLWs were more difficult to comprehend than their JEs, the results regarding severity and broadness varied between NLWs. This means that Reizei's (2020) defence of LW usage as a means of highlighting a "sense of crisis" could not be applied to every NLW. A larger data set would help to establish trends and provide a more definitive answer in future research. What the responses did teach us, however, is that even LWs specifically coined for usage in relation to Covid-19 may have other conflicting domains of use which make them just as ambiguous as their often polysemous JEs.

8. *Afutākorona*: implications

The case study illustrated that not only people over 60 years old and non-Tokyo residents, but the Japanese population as a whole may have problems in comprehending NLWs. It seems that NLWs related to Covid-19 may share similarly low comprehension rates with those which were introduced as computer and internet-related terms over a decade ago (Horikawa 2012). However, the role of loanwords may be a more urgent issue now, amid a global pandemic, than it was 10 or 15 years ago. A lack of knowledge regarding the language of public health and safety could cause serious issues. If Japanese officials continue to brand safety campaigns (see Figure 3) and litter political speeches with loanwords, it could have a dangerous exclusionary effect on those with lower English levels and in older generations, the group most vulnerable to Covid-19 (CDC 2020).

Figure 3: A chef walks past a KFC restaurant in Kamakura where Colonel Sanders in a mask and samurai armour tells him to "*sutei hōmu*" (stay home) ("New virus cases" 2020).

As evidenced by the words found on Twitter, there is some degree of uptake and usage of the NLWs used by public officials in Japan and, while an optimist would say that this is evidence of people engaging with *gairaigo*, the reality is that Twitter users are a narrow

sample, not representative of the Japanese populace, and less likely to contain those in older generations.

Furthermore, while some commentators (Ishino 1983; Bordilovskaya 2012) might insist on the additional nuance that can be achieved through the use of *gairaigo*, the attitudes gleaned from the questionnaire showed mixed responses. The impressions associated with NLWs varied depending upon the item and therefore it strikes me that it is extremely important to consider when the use of a certain LW term is appropriate.

9. Limitations and suggestions for future research

The main limitation of this study was the sample sizes. Due to time and resource limitations, I was only able to recruit 121 participants for the questionnaire. To improve the validity of my findings, a greater sample size is required. Similarly, I would like to gather more qualitative data in order to draw stronger conclusions and provide more detailed insights into the relationship between Japanese society and novel loanwords. Further examination of these attitudes may reveal deeper understanding of the reason they are created and used.

While this study does go some way towards helping understand why NLWs are used (i.e. "special effect") and what impact they have, the issue of how NLWs are formed is not addressed. A recommendation for future research would be a project that scrapes tweets over a longer period to chart where NLWs come from and how their usage changes over time, I believe this would give a clearer idea of how crises and events influence the creation of NLWs.

Another limitation was the age of the sources I used for comparison. For example, Horikawa's (2012) study used data from 2006, yet it is likely that comprehension rates have changed since. For future research, I would suggest gathering a fresh set of data regarding high-frequency LWs with which to compare the NLWs.

10. Conclusion

In conclusion, crises, especially those on a global scale, can be a significant event in Japanese language change. However, this is not necessarily a change that affects the entire population equally, or fairly. This is an issue for a large proportion of the Japanese population who are less able to adapt to novel loanwords quickly. If they fully understand the effect these NLWs have on the public and recognise that they can be inaccessible to many Japanese people, I believe that public officials in Japan might begin to monitor their use of NLWs going forward.

However, this phenomenon is not unique to Japan. With the pandemic still raging over one year later, this is a time for all nations to reassess the accessibility of their own language and governments may need engage in similar forms of language planning. While language planning on this scale has proven difficult in the past (see Fishman 1983), perhaps the unprecedented nature of the times we live in may be a catalyst for change.

References

Bordilovskaya, Anna. 2012. A study of loan colour terms collocation in modern Japanese. In *Proceedings of the Annual Meeting of the Cognitive Science Society*, vol. 34, 1362–1367.

Brasor, Philip. 2020. COVID-19 spurs debate over loan words. *Japan Times*. www.japantimes.co.jp/news/2020/04/11/national/media-national/covid-19-spurs-debate-loan-words/ (20 June, 2020).

CDC. 2020. Older Adults. *Centers for Disease Control and Prevention*. www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html (25 September, 2020).

Den, Y., A. Yamada, H. Ogura, H. Koiso & T. Ogiso. 2010. *UniDic*. http://www.tokuteicorpus.jp/dist/ (15 June, 2020).

Fishman, Joshua A. 1983. Modeling rationales in corpus planning. In Juan Cobarrubias & Joshua A. Fishman (eds.), *Progress in Language Planning: International Perspectives*. Berlin: Mouton Publishers.

Haarmann, Harald. 1986. Verbal strategies in Japanese fashion magazines - a study in impersonal bilingualism and ethnosymbolism. *International Journal of the Sociology of Language* 58. 107–121.

Haarmann, Harald. 1989. *Symbolic values of foreign language use: From the Japanese case to a general sociolinguistic perspective*. Berlin: Mouton de Gruyter.

Heinrich, Patrick. 2012. *The making of monolingual Japan: Language ideology and Japanese modernity*. Bristol: Multilingual Matters.

Hogan, Jackie. 2003. The social significance of English usage in Japan. *Japanese Studies* 23(1). 43–58.

Honna, Nobuyuki. 1995. English in Japanese society: Language within language. *Journal of Multilingual and Multicultural Development* 16(1 & 2). 45–62.

Horikawa, Naoko. 2012. *English loan words in Japanese: Exploring comprehension and register*. Portland State University MA thesis. https://pdxscholar.library.pdx.edu/open_access_etds/913/ (18 August, 2020).

Irwin, Mark. 2011. *Loanwords in Japanese*. Amsterdam: John Benjamins.

Ishii, S. 1998. Nihonjin to eigo no kankei. In Y. Tsuda (ed.), *Nihonjin to eigo*. Kyoto: Kokusai-nihonbunka-kenkyūsentā.

Ishino, H., M. Maruta & T. Tsuchiya. 1988. Gairaigo wa dō ukeirareteiruka. *Hōsōkenkyū-to-Chōsa* July. 24–39.

Ishino, H. & M. Yasuhira. 1991. Kokusaikajidai no nihongo 1. *Hōsōkenkyū-to-Chōsa* August. 2–11.

Ishino, Hiroshi. 1983. *Gendai-gairaigokō*. Tokyo: Taishūkan.

Ishiwata, T. 1989. Loanwords in historical perspective. *Japan Echo* 16. 17–21.

Kajima, S. 1994. *Katakana-eigo no hanashi*. Tokyo: Nan'undō.

Kenbo, Hidetoshi, Takashi Ichikawa, Yoshifumi Hida, Makoto Yamazaki, Hiroaki Iima & Takehiro Shioda (eds.). 2013. *Sanseidō kokugo jiten 三省堂国語辞典*. 7th edn. Sanseidō.

Kudou, Taku. 2013. *Mecab*. github.com/taku910/mecab.

Liberman, Mark. 2011. Antedating tsunami. Weblog. *Language Log*. https://languagelog.ldc.upenn.edu/nll/?p=3028 (21 June, 2021).

Loveday, Leo J. 1986. Japanese sociolinguistics: An introductory survey. *Journal of Pragmatics* 10. 287–326.

Loveday, Leo J. 1996. *Language contact in Japan*. Oxford: Clarendon Press.

Matsuda, Yutaka. 1986. Cross-over languages: Japanese and English, part 2. *Kwansei Gakuin* 35(12). 47–80.

Mizutani, O. 2003. Nihongo no kokusaika to gairaigo. *Nihongogaku* 22(7). 4–8.

Mizutani, O. & S Ōno. 1995. Tairitsu-tōron: Ra-nuki to katakanago. *Yomiuri* 14–15.

Myers-Scotton, Carol. 2006. *Multiple voices: An introduction to bilingualism*. Malden, MA: Blackwell Publishers.

"New virus cases." 2020. New virus cases in Tokyo drop to 5; none reported in Osaka. *Japan Today*. japantoday.com/category/national/update1-new-virus-cases-in-tokyo-drop-to-5-none-reported-in-osaka (25 September, 2020).

NHK. 2001. *Broadcasting Culture Research Institute [Nippon Hōsō Kyōkai]*. www.nhk.or.jp/bunken (15 September, 2020).

NINJAL. 2006. Gairaigo teichakudo chousa. http://www.ninjal.ac.jp/gairaigo/Yoron/index.html (18 August, 2020).

NLRI. 1964. *Vocabulary and Chinese characters in ninety magazines of today*. Tokyo: Shūeishuppan.

Ogaeri, Y. 1960. Kango ni kawaru katakanago. *Gengoseikatsu* 103. 26–32.

Ōnishi, K. & M. Kajiki. 1995. Katakana-gairaigo 'raifurain' wa wakarimasuka. *Hōsōkenkyū- to-Chōsa* September. 14–25.

Ōno, S., T. Morimoto & T. Suzuki. 2001. *Nihon, nihongo, nihonjin*. Tokyo: Shinchōsha.

Osaki, Tomohiro. 2013. Gifu man, 71, sues NHK for distress over its excess use of foreign words. *Japan Times*. www.japantimes.co.jp/news/2013/06/27/national/crime-legal/gifu-man-71-sues-nhk-for-distress-over-its-excess-use-of-foreign-words/ (30 August, 2021).

Otake, Tomoko. 2007. Japanese: A language in a state of flux: "Torrential" import of foreign words threatens the basis of communication. *Japan Times*. https://www.japantimes.co.jp/life/2007/09/23/general/japanese-a-language-in-a-state-of-flux/ (18 August, 2020).

Rebuck, Mark. 2002. The function of English loanwords in Japanese. *NUCB Journal of Language Culture and Communication* 4(1). 53–64.

Reizei, Akihiko. 2020. Kiki-kan no hasshin ga katakana ni naru nihongo no fushigi. *News Week Japan*. https://www.newsweekjapan.jp/reizei/2020/03/post-1155.php (13 August, 2020).

Shibata, T. 1993. Gairaigo wa nihongo o midasuka. In Kawadeshobō (ed.), *Kotobadokuhon gairaigo*, 7–15. Tokyo: Kawadeshobō-shinsha.

Stanlaw, James. 1987. Japanese and English: Borrowing and contact. *World Englishes* 6(2). 93–109.

Stanlaw, James. 2004. *Japanese English: Language and Culture Contact*. Hong Kong: Hong Kong University Press.

Takashi, Kyoko. 1991. A sociolinguistic analysis of English borrowings in Japanese advertising texts. *World Englishes* 9(3). 327–341.

Takashi, Kyoko. 1992. Language and desired identity in contemporary Japan. *Journal of Asia Pacific Communication* 3(1). 133–144.

"Tokyo governor urges." 2020. Tokyo governor urges people to stay indoors over weekend as virus cases spike. *Japan Times*. https://www.japantimes.co.jp/news/2020/03/25/national/science-health/tokyo-logs-40-coronavirus-cases/ (30 August, 2021).

Tomari, J. 1985. Hanran suru katakanago. *Gengo* 14(9). 29–33.

Tomoda, Takako. 1999. The impact of loanwords on modern Japanese. *Japan Forum* 11(2). 231–253.

Tomoda, Takako. 2005. *The loanword (Gairaigo) influx into the Japanese language: Contemporary perceptions and responses*. University of New South Wales PhD dissertation.

Umesao, T., H. Kindaichi & S. Hinohara. 1989. Japanese as a vehicle for science. *Japan Echo* 16. 43–45.

Yahagi, Kunihiko. 2013. 「外国語使いすぎ」で NHK 提訴－カタカナ語について考える [NHK sued for "overuse of foreign languages" - thinking about Katakana Kunihiko Yahagi]. *Yahoo! JAPAN*. https://news.yahoo.co.jp/byline/yahagikunihiko/20130627-00026016?fbclid=IwAR1ao78_cVt8pB9zpOOJKEFCOIFDiUdT9nC6vxuetk0LQdW1WtUV1b7LfRw (30 August, 2021).

Yamashita, Ryuichi. 2020. 河野氏「なんでカタカナ？」「クラスター」連発に苦言 [Kono's complaint "cluster" "Why Katakana?"]. *Asahi Shimbun*. https://www.asahi.com/articles/ASN3T660VN3TUTFK00N.html (30 August, 2021).

Yamashita, Y. & M. Katō. 2000. Korekarano nihongo ni eikyō o ataerumono wa? *Hōsōkenkyū-to-Chōsa* Sept. 48–67.

Yazaki, G. 1964. *Nihon no gairaigo*. Tokyo: Iwanamishoten.

Yoshimi, Mitsuo. 2018. 多すぎる英語のカタカナ表記 [Too much English katakana]. *Mainichi Shimbun*. https://mainichi.jp/articles/20180307/ddm/005/070/007000c (30 August, 2021).