Abstract  A focus on new Japanese words that came about after the 2011 Tōhoku earthquake and tsunami, and the subsequent Fukushima Daiichi nuclear disaster is here provided. The first half concentrates on onomatopoeia that resulted from the 2011 Tōhoku earthquake, whose data will be compared to those from the 1995 Great Hanshin earthquake: the kind of onomatopoeia produced reflects the unique characteristics of each earthquake. The second half deals with new words that were produced as a result of the Fukushima Daiichi nuclear disaster, and tracks the process of these words becoming fixed in the Japanese language. In conclusion, it is possible to predict that Japanese dictionaries will have to either add the new words or change the existing definitions of words as a result of the disaster.

Summary 1. Onomatopoeia that Resulted from the Earthquake. – 2. Words that Resulted from the Nuclear Disaster. – 2.1. 除染 (josen, decontamination). – 2.2. 废炉 (hairo, decommissioned nuclear plant). – 2.3. 禄心溶融 (roshinyōyū, meltdown) and メルトダウン (merutodaun, meltdown).

The Japanese language has an abundance of vocabulary terms with new words constantly being created, in addition to a plethora of foreign loanwords. For people studying Japanese, however, this creates an obstacle to acquiring the language. As a result of the 2011 nuclear disaster, even more new words have entered the Japanese language. This includes many unpleasant words that would not have been known had there not been an accident. Therefore, one could say that the disaster has brought about a terrible tragedy in the Japanese language, as well.

The focus of this paper is on new Japanese words that came about at the time of the 2011 Tōhoku earthquake and tsunami, and the subsequent Fukushima Daiichi nuclear disaster. The first half of the paper will concentrate on onomatopoeia that resulted from the Tōhoku earthquake. In this section, data from the 1995 Great Hanshin earthquake and 2011 Tōhoku earthquake are compared. The second half of the paper will deal with new words that were produced as a result of the Fukushima Daiichi nuclear disaster. It will also track the process of these words becoming fixed in the Japanese language over time through examining how they are treated in some of Japan’s most widely circulated newspapers.
1 Onomatopoeia that Resulted from the Earthquake

In this first section, I will use a survey from the time of the 1995 Great Hanshin earthquake, along with data that I collected from newspapers after the Tōhoku earthquake. I will then compare data on earthquake-related onomatopoeia. The following newspapers were used to collect the data:

- *The Asahi Shinbun*, 12 March 2011-30 June 2011 (shortened to *Asahi*);
- *Asahi DNA* (Digital News Archive), 12 March 2011-30 June 2011 (*Asahi*);
- *Yomiuri Shinbun*, 12 March 2011-30 June 2011 (*Yomiuri*);

To begin, here are onomatopoeic words that were used to express the sound of the earthquake occurring. Examples of sounds recorded during the Hanshin earthquake were:

- ゴーッ (*go—*);
- ドドド (*dododo*);
- ドドン (*dodon*);
- ドスン (*dosun*);
- ドドドドドッ (*dodododo*).

In the Tōhoku data, there were no examples of *zuzuzu* or *dosun*, rather there were many onomatopoeic words with the sound ‘*go*’.

[1] 「ゴー」という地鳴りが聞こえた。
«*Go—*» to iu jinari ga kikoeta.
I heard the ground rumble.
(*Mainichi*, 13 April, p. 39, Fukushima)

[2] 「ゴー」という咆哮するような音が、全ての音を掻き消している。
«*Go—*» to iu hōkō suru yō na oto ga, subete no oto o kakikeshite iru.
A loud noise, like a roar, drowned out all other sounds.

In the Hanshin data, the ‘*go*’ sound was also used to express the sound of the tremors, however the expression ‘roar’ (*hōkō suru*) was not used. The word ‘roar’ suggests something fierce and animalistic, and also expresses a sense of fear, as well as the enormity of the situation.

[3] ゴゴゴゴゴゴ…。聞いたこともないような重低音。
Gogogogogo... Kiita koto mo nai yō na jūteion.
It was a low-frequency sound like I had never heard before.  
(*Mainichi*, 15 April, p. 39)

As shown in the three examples above, there are many expressions that use the ‘go’ sound repeatedly, some that use the sound up to 6 times: *gogogogogo* (*Asahi*, evening, 24 March) and *gogogogogogo*— (*Asahi*, evening, 24 March). The *Nihongo onomatope jiten* (Shōgakukan, 2007) is currently the largest onomatopoeia dictionary with approximately 4500 entries, but as of yet, there is not an entry that uses the ‘go’ sound repeatedly.

Next, I will examine onomatopoeic words that express a shaking motion. In the Hanshin data, the following words were used:

- グラッ (*gura*);
- グラグラ (*guragura*);
- ガタガタ (*gatagata*);
- ミシミシ (*mishimishi*);
- ワシャワシャ (*washawasha*);
- ユッサユッサ (*yussayussa*).

In the Tōhoku data these three words plus example sentences example 4-6 were recorded:

- ガガガ (*gagaga*);
- ガタガタ (*gatagata*);
- ドドドッ (*dododo*).

[4] 「ぎいー、ぎいー」と家がきしむ音が続いて、
*Gii—, gii—* to ie ga kishimu oto ga tsuzuite,
The house continued to make creaking sounds,  
(*Asahigu*, p. 24)

[5] ギシギシと音を立てて揺れる家の中で、
*Gishigishi to oto o tatete yureru ie no naka de*,
[I was] inside the house, which made a noise as it swayed,  
(*Yomiuri*, 24 April, p. 36)

[6] ぐらーん、ぐらーん。立っていられないほど大きな横揺れに、
*Gurān, gurān. Tatte irarenai hodo ōkina yokoyure ni*,
Then the shaking grew so intense, you couldn’t keep standing,  
(*Asahi*, 23 March, p. 12)

The Hanshin earthquake produced many onomatopoeic words with the sound ‘gura’ or ‘guragura’, but there was no example of ‘gurāngurān’. The sound suggests a big, slow swaying motion, which reveals one of the characteristics of the Tōhoku earthquake itself. Many people reported that the tremors lasted a long time; some even said the ground shook for over two minutes.
There was no tsunami damage after the Hanshin earthquake; therefore, no tsunami-related onomatopoeic words were produced. In the case of the Tōhoku earthquake, however, the resulting tsunami caused major damage, leading to the creation of many onomatopoeic words that described the sound and force of the waves.

[7] ウネウネと波が押し寄せてきた。
Uneune to nami ga oshiyosete kita.
The waves surged up in a winding fashion.  
(Asahi, 22 April, p. 36)

[8] バリバリと大きな音をあげて真っ黒な津波が迫ってきた。
Baribari to ökina oto o agete makkuro na tsunami ga sematte kita.
The jet-black tsunami approached with a loud crushing noise.  
(Mainichi, evening, 14 March, p. 9)

[9] 「ブォー」と膨れ上がって押し寄せ、
«Buō» to hareagatte oshiyose,  
It swelled up and surged forward,  
(Asahi, evening, 29 March, p. 10)

In addition to these words are onomatopoeia such as mokomoko (モコモコ), zabunzabun (ザブンザブン), and sā (サーッ), which have no precedents in the Hanshin data, meaning they are unique to the Tōhoku earthquake and tsunami. ‘Baribari’ in example 8 is a word used to express the sound of something breaking or the state of working hard, but here, it is used to describe the sound of the waves. The expression keenly captures the intensity of an enormous, harmful force quickly approaching.

So far, we have examined onomatopoeic words from the 2011 Tōhoku earthquake and tsunami and compared them with ones from the 1995 Hanshin earthquake. In terms of both amount and variation, there is more to be found in the Hanshin data. In the Tōhoku data, we saw that the onomatopoeic ‘go’ sound was used in various ways, but in the Hanshin data, sounds like ‘do’ and ‘zu’ were more common. The Hanshin data also showed an overall greater variety of sounds. Comparing onomatopoeia use after the two disasters, we find that the Hanshin disaster produced more kinds of words, but the Tōhoku disaster produced words that were more powerful sounding, though variation was limited. This concludes the section on onomatopoeia use after the two massive earthquakes.


2 Words that Resulted from the Nuclear Disaster

In the following section, I will examine how neologisms were born as a result of the nuclear disaster, and how they became fixed in the Japanese language. After the Fukushima Daiichi nuclear accident on 11 March, the media was overflowing with words that had never been seen nor heard before. Moreover, none of these new words appeared in normal Japanese dictionaries. For example,

- 除染 (josen, decontamination);
- 炉心溶融 (roshinyōyū, meltdown);
- 輪番停電 (rinbanteiden, rolling blackout);
- 廃炉 (hairo, decommissioning);
- 被曝線量 (hibakusenryō, radiation exposure);
- 汚染水 (osensui, contaminated water);
- 水管 (suikan, water tomb);
- 卒原発 (sotsugenpatsu, ‘graduating’ from nuclear power);
- メルトダウン (merutodaun, meltdown);
- シルトフェンス (shirutofensu, silt fence);
- ベント (bento, vent);
- トレンチ (torenchi, trench);
- ホットスポット (hottosupotto, radiation hot spot).

In this section, I would like to take four of these new words and examine whether or not they were previously recorded in dictionaries, and see how the words have become fixed in the Japanese language over time.

2.1 除染 (josen, decontamination)

First, let us examine the recorded history of the word.

Table 1

<table>
<thead>
<tr>
<th>Dictionary</th>
<th>SGK(^1)</th>
<th>SSK(^2)</th>
<th>DJR(^3)</th>
<th>KJE(^4)</th>
<th>NKD(^5)</th>
<th>GYK(^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year pub.</td>
<td>2011/2</td>
<td>2011/1</td>
<td>2006</td>
<td>2008</td>
<td>2001</td>
<td>2011</td>
</tr>
<tr>
<td>Recorded?</td>
<td>×</td>
<td>×</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
</tr>
</tbody>
</table>

1. SGK = Sanseidō gendai shinkokugo jiten; 2. SSK = Shinsen kokugo jiten; 3. DJR = Daijirin; 4. KJE = Kōjien; 5. NKD = Nihon kokugo daijiten; 6. GYK = Gendaiyōgo no kisochishiki

○ = recorded, × = unrecorded

From Table 1, we see that the word was recorded in medium-size and larger dictionaries, so now let us look at previous editions to see when it was first recorded. In the first edition of Daijirin (1988), editions prior to the 5th edition of Kōjien (1998), and the 1st edition of Nikkoku (1972), the word was not recorded. Additionally, it was not recorded in the Dai-
Collected data samples of this word are as follows:

[1] 福島県が被曝したと発表した3人は[・・・・]病院の患者や職員とみられる。
    [・・・・]3人とも除染しなくてはいけないという。
    Fukushima-ken ga hibaku shita to happyō shita sannin wa [...] byōin no kanja ya shokuin to mirareru. [...] san-nin tomo josen shinakute wa ikenai to iu.
    The three people Fukushima prefecture reported as being exposed to radiation were [...] either patients or workers at a hospital. [...] all three must undergo decontamination. (Asahi, 13 March, p. 1)

[2] 放射性物質を体表面から除去する「除染」が必要と診断され
    Hōshasei-busshitsu o karada hyōmen kara jokyo suru «josen» ga hitsuyō to shindan sare
    «Decontamination», the act of removing radioactive substances from the surface of the body, has been deemed necessary (Yomiuri, 13 March, p. 1, emphasis added)

Both of these examples were taken from the front page of 13 March newspapers. In example 2, quotation marks are used, and the meaning of josen is explained, as seen in the underlined section. In example 1, quotation marks are not used, nor is the word given a definition. Generally, neologisms that are unfamiliar to readers are treated as in example 2, but in example 1, the journalist or editor probably did not have the time to include it.

As seen in the following example 3, when a new word is used multiple times in the same sentence, it is common practice to use quotation marks at the first mention then remove them from the second time onwards.

[3] 測定の結果、放射能を洗い流す「除染」作業が必要とされた住民は、圏内の2, 3箇所に集約して除染を行う。
    Sokutei no kekka, hōshanō o arainagasu ‘josen’ sayō ga hitsuyō to saretta jūmin wa, kennai no 2, 3 kasho ni shūyaku shite josen o okonau.
    According to the measurement, those citizens who require ‘decontamination’ to wash off radiation will be gathered in two or three places within the area and decontamination will be performed. (Yomiuri, 14 March, p. 20)

Words that are deemed unfamiliar to readers are given quotation marks or supplemented with explanations. Once the word is widely understood,
these additions are phased out. Also, as usage increases, the word starts
to be used in compound words, enabling us to view the word’s growing
independence from its status as a coined word.

For example, let us look at the compound word 除染作業 (josensagyō, decontamination operations). At first, this compound word was given quo-
tation marks, but over time they were removed. In March and April of
2011, there was a mixture of josensagyō 除染作業 (Asahi, 17 March, p. 1)
and «josen» sagyō 『除染』作業 (Yomiuri, 13 March, p. 1). By the middle of
April, such quotation usage disappeared, and the word was used by itself.
In addition, compound words like the following started to appear:

- 除染費用 (josenhiyō, cost of decontamination) (Asahi, 23 April, p. 1)
- 除染装置 (josensochi, decontaminant) (Yomiuri, 16 June, p. 1)
- 除染実験 (josenjikken, decontamination experiment) (Asahi, 20 June, p. 13)
- 土壌除染 (dojōjosen, soil decontamination) (Yomiuri, 28 June, p. 4)

Thus, we can say that as recognition increases, quotation marks cease to
be used. There are no examples of quotation marks used in the Yomiuri
Shinbun from 28 April onwards, or in The Asahi Shinbun from 13 May
onwards. However, as shown in example 2, the newspapers continued to
add explanations to new words, though quotations were not used. The
following sentence is another example of this method:

[4] 水で洗い流す除染作業が
Mizu de arainagasu josensagyō ga
Decontamination operations, the act of washing radiation off with
water
(Yomiuri, 1 June, p. 12, emphasis added)

As the word takes root in the language, this method becomes unnecessary,
as seen in the following example:

[5] 土壌の除染をどうする方針なのか。
Dojō no josen o dō suru hōshin na no ka.
What course of action should be taken in the decontamination of soil?
(Asahi, 21 June, p. 36)

In example 5, neither quotations nor an explanation is added. ‘Josen’ ceas-
tes to be used as a special word and is used normally from 2 June onwards
in Yomiuri articles, and 13 May onwards in Asahi articles. At first, ‘josen’
was used to mean, ‘washing off radioactive substances on the body’, but
gradually also came to indicate the act of ‘removing contamination from
the environment’, such as soil.
2.2 魔炉 (hairo, decommissioned nuclear plant)

First, let us examine the recorded history of hairo in Japanese dictionaries.

Table 2

<table>
<thead>
<tr>
<th>Dictionary</th>
<th>Year pub.</th>
<th>Recorded?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGK¹</td>
<td>2011/2</td>
<td>×</td>
</tr>
<tr>
<td>SSK²</td>
<td>2011/1</td>
<td>×</td>
</tr>
<tr>
<td>DJR³</td>
<td>2006</td>
<td>×</td>
</tr>
<tr>
<td>KJE⁴</td>
<td>2008</td>
<td>×</td>
</tr>
<tr>
<td>NKD⁵</td>
<td>2001</td>
<td>×</td>
</tr>
<tr>
<td>GYK⁶</td>
<td>2011</td>
<td>○</td>
</tr>
</tbody>
</table>


○ = recorded, × = unrecorded editions

As seen in Table 2, the word is only recorded in the 3rd editions of the Daijirin and Gendaiyōgo dictionaries. The word is also recorded in the 2nd edition of Daijirin, but not in the first. If we track the history of the word in previous editions of Gendaiyōgo dictionaries, we can observe several changes along the way. The first appearance of this word in a Gendaiyōgo dictionary was in the 1980 edition. It was entered as hairo.

廃炉 (hairo, decommissioned nuclear plant): a nuclear reactor that has reached the end of its lifespan. Its contents contain radioactive materials, thus it cannot be disposed of as is.

From 1986, the entry name for this word changed to genshirohaishisochi (原子炉廃止措置). The reason this was done was in an attempt to change the negative image of the word. In 1998, it became hairo/genshirohaishisochi, and in 2000 it was changed slightly to hairo (genshirohaishisochi). It changed once again in 2003, becoming genshirokaitai (原子炉解体). In 2011, it became genshirokaitai (hairo), with hairo coming back. Throughout this period, the definition of the word and its English translation never changed; only the word itself kept changing over and over.

In short, the history of this word is one of having its phrasing altered in order to avoid the term ‘hairo’. The relative importance given to certain words in the dictionary mirrors the present state of that society. Thus, through tracking the history of words, we can grasp how Japanese society felt about the policies or interests concerning nuclear reactors, depending on the time period.

Next, I would like to look at the usage of ‘hairo’ from 11 March onwards.

[6] 2, 3 号機を廃炉にする覚悟で早急に思い切った対応をするべきだった。
2, 3 gōki o hairo ni suru kakugo de sōkyū ni omoikatta taiō o suru beki datta.
They should have been prepared to take immediate, drastic action and decommission reactors 2 and 3.
(Yomiuri, 15 March, p. 7)
As seen in the two examples above, neither an explanation nor quotations are given from the beginning. Though it is not recorded in the dictionary, it is easy to infer what the word means, since we see the character for *hai* (廃) often in daily life, as in *haisha* (廃車 scrapped car), *haihin* (廃品 rubbish), *haikibutsu* (廃棄物 waste), *haian* (廃案 scrapped plan), *haigyō* (廃業 cease business), or *haishi* (廃止 abolish).

However, the meaning of the word that is being used in examples 6 and 7 is different from the meaning listed in the dictionary. In the 3rd edition of *Daijirin*, the word’s meaning is provided as «a nuclear reactor that has reached the end of its lifespan». It describes a reactor that has completed its function. Yet, in these examples, the word is used to describe the act of scrapping a nuclear reactor before its lifespan has been reached: «The possibility of decommissioning [the reactor] is high» (*Yomiuri*, 29 March, p. 1), «[They] decided to decommission [the reactor]» (*Yomiuri*, 13 March, p. 3), «[They] will proceed with decommissioning [the reactor]» (*Asahi*, 14 April, p. 5). In the future, it is likely that they will have to change the dictionary entry to include this new usage.

### 2.3 炉心溶融 (*roshinyōyū*, meltdown) and メルトダウン (*merutodaun*, meltdown)

These two words have been recorded as follows:

<table>
<thead>
<tr>
<th>Dict.</th>
<th>SGK(^1)</th>
<th>SSK(^2)</th>
<th>DJR(^3)</th>
<th>KJE(^4)</th>
<th>NKD(^5)</th>
<th>GYK(^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year pub.</td>
<td>2011/2</td>
<td>2011/1</td>
<td>2006</td>
<td>2008</td>
<td>2001</td>
<td>2011</td>
</tr>
<tr>
<td><em>roshinyōyū</em></td>
<td>×</td>
<td>×</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td><em>merutodaun</em></td>
<td>○</td>
<td>×</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

1. SGK = *Sanseidō gendai shinkokugo jiten*; 2. SSK = *Shinsen kokugo jiten*; 3. DJR = *Daijirin*; 4. KJE = *Kōjien*; 5. NKD = *Nihon kokugo daijiten*; 6. GYK = *Gendaiyōgo no kisochishiki*

○ = recorded, × = unrecorded

As Table 3 shows, ‘*roshinyōyū*’ is listed in mid-size and larger dictionaries, but not small ones. Next, we will look at the examples of ‘*roshinyōyū*’ I collected.
冷却水が失われて最悪の場合炉心溶融につながる。
Reikyakusui ga ushinawarete saiaku roshinyōyū ni tsunagaru.
If coolant water runs out, in the worst-case scenario it could lead to a meltdown.
(Asahi, evening, 12 March, p. 12)

炉心溶融（メルトダウン）まで発展する可能性は高くない。
Roshinyōyū (merutodaun) made hatten suru kanōsei wa takakunai.
There is a low probability it will progress to the point of meltdown.
(Yomiuri, 12 March, p. 3)

In example 8, no explanation is given for ‘roshinyōyū’. In example example 9, ‘merutodaun’, a loanword from English, is used as a synonym and put in parentheses, but the meaning is not explained. Like with ‘josen’, there are sentences where quotations are used or the concept is defined.

原子炉内の核燃料が溶け出す「炉心溶融」も起きた可能性が指摘されている。
Genshironai no kakunenryō ga tokedasu ‘roshinyōyū’ mo okita kanōsei ga shiteki sarete iru.
It has been indicated that there is a possibility ‘meltdown’, in which nuclear fuel inside the reactor melts, has occurred.
(Yomiuri, 13 March, p. 3, emphasis added)

原子炉内の燃料集合体の一部が融熱で溶ける炉心溶融が進み過酷事故に発展する恐れがある。
Genshironai no nenryō shūgōtai no ichibu ga yūnetsu de tokeru roshinyōyū ga susumi kakokujiko ni hatten suru osore ga aru.
There is a potential that meltdown, where a part of the nuclear fuel assembly inside the reactor melts due to fusion heat, has occurred and it may advance to the level of severe accident.
(Yomiuri, 13 March, p. 1, emphasis added)

In example 10, the underlined modifier is explaining ‘roshinyōyū’, which is in quotations. In sentence example 11, the underlined modifier comes before the noun, which is not given quotation marks, and explains the concept of ‘roshinyōyū’. These methods occasionally appear in the newspaper, but once the word is judged to be widely understood without the need for synonyms or definitions, quotation marks and added explanations disappear, as in the following sentence 12.

実施されたのは炉心溶融が起きた後だった。
Jisshi sareta no wa roshinyōyū ga okita ato datta.
[It] was enforced after meltdown had occurred.
(Yomiuri, 17 May, p. 3)
The following three example sentences will examine the use of ‘meruto
todaun’.

[13] メルトダウンという最悪事態に比べれば被害はずっと小さい。
Merutodaun to iu saiaku jitai ni kurabereba higai wa zutto chiisai.
Compared to meltdown, the worst possible scenario, the damage
is much smaller.
(Asahi, evening, 12 March, p. 5)

[14] 磯崎氏は「メルトダウン（炉心溶融）の可能性があるから早く蒸気を出さ
なければいけないという緊迫した状況で[・・・・・・]」と指摘した。
Isozaki-shi wa «merutodaun (roshinyōyū) no kanōsei ga aru kara
hayaku jōki o dasanakereba ikenai to iu kinpaku shita jōkyō de [...]»
to shiteki shita.
Isozaki indicated: «There was a possibility of meltdown, so we had
to release steam quickly under such a tense situation...».
(Asahi, 30 March, p. 4)

[15] 保安院も燃料が溶けて圧力容器の底にたまる「メルトダウン」が
1号機で起こきた可能性が否定できないとしています。
Hoanin mo nenryō ga tokete atsuryoku yōki no soko ni tamaru ‘mer-
utodaun’ ga 1 gōki de okita kanōsei ga hitei dekinai to shite imasu.
The Nuclear Agency has also said they cannot deny the possibility
that ‘meltdown’, when fuel melts and collects at the bottom of the
pressure container; has occurred in reactor 1.
(Asahi, 12 May, p. 1, emphasis added)

Example 13 uses the word with no explanation given, while example 14
adds the Sino-Japanese word ‘roshinyōyū’ in parentheses. Example 15
puts the word in quotations and explains the meaning, showing that the
word is still unfamiliar. Below, I have calculated the appearance rates of
‘roshinyōyū’ and ‘merutodaun’, and put the numbers into a graph.

Table 4. Appearances of roshinyōyū and merutodaun, separated by newspaper

<table>
<thead>
<tr>
<th></th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asahi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>roshinyōyū</td>
<td>39</td>
<td>16</td>
<td>33</td>
<td>11</td>
<td>99</td>
</tr>
<tr>
<td>merutodaun</td>
<td>4</td>
<td>5</td>
<td>59</td>
<td>12</td>
<td>80</td>
</tr>
<tr>
<td>Yomiuri</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>roshinyōyū</td>
<td>37</td>
<td>3</td>
<td>45</td>
<td>14</td>
<td>99</td>
</tr>
<tr>
<td>merutodaun</td>
<td>1</td>
<td>2</td>
<td>27</td>
<td>7</td>
<td>37</td>
</tr>
</tbody>
</table>

As a whole, we can say Asahi uses ‘merutodaun’ more frequently, over
twice as much as Yomiuri. In total numbers, ‘roshinyōyū’ has more appear-
ances, but in the May and June totals for Asahi, ‘merutodaun’ is more frequent. Yomiuri uses ‘roshinyōyū’ more frequently every month. If we look at how these words are used, we can see that ‘merutodaun’ is often used in dialogue, as in example sentences 13 and 14. There are also examples of the word being used as a metaphor.

[16] G7はG20を経てGゼロへとメルトダウンしていくのが
After the G20, the G7 is facing a meltdown towards becoming the Go
(Yomiuri, 28 April, p. 29)

In total, five example sentences were gathered in which ‘merutodaun’ was used as a metaphor for an organisation weakening and dissolving, such as, «the government’s meltdown was paraded in front of us» (seiji no merutodaun o misetsukerareta) (Asahi, 3 June, p. 38). There were no examples of ‘roshinyōyū’ being used metaphorically.

The fact that ‘merutodaun’ is used in conversation and also as a metaphor is proof that recognition of the word has increased, and is now easier to use in daily speech. From this trend, we can predict that the usage of this loanword will soon exceed that of the Sino-Japanese word ‘roshinyōyū’.

Generally, loanwords are associated with images like ‘bright’ (akarui), ‘trendy’ (oshare), ‘light’/‘unserious’ (karui), and ‘fresh’ (shinsen). ‘Roshinyōyū’, however, is a Sino-Japanese word that is difficult to understand if heard. Looking at the characters, we see that they expose the horrible reality of the situation (that is, the central part [心 shin] of the reactor [炉 ro] melts [溶融 yōyū]). It is natural to want to turn away from this harsh reality. Perhaps as a result, the loanword ‘merutodaun’ came to be used more often in conversation or as a metaphor. Once this happens, however, awareness of the reality of the situation decreases, and the truth of what is really happening is obscured – in other words, we fall victim to the negative aspect of using loanwords.

In this section, I have examined the fixation process of words that were not recorded in most Japanese dictionaries, but came into use after the Fukushima Daiichi incident. I predict that these words will likely be recorded in future editions of the dictionaries, and their definitions will also probably be revised.
Bibliography