Diachronic Corpora as a Tool for Tracing Etymological Information of Indonesian-Malay Lexicon

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ABSTRACT

Indonesian lexicon comprises numerous loanwords which some of them already exist since the 7th century. The large number of loanwords is the reason why many dictionaries of Indonesian etymology available today contain merely the origin of the words. Meanwhile, there are several aspects in a word etymology that can be studied and presented in a
dictionary, such as the change in a word form and in its meaning. This article seeks to demonstrate the use of corpora in identifying the etymological information of Malay words from diachronic corpora and to figure out the semantic change of the Malay words undergo from time to time until they turn out to be Indonesian lexicon. More specifically, two selected Malay words were examined: bersiram and peraduan. By exploring data resources from the corpus of Malay Concordance Project and Leipzig Corpora, this study attempts to collect etymological information of Indonesian lexicon originated from Malay by employing a corpus based research. The findings show that the examined words have changed in meaning through generalization and metaphor. However, unlike the word bersiram, the change that the word peraduan happened only occurs in semantic level. This information, ultimately, can be used as informative data for a more comprehensive Indonesian etymology dictionary. Drawing on corpus analysis, this paper addresses the importance use of diachronic corpora in tracing words origin.

**Keywords**: diachronic corpora, etymology, corpus analysis, semantic change, Malay-Indonesian

**INTRODUCTION**

For most language users, etymological information is perceived just evidence of which a word originated from, especially when a language absorbs many loanwords; Indonesian take as an example (Russel et al., 2007; Tadmor, 2009). Kridalaksana (2001) pointed out that the content of Indonesian etymology dictionaries which have been compiled and available today is merely an inventory of words origin which needs to be continued with research and interpretation from various aspects. This is in line with the opinion of Durkin (2009) and
Liberman (2009) who stated that the study of etymology is related to the history of a word, the history of meaning, formal history, or the history of its spread from one language to another, or from one group to another. In accordance with that, it is important to point out that at least there are six etymological information that can be applied to trace a word: (1) the year of usage, (2) the initial form (morphology) and the initial sound (phonology), (3) the language of the donor (for loan word), (4) the person who coined the word for the first time, (5) the initial meaning, and (6) the change of meaning. Therefore, an etymological dictionary should not only contain information of the word's origin but also be given more clear-cut description of a word.

Other things from Indonesian etymology dictionaries that are available until today is the scarcity of etymology information of words originated from Malay. Malay is the root of Indonesian (Teeuw, 1967; Andaya, 2001; Hoogervorst, 2015). In the early centuries, the language spoken in some part of the Indonesian archipelago and the Malay Peninsula might be the same. Over time, there are many things and events, socially and politically that affects the regions and causes the language to change and to be different. Information of changes that occur in Malay words--that now become the vocabulary of Indonesia, phonologically, morphologically, semantically, or syntactically-- are parts of the etymology information (Mohamed & Yusoff, 2014).

A number of studies have previously been done concerning the etymology and semantic change of words in various languages, to mention some are Wijaya & Yeniterzi, 2011; Yurrivna, 2014; Jatowt &
Duh, 2014; Hasan, 2015; and Altakhaineh, 2018. However, to date, there is not ample works that pay their attention to scrutinize how the etymological information can be approached using corpora, especially in the relation of Malay and Indonesian language.

Wijaya & Yeniterzi (2011) identified semantic change of words over centuries using computational linguistics method. They used Topics-Over-Time (TOT) and k-means clustering on Google Books N-gram dataset. Through their methods, they show how clustering words that co-occur with an entity of interest in 5-grams can shed some lights to the nature of change that occurs to the entity and identify the period for which the change occurs. Yurrivna (2014) only classified changes in meaning that occur in English medical terms. Classification of changes in meaning in question is specialization, generalization, pejoration or amelioration, also metaphor and metonymy.

Jatowt & Duh (2014) explored digitized historical texts, which were also carried out in our study. The difference is, Jatowt & Duh uses the NLP (Natural Language Processing) method while we used the corpus-based method. Another study was conducted by Hasan (2015) which dealt with semantic change of borrowing words, especially Arabic words in Bengali. This kind of research in Indonesian is plenty. In fact, most of etymological research in Indonesian is about borrowing words.

Altakhaineh (2018) examined the semantic change of positive vs. negative adjectives in Modern English. He compared the meaning of those adjectives in dictionary than look up their frequency of use in the corpus. He wanted to see whether the adjective had been negative or
positive from the beginning or whether the adjective turns negative or positive because there are things that cause it. The research object of the those researchs are English vocabulary.

Until now there has been no theory that specifically addresses the search for etymological information through diachronic corpora. Existing theories still separate theory of etymology and theories about corpus linguistics. Of the two theories, the theory referred to in this study is the theory of Collins (2003) and the theory of collocation via concordance from McEnery & Hardie (2012). The search for etymological information through diachronic corpus is nothing new for Indo-European languages, especially English. However, for the Indonesian language, especially those from Malay, no one has ever discussed this matter. Our current research deals with original words, i.e. the Indonesian words that are rooted from Malay, not from any foreign loan words. Most importantly, none of the previous studies used a corpus-based method, in particular comparing data through diachronic corpora.

This paper offers a tool that can be used to trace etymological information, especially to trace changes in their meaning. The tool that can provide a large collection of text from past centuries to be examined is diachronic corpora (de Melo, 2014). According to Allan & Robinson (2012), the use of corpus is the state of the art in the study of historical semantics, which is part of etymology study. Malay is fortunate to have Malay Concordance Project (MCP) developed by Australian National University (Proudfoot, 1991; Gallop, 2013). It consists of old classical
Malay manuscripts from 14\textsuperscript{th} to 20\textsuperscript{th} centuries that can be used to examine the usage of a Malay word during that time (Johary & Rahim, 2014). This present study, therefore, seeks to explore any etymological information of Malay words that become part of Indonesian lexicon which are still used until today by employing the MCP compared with a more recent potential corpus from the 21\textsuperscript{st} century.

There are thousands of Malay-Indonesian original vocabularies. It would take a very long time to be able to analyze the entire original vocabulary. For this reason, as a preliminary study, the current research was conducted using data samples. Two samples were chosen to be presented in this paper; they are 	extit{bersiram} and 	extit{peraduan}. The sample selection process is explained in the research method section.

Thus, the aims of the current study have three folds: (1) to identify the etymological information of Malay words 	extit{bersiram} and 	extit{peraduan} from diachronic corpora, (2) to investigate what kind of changes those Malay words undergo from time to time until they turn out to be Indonesian lexicon, and at the end (3) to demonstrate the use of diachronic corpora as a tool in examining etymological Malay-Indonesia lexicon.

**RESEARCH METHOD**

This research is a corpus-based research. To prove that etymological information can be collected from diachronic corpora, this study employed two corpora that were set in chronological order. We started with the methodological issue by selecting the proper corpora.
collection available online. We found two major salient collections regarding Malay and Indonesian corpus. The first corpus is MCP, which comprises 5.8 million words (including 140,000 verses) from more than 165 sources of pre-modern Malay written text. The oldest script is from the year 1302 and the most up-to-date is from 1950 (Gallop, 2013; Bakar, 2020). However, the dates of some old scripts are somewhat hypothetical. The second corpus as a source for identifying the etymological information of this study is taken from the Indonesian corpus from Leipzig Corpora. This corpus is based on online material from 2012 to 2014 that consists of 74,329,815 sentences, 7,964,109 types, and 1,206,281,985 tokens (Richter et al., 2006; Biemann et al., 2007). The two corpora are available online and they demonstrate the context uses of Malay lexicon from the 14th to 21st century.

The search results of the words investigated from the two corpora then were analyzed qualitatively. The changes that each word undergoes were examined from the concordance lines and the word’s collocations. Collocation analysis usually involved statistical measurement. Yet, McEnery & Hardie (2012) proposed a non-statistical method called collocation-via-concordance technique. In this technique, researchers must use their intuitive to check the concordance lines that yield up notable examples and patterns, and then examine each line individually. Therefore, with certain considerations, we undertook this technique for the recent study.

Regarding the data, we selected two samples from a number of Malay-Indonesian words to be further investigated as a model study in
this paper, i.e. bersiram and peraduan. Those words are taken from the list of honored words in Kamus Besar Bahasa Indonesia (KBBI). Honored words mean words that are used in formal situation and only for selected and respected people. There are 26 words in that list (Table 1). However, not all of them are originated from the Malay. Some of the words listed are originated from Sanskrit and Old Javanese. Most importantly, not all of them experience changes in their meaning. From that not so many Malay words that undergo changes in meaning, we found the word bersiram and peraduan.

**Table 1.** List of words labeled hor in KBBI

| Nr. | Word    | Nr. | Word    |
|-----|---------|-----|---------|
| 1   | abangda | 14  | bersiram|
| 2   | adimas  | 15  | dalem   |
| 3   | adinda  | 16  | eyang   |
| 4   | ananda  | 17  | jenazah |
| 5   | apa     | 18  | mangkat |
| 6   | asma    | 19  | meninggal|
| 7   | ayahanda| 20  | nenenda |
| 8   | ayunda  | 21  | pakanira|
| 9   | baginda | 22  | pamanda |
| 10  | beliau  | 23  | peraduan|
| 11  | beradu  | 24  | pesiraman|
| 12  | bersantap| 25  | suaminda|
| 13  | bersemayam| 26  | surai   |

**RESULTS & DISCUSSION**

Given the above description, we primarily present an analysis model of utilizing diachronic corpora to discover the etymological
information of Malay-Indonesia lexicon. We selected *bersiram* and *peraduan* and traced their use in the sentences deposited from the two corpora as presented below.

### Diachronic Use of ‘*bersiram*’

The word *bersiram* is a high classical Malay word. The word has been recorded in the dictionaries of Malay (Kamus Dewan, 2015; Pusat Rujukan Persuratan Melayu, 2020) and Indonesian (Kamus Besar Bahasa Indonesia, 2020) with the meaning of ‘to take a bath’. The word can only be used for the royal family. In MCP, this word appeared 157 times in 24 old manuscripts dated from the year 1370s to 1930s (as can be seen in Table 1 and 2). *Bersiram* occurred 32 times in *Salasilah Melayu dan Bugis* (1865) and only one time in the manuscripts *Syair Ken Tambuhan* (~1750), *Hikayat Raja Bikrama Sakti* (1800), *Syair Nyamuk dan Lalat* (<1873), *Hikayat Purasara* (>1890), *Syair almarhum Sultan Abubakar* (1896), *Syair Raja Johor* (1899), and *Cerita Jenaka* (<1908).

| Decade   | Count | Manuscript          |
|----------|-------|---------------------|
| 1370s    | 4     | Bayan 4             |
| 1700s    | 2     | Tuah 2              |
| 1750s    | 1     | KT 1                |
| 1770s    | 5     | ARM 5               |
| 1780s    | 5     | Misa 5              |
| 1800s    | 1     | Bik 1               |
| 1810s    | 17    | PNB 17              |
| 1820s    | 8     | Zub 8               |
All those 157 tokens of *bersiram* demonstrate the same meaning in the contexts with those recorded in dictionaries. Below are some examples of *bersiram* in some contexts:

**1370s**

(1) *sudah Élah kembali itu, maka bagindapun pergilah bersiram ke kolam itu. Setelah sudah baginda bersiram itu,*

‘Elah came back, so the king takes a bath in the pool. After taking a bath,’

**1770s**

(2) *Setelah selesai daripada bercukur dan bersiram putera Baginda itu, maka datanglah bidan menjunjung duli …*

‘After the prince has shaved and took a bath, the midwife took a bow’
1810s

(3) ...anéka jenis daripada bungaan. Setelah sudah mandi bersiram maka naiklah segala puteri-puteri itu mengentas bunga2an ada yang ... ‘various of flowers. After taking a bath then the girls get up to remove all those flowers...’

1890s

(4) ... sama elok parasnya. | Setelah genap tujuh hari, Bersiramlah baginda laki isteri, Dikerjakan oleh perdana menteri, ‘Look as pretty. After seven days, the king and his queen took a bath, Done by the prime minister’

1910s

(5) Pada suatu hari Sultan Mahmud hendak berangkat bersiram, duduk di atas julangan, ditikam oleh Megat Sri Rama dengan ... ‘Once upon a time Sultan Mahmud is going to take a bath, while sitting, stabbed by Megat Sri Rama using...’

1930s

(6) ... bestari, manakala siang keluar matahari, selesai bersiram mahkota negeri. | Berangkat keluar ia bertakhta, tersenyum ... ‘...smart, when the sun rises in the afternoon, the crowned head took a bath. He comes out to enthrone, smiles...’

The above concordance lines show that the word bersiram collocated with the word baginda (king), puteri-puteri (princesses), perdana menteri (prime minister), Sultan Mahmud (King Mahmud), and
mahkota negeri (crowned head). The other concordance lines which are not presented here also show the same collocates. Those collocates indicate that the word bersiram is only used for the royal family. The line from the 1890s (as in the sentence 4) even shows that the bath was not just a usual bath, it was a kind of ceremony.

(4) ... Setelah genap tujuh hari, Bersiramlah baginda laki istri, Dikerjakan oleh perdana menteri, ...

‘... After seven days, The king and his queen took a bath, Done by the prime minister, ...’

Table 3. Frequency of occurrences bersiram in the MCP manuscripts

| Manuscript                                      | Year   | Occurrences |
|------------------------------------------------|--------|-------------|
| M&B Salasilah Melayu dan Bugis                 | 1865   | 32          |
| Mpt Hikayat Merpati Mas dan Merpati Perak      | >1883 (MS 1887) | 26        |
| PNB Hikayat Perintah Negeri                    | 1811 (MS 1811) | 17        |
| Dmsy.S Syair Raja Damsyik                      | 1864   | 16          |
| TZA Syair Tawarikh Zainal Abidin yang Ketiga   | 1936   | 13          |
| Zub Syair Siti Zubaidah Perang                 | ~1800 (MS 1840) | 8          |
| Cina?                                          |        |             |
| TN Tuhfat alNafis                              | 1866 (MS 1890) | 6          |
| J&P Hikayat Johor serta Pahang                 | 1917   | 6           |
| ARM Adat Raja Melayu                           | 1779, ~1850 (MSS 1817, 1873) | 5          |
| Misa Misa Melayu                               | ~1780 (MS 1836) | 5          |
| Bayan Hikayat Bayan Budiman                    | 1371 (MS 1852) | 4          |
| Tuah Hikayat Hang Tuah                         | ~1700 (MS 1849) | 2          |
| NurP Syair Sultan Nur Peri                     | < ~1865 | 2          |
| NAsik Hikayat Nakhoda Asik                     | ~1870 (MS 1890) | 2          |
| KS Kitab Suci PL                               | 1879, PB: 1935 | 2          |
| Pah Hikayat Pahang                             | 1883 (MS 1883, 1932) | 2          |
| SSiti Syair Seratus Siti?                      | ~1890  | 2          |
The Semantic Change of ‘bersiram’

After its independence in 1945, Indonesia has become a republic. The royal system is no longer used. For that reason, the frequency of use of the word bersiram might also be decreased. However, in a more recent corpus like Indonesian corpus in Leipzig Corpora, we can still find the use of the word bersiram in many different contexts (see graphic in Figure 1). The figure is an automatic generated collocation graphic from Leipzig Corpora. As can be seen, the graphic contains words related to the word bersiram found in the corpus. The graphic depicts that in their corpus, the word bersiram collocates or related to all those words. The collocates found in the graphic are different with those found in MCP corpus. In corpus linguistics, collocation means words which occur within the neighbourhood of another word. Those words don't have to be located right next to the main word (Baker et al, 2006: 36-37). The search of the word bersiram in Leipzig Corpora are turned in 55 lines. There are some interesting findings from the lines, such as:

| Title                                      | Date          | Frequency |
|--------------------------------------------|---------------|-----------|
| KT Syair Ken Tambuhan                      | ~1750 (MS 1791-1872) | 1         |
| Bik Hikayat Raja Bikrama Sakti             | ~1800 (MS 1830)    | 1         |
| Nymk Syair Nyamuk dan Lalat                | <1873          | 1         |
| Puras Hikayat Purasara                     | >1890          | 1         |
| SAB Syair almarhum Sultan Abubakar         | 1896           | 1         |
| RJoh Syair Raja Johor                      | 1899           | 1         |
| CJen Cerita Jenaka                         | <1908          | 1         |
a. From 55 occurrences, only 15 of them have the literal meaning of ‘to take a bath’ or ‘to shower’. Ten lines, which come from Malaysian website, use the word bersiram as the equivalent of to take a bath or shower in the daily activity of common people, while the other five lines, which come from Indonesian website, still use the word only for a respected person.

b. Six lines contain the word bersiram in a figurative meaning. In those lines, the word bersiram is used in the form of a metaphor. Bersiram is juxtaposed with darah (blood) and cahaya (light) as in the sentence (7):

(7) Di kejauhan tampak gedung-gedung jangkung yang bersiram cahaya lampu. (www.mayasanti.blogspot.com, crawled on 08/05/2012)

‘In the distance, tall buildings are seen bathed in light.’

c. The most interesting finding is, 34 lines of them appeared in the contexts of food and carry a figurative meaning. In those lines, bersiram mostly collocates with saus (sauce), jamur (mushroom), keju (cheese), cokelat (chocolate). One example of the word usage in the context of food is as in the sentence (8):

(8) Dari deretan menu terbaru, ada BBQ Beef Ribs & Alice Springs Chicken bersiram saus keju Monterey Jack-Cheddar. (www.femina.co.id, crawled on 06/02/2014)

‘From the latest menu, there are a BBQ Beef Ribs & Alice Springs Chicken covered with Monterey Jack-Cheddar cheese sauce.’
We can see from the two diachronic corpora that there are changes in the meaning of the word *bersiram*. The word that originally had only one meaning and used only for certain circle, after the twentieth century its meaning has widened to a figurative meaning, and move from specific to a more general meaning.

*Figure 1.* Collocations of *bersiram* as shown in Corpora Collection Leipzig University

As can be seen from Figure 1, the graph is an auto-generated graph based on the frequency of co-occurrences. The words *darah* and *cahaya* do not appear on the graph because the frequency of their appearance is not as high as other words.

Furthermore, it is not only the semantic aspect of the word *bersiram* that change over time. Another linguistic aspect that also changes is the syntactic aspect, especially at class of word. *Bersiram* is an intransitive verb by nature. In Indonesian grammar, prefix *ber-* forms intransitive verb. As can be seen in the sentence (9):

(9) ... maka bagindapun pergilah *bersiram* ke kolam itu.
‘… then the King went to the pool **to take a bath.**’

The phrase *ke kolam itu* in above sentence (1) is not an object, but it is an adverb of place. An object is not needed after the word *bersiram* in that sentence.

However, in its figurative meaning, the verb *bersiram* has become transitive. Below is a concordance line of the verb *bersiram* in figurative meaning followed by its objects (in upright letters).

(10) *Tempat orang berniaga dikepalai seorang batin bijaksana yang mengharamkan negeri bersiram darah.*

‘A place for trading is lead by a wise man who forbid the land from **bloodshed.**’

(11) *Di kejauhan tampak gedung-gedung jangkung yang bersiram cahaya lampu.*

‘In the distance, tall buildings are seen **bathed** in light.’

(12) *Sejumput mi bersiram saus dengan potongan udang gemuk di atasnya.*

‘a pinch of noodles doused in sauce with a piece of fat shrimp on its top.’

(13) *Versi Michel’s disebut Marble Mud Cake, bersiram ganache* cokelat putih dan cokelat pekat.

‘Michel’s version is called *Marble Mud Cake,* **covered** by ganache chocolate’

(14) *Dan, sebagai penutup pesanlah Roti Cane Gula atau Roti Cane Susu, bersiram susu kental manis.*
‘And, as a desserts please order Roti Cane Gula or Roti Cane Susu, watered with condensed milk’

Objects in the above sentences are mandatory because without objects the sentences would be incomplete and meaningless.

**Diachronic Use of ‘peraduan’**

Another example that we would like to present for tracing the semantic change and the etymological information utilizing MCP is the word *peraduan*. This word is a classical-high Malay as well, that is used strictly for the royal family. It has the meaning of ‘bed’ or ‘bedroom’. Compared to *bersiram*, the frequency of *peradaun*’s appearance in MCP was found higher. It appeared 357 times in 31 old manuscripts dated from the 1370s to 1950s. The word can be found in the manuscript *Syair Siti Zubaidah Perang Cina* (32 times) and mostly occurred one time in sixteen manuscripts (see Table 3). The sentences below are some examples from the concordance lines from the manuscripts showing the uses of *peraduan* in the contexts whereby all with the meaning of ‘bed’ and ‘bedroom’.

(15) .. *ketiganya itu pun masing-masing mendapatkan biliknya peraduan*, lalu beradulah sekaliannya itu.

‘...all of three get their bedrooms, then they sleep.’

(16) .. *beri rawan, sendu rupa kelakuan, buka ranjang peraduan*. | *Lalu makai Sinyor Gilang, baju lakan hitam gilang*

‘...be vulnerable, sentiment behavior, go to the bed. Then Sinyor Gilang wearing, a black trouser’
Maka Kuda Nestapa pun masuk ke dalam peraduan lalu menyingkap tirai kelambu itu. Maka dilihatnya Raden…

‘...Then the Sorrow Horse gets into the bedroom, opens the curtain. So, he looks at Raden…’

Sambil memakai bau-bauan. Adinda disambut masuk peraduan. | Lalulah duduk menanggalkan jubah,

‘...wearing parfumes. Adinda welcomed into his bedroom. Then he took off his robe;’

... biliknya dan pada tiap-tiap bilik itu ditaruhnya geta peraduan lengkap dengan kasur, tilam dan tirai ...

‘...his room and in every bedroom equipped with mattress and curtain’

... bilik yang indah. | Istana besar apa gunanya,

**Peraduan** lengkap dengan perhiasannya, Asingnya tidak ...

‘beautiful bedroom, what a point of a big palace, a full furnished bedroom with decorations, ...’

**Table 4.** Frequency of occurrences *peraduan* in the MCP manuscripts

| Manuscript                  | Date       | Frequency |
|-----------------------------|------------|-----------|
| Zub Syair Siti Zubaidah Perang Cina | ? ~1800 (MS 1840) | 32       |
| Panji Hikayat Panji Kuda Semirang | ? ~1750 (MS 1832) | 28       |
| Mar Hikayat Maharaja Marakarma | 1844 or 1848 | 27       |
| SSiti Syair Seratus Siti    | ? ~1890    | 22       |
| PandL Hikayat Pandawa Lima  | ? ~1525    | 15       |
| Bayan Hikayat Bayan Budiman | 1371 (MS 1852) | 14       |
| Boma Hikayat Sang Boma      | ~1600 (MS 1850) | 12       |
| Ind Hikayat Inderaputera    | <1600 (MS 1700) | 10       |
| Bid Syair Bidasari          | ~1750 (MS 1825) | 10       |
| Title                                | Date          | Page |
|--------------------------------------|---------------|------|
| AHmz Hikayat Amir Hamzah            | <1380         | 9    |
| JPati Hikayat Putera Jaya Pati      | ? 17. (MS 1819) | 9    |
| KT Syair Ken Tambuhan               | ~1750 (MS 1791-1872) | 9    |
| Dmsy.H Hikayat Raja Damsyik         | 1863          | 9    |
| Kosta Syair Sinyor Kosta            | <1821 (MS 1862) | 8    |
| Dmsy.S Syair Raja Damsyik           | 1864          | 8    |
| S Saudara                           | 1930-1935     | 8    |
| Anb Surat alAnbiya'                 | ~1750 (MS 1877) | 7    |
| Sikka Hikayat Kerajaan Sikka       | 1925-1953 (MS 1979) | 7    |
| Aceh Hikayat Aceh                   | ~1625 (MS ~1675) | 6    |
| Tuah Hikayat Hang Tuah              | ~1700 (MS 1849) | 6    |
| PiagM Piagam Muara Mendras          | ~1660-1880    | 6    |
| SMrdn Hikayat Syah Mardan           | ~1720 (MS <1871) | 5    |
| ARM Adat Raja Melayu                | 1779, ~1850 (MSS 1817, 1873) | 5    |
| ABS Hikayat Ali Bad Syah            | ? 1800 (MS 1826) | 5    |
| Bik Hikayat Raja Bikrama Sakti      | ~1800 (MS 1830) | 5    |
| Nuri Syair Nuri dengan Simbangan    | ~1860         | 5    |
| Nymk Syair Nyamuk dan Lalat         | <1873         | 5    |
| Kumb Syair Kumbang Mengindera       | <1859         | 4    |
| NurP Syair Sultan Nur Peri          | ~1865         | 4    |
| Puras Hikayat Purasara              | 1625 (MS 1849) | 4    |
| Kutai Cerita Kutai                 | 1625 (MS 1849) | 3    |
| SM Sejarah Melayu                   | ~1612 (MS 1808) | 3    |
| Hemop Syair Hemop                   | 1750s (MS 1817) | 3    |
| MW Hikayat Merong Mahawangsa       | ~1821 (edition 1898) | 3    |
| Mpt Hikayat Merpati Mas dan Merpati Perak | >1883 (MS 1887) | 3    |
| Pasai Hikayat Raja Pasai            | ~1390 (MS 1815) | 2    |
| Rama Hikayat Seri Rama             | 15. (MS <1633) | 2    |
| Bkht Hikayat Bakhtiar               | ~1650 (text 1881) | 2    |
| IbrA Hikayat Ibrahim ibn Adham (long version) | ~1650 (MS 1775) | 2    |
| KBima Syair Kerajaan Bima          | ~1830 (MS 1857) | 2    |
In a more recent corpus such as Leipzig Corpora, the frequency of occurrence of the word *peraduan* is also high. There are 650 occurrences from websites dated from 2012 to 2014. However, the meaning that the word carries in this corpus is rather different from those in MCP. From about 100 lines examined from the concordance lines, there are three types of usage of the word *peraduan*.
The Semantic Change of ‘peraduan’

The first type has the same meaning and usage as those in previous corpus, which is bed or bedroom of the royal family. The word *peraduan* in the first type, as shown in sentences number (21), (22), and (23), are collocated with *raja* (king) and *kerajaan* (royal).

(21) *Sementara itu, sang raja telah tidur di peraduan kerajaan.*

‘Meanwhile, the King had slept in the royal bed.’

(22) *Jika nanti sudah berada dalam peraduan raja, cincin itu harus dilepas, dan ditaruh didekat Pusaka Keraton karena dirinya sudah berada di dalam cincin itu.*

‘When already in the king's bedroom, the ring must be taken off and placed near the heritage of the palace because he is already in the ring.’

(23) *Sebelum mencabut tombak, ia kembali keluar dari peraduan raja yang kesakitan itu.*

‘Before pulling the spear, he came back out of the afflicted king's bedroom.’

In the second type of usage, the word *peraduan*, as found in the Leipzig Corpora, carries the same meaning but it is then used by common people.

(24) *Membaca buku, majalah, atau sekadar mendengarkan musik, sebelum Anda beranjak ke peraduan untuk tidur.*

‘Read book, magazine, or simply listen to the music before you go to bed.’
That morning, heavy rain was pouring in Surabaya and its surrounding area, made me lazy to get out of bed.

The people I love, one by one began to move to go to bed.

The common word for ‘bed’ in Indonesian is tempat tidur or ranjang. However, in sentence (24), (25) and (26) which contexts are not related to the royal family, the word peraduan is used instead of tempat tidur or ranjang. This usage shows that the meaning of peraduan has been generalized. Since there is no longer king or royal family in Indonesia, the word has become functional for everyone.

Figure 2. Collocates of peraduan in Corpora Collection Leipzig University

The third type is the occurrence of the word in figurative meaning. In this type of usage, the word peraduan mainly collocates with
matahari (as shown in Figure 2), such as in the sentence (27), (28) and (29); and sang surya which also means ‘sun’ in (30). In those sentences, the sun is depicted as if it goes to bed to rest so the day turns into night, or gets out of the bed and starts to shine.

(27) Matahari beranjak ke peraduan dan malam mulai menggeliat ke atas bumi.
    ‘The sun goes down to its resting place and the night begins to climb the earth.’

(28) Ketika matahari telah kembali ke peraduan, malam pun tiba.
    ‘When the sun has gone to bed, the night has come.’

(29) Matahari sudah beranjak ke peraduan, tetapi langit biru masih tersisa.
    ‘The sun has gone to bed, but there is still some blue sky.’

(30) Salah satunya adalah untuk melihat secara langsung, Sang Surya keluar dari peraduan di ufuk timur.
    ‘One of the reasons is to see directly the sun out of its bed in the eastern horizon.’

In Indonesian, there is a metaphor that equates the sun as the king of the day and the moon as the night goddess (_matahari=raja siang; bulan=dewi malam_). Without the sun there will be no daylight. In some cultures, there are also tribes who regard the sun as a god or as the giver of life just like a king. Because of this metaphor and belief, some of the vocabulary reserved only for kings is also applied to the sun.

Finally, those different types of usage of peraduan found in Leipzig Corpora show that the word has changed in meaning through
generalization and metaphor. However, unlike the word *bersiram*, the change that the word *peraduan* experienced only occurs in semantic level. The other linguistic aspects of the word are not affected.

**CONCLUSION**

Using corpora, this paper identified the etymological information particularly of the exemplary words *bersiram* and *peraduan* to determine to what extent these words diachronically changed through time. Drawing on data obtained from the analysis, the findings showed information as follows.

| Entry      | : *bersiram*                                                                 |
|------------|------------------------------------------------------------------------------|
| Initial meaning | ‘to take a bath (intransitive), used for the royal family’                     |
| Additional meaning (in 21\textsuperscript{th} century) | 1. To bathe (transitive, figurative meaning), 2. To cover (transitive, figurative meaning). |

| Entry      | : *peraduan*                                                                 |
|------------|------------------------------------------------------------------------------|
| Initial meaning | ‘bed or bedroom, used for the royal family’                                 |
| Additional meaning (in 21\textsuperscript{th} century) | 1. Bed or bedroom (general), 2. Resting place (figurative meaning). |

The presentation of the etymological information in the dictionary can also be made in the narrative form, so the reader could get a clearer picture of the semantic change (Bochkarev et al., 2020).

This paper has demonstrated that diachronic corpora can be a useful tool in the investigation of etymological information, especially
to find changes in meaning. The corpora that are set chronologically can also tell us the approximate time of change. Although the precise year of change remains unknown, it is able to at least reveal in which era the change happen. The activity of collecting etymological information from diachronic corpora, however, can only be done to the lexicon in written texts. Furthermore, information about the usage of the words in spoken forms, whether or not they are used in the same register with the same meaning, is undisclosed. We found that, it does not lessen the effectiveness of diachronic corpora as a tool in collecting etymological information. Finally, this paper could strategically contribute to the model of development for a more comprehensive Indonesian etymology dictionary.

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