

Naturalization and Adaptation Taking Place in the Translation of Medical Texts from English into Indonesian

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Abstract—This study investigates naturalization and adaptation as the translation procedures utilized in the translation of English medical texts into Indonesian. It aims at (1) identifying how naturalization takes place in English-Indonesian medical texts translation and (2) describing the adaptation of meaning reflecting the equivalence process in translation. The two translation procedures are specifically discussed concerning the phenomena that adaptation of form and meaning are irrefutable in the process of translating. Here, naturalization demonstrates the absorption of English medical terms into Indonesian reflecting the adjustment of the terms' form namely spelling and pronunciation. Meanwhile, adaptation refers to the process of adapting the meaning of the foreign terms. This process involves the mapping of concepts contained in the terms and how they are commonly utilized in their field of study so that the equivalence can be obviously explained. The data were taken from the translation of selected articles from a medical textbook, *General Ophthalmology* (2008) and its translation into Indonesian *Oftalmologi Umum*. The results show that there are four classifications made in the mapping of naturalization of the English-Indonesian medical terms and adaptation occurs through the use of synonymous terms in the target language that are considered having similar meaning components with those of the terms in the target language.

Keywords: *naturalization, adaptation, medical texts, translation*

1. Introduction

The rapid development of science and technology has made language a very important communication means of delivering stimulus from one individual to another. The stimulus between individuals is something that makes a person show certain reactions resulting in interaction and communication (Bloomfield, 1995: 21). The existence of the language is surely important for the interaction and spread of information, concepts, beliefs, rules, etc. With this, the development of various sciences can be communicated to the whole society. Language can be a means of building communication by transferring information from one language to another.

In Indonesia, translation has been explicitly taken into account in the establishment of terms in Indonesian. The General Guidelines for the Formation of Terms known as *Pedoman Umum Pembentukan Istilah* (PUI) clearly indicates the contribution of the translation in the search for equivalence of foreign terms. Equivalence is done through three ways: (1) translation process, (2) absorption, and (3) combination of translation and absorption. The equivalence occurs as the efforts of scientists to disseminate information, findings, and ideas that are useful for the development of the language and the nation. This equivalence is the way to make use of the concept of science, technology, and art in the creation of new terms (General Guidelines for the Establishment of Terms, 2007: 11-13).

The contact of languages through translation allows the enrichment of terms in certain disciplines. This enrichment is reached through implementation of some translation procedures such as borrowing (Vinay and Dalbarnet, 2000), transference and naturalization (Newmark, 1988), and pure borrowing and naturalized borrowing (Molina and Albir, 2002) through which the adjustment of form and meaning from the source language to the target language take place. The examples of transference or pure borrowing, without adjustment of spelling and pronunciation, are the use of the English words *internet* and *print* in Indonesian. The English term that is absorbed in Indonesian with pronunciation and spelling adjustment is for example *camera*, which is adjusted to *kamera*, while the English *nasal* into the Indonesian *nasal* is the example of absorption with pronunciation adjustment but without spelling adjustment. (Indonesian Development Committee, 2006: 22).

In addition to naturalization that is considered as absorption in the Indonesian term establishment guideline, there are also other ways of finding the equivalence, namely adaptation (called as translation in the guideline) and the combination of naturalization and adaptation that can be usually applied in the translation of phrases or compounds that usually consists of two lexicons. For example, the term *clay lempung* as one category of *clay* is translated into *koloid lempung* in Indonesian. This study also presents the discussion on the so-called adaptation, which is considered as the act of translating since the search for equivalence is not undertaken through the adjustment of form like spelling and pronunciation. Take for example the term *jasa boga* in Indonesian is the adaptation of concept from the term *catering* in English. The term *catering* is not merely absorbed into



Indonesian ‘*katering*’ yet a new term is created that derives from the process of adapting the meaning of the term, i.e. *catering* that equals to the activity of delivering meal service (meal is *boga* and service is *jasa*). Thus, it is interesting to analyze how naturalization and adaptation take place through the process of translation, specifically by means of observing the translation of English medical terms into Indonesian as the data. Both naturalization and adaptation are two translation procedures that are found to be used in medical texts translation indicating the linguistic phenomena of form and meaning adaptation in translation.

2. Research Methods

This study was a qualitative research using quantitative data for verification and validation. The data were the medical terms in the form of words and phrases taken from the data source. The objective data of this research were the medical terms from the book *Vaughan & Asbury’s General Ophthalmology* and its translation in Indonesian *Oftalmologi Umum* by Olohan (2004), which were classified as unidirectional parallel corpora. The investigation of naturalization and adaptation was based on the theory of translation studies, particularly procedures of translation proposed by Newmark (1988) and Vinay and Dalbernet (in Venuti, 2000).

The predominant method applied was observation. It was conducted through the note-taking technique and the classification of the data was based on the theory utilized in this study. There were 368 medical terms observed as the data. They were comprehensively classified in accordance with the category of translation procedures. It means that there were two categories determined in the process of classification, i.e. naturalization and adaptation. After identifying the two categories and their data, closer observation on the patterns of naturalization was done by finding out the adjustment of spelling and pronunciation taking place in the translation of English medical terms into Indonesian. Meanwhile, the analysis of adaptation of meaning was made by comparing the meaning components of the two lexicons by utilizing Natural Semantic Metalanguage (Wierzbicka, 1996).



3. Result and Discussion

3.1 Naturalization and Adaptation

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3.2 Naturalization and Adaptation in the Indonesian Language

In this section, the discussion is presented by describing the important elements which are the core of this study that uses medical terms as its data. The discussion is about naturalization and adaptation as the process of concept and term adjustment of foreign terms. Naturalization and adaptation are translation procedure that can be paired with the groupings that have been shown in General Guidelines for the Establishment of Terms or PUPI (2007). The concept of adjustment process in the Indonesian language is, in fact, the core idea of naturalization and adaptation as procedures of translation that can be briefly presented as follows.

1. Translation refers to “adaptation” as the procedure of translation.



In the Indonesian guideline, the term translation is divided into two divisions namely (1) direct translation and (2) translation by creating new terms called as *perekaan* in Indonesian. First, in direct translation, the formation of the term through translation is based on the appropriateness of meaning even though its grammatical form changes, for example from one word to two words in *supermarket* into *pasar swalayan* (PUPI, 2007: 15). However, there is also a form that does not change, such as *bonded zone* into *kawasan berikat*. Second, it is the translation by creating new terms. The example is the term *catering* is translated into *jasa boga* (PUPI, 2007: 15). The examples categorized in the Indonesian guideline are, in fact, the core idea of adaptation as the translation procedure that enables the creation of terms that are originally derived from the lexicons in Indonesian.

2. The term absorption refers to "naturalization" as the procedure of translation.

The existing absorption mapping in the Indonesian guidance is closely related to the application of naturalization procedure occurring in the phonological level which has implications for the orthographic system and the morpholexical aspects of a lexicon. Absorption in Indonesian occurs with respect to a number of aspects, namely (1) the absorption of foreign terms allows the interconnectedness of foreign languages and Indonesian language, (2) the absorption of the term facilitates the understanding of foreign texts by the Indonesian readers because the terms have been previously known, (3) the foreign term to be absorbed is modified through pronunciation and spelling adjustments, (4) instead of creating new terms that will sound awkward, the foreign term to be absorbed into Indonesian is more appropriate.

Having classified the data from the textbook under study, naturalization called as absorption processes in PUPI, can be divided into four categories, which are; (1) adjustment of spelling with complex adjustment of pronunciation, e.g., *mobility* becomes *mobilitas*, (2) adjustment of spelling with simple adjustment of pronunciation, e.g., *diabetic* becomes *diabetik*, (3) adjustment of pronunciation without adjustment of spelling, e.g., *industrial* becomes *industrial*, and (4) adjustment spelling without adjustment of pronunciation, e.g., *dendritic* becomes *dendritik*. This grouping is made by observing the changing



characteristics of the naturalization of English medical terms into Indonesian found in the textbook used as the data source. The classification can be obviously seen in figure 1.

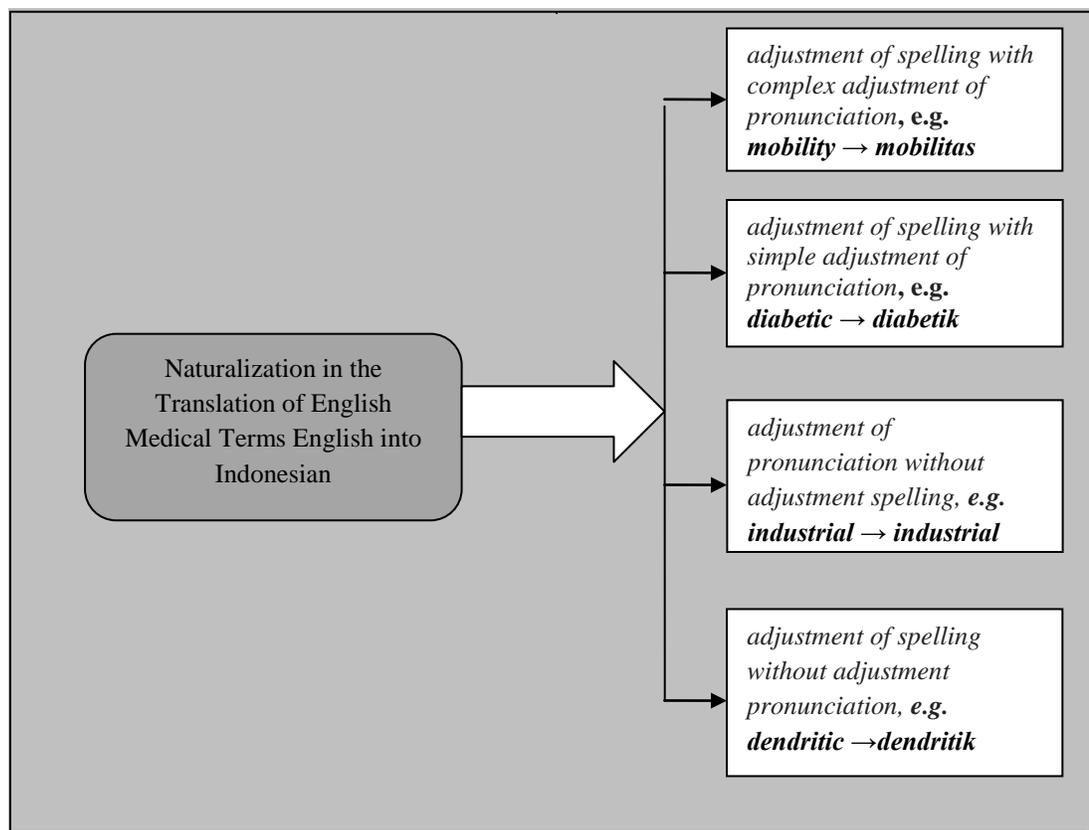


Figure 1
Naturalization taking place in the translation of medical terms from English into Indonesian (Jayantini, 2017)

Observing the findings from the translation of English medical terms into Indonesian, the categories found in this study, there are differences found in the classification determined in PUPI like pure borrowing, e.g., English *print* into Indonesian *print* and English *internet* into Indonesian *internet*, is not included in the naturalization category because the focus is on adjustment that occurs when the English term is absorbed in the Indonesian. Pure borrowing is seen in this study as merely a set of empirical data, not from sociolinguistic point of view but from translation point of view. The translation procedures proposed by Newmark (1988), as the basis of classification in this study, which classify the process of pure borrowing, are different from naturalization process which is commonly understood as the process of absorption. Pure borrowing in the field of translation is the same as

Newmark's transference making it not included in the naturalization classification. The fourth category in the absorption process chart made by the Language Development Committee is pure borrowing in which spelling and pronunciation adjustments are not found as in the transference of *internet* → *internet* and *print* → *print*. This is done by considering that naturalization which is called natural translation is the way a translator uses to borrow a foreign term and adapts it to the Indonesian rules.

The spelling and pronunciation changes must be based on the rules determined in the Indonesian language. In case of modification in pronunciation, this study found that Catford's theory can be applied to the data. Catford proposed phonological translation as one types of translation that occurs because of inter-phonological unit similarities. In this study, English sound system as the source language and Indonesian sound system as the target language are compared. Comparison of the phonemic composition that composes each term is explained by considering the same phonemic substances. Through phonological translation Catford (1965) confirms that there are adjustment opportunities even though a number of phonemes in one language are not found in another language.

Adaptation is a term in translating techniques proposed by Vinay and Dalbernet (in Venuti, 2000). In other words, adaptation is a translation procedure that allows replacement of source language terms with the terms that contain elements of target language culture. The term *biosecurity* (English) into *ketahanan hayati* (Indonesian) (Jayantini, 2010: 68) is an example of an attempt to interpret the meaning of a term by applying adaptation procedure. The use of the term *ketahanan hayati* was reinforced in a collaborative research between Indonesia and Australia in 2007, and since then it has become more popular. Adaptation is a translation procedure that tries to provide a broader interpretation of the meaning of a term in accordance with the context in a sentence that is tailored to the field of science and culture of the target language. The example of adaptation taken from the translation of medical terms that gives 'new meaning' to a particular lexicon is the term *intervention*. The term *intervention* is not absorbed into *manajemen* but is translated into *penatalaksanaan*, which is a new term to express a certain standard in the treatment for patients by paramedics. Furthermore, the terms that are used in adaptation procedures are potentially popularized as



Indonesian medical terms which are not resulting from absorption in the category of form and pronunciation adjustments but from the process of equivalence.

As an example of how adaptation as a procedure of translation is applied, the translation of “*pain*” as a medical term can be proposed to show how adaptation of concept takes place. The translator has to adapt the concept of “*pain*” in English and thinks the most appropriate translation for this term in Indonesian. After considering the meaning components of the term “*pain*,” then it is easier to decide some Indonesian lexicons as the alternatives for their translation. Then, the most appropriate translation can be selected, for instance the use of *nyeri* in the Indonesian context. To compare the meaning of the term “*pain*,” and *nyeri*, the relevant dictionaries may be used to consult with the meaning of the terms. The translation of “*pain*” to *nyeri* is interesting to be exemplified and discussed. After finding out the meaning in the dictionaries and how the two terms used in the sentences, it can be concluded that the meaning components of the terms “*pain*” and *nyeri* are similar, but they are not perfectly the same. This suggests that these terms cannot directly replace each other because based on lexical meanings in dictionary and the use of the terms in the sentences, “*pain*” can indicate both physical and mind pain while *nyeri* in Indonesian can only occur on the part of the human body. Such an investigation is worth doing because translation deals with finding the closest natural equivalent in which meaning components may not be fully transferred yet the accuracy and naturalness can still be found. By means of a semantic theory, the comparison can be visibly made so that the adaptation of meaning is made clear.

4. Novelties

Having done the the analysi, the empirical novelties of this study can be presented as follows:

1) The Mapping of Naturalization as the Contribution to PUPI Development

There are four categories of naturalization that includes pronunciation and spelling adjustment, namely (1) adjustment of spelling with complex adjustment of pronunciation, (2) adjustment of spelling with simple adjustment of pronunciation, (3) adjustment of pronunciation without adjustment of spelling and (4) adjustment of



spelling without adjustment of pronunciation. The naturalization classification found in translating medical terms from English into Indonesian can be a reference to the codification and standardization of terms in line with Indonesian language development policies. Meanwhile in PUPI, naturalization or naturalized borrowing included in the chart of foreign term formation from the committee of the Indonesian language development (2006) shows that the ‘absorption’ of foreign language terms contributes to enhancement of vocabulary inventory as long as the process is applied in accordance with the rules determined in the Indonesian general guidance of term formation.

2) Introducing a Model of Meaning Components Analysis through NSM Approach

The analysis of meaning in translation is done by adopting Löbner (2013) and Wierzbicka (1996). Semantic theory can help with mapping meaning components of each term so that loss or gain of information can be identified. Identifying meaning components that is intended to analyze the lexical meaning of particular terms containing specific concepts in different languages is worth doing since the identification of meaning components can be utilized to differentiate their use in the required and appropriate contexts, particularly in the need of transferring meaning from one language to another language. It is important to make a comparative analysis on the meaning components of the source language (SL) lexicons and target language (TL) lexicons to present the lexical meaning in measuring the equivalence. The comparison can give a clear description concerning the meaning components of each term so that the equivalence establishment can be comprehensively analyzed.

5. Conclusion and Recommendation

5.1 Conclusion

Naturalization and adaptation are procedures of translation that cannot be separated from the contact with foreign languages. The identification on how naturalization takes place in English-Indonesian medical texts translation shows that this translation procedure is considered as the absorption process in the Indonesian language. It occurs through the adjustment of spelling and pronunciation, namely (1) adjustment of spelling with complex adjustment of pronunciation, (2) adjustment of spelling with simple adjustment of

pronunciation, (3) adjustment of pronunciation without adjustment of spelling, and (4) adjustment spelling without adjustment of pronunciation. Meanwhile adaptation as a procedure of translation reflects the search for meaning equivalence that can be further investigated through the comparison of meaning components.

5.2 Recommendation

The translation procedures can be classified based on the characteristics of equivalence establishment. The types of the equivalence establishment can be mapped based on its process. Thus, it is expected that this research can be developed by other researchers for the enhancement of analysis on translation studies analysis. The results of other researches can also contribute to the development of linguistics in general and translation studies in particular. Target readers have to be critical to observe the results of translation so that the accuracy, acceptability and readability can be assessed comprehensively by the target reader. The target readers must also realize that the chance for new terms formation through adaptation procedure does not cease to exist even though literal procedures such as pure borrowing, borrowing from Latin-Greek and naturalization dominate the translation of medical terms. Here, adaptation procedure is seen from a number of medical terms that are characteristically Indonesian.

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