

Phonological Processes of English Words Pronounced by Japanese Found in *Hey Say Jump!* Songs

Proses Fonologis Kata-kata Bahasa Inggris yang Diucapkan oleh Orang Jepang dalam Lagu Hey Say Jump!

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ABSTRAK

Abstract

This study aims to find out what types of phonological processes are found in pronouncing English words by Japanese native speakers and to find out the reason why the changes occur. This study is descriptive qualitative research using transformational generative phonology's approach. The source of data was 8 songs sung by Japanese's idol group, Hey Say Jump! The research findings revealed that there are 8 types of phonological processes found from data analysis, they are; backing, stopping, affrication, assimilation, substitution from /l/ to /r/, epenthesis, vowel coalescence, and vowel shift. Based on the findings, it can be concluded that the phonological processes occur because of two reasons; first, Japanese has open syllable system so there is no cluster consonants and consonant sound in the final position except for /n/. Second, there are some sounds that are not present in Japanese, so the sounds are adjusted according to the Japanese phonological system.

Abstrak

Penelitian ini bertujuan untuk mengetahui proses fonologis dalam mengucapkan kata-kata bahasa Inggris oleh orang Jepang dan untuk menganalisis penyebab terjadinya perubahan tersebut. Penelitian ini merupakan penelitian deskriptif kualitatif menggunakan pendekatan transformasi fonologi generatif. Sumber data dalam penelitian adalah 8 lagu yang diambil dari grup vocal jepang *Hey Say Jump!* Berdasarkan analisis data, ditemukan adanya 8 proses fonologis, yaitu; *backing*, *stopping*, afrikasi, asimilasi, pergantian dari /l/ ke /r/, epentesis, perpaduan vokal, dan pergantian vokal. Berdasarkan hasil penelitian, terdapat 2 alasan terjadinya proses fonologis, yaitu Bahasa Jepang memiliki silabel terbuka sehingga tidak ditemukan adanya gugus konsonan dan konsonan diakhir kata kecuali untuk /n/ dan ada beberapa bunyi yang tidak ditemukan dalam bahasa Jepang sehingga bunyi-bunyi tersebut disesuaikan dengan system fonologis bahasa Jepang.

1. Introduction

As we know, English is spoken in almost every country in the world, whether as a first language or a foreign language. One of the countries that use English as a foreign language is Japan. Aside from being studied in school, English is also used in some other aspects, such as signpost for tourists, and in entertainment industries, for instance, music industries. This can be seen by looking at the song titles of some Japanese musicians, bands, or idol groups. Many of them are using English as the titles of their songs. Not only as titles, many of them also use English in their lyrics. However, as English and Japanese have different phonological systems, there are also some differences in pronouncing the English words by Japanese.

Based on what I have been observed, many Japanese singers pronounced English lyrics in nativized way and sometimes make it a little bit difficult to understand. So that, in this article, I want to observe more and analyze how English words undergo changes when it is pronounced by native Japanese, in this case, through songs. In phonology, the process of sound changing is called phonological process. According to Schane (Schane, 1973), there are four types of phonological processes, they are; assimilation, syllable structure processes, weakening and strengthening, and neutralization. In this article, I want to observe types of phonological processes in the pronunciation of English words by Japanese and what causes them using transformational generative phonology and distinctive features.

According to Gussenhoven, (Gussenhoven and Jacobs, 2005), distinctive features are "the smallest units of linguistic structure from which larger units are built"; they are sometimes seen as "attributes by which phonemes can differ". In generative phonology, distinctive features are the units that distinguish meaning. So that, distinctive features are the most important part in generative phonology. Schane (Schane, 1973) classified distinctive features into five classes, they are; Major class features, manner features, place of articulation features, body of tongue features, and subsidiary features. In this study, distinctive features are used to differentiate one phoneme with one another.

The study about phonological processes have been conducted by some previous researchers. The first one is the study conducted by Soelistyowati (Soelistyowati, 2010). She studied about phonological changes and morphological processes in loanwords from English to Japanese. She used automobile advertisements in Asahi shinbun newspaper January 2001-2002 edition as the source of data. She found that there are three types of phonological changes, they are phoneme addition, phoneme deletion, and substitution. For the morphological processes, she found that morphological processes consist of form and kind. The forms are base form and derived form. Derived forms consist of compound word, abbreviation, and acronym. Loanword forms found in her data are nouns, verbs, and adjective. Also, in her study, there is no loanwords formation of affixation and thus the English word is adopted. Similar study is also conducted by Sawirman and Sari. They also studied about phonological changes in loanwords from English to Japanese. In his study, they used *Asahi no Shinbun*, *Mainichi no Shinbun*, and *Manga no Shinbun* as the source of data. In his study, he found that there are five types of phonological processes, they are; deletion, substitution, insertion, addition of segment and assimilation (Sari & Sawirman, 2014).

The third study is the study conducted by Brice and Leung. They studied about phonological processes of spoken English of Hongkong primary pre-service teachers. He aimed to investigate English phonological processes and speech articulation of adult English-Cantonese speakers in Hongkong. His study found that the participants displayed a wide variety of articulatory patterns, some of which are not evidenced by the literature. For the phonological processes, he found 14 types of phonological processes, they are; stopping, fronting, deaffrication, gliding, devoicing, lip rounding, backing, affrication, voicing, pre-vocalic singleton omission, post-vocalic singleton omission, consonant sequent reduction, vowel deviations, and vowel addition (Leung & Brice, 2012).

The fourth study is conducted by Mallya who studied about phonological processes in Chagga Nativized lexemes borrowed from standard Swahili. The result shows that there are five vowels and nineteen consonants in all Chagga varieties and it has the general syllable structure CCV. The types of phonological processes found in her study are phonological processes motivated by syllable structure (insertion), phonological processes of affecting syllable (deletion, rhoticism), phonological processes due to assimilation process (dissimilation, voicing, partial and distant assimilation), and phonological processes affected by phonemic reasons (devoicing, deaffricatization, consonant substitutions, cluster tolerance, and vowel lengthening (Mallya, 2018).

The fifth study is the study conducted by Daana. She studied about phonological development and phonological processes in the speech of an English-Arabic bilingual child. In her study, the object of the study is her own child acquiring English and Arabic simultaneously between the ages of 7 and 20 months. Her study also investigate evidence for either the Separate development Hypothesis or the Fusion Hypothesis. Her result shows that the child's sound segment development showed consistency with universal trends. The phonological processes found in her study are regressive and progressive assimilation, substitution, and metathesis. Her study also shows strong supportive evidence for the Separate Development Hypothesis (Daana, 2018).

The present study has similarities with the previous studies above. This study is similar with the five studies above in analyzing phonological processes of a language. The present study is also similar with the first and second study in analyzing English in Japanese language. Despite having the same topic, this study has some differences with the previous studies above. This study is different from the first and second study in the aim of the study. The first and second studies are only aimed to observe types of phonological processes found in Japanese language where this study will also try to find out the phonological rules based on the phonological processes and find out the reason of why the sounds are changed. This study is different from the rest of the previous studies above in the object of the study. The first and second studies used written sources, the third studies observed Hongkong primary pre-service teacher, the fourth study observed Chagga language, and the last study observed bilingual child where this study uses Japanese songs.

As stated above, the present study tried to observe how Japanese native speakers, especially singers, pronounced English words in their songs. Since English and Japanese have differed in phonological system, in which English has 12 vowels where Japanese has only 5 vowels, it can be assumed that the pronunciation will also be different. Based on that hypothesis, this study is conducted for three reasons: 1). To find out what types of phonological processes found in pronouncing English words by



Japanese native speakers, 2). To find out the phonological rules from the phonological processes found, 3). To find out the reason why the changes occur. The result of this research is expected to give insight to the readers about how the differences between phonological systems in languages, in this case Japanese and English, affect the way the native speakers pronounced certain words. The result of this research is also expected to provide understanding of how and why the sound changes occur and the rules governed them.

2. Method

The type of this research is descriptive qualitative. Sugiyono says that qualitative research usually used to explain or observe natural phenomena based on the fact to understand the meaning, construct phenomena, and finding hypothesis (Sugiyono, 2020). In this research, the writer describes and explain the phonological processes of English words pronounced by Japanese which is found in *Hey Say Jump!*'s songs. This research is qualitative research using transformational generative phonology's approach. The data in this research were English words found in the song lyrics. The source of data was 8 songs sung by Japanese's idol group *Hey Say Jump!*. The data were collected using non-participant observation method by listening and note taking techniques. After the data were collected, the data were transcribed into phonetic symbols. Then, the writer compared the pronunciations of English words in the transcriptions with standard English pronunciations by using Oxford Dictionary. Furthermore, the data were analyzed by using identity method with determinant based on phonetic articulatory by using Schane's generative phonology theory. After that, the data were categorized based on the types of phonological processes found in the analysis. Lastly, the writer wrote the phonological rules based on the types found to analyze how the changes occur.

3. Result and Discussion

Based on the data analysis, there are 8 types of phonological processes found in the pronunciation of English words by Japanese, they are: backing, affrication, stopping, substitution of /l/ to /r/, assimilation, epenthesis, vowel shift, and vowel coalescence. Further explanations about the finding are explained below.

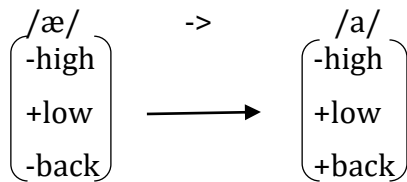
3.1 Substitution

3.1.1 Backing

From the data analysis, it is found that Japanese substitute front vowels /æ/ to back vowels /a/ as can be seen in the sample below.

English	Japanese
/rəʊmæns/ 'romance'	/romansu/
/pæstl/ 'pastel'	/pasuteru/
/bæd/ 'bad'	/batto/

The process of sound change can be described by making the phonological rule below:



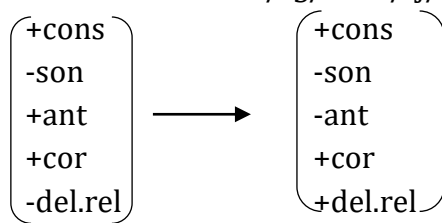
The changes of /æ/ to /a/ occurs because in Japanese, there is no /æ/ sound since Japanese language has only five vowels ([a], [i], [u], [e], and [o]). So that, if there is /æ/ sound, it will be changed into /a/ because it is phonetically closest to /æ/ sound.

3.1.2 Affrication

From the data analysis, it is found that Japanese substitute some consonants into affricates as can be seen in the sample below.

English	Japanese
/fæntəsi/ 'fantasy'	/fantaɖʒi/
/rəʊmæntɪk/ 'romantic'	/romantʃikku/

As can be seen from the example above, consonant /s/ and /t/ are replaced with the affricate /ɖʒ/ and /tʃ/. The process of sound change can be described below.



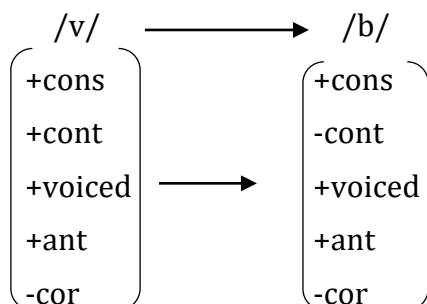
From the data above, it can be seen that /si/ if it is on the final position will change into /ɖʒi/ in Japanese where /ti/ will change into /tʃi/ because there is no /ti/ sound in Japanese phonological system.

3.1.3 Stopping

From the data analysis, it is found that /v/ sound in English is replaced by /b/ in Japanese. This change occurs because there is no sound /v/ in Japanese. The data sample can be seen below.

English	Japanese
/lʌv/ 'love'	/rabu/
/dɪvaɪs/ 'device'	/debaisu/
/evəlu:ʃn/ 'evolution'	/eborjuuʃon/

The process of sound change can be described below.



As can be seen from distinctive features above, the substitution of /v/ to /b/ is only different in terms of manner of articulation where the others have similar features. So, from the rules, it can be assumed that Japanese tend to substitute the sounds which are not present in Japanese with the one phonetically similar to the sound that is being substituted.

Based on the three types above, it can be concluded that Japanese tend to change the vowels or consonants which are not present in Japanese phonological system to the closest sound of the English words. This result is similar to the study conducted by Oeinada (Oeinada, 2018) who also found that the adaptation of English loanwords in Japanese is based on the similarity of the closest sound of vowels and consonants in English as can be seen from one of his data below.

English	Japanese
/gri:s/ 'Greece'	/girisha/

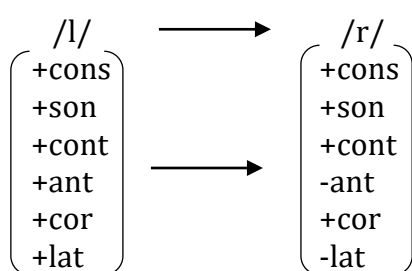
In the data above, Oeinada found that /s/ in English is changed to /sh/ in Japanese because the pronunciation of /s/ is similar to /sh/ in Japanese.

3.1.4 Substitution from /l/ to /r/

The last type of substitution found in the data analysis is the substitution of sound /l/ to /r/ as can be seen in the data below.

English	Japanese
/mɪsaɪl/ 'missile'	/misairu/
/lɒk/ 'lock'	/rɒkku/
/kəntroʊl/ 'control'	/kontoro:ru/
/ədrenəɪn/ 'adrenaline'	/adorenaɾin/

From the data above, it can be seen that all the /l/ sounds are replaced with /r/ in Japanese. This change occurs because there is no /l/ sound in Japanese. So, as long as the word has /l/, it will be replaced by /r/. The sound changes can be seen in distinctive features below.



Based on the rules above, it can be seen that in the process of substitution of /l/ to /r/, there are two processes, they are; deletion of /l/ sound and then the deleted sound is substituted by a new sound /r/. This result is a bit different from the one conducted by (Oeinada, 2018) who said that /l/ and /r/ in Japanese are not different, and they can be considered as allophones. In contrast, based on the data analysis, the writer assumed that /l/ and /r/ are different phoneme because in the distinctive features, there are two different features: [+/-ant] and [+/- lat]. According to Schane, if there is more than one feature that is different, it can be said that the sounds are not related (Schane, 1992). So, in the process above, it can be said that /l/ sound is deleted and then substituted by a new sound /r/.

3.2 Assimilation

The other type of phonological processes found in data analysis is assimilation. According to Schane, assimilation is a type of phonological process in which a sound change is influenced by the neighboring sound (Schane, 1973). The sample of data which shows this type can be seen below.

English	Japanese
/senseɪʃən/ 'sensation'	/sense:ʃon/
/grædzueɪʃən/ 'graduation'	/guradue:ʃon/
/peɪs/ 'pace'	/pe:su/

From the data above, it can be seen that diphthong [eɪ] becomes long vowel [e:] in Japanese. The change is influenced by the vowel before it. Vowel [e] assimilates vowel [ɪ] so that it changes to vowel [e] which result in long vowel [e:]. This process is called vowel assimilates vowel features. The phonological rules for the process can be seen below.

$$\left(\begin{array}{l} +\text{syl} \\ -\text{tense} \end{array} \right) \longrightarrow \alpha [+syl] / \alpha [+syl] \text{ —}$$

This rule means that /ɪ/ ([+syl, -tense]) will change into /e/ [+syl] which have similar form to the vowel /e/ [+syl] preceded it and resulting in long vowel /e:/.

3.3 Syllable Structure Processes

Syllable structure process is a process which affect the distribution of consonants and vowels in a word. It can be an insertion of sound, deletion, or coalescence of sounds. Types of syllable structure processes found in data analysis can be seen below.

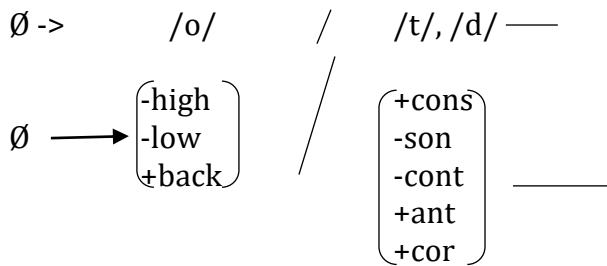
3.3.1 Epenthesis

From the data, it is found that epenthesis occurs very often in Japanese language, and vowels have the highest occurrence. This occurs because Japanese is known as language which has open syllable system. So that in Japanese, there is no cluster consonant and also there is no consonant sound in the end of the word except for /n/. This result is similar to the result of the study conducted by Shoji (Shoji & Shoji, 2014) who also found that most of loanwords in Japanese preferred epenthesis rather than deletion. Based on the data analysis, it is found that vowels which are often inserted are /o/, /u/, and /i/ where consonants that often inserted are voiceless sounds such as /p/, /t/, and /k/. The data sample of the insertion are described below.

3.3.1.1 Insertion of vowel /o/

English	Japanese
/haɪbɪt/ 'high beat'	/haibitt <u>o</u> /
/wʌndərlænd/ 'wonderland'	/wandarand <u>o</u> /
/ətrækʃn/ 'attraction'	/at <u>o</u> rakufon/
/ədrenəlɪn/ 'adrenalin'	/ad <u>o</u> renarin/

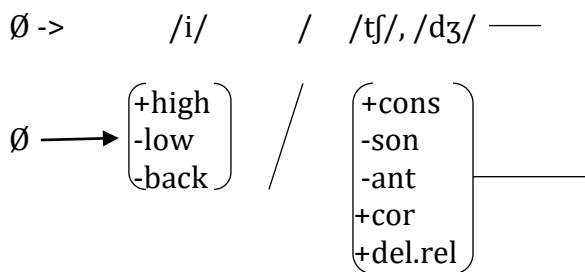
From the data above, it can be seen that vowel /o/ is inserted after /t/ and /d/ sounds in all position. The insertion of the vowel /o/ can be seen in the process below.



3.3.1.2 Insertion of vowel /i/

English	Japanese
/mesɪdʒ/ 'message'	/mesedʒi/
/bentʃ/ 'bench'	/bentʃi/

From the data, it is found that vowel /i/ is inserted after affricates. The phonological process of insertion of vowel /i/ can be seen below.

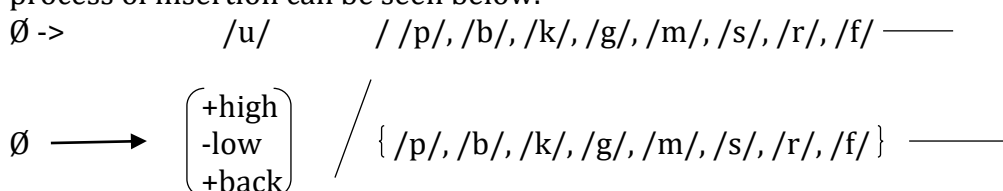


Shoji (Shoji & Shoji, 2014) in their study defined the insertion of vowel /i/ and /o/ as context-dependent epenthetic vowel because it is only inserted after affricates for vowel /i/ and after alveolar plosives. Based on the analysis, the writer found that the most frequent inserted vowels are /u/. As for the reason why vowel /i/ is mostly inserted after affricates, Shoji argues that vowel /i/ is more economical to be epenthesized rather than vowel /u/ because the articulation of affricates raises the front of the tongue toward a position closer to vowel /i/ rather than vowel /u/.

3.3.1.3 Insertion of vowel /u/

English	Japanese
/mɪstəri/ 'mystery'	/mɪs <u>u</u> teri/
/kɪs/ 'kiss'	/kɪs <u>u</u> /
/fri:/ 'free'	/f <u>u</u> ri/
/prəʊses/ 'process'	/p <u>u</u> roses <u>u</u> /
/breɪn/ 'brain'	/b <u>u</u> rein/

Based on the data above, it can be seen that vowel /u/ is inserted after other consonants except for /t/, /d/, and affricates. From all the data in this research, it is found that vowel /u/ is inserted after /p/, /b/, /k/, /g/, /m/, /s/, /r/, and /f/. The process of insertion can be seen below.



Based on all the vowel insertions when pronouncing English words above, it can be seen that vowel /u/ is mostly inserted and it can be inserted after many consonants, unlike vowel /i/ and /o/ which is restricted only to affricates for vowel /i/ and alveolar plosives for vowel /o/. For this reason, many previous researchers (Lovins:1975, Mori: 1929, Yoshida: 2006 as cited in (Shoji & Shoji, 2014)) categorized /u/ as context-free default epenthetic vowel. From the previous research, it can be seen that vowel /u/ is mostly inserted because it is the most unmarked and the least salient vowel in Japanese, also it is also the shortest in length compare to other vowels.

3.3.1.4 Insertion of consonants /p/, /t/, and /k/

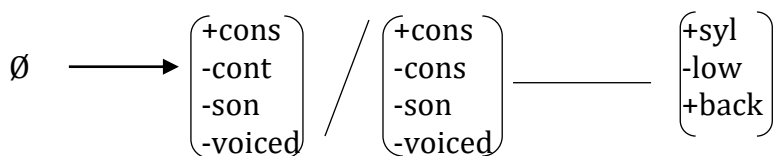
English	Japanese
/ræp/ 'rap'	/rapp <u>u</u> /
/snæp/ 'snap'	/sunapp <u>u</u> /
/daɪnæmɪk/ 'dynamic'	/daɪnamikk <u>u</u> /
/rəʊmæntɪk/ 'romantic'	/rəʊmantʃikk <u>u</u> /
/tɑ:ɡɪt/ 'target'	/tɑ:ɡett <u>o</u> /

From the data above, it can be seen that sounds /p/, /k/, and /t/ are inserted if the final sounds end with the same sounds and it occurs before the vowel (/u/ and /o/). As a comparison, look at the sample data below.

English	Japanese
/prəʊses/ 'process'	/purosesu
/prəʊɡræm/ 'program'	/puroguramu/
/wʌndərlænd/ 'wonderland'	/wandarando/

As can be seen from the data above, there is no consonant insertion. Based on this fact, it can be concluded that consonant insertion in Japanese only applied if the final sounds are plosives and voiceless. The insertion process can be seen below.

∅ -> plosive voiceless / plosive voiceless — vowels (/u/ and /o/)



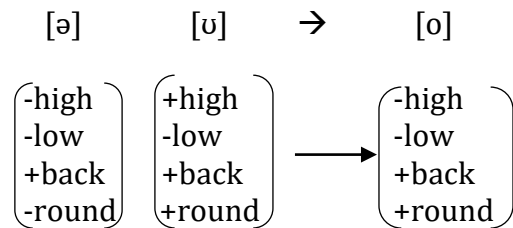
3.3.2 Vowel Coalescence

Vowel coalescence occurs when there are two vowel sounds replaced by a single sound. In data analysis, the sample of this type can be seen below.

English	Japanese
/prəʊɡræm/ 'program'	/puroguramu/
/rəʊmæntɪk/ 'romantic'	/rəʊmantʃikk <u>u</u> /
/rəʊmæns/ 'romance'	/rəʊmansu/
/prəʊses/ 'process'	/purosesu/

From the data above, it can be seen that diphthong [əʊ] becomes a single vowel [o] in Japanese. This occurs because there is no diphthong [əʊ] in Japanese

language. According to Kubuzono, in modern Japanese, there are three diphthongs, they are: [ai], [oi], and [ui] (Kubuzono, 2015). So that, if there is other than those diphthongs it will be changed into a single vowel. The process of diphthong [əu] becomes a single vowel [o] in Japanese can be seen below.

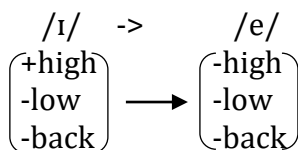


3.4 Weakening and Strengthening

3.4.1 Vowel Shift from /ɪ/ to /e/

English	Japanese
/dɪvaɪs/ 'device'	/debaɪsu/
/tɑːɡɪt/ 'target'	/tagetto/
/mesɪdʒ/ 'message'	/mesedʒi/

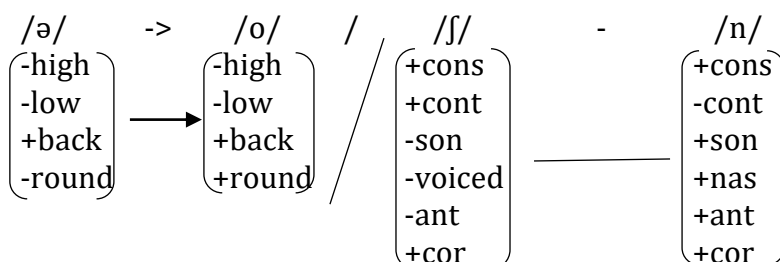
Based on the data above, high vowel /ɪ/ is shifted with non-high vowel /e/. The process can be seen below.



3.4.2 Vowel Shift from /ə/ to /o/

English	Japanese
/fɪkʃən/ 'fiction'	/fɪkuʃon/
/kwɛstʃən/ 'question'	/kuesutʃon/
/sensɛɪʃən/ 'sensation'	/sense:ʃon/

Based on the data above, it can be seen that /ə/ sound becomes /o/ if it occurs between /ʃ/ and /n/ sounds. The process can be seen below.



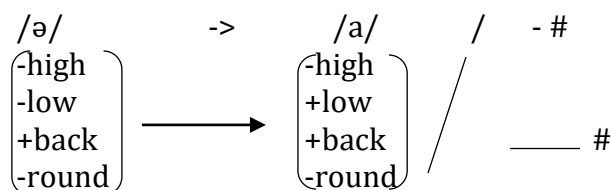
3.4.3 Vowel shift from /ə/ to /a/

Based on the data, it is found that if there are words ending with /r/ preceded by schwa /ə/ in English, it changes into /a/ in Japanese and the consonant /r/ is deleted. The sample of data can be seen below.

English	Japanese
/æktə(r)/ 'actor'	/akuta/

/raɪə(r)/ 'writer' /raitə/
 /preʃə(r)/ 'pressure' /pureʃə/

The process of sound changing can be seen below.



From all the data in this research, every schwa /ə/ in English will change into another vowel in Japanese. This occurs because there is no /ə/ in Japanese phonological system, so the sound will be adjusted to the closest sound before and after the schwa. From the result of this research, the writer found that some of languages applied the same phonological processes despite being different languages, for instance, epenthesis and deletion of sounds. This can be seen from the result of the study conducted by Shah, et.al (Shah et al., 2021) who observed English loanwords in Brahui language. In their research, it is found that Brahui language also tend to insert vowels between a consonant cluster because it is difficult for native speakers to pronounce consonant clusters, similar to Japanese which has open syllable system. From this fact, it can be concluded that some languages tend to adjust the pronunciation of English words according to their phonological systems because either they did not have the sounds, or they want to make the pronunciation easier.

4. Conclusions

From the findings, it can be concluded that there are 8 types of phonological processes found in the pronunciation of English words by Japanese native speakers which is found through songs. They are: backing, stopping, affrication, assimilation, substitution of /l/ to /r/, epenthesis, vowel coalescence, and vowel shift. Moreover, from the analysis, it can be concluded that the phonological processes occur because of two reasons; first, Japanese has open syllable system so there is no cluster consonants and consonant sounds in the final position except for /n/ which leads to epenthesis processes. Second, there are some sounds that are not present in Japanese, so the sounds are adjusted to the Japanese phonological system. As can be seen from the result of this study, there are many types of phonological processes found in pronouncing English words by Japanese, and this research also have not fully explained each of the types found. So, if there is anyone who interested in conducting a further study about this topic, they can explain further about one or two of the types found. This research is also expected to give general understanding of how to analyze phonological processes by using transformational generative phonology.

References

Daana, H. A. (2018). Phonological Development and Phonological Processes in the Speech of an English-Arabic Bilingual Child. *International Journal of Applied Linguistics and English Literature*, 7(5), 197.
<https://doi.org/10.7575/aiac.ijalel.v.7n.5p.197>

Gussenhoven and Jacobs. (2005). *Understanding Phonology*. Oxford University Press.

Kubuzono, H. (2015). *Handbooks of Japanese Phonetics and Phonology* (H. Kubuzono

- (ed.)). De Gruyter Mouton.
- Leung, C. B., & Brice, A. E. (2012). An Analysis of Phonological Processes Involved in Spoken English of Hong Kong Primary Pre-service Teachers. *Language Testing in Asia*, 2(2), 1–18. <https://doi.org/10.1186/2229-0443-2-2-42>
- Mallya, G. J. (2018). *Phonological Processes of Chagga nativized Lexemes Borrowed from Standard Swahili: A Chagga-English Comparative Study*. Sanata Darma University.
- Oeinada, I. G. (2018). Contact Phonology : Fonologi Kata Serapan dalam Bahasa Jepang. *Pustaka : Jurnal Ilmu-Ilmu Budaya*, 18(1), 25. <https://doi.org/10.24843/pjiib.2018.v18.i01.p04>
- Sari, I., & Sawirman, S. (2014). Proses Fonologis Kata Serapan Bahasa Inggris Ke Dalam Bahasa Jepang. *Linguistika Kultura*, 7(3), 15–38.
- Schane, A. S. (1973). *Generative Phonology*. Prentice-Hall Inc.
- Schane, A. S. (1992). *Fonologi Generatif* (K. (translator) Gunawan (ed.)). Summer Institute of Linguistics.
- Shah, A. W., Malghani, F. A., Bano, S., & Syed, N. A. (2021). A Phonological Analysis of English Loanwords in Brahui. *Kashmir Journal of Language Research*, 24(2), 255–279.
- Shoji, S., & Shoji, K. (2014). Vowel Epenthesis and Consonant Deletion in Japanese Loanwords from English. *Proceedings of the Annual Meetings on Phonology*, 1(1). <https://doi.org/10.3765/amp.v1i1.16>
- Soelistyowati, D. (2010). Pembentukan Kata Pinjaman (Gairago) dalam Bahasa Jepang. *LITE*, 6, 152–171.
- Sugiyono. (2020). *Metode Penelitian Kualitatif (Untuk penelitian yang bersifat:eksploratif, enterpretif, interaktif dan konstruktif)* (Edisi ke-3). Alfabeta.