Japanese Native Speakers’ Perception on Learners’ Pronunciation of Double Consonant Sounds in Japanese Adverbs (Fukushi)

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ABSTRACT
The purpose of this study is to determine the perception of Japanese native speakers on the pronunciation of the double consonant 「促音」 (sokuon) in Japanese adverbs or 「副詞」 (fukushi) namely 「ゆっくり」 (yukkuri), 「ずっと」 (zutto), and 「やっと」 (yatto) by ten Japanese language students in a state university in East Java, Indonesia. This study uses both quantitative and qualitative approach with conducting assessments of students’ pronunciation of Japanese adverbs (fukushi) by three Japanese Native Speakers (JNS). The results showed that eleven data were pronounced perfectly and naturally, sixteen data were pronounced naturally, four data were pronounced a little naturally, and one data was pronounced a little unnaturally and unnaturally. However, there were seven data misunderstood by the JNS. The results also show that differences in JNS perception of the respondent’s pronunciation have an impact on the assessment, and the double consonants also affect the duration of pronunciations which affects the assessment from JNS. In addition, the Japanese language students participated in this study were all considered able to pronounce the three 「副詞」 (fukushi) or Japanese adverbs correctly according to JNS.

KEYWORDS
Double Consonant; Fukushi; Perception; Pronunciation.

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INTRODUCTION
Language learning includes four aspects of language skills, namely listening, speaking, reading, and writing. Matsuzaki and Kawano in Pratiwi, Dahidi, and Haristiani (2016) argue that Japanese language learners are generally weak in pronunciation and many students have not realized the importance of understanding the pronunciation of foreign languages correctly which is included in speaking skills. However, the ability to speak correctly is considered the most sought-after skill for an individual to be accepted in the field of a foreign language (Kurum, 2016), and the “speaking-listening” language activity is very important part (Soepardjo, 2012).

The ability to speak in learning Japanese is related to the pronunciation of the sounds of the letters. Judiasi (2017) argues that to be able to speak one language well, the speaker must master the pronunciation, structure, and vocabulary. The elements of Japanese sounds that are a problem for the learner are accents, intonations, long sounds, double consonant sounds, and others (Najoan, 2019) caused by difficulties in mastering special beats such as long vowels, “n” sounds, and double consonant sounds (Hirata, n.d.). Therefore, this is also a cause of many
mispronunciations of Japanese *sokuon* sounds by Japanese language learners.

The sound of a double consonant or called a double consonant sound or called 「促音」(*sokuon*) in learning Japanese letters is one of the characteristics of a distinctive sound. The double consonant sound (*sokuon*) is a closed sound or a clogged sound, which in Indonesian can be called a double, which is the use of the same consonant sound as the consonant in a syllable in the next section (Mael, 2021) and written using the letter 「つ」(*tsu*) small (Kawahara & Braver, 2014). In the katakana letters use small 「ツ」(*tsu*) while in the Roman letters it is written using the double "tt". Table 1 below is a series of hiragana letters and romaji that are sounded in duplicate (Kawarazaki, 1980).

| -kka | -kki | -kku | -kke | -kko |
|------|------|------|------|------|
| ippo | ippo | ippo | ippo | ippo |
| issi | issi | issi | issi | issi |
| -sso | -sso | -sso | -sso | -sso |
| itta | itta | itta | itta | itta |
| -ppa | -ppa | -ppa | -ppa | -ppa |

In Japanese letters, not all series of hiragana and katakana letters can be sounded in pairs. Even so, the double consonant sound (*sokuon*) is one of the typical Japanese phonemes that is difficult to hear by foreign speakers (Fujimoto, 2014). Furthermore, Hirata conveyed that the double sound (*sokuon*) remains difficult for second language learners, even for advanced level learners because these double consonants tend to be pronounced as two separate words (Kubozono, 2017). As a foreign language learner, awareness of the sound of double consonants (*sokuon*) is felt to be lacking even though there is a basic difference between single and double consonants, namely the duration of the consonant (Arai, Iwagami, & Yanagisawa, 2017) that double consonant sounds (*sokuon*) in Japanese undergo a longer sound narrowing process than non-double words (Kawahara, 2015). Therefore, the pronunciation of Japanese sounds, especially double consonant sounds (*sokuon*) is difficult to pronounce because not all languages have the same pronunciation system as Japanese.

In addition, double consonant differences can also affect the duration of the articulation. For the comparison of differences in Japanese double consonants, for example, double consonants [t] has a ratio of 2.24 while double consonant [k] has a ratio of 1.91 (Kawahara, 2015).

On the other hand, Indonesian adult Japanese learners generally have more difficulty following pronunciation like native Japanese speakers. The imitation ability, voiceless pronunciation practice, and foreign language acceptance are depending on their language ability (Ohta, 2001). Hence, most adult learners are consciously aware that awareness factors (cognition of adult second language learners), interfere with language acquisition. And adult language learners are more aware of the social values and attitudes related to language, etc. which is exaggerated to hinder the acquisition of a second language (Bainbridge, 2002). Therefore, it is important to equalize perceptions between Japanese language learners in Indonesia and the Japanese native speakers.

Adverbs are a class of words that often appear before verbs. Japanese adverb or 「助詞」(*fukushi*) is a non-conjugated word that modifies other words (Kamiya, 2012). The function of Japanese *fukushi* is to modify verbs, adjectives, other adverbials, and certain nouns such as 「ゆっくり」(*yukkuri*), 「もっと」(*motto*), 「せっかち」(*kesshite*), and 「たぶん」(*tabun*). Japanese adverbs that contain double consonant sounds (*sokuon*) are often unaware of their existence by Japanese language learners. The double consonant sound (*sokuon*) is rarely pronounced correctly compared to the double consonant sound (*sokuon*) in verbs. This can also give the impression that the low awareness of students of the sound of double consonants (*sokuon*) in a word.

Research on double consonants (*sokuon*) in Japanese was also conducted by Wahyuni and Sutedi (2020) to determine the language errors and causal factors of Japanese language learners on the ability to read and write hiragana containing *sokuon* and *choon*. This study found that most of the errors in reading and writing words that contain double consonant sounds (*sokuon*) are because learners do not know the meaning of the word in question and do not know the actual rules of Japanese. In addition, the results were obtained due to the influence of the level of understanding of hiragana letters and the neglect of the rules of writing hiragana letters. This study only focuses on the variety of written language so there are no research results on pronunciation errors *sokuon* and *choon*. Next is a study by Mael (2021) that focuses on *sokuon* in conversational language in comics, who found that oral language writing in comics if transcribed into written language will affect *sokuon* which inconsistent with Japanese grammar. In addition, the *sokuon* varies because it is spoken in a conversational language. However, this study does not discuss the pronunciation of *sokuon* in spoken language so there is a need for the development of research on the pronunciation of *sokuon*.
In contrast to above studies, this study aims to determine how the perceptions of Japanese Native Speakers (hence JNS) on the pronunciation of three adverb 「副詞」（fukushi）namely 「ゆっくり」（yukkuri），「ずっと」（zutto），and 「やっと」（yatto） by Japanese language learners in a state university in East Java, Indonesia. The results about JNSs’ perceptions of learners’ pronunciation of the three 「副詞」（fukushi）is expected to be useful as a guide on how to pronounce 「副詞」（fukushi）a word that contains double consonants in Japanese speaking activities.

METHOD

Research Approach

This research approach used qualitative research. Then for the presentation of data in this study in the form of a description. Furthermore, the validation technique used to determine how the perception of native Japanese speakers of the pronunciation that is often pronounced by learners is to use triangulation. There are various ways to use triangulation validation done in this study are:
1. Triangulation of data collection, which is collecting data from various sources of informants;
2. Triangulation of methods, i.e. data collection is done with various methods.

(Budiastuti & Bandur, 2018)

Data and Research Subjects

The data used is an audio recording containing the pronunciation of 10 students practicing Program Pengenalan dan Pengelolaan Manajemen or Learning Introduction and Management Program (hence LIM Program), which are members of class of 2018 in Japanese Language Education Study Program in a state university in East Java who have passed JLPT N4. The total data collected about the pronunciation of the three fukushi or Japanese adverbs that contain the double consonant sound (sokuon) 1 word 「ゆっくり」（yukkuri），2 words 「ずっと」（zutto），and 1 word 「やっと」（yatto） was 40 data.

Data Collection

Students as respondents were given a speech script and then invited to read and ask if there are things that are not understood. Furthermore, students are given the opportunity to read in the heart first, when ready to start reading and record it in .wav format and upload it to the specified Google drive.

Data Analysis

The first step in the analysis is the assessment of audio recording data by Japanese Native Speakers (JNS). The assessment is done by listening to the audio recordings of the students that contain the pronunciation of three 「副詞」（fukushi）and then choosing whether the pronunciation done by the students is determined as 「自然」（shizen） ‘natural’, 「やや自然」（yaya shizen） ‘slightly natural’, 「やや不自然」（yaya fushizen） ‘slightly unnatural’, or 「不自然」（fushizen） ‘unnatural’. Three JNS have participated in this study as the assessors. Furthermore, of the 3 JNS, 2 native speakers (JNS1 and JNS2) are already understand Indonesian and Javanese while 1 native speaker (JNS3) only understands Japanese. This may give different perceptions of the pronunciation uttered by students due to language experience, and differences in knowledge about the linguistics of the language being listened to (Williams & Escudero, 2014).

RESULTS AND DISCUSSION

JNS Assessments on Each Learner’s Pronunciation of Adverbs 「ゆっくり」Yukkuri, 「ずっと」Zutto, and 「やっと」Yatto

The data taken in this study were 「副詞」（fukushi）or Japanese adverbs pronunciations consisting of the words 「ゆっくり」（yukkuri），「ずっと」（zutto），and 「やっと」（yatto） with 40 total amounts of data. The assessments from JNS were divided into four categories namely 「不自然」（fushizen） which is ‘unnatural’, 「やや不自然」（yaya fushizen） or ‘slightly unnatural’, 「やや自然」（yaya shizen） means ‘slightly natural’, and 「自然」（shizen） that is ‘natural’. The following are the data findings based on the type of assessment data from JNS for each respondent (below abbreviated as ‘R’, hence Respondent 1 is ‘R1’ and so on).

JNS Assessment of R1’s pronunciation

Table 2 contains the pronunciation assessment of R1.

| No. | Data   | JNS-1 | JNS-2 | JNS-3 | Average |
|-----|--------|-------|-------|-------|---------|
| 1   |ゆっくり | 2     | 3     | 2     | 2.3     |
| 2   |ずっと  | 2     | 4     | 4     | 3.3     |
| 3   |ずっと  | 3     | 4     | 4     | 3.7     |
| 4   |やっと  | 1     | 4     | 3     | 2.7     |
R1 pronounces the word 「ゆっくり」(yukkuri) with a high accent of 「ゆ」(yu) and the double consonant was not clearly heard. Although it sounds a little unnatural but can still be understood by all JNS. When pronouncing the word 「やっと」(yatto), R1 gets an assessment from JNS as 'slightly natural' because there is an inequality of perception from the JNS-3. However, the opinions of JNS-1 and JNS-2 were very different because JNS-1 assessed as 'unnatural' while JNS-2 assessed it as 'natural'. In addition, the opinion of JNS-1 says that R1’s intonation of 「ゆ」(yu) was high, and JNS-3 thinks that if the intonation of 「と」(to) is lower it will sound more natural. While R1’s pronunciation of the first word 「ずっと」と(to) assessed to be 'slightly natural' and the second 「ずっと」と(to) assessed as 'natural', both 「ずっと」と(to) pronunciation by R1 was commented to have an accent in the pronunciation of the 「ずっと」(zu) sound by JNS-1.

**JNS Assessment of R2’s pronunciation**

R2 pronouncing the word 「ゆっくり」(yukkuri) get an assessment that tends to be the same from all JNS which is 'unnatural'. The accent of the word 「ゆっくり」(riri) was high and the double consonant was not heard which is why all of JNS gives the result as in Table 3.

| No. | Data | JNS-1 | JNS-2 | JNS-3 | Average |
|-----|------|-------|-------|-------|---------|
| 1   | ゆっくり | 1     | 2     | 1     | 1,3     |
| 2   | やっと1 | 3     | 4     | 4     | 3,7     |
| 3   | やっと2 | 3     | 4     | 4     | 3,7     |
| 4   | やっと | 4     | 3     | 4     | 3,7     |

When pronouncing the word 「やっと」(yatto), R2 gets an assessment from JNS as ‘natural’. But JNS-3 says a little more might sound natural. When R2 pronounces the first and the second 「ずっと」と(to) (zutto), R2 also gets an assessment from JNS as ‘natural’. But the first and the second 「ずっと」と(to) (zutto) by R2 commented by JNS-1 that there is an accent in the pronunciation of the 「ずっと」(zu) sound.

**JNS Assessment of R3’s pronunciation**

When R3 pronouncing 「ゆっくり」(yukkuri) and 「やっと」(yatto) one-time and 「ずっと」と(to) (zutto) two times, R3 obtained an assessment as ‘natural’ from all JNS. In addition, JNS-3 commented 「ずっと」(jouzu desu) which means ‘very good’ and ‘natural’. Assessment for R3 can be seen in Table 4.

| No. | Data | JNS-1 | JNS-2 | JNS-3 | Average |
|-----|------|-------|-------|-------|---------|
| 1   | ゆっくり | 4     | 4     | 4     | 4,0     |
| 2   | やっと1 | 4     | 4     | 4     | 4,0     |
| 3   | やっと2 | 4     | 4     | 4     | 4,0     |
| 4   | やっと | 4     | 4     | 4     | 4,0     |

**JNS Assessment of R4’s pronunciation**

R4 pronunciation of 「ゆっくり」(yukkuri) gets an assessment from all JNS as ‘natural’. Meanwhile, when pronouncing the word 「やっと」(yatto), R4 got a comment from JNS-1 that the duration of pronunciation 「と」(to) was too long. However, the pronunciation of 「やっと」(yatto) by R4 gets a ‘slightly natural’ assessment from JNS-3, as presented in Table 5.

| No. | Data | JNS-1 | JNS-2 | JNS-3 | Average |
|-----|------|-------|-------|-------|---------|
| 1   | ゆっくり | 4     | 4     | 3     | 3,7     |
| 2   | やっと1 | 1     | 4     | 4     | 3,0     |
| 3   | やっと2 | 1     | 4     | 4     | 3,0     |
| 4   | やっと | 2     | 4     | 4     | 3,3     |

R4 when pronouncing 「ゆっくり」(yukkuri) gets the same assessments from all JNS which is ‘natural’. Meanwhile, when pronunciation of the word 「やっと」(yatto) got a comment from JNS-1 that the duration of the pronunciation 「と」(to) was too long, although the pronunciation of 「やっと」(yatto) by R4 got a 'little natural' assessment from all JNS.

R4 when pronouncing the first and the second 「ずっと」と(to) (zutto) gets the same assessment as 'natural' from JNS-2 and JNS-3. However, in both words 「ずっと」と(to) (zutto) by R4 there was an accent in the pronunciation of the sound of 「ずっと」(zu) which assessed as ‘unnatural’ by JNS-1.

**JNS Assessment of R5’s pronunciation**

Table 6 contains JNS assessments for R5. R5 when pronouncing 「ゆっくり」(yukkuri) gets the same assessments all JNS which is ‘natural’. Meanwhile, when pronouncing the word 「やっと」(yatto), R5 get an assessment that tends to be different from all JNS.
R5 pronunciation of word 「ずっと」 (yatto) assessed as ‘slightly natural’ from all JNS. But similar to most respondents, R5 gets a comment from JNS-1 that there is an accent in the pronunciation of the sound of 「ず」 (zu) in both 「ずっと」 (yatto) pronounced by R5.

**JNS Assessment of R6’s pronunciation**

R6 when pronouncing 「やっと」 (yatto) obtained very different assessments by JNS-1, JNS-2, and JNS-3 as seen in Table 7.

| No. | Data  | Assessment  |
|-----|-------|-------------|
|     | JNS-1 | JNS-2 | JNS-3 | Average |
| 1   | ゆっくり | 4    | 4      | 3      | 3.7      |
| 2   | ずっと1 | 3    | 3      | 3      | 3.3      |
| 3   | ずっと2 | 3    | 4      | 3      | 3.3      |
| 4   | やっと  | 2    | 4      | 3      | 3.0      |

JNS-1 assessed the pronunciation as ‘unnatural’ while JNS-2 and JNS-3 assessed it as ‘natural’. However, the pronunciation of 「やっと」 (yatto) by R6 cannot be understood by JNS well and correctly. Meanwhile, when pronouncing 「ゆっくり」 (yukkuri) once and 「ずっと」 (zutto) twice, R6 gets an assessment that is ‘slightly natural’ from the three JNS. Further, R6 gets a comment from JNS-1 that there is an accent in the pronunciation of the letter 「ず」 (zu) when pronouncing 「ずっと」 (zutto).

**JNS Assessment of R7’s pronunciation**

Table 8 presents the assessment results for R7.

| No. | Data  | Assessment  |
|-----|-------|-------------|
|     | JNS-1 | JNS-2 | JNS-3 | Average |
| 1   | ゆっくり | 4    | 4      | 4      | 4.0      |
| 2   | ずっと1 | 3    | 4      | 4      | 3.7      |
| 3   | ずっと2 | 4    | 4      | 4      | 3.3      |
| 4   | やっと  | 4    | 4      | 4      | 4.0      |

R7 when pronouncing 「ゆっくり」 (yukkuri) and 「やっと」 (yatto) get an assessment as ‘natural’ from all JNS. But when pronouncing the first and the second 「ずっと」 (zutto), there is a different assessment from all of JNS. Assessment for the first 「ずっと」 (zutto) was ‘slightly natural’, while for the second 「ずっと」 (zutto), R7 received an evaluation that was ‘slightly unnatural’. Nevertheless, the second pronunciation of both 「ずっと」 (zutto) by R7 has an accent in the pronunciation of the letter 「ず」 (zu) according to JNS-1.

**JNS Assessment of R8’s pronunciation**

R8 when pronouncing 「ゆっくり」 (yukkuri), 「やっと」 (yatto), and 「ずっと」 (zutto) obtained a rating as natural by all JNS. Assessment can be seen in Table 9.

| No. | Data  | Assessment  |
|-----|-------|-------------|
|     | JNS-1 | JNS-2 | JNS-3 | Average |
| 1   | ゆっくり | 4    | 4      | 3      | 3.7      |
| 2   | ずっと1 | 3    | 4      | 3      | 3.3      |
| 3   | ずっと2 | 4    | 4      | 3      | 3.7      |
| 4   | やっと  | 4    | 4      | 4      | 4.0      |

R8 pronunciation of 「ゆっくり」 (yukkuri), 「やっと」 (yatto), and the second 「ずっと」 (zutto) assessed as ‘natural’ by all JNS. Especially on the pronunciation of the word 「ずっと」 (yatto), R8 gets the same assessment from all JNS which is ‘natural’. However, the first 「ずっと」 (zutto) assessed as ‘slightly natural’ due to the accent on 「ず」 (zu) in the first 「ずっと」 (zutto), according to JNS-1 and JNS-3.

**JNS Assessment of R9’s pronunciation**

Assessment for R9 can be seen in Table 10.

| No. | Data  | Assessment  |
|-----|-------|-------------|
|     | JNS-1 | JNS-2 | JNS-3 | Average |
| 1   | ゆっくり | 3    | 4      | 4      | 3.3      |
| 2   | ずっと1 | 3    | 4      | 4      | 3.7      |
| 3   | ずっと2 | 4    | 4      | 4      | 4.0      |
| 4   | やっと  | 4    | 4      | 4      | 4.0      |

R9 when pronouncing 「ゆっくり」 (yukkuri) and the second 「ずっと」 (zutto) get an assessment that is ‘natural’ by all JNS. And when pronouncing the first 「ずっと」 (zutto), R9 gets the same assessment as ‘natural’, although according to JNS-1 there is an accent on 「ず」 (zu) sound. However, when pronouncing the word 「ゆっくり」 (yukkuri), R9 gets a tendency of judgment as ‘slightly natural’. This may be due to the high accent of 「ゆっくり」 (yu) according to JNS-1.
JNS Assessment of R10’s pronunciation

R10 when pronouncing 「ゆっくり」 (yukkuri) and the second 「ずっと」 (zutto) obtained an assessment that is ‘natural’ from all three JNS. However, R10 gets different judgments when pronouncing the word 「やっと」 (yatto), as the JNS did not hear the double consonant in the word 「やっと」 (yatto) pronounced properly and correctly by R10. In addition, according to JNS-1, there was a high accent in 「や」 (ya) pronounced by F10 in the word of 「やっと」 (yatto). Meanwhile, when pronouncing the first 「ずっと」 (zutto), there is a visible difference in assessment made by JNS-1 and the other JNS. JNS-1 assesses ‘unnatural’ while JNS-2 and JNS-3 assessed as ‘natural’. This is likely because JNS-1 heard an accent in 「ず」 (zu) in the word 「ずっと」 (zutto). Assessment data of R10 pronunciation can be seen in Table 11 below.

| No. | Data        | JNS-1 | JNS-2 | JNS-3 | Average |
|-----|-------------|-------|-------|-------|---------|
| 1   | ゆっくり    | 4     | 4     | 4     | 4.0     |
| 2   | ずっと1     | 1     | 4     | 4     | 3.0     |
| 3   | ずっと2     | 4     | 4     | 4     | 4.0     |
| 4   | やっと       | 2     | 4     | 3     | 3.0     |

Overall Perceptions by JNS on Learner’s Pronunciation

From the data results obtained in this study, the assessment results of the JNS were different even though the data uttered by the respondents are the same. This tendency shows that the influence of the subjective assessment of JNS gives different assessment points. However, the findings in this study is in accordance with Williams and Escudero (2014) who stated that different JNS perceptions of pronunciation uttered by students may be different based on their language experience, and differences in knowledge about the linguistics of the language being learned.

Furthermore, the difference in articulation also gives the effect on the pronunciation difference. As the result above, the average high point rating from JNS is on the word 「ゆっくり」 (yukkuri) pronounced by R2, R3, R4, R5, R6, R7, and R10 while the lowest average rating on the word 「やっと」 (yatto) which are pronounced by R4, R5, R6, and R10. Kawahara (2015) mentioned that there is a difference in the ratio between the articulation style of the duration of the double consonants [k] and [t], namely 1.91 and 2.24, respectively. Therefore, differences in double consonants in words can also affect the duration of pronunciation which ultimately assesses the different JNS. Evidently 7 words out of a total of 40 words assessed to contain JNS disagreement and 5 words out of a total of 40 words contained 2 distance points of inequality.

CONCLUSION

The double sound consonant or sokuon is one of the sound elements in Japanese pronunciation that is considered difficult. The consonant of the double sound or sokuon is often pronounced as two separate words even though the duration of the pronunciation is longer than the single consonant.

In this study, the pronunciation of the consonants of the double sound 「ふくしゅ」 (fukushi) or adverbs namely 「ゆっくり」 (yukkuri), 「ずっと」 (zutto), and 「やっと」 (yatto) pronounced by respondents who are students with the same level of Japanese competency, yet each students obtain different results. The results obtained in the form of assessment based on JNSs’ perception of the students’ pronunciation. The results also showed that word difference give the effect to the duration of words’ articulation. And generally, the pronunciation ability of 「ふくしゅ」 (fukushi) or adverbs of Japanese learners participated in this study is can be concluded as good.

The awareness in pronouncing Japanese language by learners, especially for prospective Japanese language teachers is important. Hence, researches on Japanese learners’ pronunciation need to be studied further.

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