

# The Effects of Musical Expressions on Listeners

## - A Case Study of Western Classical Music -

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### Abstract

The purpose of this paper is the research of vocal skill improvement for the musical expression of vocal music. The relation of musical expression and listener's music recognition has not been researched so well before. We chose one Japanese song, and investigated the effect on the listener of the musical expression. The examination method adopted MACL(mood adjective check list).We analyzed the score of the song, studied lyrics and the cultural context, and created the musical expression. To execute this musical expression, we devised strength of the voice and the change of the vocal quality. As a result of the experiment, the listener evaluated the performance to devise the musical expression by study. We confirmed the effect on the listener of the musical expression.

### 1 Introduction

This paper is one case study to learn the song performance. To integrate music and poetry by the musical expression, we singers should study. Lisa Roma showed the following three points about the preparation of the performance of the song and the aria. They are the composer's intention, meaning of poetry, and singer's individuality[Roma 66].Toyoda, one of the authors is singer of the Western classical music. She also has studied in the activity as one singer for these performance preparation. The musical expression arises through the study for these performance preparation. The musical expression of Singer influences the appreciation of the listener. Toyoda recognized the importance of the research of the musical expression from her own experience. It is the motive of this research. The relation of musical expression and listener's music recognition has not been researched so well before. The musical expression is created by player's sensibility based on the interpretation and the understanding of the music peace. The process of this creation is tacit. We cannot explain the process in word. However, we learn many or more than it is possible to talk. We perceive it dwelling in

player's mind[Polanyi 96]. Then we paid attention to Toyoda's study for the musical expression between the cause and the result, and then clarified the process of the study of her experiment song. To examine the effect of the musical expression, we chose one song. We recorded the musical expression of the first performance and the musical expression of the performance that had been studied for seven days. MACL (mood adjective checklist) was adopted, and the perception reaction of the listener of these two kinds of musical expressions was examined. The listener evaluated the musical expression of the first performance and the musical expression of the performance that had been studied for seven days. As the result of this experiment, the listeners sensed the musical expression of the performance that had been studied for seven days. This Research aims to propose the act of the creation of the musical expression of Toyoda as one of the strategies of the skill improvement of the musical expression.

### 2 Approach to the music piece

We adopted the following one song. The song is "Hometown where flower scatters (Hana chiru sato)". Composer is Korehisa Shiba.(1928- Japan).Composition year is on April 19, 1951. Poet is Akiko Yosano (The Tale of Genji. translation in 1938) The first study makes the score a real sound, and perceives the whole of the Song. She sings by her own piano accompaniment. It is a musical expression of the first performance before study. At this first musical expression, Toyoda perceives the world that the musical composition indicates. She has the image of the perceived world. This image does not disappear while being approaching the song. Next, Toyoda analyzed the score of "Hometown where the flower scatters", and studied the cultural context. "Interpretation and understanding" of the song depends on the score analysis and the cultural context. Contents of practice: Every day until March 26th - April 2<sup>nd</sup>. "The first musical expression" was recorded on

March 26. Toyoda began the score reading. She sounded the sound and the rhythm of the score (Singing of "do, re, mi..." for melody recognition., Singing of "do, re, mi..." for rhythm recognition). At the same time, she started the study of the cultural context. She read poetry 30 times in a day. After that "musical expression" of the sense on that day of the concert was done at the end of daily work. The musical expression was created with this singing. The score reading ended on April 2. The score was memorized. We recorded this musical expression on April 2. The content of "Score reading" is as follows.

## 2.1 The content of Score reading

The content of the score reading is score-analysis and study of the cultural context. We explain score- analysis and study of the cultural context. This score has a big jump of the sound in the melody. A big jump of the sound is expression of clear sadness and pleasure[Mattheson 73]. The minor key is an expression of sadness [Nomura 71].

- Score analysis: The tonality is e-moll. / Modal is phrygian. / The rhythm is three-quarter.

- Cultural context: The meaning of poetry is as follows. "The wild orange flower and the anxiety of love have scattered. The cuckoo recalls the smell of the flower and love and sings". Toyoda read The Tale of Genji of a Japanese translation of the present age of Yosano Akiko. The interpretation by Toyoda is following. The cuckoo symbolizes Hikaru Genji. The cuckoo's barking means Hikaru Genji cries. The smell of the flower symbolizes the old memories. Hikaru Gebji cried because it recalled dear old times. He visited the woman who had lived together in old times. He did not visit her for a long time. Nevertheless, this woman's love continues. This woman is not so beautiful. She had a noble character and soft atmosphere. This woman lived lonesomely alone. However, her mind was peaceful because there were nostalgic memories with Hikaru Genji. Hikaru Genji loved her than before. He was healed by her.

At this point, we selected the word that corresponded to feelings of this musical composition. The word is as follows; Dearly, Loneliness, Softness, Inconsolably, Friendly, Plaintiveness. Toyoda puts these feelings in her own feelings.

## 2.2 Musical expression

Toyoda paid attention to the word of "Repetition" at the score end. They are "hototogisu" and "naku". The meaning of "Repetition" is an emphasis. Toyoda devised

the musical expression to emphasize "Dearly. Loneliness, Softness, Inconsolably. Friendly, Plaintiveness" in the part of this "hototogisu naku". The musical expression depends on "change in strength of voice" and "vocal quality" etc[Roma 66, Yoneyama 06]. Those device are as follows.

- Change in strength of voice was devised as follows.

[hototogisu] The strength of the second voice was squeezed.

[naku] The strength of the voice was squeezed toward "naku" of the third times.

- The vocal quality was devised as follows. Toyoda put feelings of "Dearly, Loneliness, Softness, Inconsolably, Friendly, Plaintiveness" in the part of this in her own feelings. The breath of feelings was mixed with the voice. The first of the proportions of the breath in the voice was the smallest. The third was largest. Toyoda made the vocal quality soft by mixing the breath. The jump of the sound was devised as follows. Toyoda practiced singing the jump of the sound accurately. The voice jumped with feelings of "Dearly, Loneliness, Softness, Inconsolably, friendly, Plaintiveness. " The musical expression was described. Next, the perception of the listener of the musical expression was examined.

## 3 Experiment

Experiment method is MACL(mood adjective check list). The actual experiment was the Music appreciation evaluation. The cover experiment was the questionnaire of the opera theater. We prepared CD for the experiment as follows.

### 3.1 Content of CD

We show as follows.

① the first musical expression on March 26.07'

② musical expression after score reading on April 2.07'

The time required is as follows.

① 2:29 ② 2:421.

We set two kinds of CD. The contents are as follows.

1. Recording: to ①→②

2. Recording: to ②→①

- The number of each listener of 1, 2 is as follows.

1. 8 listeners , 2. 8 listeners

### 3.2 Evaluation word

We decided the evaluation words as follows.

- Musical expression correspondence words

dearly, loneliness, softness, inconsolably, friendly, plaintiveness

- Musical expression non-correspondence words  
darkness, desolate, melancholy, cheerfulness, violently, tidy

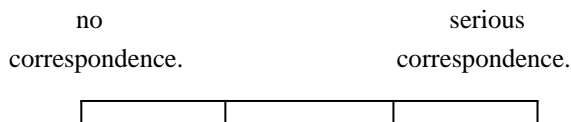
We chose the word that denied the corresponding word, and included a pleasant word. We discussed the influence of poetry on the evaluation. Poetry was listened to as follows.

"ta-chi-ba-na-no, ko-i-no-u-re-i-mo, chi-ri-ka-e-ba, ka-wo-na-tsu-ka-shi-mi, ho-to-to-gi-su,ho-to-to-gi-su na-ku, na-ku, na-ku"

We experimented by one listener for the doubt. As a result, the listener was not able to recognize it as Japanese words. He said, Japanese was understood by "ho-to-to-gi-su at the end". We judged that there was no problem of the influence of poetry on the evaluation. We made the evaluation questionnaire form as follows. In that case, the listener checked two different kinds of questionnaire forms in ① and ②. The evaluation words are the same, and the order is different. The first check does not influence the second times by this consideration.

### 3.3 Content of questionnaire forms

Please answer how the following word applies to your current feelings. Please enclose the corresponding scale with .○



## 4 Experiment result

### 4.1 Data mining

We expressed the answer of the questionnaire numerically as follows.



We display the evaluation words as follows.

- Words to expect evaluation.
  - plaintiveness.
  - dearly.
  - friendly.
  - softness.
  - loneliness.
  - inconsolably.
- Words not to expect evaluation
  - desolate.
  - tidy.
  - darkness.
  - violently.
  - melancholy.
  - cheerfulness.

## 4.2 Result

①→②:① Number of totals

words to be expected highly approved: 84points,  
words not to be expected approved: 35points

①→②:② Number of totals

words to be expected highly approved: 104points,  
words not to be expected approved: 29points

②→①:① Number of totals

words to be expected highly approved: 63points ,  
words not to be expected approved: 60points

②→①:② Number of totals

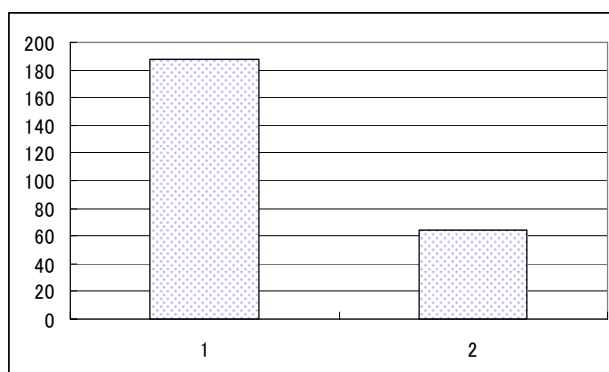
words to be expected highly approved: 97points,  
words not to be expected approved: 44points

Table 1 shows the result of each evaluation word.

Graph1 shows the total of "words to be expected highly approved" and "words not to be expected approved" of ①+② (Listening style ①→②).

The spindle displayed the number of totals, and the horizontal axis displayed [1.Words to expected highly approved] and [2. Words not to be expect approved].

Total of "words to be expected highly approved" and "words not to be expected approved" of ① + ② (Listening style ①→②) Graph 1



- 1.Words to expected highly approved:188points
- 2.Words not to be expect approved: 64points

## 5 Summary

The purpose of this paper is the research of vocal skill improvement for the musical expression of vocal music. We chose one Japanese song, and investigated the effect on the listener of the musical expression. The examination method adopted MACL. We analyzed the score of the song, studied lyrics and the cultural context, and created the musical expression. To execute this musical expression, we devised strength of the voice and the change of the vocal quality. As a result of the experiment the listener evaluated the performance to devise the musical expression. To execute this musical

The result of each evaluation word Table 1

①→②:①

Evaluation words	a	b	c	d	e	f	g	h	i	j	k	l
Number of totals	13	16	13	13	16	13	4	5	9	4	7	6

①→②:②

Evaluation words	a	b	c	d	e	f	g	h	i	j	k	l
Number of totals	18	15	17	17	17	20	6	3	7	3	9	2

②→①:①

Evaluation words	a	b	c	d	e	f	g	h	i	j	k	l
Number of totals	12	14	9	6	9	13	10	14	8	9	9	10

②→①:②

Evaluation words	a	b	c	d	e	f	g	h	i	j	k	l
Number of totals	18	18	14	15	15	17	10	3	11	3	14	3

expression, we devised strength of the voice and the change of the vocal quality. As a result of the experiment, the listener evaluated the performance to devise the musical expression by study. We confirmed the effect on the listener of the musical expression. We plan the research of the skill science based on the result of this research. We confer on the objective data collection method with the throat specialist, the body scientist, and the sports specialist. The meaning of this research is to become the indicator of player and listener's better communications so that the person may enjoy music. Gerhard Widmer used AI and machine learning to study the music performance of the expression, and announced an enthusiastic research [Widmer 01]. Instrumental music and vocal music have the same point and a different point. Instrumentalist's musical instruments choose performer's intention. The musical instruments are made from the material. The musical instruments separate with the player when not performing. The musical instruments of Singer are buried in the body, and made from the bone and the muscle. When not performing, they don't separate with the body. The difference between the instrumental music and the vocal music is that lyrics exists in the vocal music. A lot of composers obtain and compose the inspiration to poetry [Roma 66, Hindemith 69]. It insists on the importance of the consideration of the demand in on composer's music and the composition to the study of the music performance expression [Roma 1966]. We will advance also to the research that uses AI and the machine to study the music performance of the expression of vocal music paying attention to the trait of these vocal music.

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