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Evaluating the Effectiveness and Practical Use of Musical Examples for Discerning Musical Elements through the Assessment of Visual Images

音楽の諸要素を識別するための音源の有効性と活用法 - 視覚的イメージの検討を通して-

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Abstract: There is much literature in the area of music appreciation education that shows the importance for learners to grasp the various musical elements and form as they listen. Therefore, I created musical examples for discerning musical elements and then conducted an experiment for college students aimed at stimulating an awareness of musical elements that can be applied when listening to any piece of music. I did this by getting the students to grasp the characteristics of musical elements by drawing visual images of the music as they listened. Visual image assessment showed that the activity of listening to the examples with a focus on musical elements helps students to apply the same listening method to other music pieces.

Key words: Music appreciation, Musical elements, Musical examples, Visual images, Drawings

I Theoretical and Pedagogical Background

Musical enjoyment accompanied by understanding is a sought after goal in music appreciation education. According to Hamano (1967), the enjoyment of music occurs individually within a child, and therefore is not a property taught by the teacher. Hamano also showed that the most important thing that a teacher can teach is musical understanding, in the sense of listening and discerning a piece of music's rhythm, melody, harmony, dynamics, timbre, and overall structure and form.

As an aid to discerning the musical elements and form in this way, I adopted a method of getting students to draw visual images as part of music appreciation education instruction (Kojima, 2008, 2010, 2011). In this method, students are asked to listen to a piece of music having a structure that is easy to grasp, e.g., a canon, and to draw an image of what they perceive using graphical elements such as lines, colors, and shapes. Thus, the students produce visual expressions related to the elements and form of the music, which can then be utilized for instruction and assessment. In the application of this method thus far, "the 4 voice canon" from J.S. Bach's "The Musical Offering" has often been used for its effectiveness. The visual expression produced by students in response to "the 4 voice canon" includes expressions of the melody's movement in lines depicting the flow of the canon, the use of colors to convey the mood of the tune, and graphical expressions of the canon's structure, but in some cases students have also drawn concrete objects. When questioned, a student who drew a purple flower with thorns said that the tone of the music was dark, imagining the color purple, which became a purple flower. This feeling may have been evoked by the timbre or the minor key tonality of the music. In either case, consciously or unconsciously, what students draw seems to be connected to the visual images they experience

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when listening to the musical elements and form. In this way, getting students to draw visual images may be a useful way of getting them to pay attention to the elements and form of music.

II Purpose of the Project

The drawings made by students while listening to music express both what students hear and what they feel about the elements and form of the music. However, which parts of the music are heard vary from person to person, and it is not necessarily the case that students are conscious of what they hear. This is because music is formed by the intertwining of various musical elements within a composition. Thus, I conducted an experiment divided into three steps (list 1). For the first and third steps children listen to the Bach piece and draw pictures of their impressions. For the second step, designed to make students listen to music more analytically, I created musical examples using a Japanese melody. These examples allow students to discern musical elements more carefully. I then used these to conduct a class. To make students aware of the musical elements they again draw visual images. Then, by examining the visual images produced by the class, for both the Bach piece and the Japanese piece, I set out to demonstrate the effectiveness of the examples.

List 1

The experiment

- 1. First, I played "the 4-voice canon" from J.S. Bach's "The Musical Offering" twice. The first time students just listened; the second time students use colored pencils to draw a visual image of the music while listening. I instructed students to "Listen to the following music and express what you feel or visually imagine using lines, colors, and shapes. And if some concrete object comes to your mind, you can also draw that."
- 2. Second, the musical examples I created of "Little Elephant" ("Zō-san": lyrics by Mado Michio, music by Dan Ikuma), were played in the order of the instruments in list 2. The students drew their visual images with colored pencils for each piece of music on an A3 sheet of paper divided into 20 equal parts.
- 3. Third "the 4-voice canon" from J.S. Bach's "The Musical Offering" was played again and students were asked to draw their visual image of the piece. Students were then asked if the way they listened to the music was different from the first time, and to write their comments on a blank part of the sheet.

III Creating the musical examples

For the second step of the experiment, I took the melody of the song "Little Elephant" and created musical examples—arrangements of the tune using various Western musical instruments and also melodically modified arrangements of the tune. "Little Elephant" is a 3/4 time nursery song that is familiar to virtually all Japanese people. The melodic arrangement methods were varied according to the featured musical instrument, to bring out the characteristics of each instrument and also to alter the various elements of the music. The characteristics expressed by each instrument are related to the inherent playing style of the instrument, and also the kind of music that the instrument is typically used for. This kind of arrangement method was adopted in these musical examples because I wanted to emphasize the perception of the timbre and characteristics of instruments and the variations of a single melody. I believe that the timbre and characteristics of the melody are the most important musical elements for students to learn to perceive. The melodically modified arrangements for each instrument

are given in list 2.

List 2

Violin: Heavy use of double-stops and tones of subtle movement. Arpeggios and harmonics also used.

Oboe: Variation of pitch by changing register (octaves).

Euphonium: Used for low and high pitches with varied rhythm.

Trumpet: Played in 4/4 time, in fanfare style.

Alto sax: Heavy use of grace notes.

Viola: Use of double-stops.

Clarinet: Played in a minor key.

Trombone: Use of the slide, with glissandi at several points.

Flute: Two arrangements—one with heavy use of trills; the other a sound pattern in 2/4 time, making

heavy use of dotted notes and ties—with use of flutter tongue.

Cello: Use of double-stops, with a 4-note chord played in broken-chord style.

IV Experiment 1

1 Outline

A class was conducted as part of an "Elementary Music Education" class taken by students studying for their elementary school teaching license (one 90-minute class out of 15 classes). The experiment was conducted in three steps as seen in list 1

Date: June 2, 2011 Period 1

No. of students: 19

- 2 Results 1 (Regarding experiment 1)
- (1) Visual image assessment (Students' reactions to musical examples).

The visual images drawn by each student were compared for each of the instruments. I then examined if the expressions produced by the students captured the perceived characteristics of the timbre and melody of each instrument, kind of image expression.

Violin

Perhaps because this was the first example, many students recognized the melody of "Little Elephant" and drew pictures of an elephant. It was not possible, however, to discern any pattern in the expressions of colors or shapes. The played arrangement featured heavy use of double-stops and subtle movements in the bright and intense melody. Some students expressed a sparkling image—for example, using many stars, and firework-like images of stars, diamonds, and circles, with the angry face of an elephant, or with heavily drawn lines.

Oboe

There were many expressions symbolizing a "relaxed" or "pastoral" mood, or a *charumera* (Chinese-style noodle vendor's oboe). The images with elephants included an elephant wearing a Chinese cap, an elephant

draped in an Asian-style cloth, and a sleeping elephant. The nature of these images may be due to the fact that the timbre of the oboe is similar to that of a *charumera*. Some of the images for the arrangement one octave higher seemed to have been inspired by comparison with the previously played lower register piece: the student who drew the sleeping elephant drew a parent and child elephant walking under a blue sky. Among the expressions of color and shape, were several images that used cold colors for the lower register and then warm colors such as yellow and pink for the higher register. It seems that the higher the pitch, the brighter the image.

Euphonium

Many of the students depicted an "grandfather" elephant. Many of the expressions of color and shape made use of brown and black. Overall, cold colors were most common.

Trumpet

Many of the abstract expressions featured yellow and orange colors. A number of the images for the fanfare-style arrangement depicted an elephant wearing a crown. Some students drew a person holding a flag or blowing a bugle, with a comment to the effect that "the king is coming." In addition, there were simple images of a horse, as well as images of a horse race.

Alto sax

Many of the students used the color purple to draw lines for abstract expressions or to depict an elephant. Also, multiple students drew elephants napping, perhaps because the tone of the instrument sounded sleepy to them. The arrangement inspired numerous images featuring wine glasses or the color purple. Expressions of elephants included multiple images of elephants holding a wine glass with their trunk to raise a toast and fashionable elephants adorned with earrings, lipstick, or ribbons.

Viola

Many of the abstract expressions featured green, brown, and purple colors. There were various drawings of concrete objects—forests, turtles, a dark room with a clock and a chair, and a brown vessel—but there was no discernible pattern to these. Images of elephants included an elephant doing nothing, in response to the normal arrangement, and two baby elephants frolicking together with their trunks, in response to the modified arrangement.

Clarinet

For the minor key arrangement, students drew a slightly melancholy elephant, an elephant that is home alone and scared, and a skinny elephant. Many images featured the colors black and purple.

Trombone

Elephant images included a father elephant and a fat elephant. There were also multiple images featuring red and orange colors. In response to the modified arrangement, there were multiple images featuring twisted abstract expressions, whirlpools, and curves.

Flute

Kandinsky (1912) used the color light blue to express the timbre of a flute. While only two students used light blue for all three of the flute pieces, several students drew rivers, so perhaps there is some connection

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between the timbre of the flute and the color light blue. Images of elephants included an elephant under bright sunlight and an elephant playing in a field of flowers. For the flute arrangement featuring flutter tongue, two students drew musical notes. There were also multiple images of happy elephants and pictures featuring an elephant face and musical notes.

Cello

Most of the students used cold colors. Kandinsky (1912) depicted the timbre of a cello with navy blue, and many students made use of deep blues and navy blue in their abstract expressions. In addition, two students depicted elephants walking on a moonlit night. For the arrangement featuring double-stops, numerous students drew multiple objects—for example, images featuring two overlapping abstract shapes, three overlapping elephants accompanied by the text, "It's a tight-fit, don't push," seven overlapping building-like objects, a family of four elephants seen from the rear, and a group of three elephants.

(2) Visual image assessment (Comparison of ways of listening).

I will compare the ways of listening in the first and third steps of experiment. Of the 19 students 11 reported that they noted a change in the way they listened to music when they listened to "the 4-voice canon" again (after listening to the created musical examples). As for the nature of the change, it was clear that these students became more conscious of timbre and melody, reporting for example that they were able to listen with greater awareness of timbre and of which instruments come in at what point in time. These students also demonstrated some change in their style of visual expression. For example, one student drew a scenic picture on the first hearing but an abstract visual depiction of the canon on the second hearing. Another student drew three overlapping strips on the first hearing but then four overlapping strips on the second hearing, expressing the way the melody emerges at different points in the canon.

V Experiment 2

1 Outline

I improved on experiment 1. The second step of experiment 1 needs a lot of time. Students have to listen and draw about 20 music examples. I saw that student's concentration did not hold, so I selected the musical examples of instruments used in the "the 4-voice canon" from J.S. Bach's "The Musical Offering".

Date: May 31, 2012 Period 3

No. of students: 17

2 Results 2 (Regarding experiment 2)

Of the 17 students 14 reported that they noted a change in the way they listened to music when they listened to "the 4-voice canon" again (after listening to the created musical examples, only Violin, Flute, Viola, Cello). The visual images produced by students in response to the created musical examples is almost same as the results of experiment 1. But focusing on four instruments of the musical examples is more effective for making students grasp differences of timber and melodic overlap. For example, one student drew a linear expression (figure 1) on the first hearing but then four overlapping strips (figure 2) on the second hearing. Her comment regarding figure 2 was that she felt a greater melodic overlap than on the first hearing.



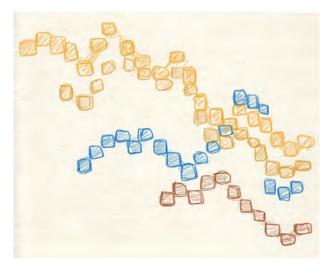


figure 1 figure 2

VI Conclusions

The visual images produced by students in response to the created musical examples varied according to the instrument and their arrangement, but many of them seemed to be based on the timbre and melody characteristics. In other words, getting students to listen to and compare multiple arrangements of the same melody enables them to focus on the parts that are different, which in this study are the differences in timbre and melody characteristics.

Since the arrangements used in this study were based on "Little Elephant," a tune familiar to everyone, many of the produced images related to elephants. Since this kind of association of concrete objects with sounds is common in school music education, the created musical examples can be utilized in music appreciation classes. Furthermore, it became clear that the activity of listening to the musical examples with a focus on musical elements helps students to apply the same way of listening to all their music appreciation. It especially became clear that pick up musical examples of instruments which used in work of appreciation is effective. Teachers should select music examples with instruments which are used in a work students listen to in class. However, one student, with substantial musical experience, reported that listening to the examples with an awareness of instrument characteristics seemed to limit the experience of the music. This observation offers food for thought for the future, in terms of how to use musical compositions for music education.

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