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# Vocal improvisations of Estonian children

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# ABSTRACT

### Background

Even a child's passive encounter with the Western tonal music is capable of building certain expectations as to the set of tonal and temporal "composition" rules that define which musical patterns are acceptable for the idiom.

### Aims

This study is aimed at studying different strategies children use to approach the task of vocal improvisation.

### Method

For the data collection, Test Battery (Cohen et al., 2009) from Advancing Interdisciplinary Research in Singing (AIRS) project was applied to Estonian children (N = 26, 17 girls and 9 boys, age 4 to 12). All sessions were videotaped. Children were tested once. The duration of each test session averaged 15-20 minutes. Audio samples and feedback during the tests were provided by the researcher using her own voice or a keyboard instrument. In this presentation, results of two component tasks (no. 7 and no. 8) are presented. For acoustical analysis of the obtained vocal material (endings of the presented melody and invented songs) a Java-based freeware Musical Micro Analysis Tools (MMATools) by Stadler Elmer (2000) were applied.

### Description of tasks Component 7

Short melody ("unfinished song") was presented to child in order to get him/her to finish it freely. Presented melody consisted of eight succeeding notes in three different rhythmic units (quarter-, half- and full notes), using three pitches in range of major third in C-major (c, d, e). Melody did not contain pauses and used only major seconds for melodic intervals. In 18 cases it was sung by the interviewer using *lah-lah*-syllables, and in 8 cases with words (their free translation from Estonian being "I know a dog who barks"). The melody was usually presented twice: the first time for listening purposes only, and the second time for continuation by the participant. Some children managed to fulfil the task already after first hearing, but for some participants' melody had to be presented even more than two times during the process.

### Component 8

Children were asked to invent a free song that relates to one of the available pictures. The protocol in the original Test Battery included four iconic computer drawings: a heart, a flower, a sun, and an apple, each on separate white card and colored brightly in red, blue-and-yellow, yellow, and green, respectively. This picture set was presented to 19 children. For the remaining seven children, an alternative set of four photographs was used representing a sunflower, a goldfish, a car race, and a performance of a folk band.

### Results

#### Component 7

The majority of children (24) managed this task with no problem. In general, it can be said that children who are involved in additional voluntary musical activities tend to complete the task according to the logic of tonality (i.e., ending the melody with the first scale step) and two-/four-bar phrasing form. Seven children repeated the melody phrase first and then continued or repeated the phrase, only providing a slightly different ending.

### Component 8

This task seemed to be more difficult for the children. As many as ten children out of 26 were unable to make up a song, in other words, they did not do anything. Some reasons for this may lie in the test procedure, but the most important one was probably the child's overall shyness and/or fear of doing something wrong. Out of 10 of the so-called failure cases, four children were attending extra music lessons or studying at music school and should in principle have been able to do and/or been used to this kind of exercise. Among the photographs in the alternative set, only those representing a sunflower and a fish were chosen by the participants. From the original set, all the pictures were chosen. This suggests that children preferred pictures of well-defined items to pictures involving action. The ten participants who failed to complete the task, nine had been presented the original set and one the alternative set. Three participants out of the 16 who accomplished the task cited a poem with no melody in response to the task. Eight children sang a pre-existing song somehow related to the picture or used a pre-existing melody to improvise new lyrics related to the content of the chosen item. Only eight participants were able to create a new song with both an original melody and lyrics.

#### Categorization of vocal improvisations

For further analysis successful cases from Component 7 (24 improvisational endings) and from Component 8 (eight invented songs with original melody and lyrics) were combined to one dataset with 32 vocal improvisations. The obtained audio-visual data of these improvisations as well as the process of their gathering were concluded in subsequent analysis,

as children can reach similar outcomes in the same task in very different ways (spontaneously or using the method of trial-and-error). Improvisations were grouped according to two main features: (1) how well did they fit the Western tonal musical canon and (2) whether the implied composition rules were applied explicitly or implicitly.

Characteristics of these two features can be described as follows:

Fitting to the Western canon: -repeating rhythmic patterns -staying in key -ending at the tonic -not changing meter signature -improvisation sounds "classical" -all musical elements are presented (melody, rhythm, verbal)

Somewhat deviating from the Western canon: -introducing unexpected rhythmical patterns -changing key -not ending at the tonic -changing meter signature -improvisation sounds "unexpected"

-omitting some musical elements (for example melody)

Applying the rules implicitly:

-inventing the song as he/she goes along

-starting shortly

-not interrupting singing

-usually one phrase (duration of improvisation depends on lung volume)

-if talking during the process, comments are not process related -situation is playful

Applying the rules explicitly:

-child knows how the song should sound (mind-mapping it before starting)

-longer pause before starting

-interrupting himself/herself for correction

-improvisation is longer, includes pauses (breathing) between phrases

-commenting verbally his/her composition process

-"tension in the air" (worried looks, sighs)

This description system permits to divide the obtained vocal improvisations roughly into four strategies/categories:

1. Composition rules are applied implicitly and music does not comply with the Western tonal idiom. Probably the child is not sure about the rules.

2. Composition rules are still applied implicitly, but the child is trying to implement her/his knowledge from previous encounters with the Western idiom.

3. Composition rules are applied explicitly and the child is implementing her/his knowledge of the Western music. The improvisation sounds like a pre-planned and consequently executed short composition.

4. Composition rules are applied explicitly and the child is implementing her/his knowledge of the Western tonal music, at

the same time deliberately departing from it for artistic purposes.

Out of 32 vocal improvisations, three fell into the first category, five into second, seven into third and two into fourth. In some cases, it was slightly ambivalent to decide which category was the most appropriate for the given presentation: four of them remained between categories one and two, and three ones between categories three and four.

Distribution of improvisational songs between these four types seems more influenced by a child's previous encounter with music rather than her/his age. It also depends on the child's personality and the testing environment.

### Conclusions

For these two kinds of improvisational tasks, children managed to perform more successfully the melody finishing task, while inventing a song to a picture seemed to be a more challenging task. In both tasks, majority of children seemed to be strongly influenced by the Western musical canon as their improvisations sound "classical" like we expect from children's songs. In addition to analysing the vocal material, the process of performance must also be considered in the process of analyse, as children use different strategies to reach the goal.

### Keywords

Improvisational singing, children, AIRS Test Battery

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