Beginnings and endings in the musical improvisations of children aged 7 to 10 years

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The educational problem

The field of creativity can undoubtedly be considered one of the most important in music education, in Europe as in other countries (Hargreaves and North 2001). Guilford’s "structure of intellect" model (Guilford 1967) and, even before, his concept of creativity presented to the American Psychological Association in 1950, can be considered a clear landmark for the subsequent studies and research that were to generate many theories based on different approaches (behaviouristic, psychoanalytic, cognitive etc.). His groundwork also stimulated the discussion of different meanings to be attributed to the term creativity. In psychology this term is perhaps best regarded "as an 'umbrella' encompassing different aspects of ability, personality, affect and motivation" (Hargreaves 1986, p. 143), but in the context of education the same term carries different connotations and needs to be considered not only from a psychological, but also from a pedagogical and didactic perspective.

Theories on creativity have also had their influence in the field of music. Composition and improvisation, both in adults and children, have been studied from different points of view and particularly from a developmental perspective, as documented by Hargreaves (1986), Webster (1992) and Barrett (1998).

While there are numerous studies on processes, products and behaviour, little has been done concerning the influence of the didactic strategies used in composition/improvisation teaching. Several authors underline their importance, claiming they may actually encourage or suppress such processes. Baroni (1978) for example suggests we should begin by working on children’s sound experience to help them develop their creativity; Kratus (1994) is concerned with the instructions given by teachers and makes some suggestions on how to improve didactic activity; McPherson (1998) comments on some issues that help us understand creativity in music, and highlights some suggestions for teachers given by various authors, (Webster, De Lorenzo, Folkestad etc.). Research dealing with teaching problems should therefore verify the consequences of different strategies on learning.

Recent pedagogical theories stress that the essence of the teaching/learning process is the relationship between teacher and student, where the teacher organizes the learning conditions (or teaching strategies) and the student learns progressively changing his/her behaviour.

Do music educators know how to stimulate learning in composing-improvising music? After saying that "Art and music teachers have often been described as lacking necessary classroom techniques", Csikszentmihalyi and Schiefele (1992, p. 187) stress that art education "should include enhancement of subjectively meaningful experience and enhanced creativity and originality", but, as Hargreaves demonstrated through his DELTA Project, "we lack an adequate theoretical base to inform the pedagogy of arts teaching" (1992, p. 147).

First of all teachers need to know which competences their pupils already possess. From a didactic point of view, in fact, we believe it important not to ask children to do what they can already do, but to use the skills they already possess as building blocks for further learning.

This conviction lays on two assumptions:
1) in order to achieve significant (and not mechanical) learning, each new knowledge should be incorporated in the existing conceptual net that thus becomes modified (Ausubel 1968). Moreover, if teachers know what students already possess, they can appraise their capacities, build on them and avoid students becoming bored in "relearning" what they already know (Tafuri 1995).
2) Teachers should be more aware of the "informal education" provided by the environment. From the first lullabies to the musical games, to the music and songs they hear everywhere (at home, at school, in church, in the supermarket, through the mass media …) children assimilate melodic and rhythmic patterns, tonal sense, structures and forms, vocal and instrumental styles, developing a real musical competence that schools should take into account in order to improve and build on it (Tafuri 1995). Folkestad’s statement (1998) is even stronger: "The great majority of all musical learning takes place outside schools, in situations where there is no teacher and in which the intention of the activity is not to learn about music, but to play music, listen to music, dance to music, or be together with music" (p. 99).
These considerations led us to ask ourselves the following questions:

- which compositional competences do children possess at different ages?
- which aspects might be learnt spontaneously from the culture and environment and which need explicit teaching?
- which didactic strategies could teachers use in order to discover the competences already possessed and foster new ones?

With this aim in mind we planned a large research project, of which the present study is a part, dealing with improvisation in the primary school.

We began by studying the consequences of different tasks on creative processes (Tafuri, Baldi 1999), and then verified the presence of compositional styles in children’s improvisations (Baldi, Tafuri 2000a). After that, we investigated whether children possess any conventions about beginnings and endings. We first studied this aspect in the improvisations of children aged 10 and discovered that at this age children without any music education can produce at least 1-2 out of 6 improvisations with a beginning and/or end (Baldi, Tafuri 2000b). We then decided to investigate younger age ranges, and this is what we present here. Our hypothesis is that a certain ability to use specific types of beginnings and/or endings is also possessed by younger children and that there is an improvement with age even in absence of specific education.

The next step will be the study of the central structure of improvisations (Baldi, Tafuri, Caterina 2002) and later we will verify different didactic strategies.

**Beginnings and endings in music theory**

Music is a temporal form and the organization of sounds is subject to the rules of time structure. This means that it has some aspects in common with other cultural products that develop in time. The first is the verbal language that children hear from the 6th-7th month of prenatal life, which represents a fundamental link with parents and caregivers (Fernald 1992; Boysson-Bardies 1999). The narrative structure of stories told to children introduce them to the first conventions of a narration. Cowie (1989) points out that children start to use these conventions including formal beginnings and formal endings at a very early age. She also cites other authors (Botvin and Sutton-Smith 1977; Pradl 1979; Sutton-Smith 1979) who suggest that "young children from 2 to 5 years tend to produce 'frame' stories - that is, stories which consist mainly of a beginning and an end." (p. 93).

These studies seem to support well our hypothesis that children can acquire certain musical conventions simply through exposure to environmental music.

How are beginnings and endings considered in music theories?

As we have said (Baldi, Tafuri 2000b), musical analysts believe that beginnings and endings are the result of their relationship with the parts, whereas from the semiotic point of view they act as signs within a piece that refer to codes and general conventions. Baroni, Dalmonte, Jacoboni (1999), using an analytical approach, have shown how musical beginnings and endings may vary at different levels.

They say that in a composition conventions are normally present (different conventions according to different styles) that guarantee it acceptable initial and conclusive parts. There are tonal conventions, but also rhetorical: for example they describe in great detail how the rhetorical use of different forms of repetition are present in the beginnings and endings of the XVII century arias they studied in their book. Analogous rules of style are applied in the internal parts of a composition: for example the single phrases of an aria are governed by ending rules linked to different cadential forms. Other rules, normally less strictly, govern the beginnings of each phrase. The internal parts of a composition, and particularly their beginnings and endings, are also linked to the global scheme that governs tonalities and modulations.

From the semiotic point of view, Stefani (1976) believes it to be a question of common behaviour, an anthropological and transcultural matter. The semiotic approach helps us to find homologies between music and other cultural systems, and Stefani thinks it is possible to identify such homologies particularly in two cultural practices: ceremony and oratorical
discourse, very important traditions in all civilisations, which played a particular role in the baroque period.

Stefani points out that since the human work involved in ‘beginning’ and ‘finishing’ something is basically the same, the results will be homologous. In this perspective he demonstrated the persistence, extension and modalities of these homologies regarding musical beginnings, while Alessandri (1985) and Ferrara (1985), on the basis of his theory, demonstrated the homologies regarding endings.

Method and Results of the Research

We asked 97 children aged 7 - 9, attending the 2nd (35), 3rd (32) and 4th (30) grade of primary school, to perform individually six improvisations, five with a soprano glockenspiel, and one with a tambourine, in six tasks: two semantic, two based on the free use of sound material, and two based on two compositional procedures.

A total of 582 pieces were analysed using the classification system prepared in our previous study (Baldi, Tafuri 2000b) for analysing the improvisations of 10-year-old children.

Six types of beginnings (Stefani 1976) and a seventh added by us considered lacking any type of beginning:

1) one or a few sounds followed by pauses: ready to start;
2) arpeggios, chords, glissandos that serve as an introduction: create an atmosphere;
3) presentation of a theme, a musical idea: presenting a theme;
4) small elements grow, extend and become more complex: growing little by little (for example: Wagner, Das Rheingold, Prelude);
5) the number of elements increase, but the true beginning comes later: starting off progressively (for example: Beethoven, Symphony N. 1, 4th m.);
6) initial explosion: surprise attack;
7) unrelated succession of sounds: exploration (lacking any type of beginning).

Fifteen types of endings (Alessandri 1985; Ferrara 1985):

1) acceleration, repetition, concentration: apotheosis;
2) expansion, progressions, slowing down, insertion of pauses before the last sounds: rhetorical ending;
3) repetition of initial element with greater intensity: logical conclusion;
4) condensing, tightening: summarizing;
5) acceleration and/or shortening of note lengths: final sprint;
6) finishing on the tonic, symmetry, question-answer: finishing by the rules;
7) sudden rhythmic, melodic, dynamic disorder for intensification: pandemonium;
8) softening and slowing down to give an effect of gradual disappearance: going away slowly closing the door (for example Debyssy, Des pas sur la neige);
9) sudden unexpected stroke during fading: last stroke;
10) fast and hurried conclusion: ending in a soap bubble (for example Musorgskij, Pictures at an Exhibition: Ballet of the unhatched chicks);
11) sudden interruption of musical discourse: interruption (considered lacking any type of ending);
12) fading technique: dying out (for example Ligeti, Lux aeterna);
13) climbing melody interrupted at high point: leaving in suspence;
14) repetition of melodic and/or rhythmic motifs, canon: never-ending;
15) blues, rondo structure with reappearance of the theme: restarting the cycle.

As the aim of this study is to verify the developmental aspect, we decided to compare not only the results obtained in the 3 classes of the present study but also those obtained previously with fifth grade children (Baldi, Tafuri 2000b). The Tables therefore show the results obtained in all 4 classes (792 improvisations produced by 132 children).

Looking at Table 1 and 2 we can observe a decrease with age in the number of improvisations that we considered lacking any type of beginning (classified as n. 7: exploration) and any type of ending (n. 11: interruption). The differences are significant according to the Kruskal-Wallis
Test (beginning n. 7: Chi Square 75,472, df. 3, Asymp.Sig. .000; ending n. 11: Chi Square 14,905, df. 3, Asymp.Sig. .002)

Again in Table 3, which shows the amount of improvisations per class lacking both beginning and ending, we can observe a clear decrease with age; the differences are significant (Chi Square 37,965, df. 3, Asymp.Sig. .000)

Table 4 presents the amount of children (in %) producing no, one or more improvisations out of six with beginning or ending patterns; looking at the beginnings, we can see the onset and gradual establishment of the use of some typical patterns, but this phenomenon is not clear for endings. The differences are significant for the beginnings (Chi Square 35,394 df. 3, Asymp.Sig. .000), but not for endings (Chi Square 5,997 df. 3, Asymp.Sig. .112).

Figure 1 contains an improvisation with beginning n. 1, ending n. 6 (child in 2\textsuperscript{nd} grade). Figure 2 contains an improvisation with beginning n. 2, ending n. 14 (child in 3\textsuperscript{rd} grade). Figure 3 contains an improvisation with beginning n. 3, ending n. 2 (child in 4\textsuperscript{th} grade).

Conclusions

The results show that a certain percentage of children aged 7 already possess the skills in question, and that there is a marked increase with age, thus confirming our hypothesis. The improvement demonstrated by these results in children lacking any musical education and from a medium-low socio-economic background, allows us to infer that these patterns can be learnt, through exposure to and use of musical products, when the cognitive mechanisms are ready; this consideration could also explain the greater progress observable between 8 and 9 years on the basis of the Piagetian theory postulating an important change in cognitive development around 8 years.

Finally the absence of any statistically significant improvement with age in the ability to use a type of ending (Table 4) could mean that children are more able to conclude than to begin (at 7 years beginning n. 7: 58.9%; ending n. 11: 43.6%). It is therefore the choice of a type of ending rather than the presence of an ending that mostly differentiates children of different age. But this will be another step of our research.
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### TABLES

#### Beginnings

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<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
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<tbody>
<tr>
<td>1) ready to start</td>
<td>6.9</td>
<td>12.4</td>
<td>12.1</td>
<td>13.3</td>
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<tr>
<td>2) create an atmosphere</td>
<td>1.5</td>
<td>1.1</td>
<td>1.7</td>
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<td>3) presenting a theme</td>
<td>27.2</td>
<td>22.0</td>
<td>42.2</td>
<td>54.8</td>
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<td>4) growing little by little</td>
<td>2.0</td>
<td>3.8</td>
<td>6.3</td>
<td>5.9</td>
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<td>5) starting off progressively</td>
<td>1.5</td>
<td>0.5</td>
<td>1.1</td>
<td>2.7</td>
</tr>
<tr>
<td>6) surprise attack</td>
<td>2.0</td>
<td>1.6</td>
<td>2.9</td>
<td>0</td>
</tr>
<tr>
<td>7) exploration</td>
<td>58.9</td>
<td>58.6</td>
<td>33.9</td>
<td>22.9</td>
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**Table 1.** Improvisations (in %) using different types of beginning in each class

#### Endings

<table>
<thead>
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<tr>
<td>1) apotheosis</td>
<td>3.5</td>
<td>4.3</td>
<td>3.4</td>
<td>5.9</td>
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<tr>
<td>2) rhetorical ending</td>
<td>20.3</td>
<td>15.1</td>
<td>19.5</td>
<td>18.6</td>
</tr>
<tr>
<td>3) logical conclusion</td>
<td>0.5</td>
<td>2.2</td>
<td>3.4</td>
<td>1.1</td>
</tr>
<tr>
<td>4) summarizing</td>
<td>4.5</td>
<td>9.1</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td>5) final sprint</td>
<td>0.5</td>
<td>1.6</td>
<td>0.6</td>
<td>1.6</td>
</tr>
<tr>
<td>6) finishing by the rules</td>
<td>17.8</td>
<td>13.4</td>
<td>25.3</td>
<td>13.3</td>
</tr>
<tr>
<td>7) pandemonium</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8) going away slowly</td>
<td>1.0</td>
<td>0.5</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>9) last stroke</td>
<td>0</td>
<td>1.1</td>
<td>0</td>
<td>2.7</td>
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<tr>
<td>10) ending in a soap bubble</td>
<td>0</td>
<td>1.1</td>
<td>2.9</td>
<td>1.6</td>
</tr>
<tr>
<td>11) interruption</td>
<td>43.6</td>
<td>41.9</td>
<td>28.7</td>
<td>29.8</td>
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<tr>
<td>12) dying out</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13) leaving in suspense</td>
<td>5.0</td>
<td>5.9</td>
<td>4.6</td>
<td>2.7</td>
</tr>
<tr>
<td>14) never-ending</td>
<td>3.5</td>
<td>3.8</td>
<td>4.6</td>
<td>16.5</td>
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<tr>
<td>15) restarting the cycle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.1</td>
</tr>
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</table>

**Table 2** Improvisations (in %) using different types of ending in each class

#### Categories

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<th>V</th>
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</thead>
<tbody>
<tr>
<td>Beginning n. 7-Ending n. 11</td>
<td>33.2</td>
<td>30.6</td>
<td>16.7</td>
<td>10.6</td>
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</table>

**Table 3.** Improvisations (in %) lacking both beginning (n. 7) and ending (n. 11) in each class

#### Freq.Beginn.

<table>
<thead>
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<tr>
<td>Never</td>
<td>11.4</td>
<td>6.5</td>
<td>6.7</td>
<td>0</td>
</tr>
<tr>
<td>1 time out of 6</td>
<td>28.6</td>
<td>22.6</td>
<td>0</td>
<td>5.9</td>
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<tr>
<td>2 times out of 6</td>
<td>20.0</td>
<td>38.7</td>
<td>13.3</td>
<td>2.9</td>
</tr>
<tr>
<td>3 times out of 6</td>
<td>14.3</td>
<td>6.5</td>
<td>26.7</td>
<td>8.8</td>
</tr>
<tr>
<td>4 times out of 6</td>
<td>5.7</td>
<td>12.9</td>
<td>13.3</td>
<td>17.6</td>
</tr>
<tr>
<td>5 times out of 6</td>
<td>14.3</td>
<td>12.9</td>
<td>20.0</td>
<td>38.2</td>
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<tr>
<td>6 times out of 6</td>
<td>5.7</td>
<td>0</td>
<td>20.0</td>
<td>26.5</td>
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</tbody>
</table>

**Table 4.** Percentage of children, in each class, producing one or more improvisations out of six provided with beginning or ending pattern.
References


PRADL G. M. (1979), Learning how to begin and end a story", *Language Arts*, 56/1.


