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Research Studies in Music Education 2003 20: 23
DOI: 10.1177/1321103X030200010201

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What is This?
“Expressivity comes from within your soul”: A questionnaire study of music students’ perspectives on expressivity

Erik Lindström, Patrik N. Juslin, Roberto Bresin and Aaron Williamson

Abstract

Much has been written about expressivity by philosophers, composers, musicologists, and psychologists, but little is known about how the musicians of tomorrow – music students – approach this subject. This paper reports an exploratory study in which 135 students from music conservatories in three countries (England, Italy, Sweden) filled out a questionnaire that addressed four themes: (a) conceptualizing expressivity, (b) expressivity in everyday practice, (c) expressivity in music teaching, and (d) novel teaching strategies. The results suggest that students define expressivity mainly in terms of communicating emotions and ‘playing with feeling’. Expressive skills are regarded as highly important by students, and they would like to practice more on expressivity than is currently the case. However, most students are skeptical toward using computers in teaching of expressivity since they cannot see how such applications could work. The results suggest that expressivity deserves more attention in music education than has hitherto been the case.

One of the fundamental themes in the study of music and its performance is that music is heard as expressive by listeners (Budd, 1985; Davies, 2001; Juslin, 2001). People become ‘moved’ by particularly expressive performances, which for many listeners is the essence of music. Performers, too, have frequently emphasized expressiveness as an important aspect of music (Boyd & George-Warren, 1992; King, 1996; Menuhin, 1996; Schumacher, 1995). The renowned violinist, Yehudi Menuhin, settled for no less a goal than “to move an audience…” (Menuhin, 1996, p. 413). Mozart, in a letter to his father, noted that one fellow musician did “not have a jot of feeling or taste, in short he is a mere technician” (Watson, 1991, p. 185). Popular musicians often speak about ‘the feel’, that quality of expression “that not everybody has” (Boyd & George-Warren, 1992, pp. 103-108).

The importance of expressive skills for the career of musicians is supported by various sources. For instance, Davidson and Da Costa Coimbra (2001) recently studied performance evaluations by assessors of singers in a British music college, and concluded on the basis of both qualitative and quantitative data that the singer’s ability “to control the voice to project emotional expression” was one of the most critical variables in the assessment procedure; the interpretation should be “heartfelt” (p. 44). Technical skills are, of course, important as well, but expressive skills seem to set performers apart. Audiences seem to prefer those artists that are most expressive to those that are mere technical wizards (Boyd & George-Warren, 1992).

Yet, the nature of musical expressivity has been a great mystery (Davies, 1994, 2001; Matravers, 1998). It is fair to say that, until recently, this has been a topic characterized by many opinions, but few facts. In certain domains, such as
musicology, problems regarding expressivity have almost been regarded as ‘off-limits’ for research (Cook & Dibben, 2001). Systematic investigation of emotional expression – as manifested in performance features (timing, vibrato, timbre) rather than features of particular pieces (mode, tonality, melody) – developed only in the last decade (Juslin, 2001). Fortunately, the topic of expressivity has seen increasing interest in recent years, along with increasing interest in emotional aspects of music (Juslin & Sloboda, 2001). Several authors have published articles that make concrete suggestions concerning methods aimed at developing expressive skills (Johnson, 1998; Juslin & Laukka, 2000; Woody, 1999). A primary concern in this work is to consider how research on expressivity might inform day-to-day teaching practice (Juslin & Persson, 2002).

**Different Aspects of Expressivity**

It should be noted from the outset that the word ‘expression’ has been used in different ways. For instance, the word expression has been used to refer to the systematic variations in acoustic parameters (e.g., tempo, dynamics, articulation, timing, timbre) that differentiate one performance of a piece of music from another (Palmer, 1997). However, the word expression has also been used to refer to the fact that music performances are perceived as expressive of emotion by listeners (Davies, 2001). But musical expressivity involves more than merely the expression of emotion; expression is a multidimensional phenomenon (Juslin, in press). This is partly captured by a third sense of the word. Sometimes we say that a performer is ‘playing with great expression’, in which case we seem to be referring to the musical sensitivity of the performer; that he or she knows exactly how to play a given phrase (e.g., London, 2002).

There are, broadly speaking, three approaches to understanding expressivity in music performance. One approach is the philosophical one, which has treated the issue of music’s expressivity ever since antiquity (e.g., Budd, 1985; Davies, 1994; Scruton, 1997). Another approach is to treat expressivity as an empirically tractable problem that can be studied, for example, in performance analyses (for reviews, see Gabrielson, 1999; Juslin, 2001; Palmer, 1997) or ‘computational models’ (Clarke & Windsor, 2000; Juslin, Friberg, & Bresin, 2002). One further approach is to ask the musicians themselves for answers by means of interviews (Persson, 1993) or questionnaires (Woody, 2000). It is the last of these three approaches (i.e., asking musicians) that is adopted in the present investigation.

The real experts on expressivity are arguably the musicians themselves. Even so, there is little research on how musicians approach various issues regarding music’s expressivity in performance. There are many informal discussions of expressivity by performers in various sources (e.g., biographies). However, their comments on this topic are usually vague, which is additionally hampered by the fact that many musicians feel uncomfortable discussing their work: “I believe so strongly that it is dangerous for artists to talk” (Benjamin Britten, quoted in Watson, 1991, p. 27). An additional problem is that performers may not always be able to verbalize their implicit knowledge about expressive features of performance. As noted by the pioneer of research on emotional expression in music, Kate Hevner (1935), “If the great artist could speak to the audience verbally as effectively as he does musically, our efforts would be unnecessary, but seldom he expresses himself except through the medium of his art, and when he does, it is usually not in the terms calculated to be most useful and helpful” (p. 204). Thus, the performer's
comments may not be suitable for studying all aspects of performance. Some aspects may require actual measurements of performance. Nonetheless, there are a number of aspects of expressivity that performers can inform researchers about, like questions about how they approach expressivity, how they practice expressive skills, and how they are being taught expressivity. Informal accounts tend to focus on the views of famous performers (e.g., Dubal, 1985). Strikingly missing are the accounts of tomorrow’s musicians – music students.

**Purpose of the Present Study**

The present study is part of a project, *Feedback-learning of Musical Expressivity (Feel-ME)*, which aims to (a) define the nature of expressivity in performance, and (b) develop new methods for teaching expressivity, particularly expression of emotion (e.g., Juslin, Friberg, Schoonderwaldt, & Karlsson, in press). The goal is ultimately to create computer software that will allow music students to receive immediate feedback with respect to how they communicate specific emotions in their performance. The present study explores expressivity in music performance from the music student’s perspective, using a questionnaire approach. More specifically, our questionnaire was designed to cover the following four themes: (a) how music students define and conceptualize expressivity; (b) how they practice and apply expressive skills in everyday practice; (c) how they are being taught expressive skills through music education; and (d) how they appraise the possibilities of using novel techniques, such as feedback from computers, in teaching expressivity. These themes are briefly reviewed below.

**Conceptualizing expressivity**

An important starting point is to look more closely at the concept of expressivity itself. This topic has stirred the emotions of several commentators, and the literature on expression presents many divergent views. Music has been regarded as expressive of emotion, motion, beauty, faith, tension, things, events, human character, and social conditions (Gabrielsson & Juslin, 2003). We are still far from resolving what music is expressing. However, studies of music performance could be promising in this regard. Juslin, Friberg, and Bresin (2002; see also Juslin, in press) suggested conceptualizing expressivity in terms of four main sources of variability: (1) *Generative rules* that function to convey the generative structure in a musical manner (e.g., Clarke, 1988); (2) *Emotional expression* that is determined by the performer’s expressive intentions (e.g., Juslin, 2000); (3) *Random variations* due to human limitations in perceptual-motor skills (e.g., Shaffer, 1982); and (4) *Motion principles* that hold that certain aspects of the performance should be shaped in accordance with *biological motion* (patterns of motion that are characteristic of human beings; e.g., Shove & Repp, 1995). In this study, we will focus mainly on the emotional aspect of musical expressivity, whilst acknowledging that this is not the only important aspect.

This scientific perspective on expressivity may be contrasted with the perspective of the musician. It may be assumed that the views of most musicians are less clearly delineated than those of researchers. Moreover, it can be assumed that their views are less extreme than those of famous composers or philosophers. Unfortunately there are few attempts to examine how aspiring musicians approach the problem of expressivity in music. Woody (2000) found that the performers in his study considered expressivity to be one of the most important - perhaps the most important - aspect of music performance. However, their definitions of expressivity were not disclosed. The most commonly reported way in which students first
became aware of expressivity was through listening to recordings of famous performers, rather than through teaching. Moreover, many students seemed to think of expressivity as something mysterious: “There is no technique to perform expressively. You have to use your soul” (cited in Woody, 2000, p. 21; see also Dubal, 1985, pp. 62-63). In the present study, we wanted to investigate how students define musical expressivity:

- What does it mean to play expressively?
- What can music express?
- Provided that music can express emotions, what emotions can music express?
- Do expressive skills reflect mainly innate abilities or musical training?
- Can one learn to play expressively, and, if so, how?

**Expressivity in everyday practice**

A second theme of the questionnaire deals with how music students develop and apply expressive skills in everyday practice. Again there is virtually no previous work to consider. Most information is unsystematic and derives from various informal sources. Persson (1993, 1995, 2001), however, investigated how expert pianists conceptualize and prepare a piece of music for performance, and concluded that emotion pervades a performer’s professional life. It affects how performers choose to interpret a piece of music, their actual playing, and their choice of repertoire. Woody (2000) reported that students rarely use recordings of their own performances to evaluate their own expressive skills. Sloboda (1996) observed that students rarely monitor the expressive outcomes of their performances; they rather monitor their own intentions and “take the intention for the deed” (p. 121). Many musicians appear to subscribe to the notion that you have to feel an emotion to be able to express it in the performance (e.g., Cook & Dibben, 2001; Persson, 2001). In general, though, we know little about how students approach these issues. The present study therefore aims to increase our understanding of how expressivity is approached in the everyday practice of music students:

- Do performers actually try to express specific emotions in their performances?
- What factors influence the emotional expression?
- Is it necessary to feel an emotion in order to express it successfully?
- How much time do students spend on practicing expressive skills, as compared to technical skills?
- Do students listen to recordings of their own performances?

**Expressivity in music teaching**

A third theme concerns how expressivity is taught in music education. Music teaching has traditionally tended to focus little on affective/aesthetic aspects of music performance, as compared to other aspects of performance (Abeles, Hoffer, & Klotman, 1984). Indeed, focus on affective aspects has been openly discouraged by some educators. This is surprising given that several teachers regard expressivity as a fundamental part of what it means to be musical: “someone who can transform feelings through his or her instrument or voice, straight into the heart of the listener” (Brändström, 1999, p. 22). Several previous studies have indicated that teachers spend more time on technical aspects of performance than on expressive, emotional, and aesthetic aspects (Persson, 1993, 1996a, 1996b; Richter, 1976; Rostwall & West, 2000).
2001; Tait, 1992). If so, why is expressivity neglected? First, there are almost no theories that can guide teachers in teaching expressivity. Langer’s (1942) theory has been influential in music education (e.g., in Reimer’s writings), even though the theory is associated with a number of problems (see Elliott, 2000). Langer claims that music cannot express specific emotions, but only the general form of feelings—a claim that can be disputed simply on empirical grounds (Gabrielsson & Juslin, 2003). Second, the knowledge about expressive skills that musicians, including music teachers, have is mostly tacit. They know a lot about expressivity but find it difficult to express the knowledge verbally in a way that is accessible to the student (Juslin & Persson, 2002; Sloboda, 1996).

Whatever the reasons, the possible neglect of expressive skills is something that could result in students developing expressive skills rather late in their artistic development. Thus, for instance, 48% of the music students in Woody’s (2000) study did not become “seriously concerned” with expressivity until they were well into high school, or even in their first year of college. Understandably, critics sometimes complain that musicians today are technically proficient, but unable to play expressively (for some examples, see, e.g., Dubal, 1985, p. 52, 79, 114, 152, 299). Thus, music teachers have been encouraged to devote closer attention to affective aspects of music (Lewis & Schmidt, 1991; Reimer, 1989; Persson, Pratt, & Robson, 1996).

Unfortunately, there is little research on the effectiveness of various teaching strategies (however, see Juslin & Laukka, 2000; Marchand, 1975; Woody, 1999). It is well-known that teachers use different strategies, such as metaphors, aural modeling, and felt emotion to teach expressive skills (for reviews of different teaching strategies aimed at performance skills, see Davidson & Scripp, 1992; Juslin & Persson, 2002; Tait, 1992), but the relative frequency with which each of the strategies is used is still not known. The students in Woody’s (2000) study indicated that they had learned most about expressivity from private lessons, which consisted primarily of verbal instruction (see also Tait, 1992). However, modeling was also commonly used (for a review of research on modeling, see Dickey, 1992). In the present study, we were interested in learning more about how expressive skills are taught in music conservatories:

- How much time is devoted to expressive skills as compared to technical skills?
- Which methods are used by music teachers?
- Which methods are actually preferred by students?
- Would they like to have more teaching with regard to expressivity?

**Novel teaching strategies**

One final theme in the questionnaire concerns the possible use of modern technique in teaching expressivity. May computer applications be useful? On the one hand, the musical profession has always benefited from technological advances (Hunt & Kirk, 1997). On the other hand, musicians often express doubts about using computers, typically on the grounds that computers are “cold” (see, e.g., Boyd & George-Warren, 1992). A number of computer programs aimed at performance skills have been developed (see Abeles, Hoffer, & Klotman, 1984; Hallam, 1997) as computers have become less expensive and more easy to use. Many music educators in the USA, at least, have been rather active in developing computer-based instruction (CBI), involving skills such as voice pitch and score reading. To our knowledge, none of these programs has concerned expressive skills. However, we argue that
knowledge about expressivity has now reached a stage where such applications are feasible.

One problem with CBI in teaching expressivity may be the fact that many musicians have a negative attitude toward using computers in music education. For instance, Luciano Pavarotti’s teacher, Arrigo Polo, admitted “I’m afraid that one day someone is going to pop up and say that you can teach with a computer…” (quoted in Bonvicini, 1992, p. 42). Such skepticism might be unwarranted. A review of hundreds of studies that have compared CBI with more traditional approaches indicates that CBI can be just as effective as teacher-based instruction, although the effectiveness varies depending on the skill involved. Taylor (1981) thus concluded that “CBI is here to stay...Music educators can’t afford to ignore it because it has too much to offer” (p. 61). The Feel-ME project outlined earlier is concerned with music students’ attitudes toward new applications, since no matter how well an application works, it will not be adopted if it is not positively received by its practitioners. Hence, we felt it was important to study how students appraise the use of computers in teaching expressivity:

- Would students be willing to try new strategies aimed at teaching expressive skills?
- Do they think that computers might be useful in this regard?
- How would they react to a scenario in which they received feedback about their performance from a computer program?

To investigate the different themes regarding expressivity in music performance, we conducted an exploratory questionnaire study. A questionnaire consisting of 48 items was administered to 135 students at music conservatories in three European countries (Sweden, England, Italy). The goal was to establish some overall trends that could guide attempts to develop new teaching strategies aimed at musical expressivity. The student sample can be described as a sample of convenience; no attempt was made to achieve a strictly random or representative sample. However, we intended to include students with varying background in terms of nationality, musical instrument and musical style to increase the generalizability of the findings. We focused on conservatory students since such students are old enough to reflect deeply on questions about music and expressivity, yet young enough to still be much in the process of learning. As a broad hypothesis, we expected that emotion and expression would play an important role in the professional lives of the participants (Persson, 1993).

**Method**

**Participants**

The participants were 135 music students, 69 males and 66 females, with a mean age of 25 years (Range: 18-43). The students came from four different music conservatories in three European countries; 73 from Sweden (School of Music in Piteå and Royal University College of Music in Stockholm), 35 from England (Royal College of Music in London), and 27 from Italy (the Conservatory of Music B. Marcello in Venice). The conservatories differ from each other in terms of musical focus: the majority of students of jazz music came from Stockholm, whereas the majority of students of classical music came from London and Venice. (We use the category jazz here as a convenient short-term for jazz, blues, rock, and reggae.)
However, the total sample was relatively balanced regarding jazz (41%) and classical (59%) students.

The most common main instrument among the students was keyboard (38%), followed by plucked string instruments (20%), bowed string instruments (16%), woodwind instruments (12%), singing (6%), brass (5%), and percussion (3%). This distribution is related to musical style. The jazz musicians included the majority of plucked string players and singers, as well as the total number of brass players and drummers. The average amount of time that students had played their main instrument was 15 years (Median = 15, Range = 4 - 38). They were not paid for their anonymous participation. Tables 1 and 2 show the characteristics of the present sample in terms of various background variables obtained in the questionnaire.

Table 1
Age, musical experience, main instrument, and performance level of participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>Md</th>
<th>Min</th>
<th>Max</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (49%)</td>
<td>24.2</td>
<td>23</td>
<td>18</td>
<td>40</td>
<td>4.7</td>
</tr>
<tr>
<td>Male (51%)</td>
<td>25</td>
<td>24</td>
<td>19</td>
<td>43</td>
<td>4.7</td>
</tr>
<tr>
<td>Total (100%)</td>
<td>24.6</td>
<td>23</td>
<td>18</td>
<td>43</td>
<td>4.7</td>
</tr>
<tr>
<td>Musical experience (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of playing</td>
<td>15.1</td>
<td>15</td>
<td>4</td>
<td>38</td>
<td>5.4</td>
</tr>
<tr>
<td>Began to play at age</td>
<td>9.5</td>
<td>9</td>
<td>2</td>
<td>21</td>
<td>3.7</td>
</tr>
<tr>
<td>Performing live individually</td>
<td>10.6</td>
<td>10</td>
<td>1</td>
<td>26</td>
<td>4.7</td>
</tr>
<tr>
<td>Performing live in ensemble</td>
<td>10.6</td>
<td>10</td>
<td>1</td>
<td>26</td>
<td>4.3</td>
</tr>
<tr>
<td>Main instruments (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keyboard (38%)</td>
<td>17</td>
<td>16</td>
<td>8</td>
<td>32</td>
<td>5.9</td>
</tr>
<tr>
<td>Plucked strings (20%)</td>
<td>14</td>
<td>14</td>
<td>4</td>
<td>38</td>
<td>6.3</td>
</tr>
<tr>
<td>Bowed strings (16%)</td>
<td>14.7</td>
<td>14</td>
<td>10</td>
<td>23</td>
<td>3.2</td>
</tr>
<tr>
<td>Woodwind (12%)</td>
<td>15</td>
<td>13</td>
<td>10</td>
<td>25</td>
<td>4.6</td>
</tr>
<tr>
<td>Singing (6%)</td>
<td>12.2</td>
<td>10.5</td>
<td>7</td>
<td>20</td>
<td>4.4</td>
</tr>
<tr>
<td>Brass (5%)</td>
<td>12.6</td>
<td>12</td>
<td>8</td>
<td>16</td>
<td>3.3</td>
</tr>
<tr>
<td>Percussion (3%)</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>14</td>
<td>1.8</td>
</tr>
<tr>
<td>Levels of performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice (hours per week)</td>
<td>16</td>
<td>15</td>
<td>1</td>
<td>45</td>
<td>9.1</td>
</tr>
<tr>
<td>Self-rated ability to play expressively (scale 1-10)</td>
<td>6.8</td>
<td>7</td>
<td>0</td>
<td>10</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Note. M = mean, Md = median, Min = minimum, Max = maximum, SD = standard deviation. Numbers within parantheses indicate percentage of total number of students (N = 135).

Material and Procedure
A questionnaire featuring 48 items (forced-choice, quantitative ratings and open-ended responses) was developed in order to explore how students conceive of expressivity in music performance. The questionnaire was designed so as to proceed from general questions about expressivity (what does it mean to play expressively?), gradually narrowing toward questions about learning expressivity (how much time, in percent, does your teacher spend on teaching expressivity?). In order to not influence the participants’ responses to the questions of which characteristics of a performer they appreciate the most (question 8 - Q8) and how they define playing expressively (Q10), no specific topics were mentioned prior to these two items. The complete set of questions featured in the questionnaire is shown in the Appendix. Translation of the questionnaire to English and Italian was done in close
collaboration between the native-speaking Swedish (Lindström, Juslin), English (Williamon), and Italian (Bresin) authors.

Table 2

<table>
<thead>
<tr>
<th>Previous education</th>
<th>n</th>
<th>%</th>
<th>Stylistic aim in education</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>53</td>
<td>39%</td>
<td>Classical music</td>
<td>80</td>
<td>59%</td>
</tr>
<tr>
<td>Folk high school</td>
<td>57</td>
<td>42%</td>
<td>Jazz music</td>
<td>55</td>
<td>41%</td>
</tr>
<tr>
<td>College or university school</td>
<td>25</td>
<td>19%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Current education in music conservatory   | n   | %   | Performing preferences /       | n   | %   |
|-------------------------------------------|-----|-----|listening preferences          |-----|-----|
| School of Music in Piteå, Sweden          | 26  | 19% | Jazz / jazz                    | 23  | 18% |
| Royal University College of Music in Stockholm, Sweden | 47  | 35% | Classical / classical          | 20  | 15% |
| Royal College of Music in London, UK      | 35  | 26% | Classical / jazz and classical | 15  | 11% |
| The Music Conservatory "B. Marcello" of Venice, Italy | 27  | 20% | Jazz, classical and folk /      | 13  | 10% |
|                                           |     |     | Other combinations*            | 61  | 46% |

Note. N = 135
*This includes 15 different combinations for which n<10.

Music teachers at the respective conservatories administered the questionnaire to their students with the assistance of Sture Brändström (Piteå), Ola Bengtsson (Stockholm), Aaron Williamon (London), and Giovanni Umberto Battel (Venice). Students were instructed to fill out the questionnaire individually. The following instructions were provided on the first page of the questionnaire:

In this folder, you will find a set of questions that concern music and music teaching. We would be very grateful if you could answer these questions as carefully as possible. There are no ‘right’ or ‘wrong’ answers. Please respond spontaneously in accordance with the first thoughts that come to mind. It is important that you answer the questions in the order that they appear, and that you do not go back and change your responses to previous questions. It may happen that you find a specific question difficult to answer. Please, still try to answer the question to the best of your ability. We are very grateful for your participation and guarantee that your responses will be handled confidentially.

Results

Conceptualizing expressivity

A primary question is how music students define key concepts like “expressivity” and “interpretation”. Free reports on the two questions, “In your view, what does it mean to play expressively?”, and “In your view, what does it mean to make an interpretation of a piece of music?” were content-analyzed and divided into various categories. The results show that the students defined “playing expressively” largely in terms of “communicating emotions” (44%) (e.g., “to communicate an emotion to the audience”, “to move the listener”, “to evoke feelings and emotional reactions”, “to transform emotions and moods into tones”, “to express emotion with sound”) or “playing with feeling” (16%) (e.g., “to play with feeling”, “to play with your heart and not your brain”, “to put your heart into playing music”). The two categories are not always easily distinguishable in the participants’
responses, but the first involves more focus on actually conveying something to the audience, whereas the second involves more focus on the performer’s own feelings. A third group (34%) gave answers referring to “a focus on the music itself” (e.g., “to use dynamics, accents, and so on”, “to create music out of the notes”, “to have some opinion concerning the piece”, “to give each detail in the music a significant role”). Only 6% of the participants failed to provide an open-ended response to this question. An overall Chi Square test showed that the differences among the categories were significant, $\chi^2(2, N = 117) = 12.1$, $p < .01$. (Here and henceforth, unless stated otherwise, there were no significant differences between jazz musicians and classical musicians.)

The concept of making an interpretation was defined largely in terms of “internal” and “external” factors influencing the interpretation. Thus, 42% of the reports referred to factors within the performer (“internal factors”), such as feelings, emotions, or intentions to express something personal. Another group (25%) reported the opposite, interpretation influenced by “external” factors such as musical style, structure, background knowledge, or the composer’s intention. A third group of reports (28%) was “mixed”, addressing the music in terms of both “internal” and “external” factors (5% of the answers were not easily categorized). An overall Chi Square test revealed that the differences among the categories were significant, $\chi^2(2, N = 124) = 6.0$, $p < .05$.

The students were asked to rank a number of characteristics in terms of how much they appreciate these characteristics in other performers. The students’ responses clearly indicate that expressivity is seen as the most important characteristic. Wilcoxon’s matched pairs tests (Greene & D’Oliveira, 1982) indicated that “expressivity” was rated significantly higher than “personal style” ($p < .01$), which was rated higher than “swing” ($p < .01$). However, “swing” was not rated significantly higher than “stage presence” or “technical skill”, albeit all of these characteristics were rated higher than “theoretical knowledge” ($p < .01$). Figure 1 presents the results in terms of “ranking profiles” for each of the six characteristics. First, it may be noted that there is greater variability in the rankings for some characteristics (e.g., “swing”) than for others (e.g., “theoretical knowledge”). Second, “expressivity” received the highest frequency of first ranks, but received no ranks on the lowest two levels. Third, “swing” showed an even distribution of frequencies across level of ranks. However, jazz students rated this alternative significantly higher than the classical music students did, as indicated by Mann-Whitney’s U-test ($U = 373.5$, $p < .001$). For example, 55% of the jazz students’ rankings of “swing” were distributed among the first and second rank levels, whereas no more than 10% of the classical students’ rankings of “swing” were distributed among the same rank levels. It could perhaps be argued that the two groups of students may differ in how they understand the term ‘swing’, but we believe that the term and its meaning is now commonly known, such that the obtained data probably reflect a genuine difference regarding the importance attributed to this aspect.

What can music express? Students were required to tick items that seemed reasonable from a list of alternatives (Q12 in the Appendix); they could also add their own alternatives. The list was based on a survey of the literature on expressivity (Gabrielsson & Juslin, 2003). We tried to include the main views on the topic, as proposed by philosophers, psychologists, and musicologists. The results indicate that emotions was the most frequently selected item (99%), followed by psychological tension/relaxation (92%), personality characteristics (89%), experiences that cannot be described in words (86%), physical aspects (86%), and
beauty (85%). Then came events and objects (78%) and sound patterns (76%). The least reasonable items, according to the students, were religiosity (66%), social conditions (58%), and musical conventions (52%) (“others”, 16%). These results strongly suggest that students conceive of expressivity as a *multidimensional* phenomenon, because most students ticked a large number of alternatives. However, although there were large individual differences regarding many of the alternatives, there was almost complete agreement that music can express emotions.

The next question concerned which emotions (out of 38 in random order) music is able to express (i.e., given that music *can* express emotions). The list of emotions was based on a survey of the literature (e.g., Oatley & Jenkins, 1996; Plutchik, 1994) and can be regarded as a representative sample of emotions (the complete list is shown in Q13 of the Appendix). In addition, participants could add their own response alternatives. Table 3 shows the results in terms of the frequencies with which each alternative was chosen by the participants. Joy was selected by almost everyone (98%), followed by sadness, anxiety, love, calm, tension, humor, pain, tenderness, and anger (Range: 83 - 91%). The second quarter includes fear, loneliness, nostalgia, desire, solemnity, longing, hope, pride, hate, and surprise (Range: 68 - 79%). In a steady slope, the third quarter includes expectancy, curiosity, satisfaction, regret, contempt, tiredness, disgust, disappointment, and boredom (Range: 47 - 66%), followed by the fourth quarter including interest, guilt, jealousy, sympathy, shame, admiration, trust, and humiliation (Range: 31 - 44%). It is noteworthy that commonly proposed “basic emotions” such as joy, sadness, anger, fear are among the top ten emotions, whereas “complex” emotions, such as jealousy and shame, occur towards the lower end. (Emotion researchers commonly regard anxiety as belonging to the “fear family” of emotions; see Oatley & Jenkins, 1996; Plutchik, 1994). Note further that “tension” is among the most frequently selected alternatives, which seems reasonable considering that this term is often used in regard to music. A few students (16%) took the opportunity to add their own terms, the modal response being “*all* emotions”. Examples of more specific terms are “despair”, “arousal”, “passivity”, “the greatness of life”, and “nonchalance”.

**Table 3**

Frequencies (in percent) with which various emotion labels were selected by music students in response to the question “What emotions can music express?”

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<tbody>
<tr>
<td>joy</td>
<td>98%</td>
<td>fear</td>
<td>79%</td>
<td>expectancy</td>
<td>66%</td>
<td>interest</td>
<td>44%</td>
</tr>
<tr>
<td>sadness</td>
<td>91%</td>
<td>loneliness</td>
<td>79%</td>
<td>confusion</td>
<td>65%</td>
<td>guilt</td>
<td>43%</td>
</tr>
<tr>
<td>anxiety</td>
<td>90%</td>
<td>nostalgia</td>
<td>76%</td>
<td>curiosity</td>
<td>63%</td>
<td>jealousy</td>
<td>42%</td>
</tr>
<tr>
<td>love</td>
<td>89%</td>
<td>desire</td>
<td>74%</td>
<td>satisfaction</td>
<td>57%</td>
<td>sympathy</td>
<td>39%</td>
</tr>
<tr>
<td>calm</td>
<td>89%</td>
<td>solemnity</td>
<td>73%</td>
<td>regret</td>
<td>56%</td>
<td>shame</td>
<td>39%</td>
</tr>
<tr>
<td>tension</td>
<td>89%</td>
<td>longing</td>
<td>71%</td>
<td>contempt</td>
<td>53%</td>
<td>admiration</td>
<td>37%</td>
</tr>
<tr>
<td>humor</td>
<td>87%</td>
<td>hope</td>
<td>70%</td>
<td>tiredness</td>
<td>52%</td>
<td>trust</td>
<td>33%</td>
</tr>
<tr>
<td>pain</td>
<td>86%</td>
<td>pride</td>
<td>69%</td>
<td>disgust</td>
<td>51%</td>
<td>humiliation</td>
<td>31%</td>
</tr>
<tr>
<td>tenderness</td>
<td>86%</td>
<td>hate</td>
<td>69%</td>
<td>disappointment</td>
<td>49%</td>
<td>Others*</td>
<td>16%</td>
</tr>
<tr>
<td>anger</td>
<td>83%</td>
<td>surprise</td>
<td>68%</td>
<td>boredom</td>
<td>47%</td>
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* This refers to the possibility of providing one’s own emotion labels, in addition to the 38 labels included in the list (see text for examples).
The question to what extent the ability to express emotions in musical performance is innate versus learned yielded an average of 5.1 on a 10-point scale, suggesting that students regard expressive skills as reflecting a combination of innate and learned abilities. However, the standard deviation (2.36) suggests that there were different opinions on this subject. This is confirmed by Figure 2, which shows the frequency distribution of the students’ responses. As seen, there were great individual differences. Some students appear to regard expressivity as depending almost entirely on innate abilities, whereas others appear to regard expressivity as depending almost entirely on learned abilities. Careful inspection of Figure 2 suggests that classical students are slightly more inclined to see expressive skills as being innate rather than learned, but these differences were not significant. Not surprisingly, there was a significant correlation between the extent to which one believes that expressivity reflects learned abilities and the extent to which one believes that it is possible to learn to play expressively ($r = .46, p < .05$). That this correlation is not even larger might reflect a belief that even “less talented” musicians may be able to achieve expressive skills through the right kind of training. Indeed, the majority of students do think it is possible to learn to play expressively (Absolutely 43%, Probably 35%, Doubtful 15%, No 7%), although only 21% of the students think that one has to learn “a particular kind of technique” to play expressively (54% thought not, 24% did not know). However, 96% of the students claim that “extra-musical” experiences are important. When asked which experiences that might be, 51% referred to “emotional experiences” (e.g., “you must have felt those emotions that you are trying to express”, “experiences from social relationships can help when you sing love songs”, “anger, love, tenderness, happiness”), 31% referred to “other experiences” (the modal response was “all experiences influence me”), and 17% referred to some combination of these categories. Those students who responded that it is possible to learn to play expressively also received the question “how can one learn to play expressively”. Their free reports were sorted into the following categories: “focus on emotion and meaning in the music” (24%), “influences from role models and music teachers” (19%), and “other influences” (31%). It is worth noting that music teaching does not seem to play a prominent role in students’ learning of expressivity. Concerning the comparison of different generations of musicians, the majority of students believe that the ability to play expressively is as good for today’s generation of musicians as for the previous generation (74%), although 24% of the students believe that musicians of the previous generation are better, whereas only 1% believe that musicians of today’s generation are better. There is thus only limited support among these students for the notion that musicians today are less expressive than the previous generation, as has been claimed by some musicians (e.g., see introduction, p. 27).

**Expressivity in everyday practice**

Another theme concerns how musical expressivity is approached in everyday practice. Students consciously try to express emotions rather often (Always 39%, Often 44%, Seldom 10%, Never 7%). Almost all (92%) believed that they express emotions without consciously thinking about it (8% did not). The majority also claimed that they feel the intended emotion while playing (Always 23%, Often 65%, Seldom 12%, Never 0%). Moreover, most students (60%) regard it as necessary to feel the emotion in order to communicate it successfully to a listener. Some typical comments were for instance “you have to feel the emotion in order for others to feel it”, “Otherwise, it won’t be called expression”, and “Listeners would be
able to differentiate between genuine and faked emotion”. Others suggested that feeling the emotion is “maybe not necessary but helpful”, or that feeling the emotion is required “not necessarily at the moment of performance, but, yes, at some stage previously”. One student who denied the necessity to feel the emotion commented: “No...but it comes across a lot more if you are completely involved in the music and you are feeling it”.

Figure 1
Students’ rankings (1-6) of how much they appreciate various characteristics in other musicians.

Figure 2
Frequency distribution of students’ responses about to what extent the ability to express emotions in music is innate (0) versus learned (10). White bars indicate responses by students of jazz music, black bars indicate responses by students of classical music.
The students noted that there are both “external” (impersonal) and “internal” (personal) factors that determine what emotion they try to express. Among reports of “external” factors (36%) are “the music itself, the historical context, the composer’s intentions, the mood of the piece, and audience reactions”. “Internal factors” (29%) include the performer’s own moods, emotions, and feelings, often with regard to the particular state in the moment. A third group of reports (34%) was mixed, referring to both kind of factors, for instance “the way the music makes me feel”. Most students reported feeling free to interpret pieces of music according to their own preferences (Often 64%, Always 22%, Seldom 14%). They were asked what they thought were “the most common factors influencing performers’ interpretations of pieces of music” by ranking seven alternatives. The results suggest that students believe that musical style is the most important factor, followed by the piece itself, the performer’s opinions, the performer’s emotions at the moment of playing, the composer’s intentions, the teacher, and, finally, expression marks in the musical notation.

An important question is how students approach practicing expressivity. The students reported spending an average of 51% of their total training time practicing expressivity, and believed that other musicians spend an average of 44% of their total training time. However, there are considerable individual differences in this respect (Figure 3). Some students spend almost all of their practice time on expressive skills, whereas others spend almost no time at all on expressive skills. It must recalled, however, that these are self-reported estimates that were based on the students’ own definitions. There was a positive correlation between time spent on expressivity and the student’s age ($r = .14$, $p < .05$), and a correspondingly negative correlation between time spent on technical skills and the student’s age ($r = -.16$, $p < .05$); in other words, it seems that as students get older, they get more technically proficient and thus focus more on expressive skills. (Both of these correlations are quite weak.) Students report spending an average of 55% of their total training time on technical skills, though again there are wide individual differences ($SD = 23$). It is notable that the average time used to practice technical skills is not markedly higher than that used to practice expressive skills. However, above all, the amount of time spent on practicing expressive skills, as compared to technical skills, seems to vary considerably among students.

To what extent do students listen to recordings of their own performances or those of others in developing expressivity? As can be seen in Figure 4, 43% of the students claim that they listen to recordings of their performances “often”, and about as many claim that they do so “seldom”. Students listen to recordings of their own performances to a lesser degree than to the recordings of performances by other musicians, though there is a correlation between the two indices ($r = .61$, $p < .05$): those students who listen a lot to recordings of themselves also tend to listen a lot to recordings of other performers. Also, jazz students appear to listen more to other musicians than classical students ($r = .29$, $p < .05$), which is consistent with the so-called “oral” tradition of jazz, blues, and rock. However, it must be noted that about 50% of the students listen to recordings of themselves “seldom” or “never”.

Another important question is how the students initially came to consider expressivity (Woody, 2000). The results suggest that at a mean age of 12 years, the students reflected on expressivity for the first time. They had by that time been playing an instrument for a couple of years. The most common factors “evoking thoughts about expressivity” were listening to records (60%), followed by intrinsic
needs (53%), and music education (39%). Only a few thought that external demands (10%) or books (5%) had evoked thoughts about expressivity.

Expressivity in music teaching

Because all of the students were involved in music education at conservatories, they all had experienced various teaching methods. In the questionnaire, they were asked to mark the strategy for teaching expressivity (“metaphors”, “aural modeling” or “felt emotion”) that they thought were the most effective, the next most effective, and so on. The use of “metaphors” received the highest rank by 42% of the students, followed by “felt emotion” (39%). “Aural modeling” received only 25% of the first ranks for best method. Virtually every student had experienced at least one of the three methods, and the various methods were approximately equally common: “metaphors” (81%), “aural modeling” (70%), and “felt emotion” (71%). However, because not all students had experienced all methods, we also conducted an analysis featuring only those students that had experienced all three methods (N = 59). This analysis indicated an even stronger preference for the use of “metaphors” (46%), over “felt emotion” (34%) and “aural modeling” (15%). It is notable that modeling, which is frequently praised by researchers (e.g., Dickey, 1992; Tait, 1992), does not seem to be preferred by students.

The students were required to estimate how much time their teachers spend on teaching expressivity. On average, music teachers were reported to use 50% of the total time to teach expressivity, but again there were enormous individual differences (Figure 5). Some teachers spend little time on expressivity, others spend most of their time on expressivity – according to these estimates. 68% of the students thought that the proportion was “just right”, whereas 30% believed it was “too little”, and 2% “too much”. It is significant that when asked directly (and when not forced to criticize the teacher’s allocation of time) 77% of the students indicate that they would like to practice more on expressivity than is currently the case. About 20% of the students report that they always receive detailed feedback from their
teachers (46% Often, 26% Seldom, and 8% Never). Jazz musicians are more satisfied with their teacher’s feedback than are classical students, but the difference is only moderate ($r = .27, p < .05$).

**Novel teaching strategies**

The final set of results concerns how students appraise the use of modern techniques, like computers, in teaching of expressive skills. When explicitly asked about whether such techniques could contribute to learning expressivity in music performance, only 17% of the students responded “yes” and 83% responded “no”. This reveals a great deal of skepticism towards computer applications. This impression is reinforced by the result on another item: When confronted with a scenario in which the students would receive immediate feedback from a computer program regarding the success of their communication of emotions, most students were negative. On a scale ranging from zero to ten, the mean positivity rating was 3.6 ($SD = 3.2$), although there were considerable individual differences among the students (Range: 0-10) in this regard (Figure 6). These differences could perhaps reflect differences among the students concerning previous experience of using computers, particularly in the context of music. Unfortunately, this aspect was not examined in the present investigation.

**Figure 5**

Frequency distribution of students’ estimates of how much time (in percent) of the total teaching time their teachers spend on teaching expressivity.

**Figure 6**

Frequency distribution of students’ responses when asked to imagine a computer program giving feedback on their expressive performances (0 = very negative, 10 = very positive).

Analyses of the students’ free comments about this question suggest that the they were negative mainly because they could not conceive how such an application could ‘work’ (e.g., “how could a computer know anything about emotion?”). Indeed, when asked if they would be willing to try new teaching strategies aimed at expressive skills, many students responded positively (on a scale of ten steps, from “yes, absolutely” to “no, never”, the mean rating was 4.5, $SD = 3.4$). Even so, many comments suggest that students do not think that expressivity is amiable to teaching through modern techniques. “Expressivity comes from within your soul” and similar comments suggest the view that expressivity cannot be measured, quantified, or put into a computer. All of this suggests that new teaching strategies involving CBI must be very carefully introduced in teaching expressivity. The students’ attitudes toward the use of modern technique (e.g., computers) were not systematically related to their opinions on any other items. Surprisingly, however, there was a correlation between age of the student and a positive appraisal of the use
of computers ($r = .42, p < .05$). This could be related to the fact that older students are less “satisfied with the feedback they receive from their teacher” than are younger students ($r = -.43, p < .05$), and that they are thus more willing to try alternative teaching strategies. It is also conceivable that older students are less rigid in their views due to cognitive maturity.

Discussion

The present results allow us to draw a number of tentative conclusions. First, it is clear that music students regard expressivity as an important aspect of music performance. Indeed, expressivity was the most highly ranked of the performer characteristics, whereas theoretical knowledge was least highly ranked. (This finding was not caused by demand characteristics, because the students were not aware that the questionnaire concerned expressivity when they responded to this item; Method and Appendix.) These priorities seem to be almost opposite to those evident in most curriculums for music teaching, which emphasize cognitive aspects, such as theory, rather than emotional aspects (Boal-Palheiros & Hargreaves, 2001). Second, students define expressivity largely in terms of “communicating emotion” and “playing with feeling” (Boyd & George-Warren, 1992; Persson, 2001). Hence, although expressivity may be a multidimensional phenomenon, emotional expression is a crucial aspect of expressivity. (This is consistent with recent results from experiments; see Juslin, Friberg, & Bresin, 2002.) The results suggest that students often try explicitly to express specific emotions through the performance of a piece, and that many students also feel the emotions while actually playing. Indeed, many students adhere to the notion that “a musician cannot move others unless he too is moved” (Bach, 1778/1985, p. 152), although there is still little evidence to suggest that this is really true. Third, the majority of students would like to practice more on expressivity than is currently the case. The findings also indicate that time spent on expressivity increases with age. This would not be too surprising in a study of music novices – because one must learn a minimum of basic technique before refining expressive skills – but it is more remarkable in a study of expert performers. Fourth, the findings suggest that the use of metaphors is the most popular teaching strategy aimed at developing expressivity (for further discussion, see Barten, 1998; Woody, 2002). Finally, students are quite skeptical toward using computers in teaching expressive skills, mainly because they cannot see how this could work (“How can a computer know what I’m expressing?”; “computers don’t have feelings!”). Nonetheless, most students are actually willing to try novel teaching strategies, a finding that is worth emphasizing. This is consistent with the findings of Pitts (2002), who concluded that music students seek “new opportunities to develop their skills and ideas” (p. 87).

There are some further interesting findings that run counter to traditional views. First, contrary to some previous reports (Persson, 1993, 1996a, 1996b; Richter, 1976; Rostwall & West, 2001; Tait, 1992), it would seem from the present results that many teachers at music conservatories today spend considerable time on teaching expressive skills (even though the present findings indicate large individual differences among teachers). This may reflect the fact that music teachers have been encouraged to devote more time and attention to emotion and expression (Reimer, 1989). The use of metaphors is both the most popular and the most common of the traditional teaching strategies. It must, of course, be noted that these are self-reports, and that they do not provide unequivocal evidence on this point. Even so, the results
suggests that the priorities may be changing in music education, along the lines suggested by previous authors. Swanwick (1985) noted that music and emotion is a crucial area for music education, adding that “it is here...that teachers are at work, or should be” (p. 24). Musicians have made similar remarks. For instance, Menuhin (1996, pp. 331, 428) noted that “classical music has suffered at the hands of the dogmatic and the mechanical; young musicians need to be able to rediscover spontaneous expressiveness...in recent years there have been signs that the pendulum is swinging back again...sufficiently to make emotion acceptable once more”. These winds of change might partly reflect developments in the so-called “new” musicology (Cook, 1998), which have brought a renewed concern with interpretation and expression (see Cook & Dibben, 2001). It may also reflect increased interest in emotion in general (Lewis & Haviland-Jones, 2000), and music and emotion in particular (Juslin & Zentner, 2002). This change of emphasis should bring with it increased interest in the ways expressivity is taught.

Second, despite claims by some authors that so-called “basic emotions” or “everyday emotions” are irrelevant or inappropriate in the case of music (Lippman, 1953), it is striking in the present results that, when performers are asked, they agree that these are the emotions that are easiest to express in music. This should not be surprising, considering that much of music’s expressive form originates in nonverbal behavior such as vocal expression (Juslin & Laukka, 2001, in press) and body language (Sloboda, 1996), which often involves everyday emotions like happiness, sadness, and anger. Yet it may not be considered acceptable in the traditional conservatory culture to regard emotions in music as basically the same as those in everyday life (for further discussion, see Juslin et al., in press).

The student’s definition and prior understanding of musical expressivity is crucial when developing practical applications for music education. Obviously, their views on expressivity could affect how they subsequently address expressivity in practice. If expressivity is viewed as learned, this implies that one can teach expressive skills (Swanwick, 1985). If, on the other hand, one views expressivity as reflecting “talent”, or “intuition”, one might wrongly come to believe that understanding – or explicit knowledge – is not necessary or even beneficial. This view is incorrect: Explicit instruction is beneficial to learning expressive skills (e.g., Juslin & Laukka, 2000; Woody, 1999; for a discussion, see Juslin & Persson, 2002). Hence, the view that expressive skills reflect only musical talent or intuition has probably been detrimental to teaching (Sloboda, 1996). A student in Persson’s (1996a) study claimed that “it is something you’ve got or haven’t got”, implying that the ability to play expressively is not a skill that can be learned. It is encouraging to note that many students in this study regarded expressivity as reflecting learnable skills, and that they would be willing to try novel teaching strategies. At the same time, it is apparent that there are marked individual differences among students with respect to questions concerning expressivity. These may reflect differences in how particular music teachers approach the topic, or simply the fact that expressivity is not taught in a formal manner using theories based on empirical research. We argue that teaching must incorporate up-to-date theories and findings about expressivity, and that teachers must consider using new ways of teaching expressive skills. This change could bring a vast improvement to the current “commonsense teaching” that relies largely on tradition and folk theory (Persson, 1996b).

As noted by Persson (1996b), in the typical ‘maestro’ teaching paradigm of most music conservatories, the parameters of the musical interpretation are commonly very rigid, and not always in the habit of encouraging ‘novel
interpretations’. Yet, novelty is typically regarded as an important aspect of art, and the possibility of novel interpretations is one of the reasons that music performance is so meaningful. Consequently, we argue that one of the main goals of teaching should be to provide the performer with the tools necessary to develop a personal expression (Juslin & Persson, 2002). The present study suggests that expressivity is regarded as a crucial aspect of music performance by music students, and that this aspect thus deserves more attention in music education than has hitherto been the case.

Acknowledgments

The research reported here was supported by The Bank of Sweden Tercentenary Foundation through a grant to Patrik N. Juslin. We are grateful to Sture Brändström, Giovanni Umberto Battel, Ola Bengtsson, and Anders Friberg for their assistance in various stages of the study. We are also grateful to Roland Persson and three anonymous reviewers for useful comments on a previous version of this paper, and to the performers for sharing their thoughts with us. Correspondence concerning this article should be addressed to Erik Lindström and Patrik N. Juslin, Department of Psychology, Uppsala University, Box 1225, 751 42 Uppsala, Sweden. E-mail: Erik.Lindstrom@psyk.uu.se, Patrik.Juslin@psyk.uu.se

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Appendix: List of questions included in the questionnaire

1. Age: (open-ended)
2. Gender: (open-ended)
3. I play the following musical instruments (please specify the approximate number of years that you have played each instrument): (open-ended)
4. Approximately how many hours each week do you practise on your main instrument? (open-ended)
5. Have you been performing live?
   (a) Individually: No, Yes; number of years you have performed live: (open-ended)
   (b) In a group: No, Yes; number of years you have performed live: (open-ended)
6. What is your education?
   (a) Previous education: (open-ended)
   (b) Current education: (open-ended)
7. What musical styles do you prefer?
   (a) I prefer to play the following musical styles: (open-ended)
   (b) I prefer to listen to the following musical styles: (open-ended)
8. Which of the following characteristics of a performer do you appreciate the most? (Rank all of the alternatives, marking 1 for the characteristic you appreciate the most, 2 for the characteristic you appreciate the second most, and so forth):
   Technical skill, Expressivity, Stage presence, Personal style, Swing, Theoretical knowledge
9. In your view, what does it mean to make an interpretation of a piece of music? (open-ended)
10. In your view, what does it mean to play expressively? (open-ended)
11. What is your opinion about musicians’ abilities to play expressively in today’s generation as compared to musicians’ abilities in previous generations (according to your definition of what it means to play expressively)?
   Old musicians are better, They are equally good, Young musicians are better
12. What do you think music can express? (Tick all that you find reasonable)
    Sound patterns (e.g., tones and chords in a musical context), Physical aspects (e.g., motion, force, energy), Psychological tension/relaxation, Emotions (e.g., joy, sadness, love), Personality characteristics, Beauty (in an abstract sense), Events and objects (e.g., the sea, canons, birds), Musical conventions, Social conditions (e.g., social values, group belonging), Religiosity (e.g., closeness to God), Experiences that cannot be described in words, Other, namely: (open-ended)
13. If we assume that music can express specific emotions, which of the following emotions do you think music can express? (Tick all that you find reasonable)
    Joy, Anxiety, Guilt, Regret, Love, Contempt, Surprise, Pride, Shame, Tenderness, Desire, Hate, Nostalgia, Disgust, Curiosity, Anger, Satisfaction, Expectancy, Sadness, Boredom, Loneliness, Jealousy, Longing, Confusion, Admiration, Tiredness, Humiliation, Humour, Trust, Calm, Hope, Fear, Sympathy, Solemnity, Pain, Tension, Interest, Disappointment, Others that music can express: (open-ended)
14. Do you consciously try to express emotions in a performance of music?
   Never, Seldom, Often, Always
   (if you responded Never, please continue to question 17)
15. What determines the emotion(s) you try to express? (open-ended)
16. If you try to express a particular emotion, do you feel that emotion while you are playing?
   Never, Seldom, Often, Always
17. Do you believe that you express emotions without consciously thinking about it? Yes, No
18. In what kind of music is it easiest to express emotions through a performance?
   Composed music, Improvised music, It’s equally easy in both kinds
19. To what extent do you think that the ability to express emotions in music is innate versus learned? (Mark an “x” on the line)

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20. Is it necessary for you to feel the emotion that you want to express in order to communicate it successfully to a listener? Yes, No, Comments: (open-ended)

21. If you look back and try to recall the first time you thought about musical expressivity:
   (a) Approximately how old were you when you reflected on this the first time? (open-ended)
   (b) How long had you been playing an instrument when the thoughts occurred? (open-ended)
   (c) What do you think evoked those thoughts? (Tick as many as you like)
   Music teaching, Books, Listening to recordings, Intrinsic needs, External demands, I don’t know

Note! In the following questions, “expressivity” refers to your own definition of the word, unless it is explicitly noted that the question concerns expression of emotion.

22. Is it possible to learn to perform expressively? No, Doubtful, Probably, Yes absolutely
   (If you answered No, please continue to question 27)

23. How can one learn to perform expressively? (open-ended)

24. Do you have to practise a special kind of technique to be able to play expressively? Yes, No, I don’t know

25. Do you believe that extra-musical life experiences are important in learning to play expressively in music performance? Yes, No
   (If you answered No, please continue to question 27)

26. What kind of extra-musical life experiences do you think are important in learning to play expressively? (open-ended)

27. Do you feel free to interpret pieces of music according to your own preferences? Never, Seldom, Often, Always

28. What do you think is the most common situation for performers? (Rank all of the alternatives, marking 1 for the most common, 2 for the second most common, etc.) That the interpretation is determined by:
   The teacher, The composer, The piece of music, The performer’s feelings at the moment, The musical style, The performer’s personal opinion, Expression marks

29. Sometimes teachers teach expressivity in performance using the following methods. Mark 1 for the method you think is most effective, and 3 for the method you think is least effective.
   ‘Metaphors’ (i.e., the student learns from teacher descriptions based on analogies)
   ‘Aural modelling’ (i.e., the student learns by imitating the teacher’s performance)
   ‘Felt emotions’ (i.e., the student learns by focusing on felt emotion while playing)

30. Briefly explain your choice of “the most effective method” in the preceding question (question 29): (open-ended)

31. Which of the following methods have you experienced? If you are uncertain, feel free to look at the description of each method in question 29. (Tick as many as you like)
   Metaphors, Aural Modelling, Felt emotion

32. Do you listen to recordings of your own performance to evaluate its expressivity? Never, Seldom, Often, Always

33. Do you listen to other performers’ recordings to learn something about expressivity? Never, Seldom, Often, Always

34. How much time (in percent) do you spend specifically on practising your expressivity as a performer? (Mark an “x” on the line)
   0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% of total training time
35. How much time (in percent) do you think that other performers spend on practising their expressivity as performers? (Mark an “x” on the line)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% of total training time

36. How much time (in percent) does your music teacher spends on teaching you expressivity?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% of total training time

37. Is the percentage of time your music teacher spends on teaching expressivity:

Too little, Just right, Too much

38. Do you receive detailed feedback from your music teacher when it comes to developing your expressivity as a performer?

Never, Seldom, Often, Always

39. How much time (in percent) do you spend specifically on practising your technical skills?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% of total training time

40. Which factors in a musical performance do you think one can use to express emotions? (Tick as many as you like) Tempo, Loudness, Timbre, Articulation, Vibrato, Tone onsets, Timing, Accents, Other: (open-ended)

41. Are certain musical factors more difficult to use to express emotions than other factors?

Yes; If so, which factors? (open-ended), No, I don’t know

42. Do you believe that modern techniques (such as computer programs) could contribute to learning expressivity in performance? Yes, No, Comment: (open-ended)

43. Would you be willing to try using such new techniques to learn how to play expressively?

Yes, absolutely 0 1 2 3 4 5 6 7 8 9 10 No, never

44. In your opinion, how good are you at playing expressively?

Very bad 0 1 2 3 4 5 6 7 8 9 10 Very good

45. Would you like to practise more on playing expressively? Yes, No

46. Is your teacher good at playing expressively? Yes, No, I don’t know

47. Imagine the following situation: You have a computer program that registers the sounds of your instrument while you are performing. After your performance, you receive information from the program with regard to the tempo, loudness, timbre, and articulation of the performance. The program also suggests possible changes in the performance, which could increase its expressivity. Thus, you would be able to experiment with different interpretations of a piece of music. What is your spontaneous reaction toward such a computer program?

Very negative 0 1 2 3 4 5 6 7 8 9 10 Very positive

48. If you have any comments or suggestions regarding this investigation, please write them here:

Note. Two questions included in the questionnaire (40-41) were intended as background material for another study and have not been discussed here.