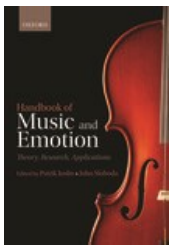

Handbook of Music and Emotion: Theory, Research, Applications

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CHAPTER

20 Strong Experiences with Music

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Abstract

Music psychology has few answers to the question that most people interested in music consider the most relevant: how are we affected by music? Disappointment with this state of affairs was the basic motivation for the Strong Experiences with Music (SEM) project. This chapter describes what reactions may occur in particularly strong experiences with music, explores which factors can elicit such reactions, and considers what consequences the experience may have for the individual. It includes a review of earlier research on strong experiences, followed by a description of the SEM project, the associated analysis of reactions, the music in SEM, influencing factors, and a concluding discussion.

Keywords: music, emotions, musical experience

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WHILE perception of musical expression has been given considerable attention in empirical music psychology (cf. overviews by Gabrielsson & Juslin, 2003; Gabrielsson & Lindström, 2001; Chapters 14 and 17, this volume), there is much less research concerning the experience of music—how we react to music. There are several plausible reasons for this neglect. Music experience is a complex phenomenon, and is influenced by a variety of interacting factors. Different individuals react differently, and reactions to the same music may vary on different occasions. Many people find it extremely difficult to describe their experience; it seems to elude common vocabulary.

Music psychology, then, has few answers to the question that most people interested in music consider the most relevant: how are we affected by music? Disappointment with this state of affairs was the basic motivation for the *Strong Experiences with Music* (SEM) project described below. William James (1902/1985) stated that 'we learn most about a thing when we view it...in its most exaggerated form' (p. 39). Following James, we decided to focus on strong experiences of music, because they could be expected to provide the most comprehensive picture of how we may be affected. The project started at the very end of the 1980s

(Gabrielsson, 1989), went on with some intermissions during the 1990s, and continued for some years into the new millennium.

The purpose of the project, and of this chapter, is to describe what reactions may occur in particularly strong experiences with music, to explore which factors can elicit such reactions, and to consider what consequences the experience may have for the individual. This chapter includes a review of earlier research
p. 548 on strong experiences (Section 20.1), followed by a description of the SEM project (20.2), the associated ↳ analysis of reactions (20.3), the music in SEM (20.4), influencing factors (20.5), and a concluding discussion (20.6).

20.1 Earlier Research on Strong Experiences

In empirical psychology, the best-known analysis of strong experiences was furnished by Abraham Maslow, one of the founders of humanistic psychology. Maslow coined the term *peak experience*, which he originally associated with self-actualization, the highest level in his well-known hierarchy of needs (Maslow, 1954, Chapter 5). To explore such experiences, Maslow asked people to describe 'the most wonderful experience of your life; happiest moments, ecstatic moments, moments of rapture, perhaps from being in love, or from listening to music, or suddenly "being hit" by a book or a painting, or from some great creative moment' (Maslow, 1968, p. 71). Surveying the contents of these descriptions, he found several characteristics of generalized peak experience, such as total attention on the object in question, complete absorption, disorientation in time and space, transcendence of ego, and identification or even fusion of the perceiver and the perceived. Peak experience is good and desirable; there is a complete loss of fear, anxiety, inhibition, defence, and control. Moreover, 'the emotional reaction in the peak experience has a special flavour of wonder, of awe, of reverence, of humility and surrender before the experience as before something great' (Maslow, 1968, pp. 87–8), even a fear of being overwhelmed by more than what one can bear. The experience may occasionally be described as sacred.

Maslow found that 'the two easiest ways of getting peak experiences…are through music and through sex' (Maslow, 1976, p. 169). Regarding music, he found peak experiences reported solely from classical music, 'the great classics' (p. 170). He claimed that music and art can do the same as psychotherapy, and that 'music and rhythm and dancing are excellent ways of moving toward the discovering of identity' (p. 171).

However, Maslow did not publish any of the reports that he had obtained from his subjects. He just mentioned that no one subject reported all of the above characteristics of peak experience; these characteristics represent an addition of all partial responses in order to 'make a "perfect" composite syndrome' (Maslow, 1968, p. 71).

As an extension of Maslow's investigations, Panzarella (1980) gathered reports on an 'intense joyous experience of listening to music or looking at visual art' (p. 71) from a sample of 103 persons, 51 describing musical experiences and 52 visual art experiences. Content analysis followed by factor analysis revealed four major factors of the experience: (a) *renewal ecstasy*, an altered perception of the world. 'The world is better, more beautiful than had been thought before' (p. 73); (b) *motor-sensory ecstasy*, physical responses (changes in heart rate, breathing, posture, or locomotion, presence of shivers, chills, etc.) and quasi-physical
p. 549 responses (e.g. feeling 'high', ↳ 'floating'); (c) *withdrawal ecstasy*, loss of contact with both the physical and social environment; and (d) *fusion-emotional ecstasy*, merging with the aesthetic object. Motor-sensory ecstasy and fusion-emotional ecstasy were more pronounced in music reports than in visual art reports, renewal ecstasy more pronounced in visual art reports, and withdrawal ecstasy was about equally common in music reports and visual art reports. The musical pieces usually belonged to classical music, but there were some examples of folk songs and rock 'n' roll. A few reports with classical music were cited.

Laski (1961) asked 63 individuals whether they had known an experience of 'transcendent ecstasy', and further analysed texts from selected literary sources and from books on religious experience. Triggers of such experiences included nature, sexual love, childbirth, religion, art, science, creative work, 'beauty', and others. The contents of the descriptions were classified into four broad categories: (a) feelings of loss of something (e.g. loss of time, place, sense, self); (b) feelings of gain of something (e.g. gain of timelessness, release, satisfaction, joy, salvation, perfection, new knowledge); (c) feelings of ineffability (e.g. the experience is indescribable, eludes verbal communication); and (d) quasi-physical feelings (e.g. light and/or heat words, improvement words, pain words, calm and peace words). Classical music was the most frequently mentioned trigger among the arts.

The concept of 'peak' has also been used in connection with performance. Peak performance means some kind of superior behaviour, better than ordinary behaviour; the person's achievement surpasses what would usually be predicted or expected (Privette & Landsman, 1983, p. 195). As a musical example the authors cited a saxophone player who during a concert performance felt that everything that he had practised earlier just came out quite naturally without any effort whatsoever. The piece sounded exactly as it should be played. The concept of *flow* (Csikszentmihalyi, 1990) has a similar meaning. It refers to a state of intense but yet effortless involvement in an activity, the experience of which is 'so enjoyable that people will do it…for the sheer sake of doing it' (p. 4). With regard to music, flow may involve mastering a difficult piece in a fully concentrated but seemingly effortless involvement, a phenomenon often reported by musicians as the most happy moments in their activities (e.g. Boyd & George-Warren, 1992). The relationships between the concepts of peak experience, peak performance, and flow were discussed by Privette (1983) and Privette and Bundrick (1987); see also Whaley, Sloboda, and Gabrielsson (2009).

While there are practically no later studies intended to study musical peak experiences including all or most of Maslow's characteristics for such experiences, there are some studies focusing on especially strong emotional experiences with music. Scherer, Zentner, and Schacht (2001–2) had 98 musical experts attending a conference complete a questionnaire on their reactions to a piece of music that had produced a strong emotional state in them. The responses were coded into a number of categories: physiological symptoms (increased heart rate, shivers, goose bumps, etc.); expressive behaviour (eye symptoms, i.e. tears); motivation/action tendencies (e.g. urge to move, feel energized, focused attention); and subjective feeling, divided into specific feeling, unspecific feeling, basic emotions, arousal/calm, valence, and ambivalent feelings. There were more pieces of non-classical music than of classical music that had elicited
p. 550 the strong ↳ emotional response. Among influencing factors, musical factors—musical structure, acoustic features, interpretation, technical quality—were judged more important than personal factors (mood, affective involvement, personality) and context factors. But most important were 'other factors' added by the participants themselves. These other factors varied enormously across the participants. Hence, it was assumed that 'whether an emotional reaction occurs or not may be determined, to a large extent, by factors that are very specific for each individual' (p. 160).

Lowis (1998) had subjects listen to classical music including five pieces of 'gentle' music (e.g. 'Nimrod' from *Enigma Variations* by Elgar) and nine pieces of 'up-beat' music (e.g. ending of *The Firebird* by Stravinsky), and use a button device to indicate 'a moment of particularly deep and profound pleasure or joy…the sort that produces a tingle in the spine' (p. 212). Roughly two-thirds of the subjects pressed the button at least once. The 'up-beat' music generated significantly more responses than the 'gentle' music. Significant correlations were found between frequency of button pressings and ratings for the following feelings evoked by the music: joy, love/tenderness, longing, sadness, reverence/spirituality, action, and memory/thoughtfulness.

Other studies focused on physical aspects of strong experiences, especially responses alternately called thrills, chills, or shivers. From answers to a questionnaire, Goldstein (1980) concluded that thrills may be elicited by a large variety of stimuli; most frequently mentioned were musical passages, indicated by 96 per

cent of the respondents. Subjects in Sloboda's (1991) study reported physical responses located to a specific theme, phrase, motif, bar, chord, or moment in pieces of classical music; tears were provoked by melodic appoggiaturas, shivers by sudden changes in harmony, and a racing heart either by syncopation or by a prominent event occurring earlier than expected. Panksepp (1995) found that chills peaked at intense and dramatic crescendos. Sadness and chills occurred together more clearly than happiness and chills, and this relationship was more evident in women. Chills occurred more frequently for pieces brought by the subjects themselves than for other pieces, which suggested effects of conditioning. For a more detailed review of these pioneering studies and more recent studies on thrills/chills, see Chapter 21 (this volume). On the whole, however, results concerning thrills/chills in relation to musical variables are still tentative. Moreover, individuals vary greatly both in the number of reported chills (some report no chills at all) and/or regarding when chills occur during the course of a musical piece. Chills are only cursorily mentioned by Maslow and Panzarella, and in our own study thrills/chills were reported by only about 10 per cent of the participants (see Section 20.3.2). Konečcni, Wanic, and Brown (2007), after having investigated various emotional and aesthetic antecedents and consequences of music-induced thrills, concluded that thrills may accompany profound aesthetic experiences but are themselves of limited psychological significance.

Most studies cited in the latter part of this section deal with separate aspects—physical or emotional—of strong experiences with music. The early studies by Maslow, Panzarella, and Laski were far more comprehensive, and identified many more aspects. However, the number of subjects was relatively small, about 50 in Panzarella's study, while it is unclear how many were in Maslow's study. The background and
p. 551 the circumstances ↳ around the experience were usually not reported. Moreover, we found it doubtful that strong experiences with music are always positive—as implied by Maslow's definition of peak experiences—or that they are limited to classical music. Considerations such as these and a general dissatisfaction with the scant research on the experience of music led us to initiate the SEM project.

20.2 The Sem Project

The primary purpose of the SEM project was to obtain a comprehensive and detailed description of the components—physical, behavioural, perceptual, cognitive, emotional, social, and others—contained in strong experiences related to music. We also wanted to explore the 'causes' of such experiences; that is, what factors in the music, the person, and the situation may contribute to the strong experience. Furthermore, we were interested in what consequences the experience may have had for the person in question.

Rather than speaking about peak experience in strict adherence to Maslow's (1968) terminology and criteria, we preferred to adopt a more general view of the phenomena under investigation and to refer to them as strong experiences. Furthermore, unlike Maslow we did not provide any hints or examples of such experiences to our subjects, but only asked them to report any strong experiences related to music.

The very beginning of the project was briefly reported in Gabrielsson (1989). A sketch of a descriptive system for SEM first appeared in Gabrielsson and Lindström (1993). It was successively further elaborated in Gabrielsson and Lindström (2000), Gabrielsson (2001), and, especially, in Gabrielsson and Lindström Wik (2003) and Gabrielsson (2008). Examples of therapeutic effects of SEM were given in Gabrielsson and Lindström (1995), old people's remembrance of SEM in Gabrielsson (2002), and description of the different types of music in SEM in Gabrielsson (2006, 2008).

20.2.1 Data collection

Briefly, subjects were asked to describe 'the strongest, most intense experience of music that you have ever had. Please, describe your experience and reactions in as much detail as you can'. Supplementary questions concerned whether or not this was the first time one had listened to the music in question, and if the same strong experience had recurred when one heard the same music on later occasions; how the respondent felt before and after the experience, and what the experience had meant in a long-term perspective; how often such strong experiences occurred, and if similar strong experiences occurred in situations other than with music; and if the respondent had any idea about what caused the strong experience. The reports were obtained by means of interviews (about 10 per cent) and as written reports.

p. 552 Most participants (n = 522) also answered a questionnaire containing either 98 or 74 statements concerning reactions in strong experiences of music. The task was to judge how well one's own experience agreed with each of the statements, using a scale extending from 0 ('no agreement at all') to 10 ('perfect agreement'). Ratings were analysed in terms of conventional descriptive statistics followed by factor analysis in order to find some fundamental dimensions underlying the ratings. For further description of the methods and results of the questionnaire, see Gabrielsson and Lindström Wik (2003).

20.2.2 Subjects

Participation in the project was basically on a voluntary basis. Attempts were made to collect reports from both women and men, from people of different ages, with different occupations, and different musical preferences. An initial study comprised musicians and music students with preferences for classical music. It was followed by studies focusing on fans of jazz, rock music, and folk music. Further studies included high school students, choir singers, elderly people, and persons who reported strong experiences related to dance and to visual art. Advertisements in mass media resulted in hundreds of reports from persons with widely varying background and preferences. For details, see Gabrielsson and Lindström Wik (2003) and Gabrielsson (2008).

In all, 953 persons provided SEM reports. About 250 of them provided two or more reports. The total number of reports is 1,354. The majority of participants were women (62 per cent). Ages of the participants ranged from 13 to 91 years with fairly equal distribution (116–176 persons) across successive 10-year intervals (10–19, 20–29...60–69 years). Furthermore, some 80 persons were older than 70 years.

A little more than half of the participants (56 per cent) described themselves as amateur musicians, a fifth (20 per cent) as professional musicians, and about a quarter (24 per cent) did not perform music themselves. There was wide variation with regard to education and occupation. Musical preferences were spread across most genres: classical music, opera, musical, folk music, jazz, pop/rock, melodies/tunes, religious music, and still others. As could be expected, preferences differed greatly between different age groups: the older the participants, the more preference for classical music; the younger, the more preference for pop/rock.

Altogether, the participants represent a broad cross-section of gender, age, education, occupation, musical experience, and musical preferences. It is thus reasonable to assume that their SEM reports are fairly representative of the population of possible strong experiences related to music in the given cultural context.

20.2.3 Analysis

SEM reports were subjected to content analysis, gathering all reactions mentioned and successively
p. 553 exploring different ways of sorting them into a limited number of ↳ fundamental categories. This work was conducted independently by the author and one or two of his co-workers. After the necessarily tentative analysis of the earliest reports, the consensus between the analysts gradually increased and is now very high, provided that one is familiar with all the details in the SEM descriptive system (see Table 20.1 and the more complete presentation in Gabrielsson & Lindström Wik, 2003, Appendix). As human experiences and reactions are hard to fit into truly exhaustive and mutually exclusive categories, there is some overlapping between different categories. Therefore, I now prefer to talk about a descriptive system rather than a classification.

Table 20.1 SEM descriptive system (abbreviated)

1. *General characteristics*
1.1 Unique, fantastic, incredible, unforgettable experience
1.2 Hard-to-describe experience, words insufficient
2. *Physical reactions, behaviours*
2.1 Physiological reactions
2.2 Behaviours, actions
2.3 Quasi-physical reactions
3. *Perception*
3.1 Auditory
3.2 Visual
3.3 Tactile
3.4 Kinaesthetic
3.5 Other senses
3.6 Synaesthetic
3.7 Intensified perception, multimodal perception
3.8 Musical perception-cognition
4. *Cognition*
4.1 Changed attitude
4.2 Changed experience of situation, body and mind, time and space, part and whole
4.3 Loss of control
4.4 Changed relation/attitude to the music
4.5 Associations, memories, thoughts
4.6 Imagery
4.7 Musical cognition-emotion
5. *Feelings/emotions*
5.1 Intense/powerful feelings
5.2 Positive feelings
5.3 Negative feelings
5.4 Different feelings (mixed, conflicting, changed)
6. *Existential and transcendental aspects*
6.1 Existence

6.2 Transcendence
6.3 Religious experience
7. *Personal and social aspects*
7.1 New insights, possibilities, needs
7.2 Music: new insights, possibilities, needs
7.3 Confirmation of identity, self-actualization
7.4 Community/communication

Note: For a more complete version of the SEM descriptive system, see Appendix in Gabrielsson and Lindström Wik (2003).

20.2.4 Some general results and an example

The length and detail of the reports vary widely, from only a few sentences up to ten pages or more. Each report represents a unique case with regard to contents of the experience and influencing factors.

The reported experiences extend across almost 100 years, from 1908 to 2004. About 13 per cent of them occurred before 1950, 42 per cent occurred before 1980. Thus, more than half of the experiences occurred after 1980, of which a large part comes from the youngest participants. Counted in relation to the participants' age, almost half of all experiences occurred within the previous ten years of their life, about 75 per cent within the last 30 years. About 25 per cent thus date back in time more than 30 years, and about 6 per cent more than 60 years.

Here follows a somewhat abbreviated report of a strong experience. It came from a young woman and illustrates many different aspects of SEM. The numbers within parentheses refer to the corresponding items in the SEM descriptive system (see Table 20.1) and may be neglected for the moment.

> I looked forward curiously (4.1) to my first meeting with a band playing Finnish tango. It was in a pub crowded with people (3.2). There was no stage so the band was standing at the same level as all the others and this gave another kind of community between musicians and audience (7.4). The band started and let their instruments whirl in fervent dramatic tango rhythms (4.7). Even then I was filled by a special feeling that the music began to take command of my body (2.3; 4.2). I was charged in a way (2.3). A tremendous feeling of harmony (5.2) which made me really enjoy the music (5.2), and I found it difficult to stand still (2.2).
>
> But it was not until the second half of the performance that the mystery and the power (4.7) really gripped me (4.3). I was filled by an enormous warmth and heat (2.1). I really swallowed all the notes that were streaming out in the air, not a single note, effect or sequence missed my hungry ears (3.7). The music became so distinct (3.7). I was captivated by each of the instruments and what they had to offer me (3.7; 4.3). Nothing else existed (4.1)!
>
> I was dancing, whirling (2.2) and really gave myself up to the music and the rhythms (4.4), overjoyed (5.2)—laughing (2.2). Tears came into my eyes (2.1)—however strange that may seem—and it was as a further sign, some kind of liberation. The music set me free from my sober everyday life (7.1). Now I could let my body parts dance as freely as they wanted (2.2)—just let them follow the rhythms and totally lose control (4.3).

> The music danced around like a whirlwind (4.7) in the narrow room and all the dramatic sentiment that it conveyed (4.7) reflected my own situation in life (7.3)—but in a new way that I liked (5.2). I
p. 554 went hand in hand with the music (4.4). Afterwards I remained standing flushed ↳ with joy (5.2), as if intoxicated (5.2), and it was a real kick for me (7.1). I felt religious (6.3)—and the music was my god.
>
> Before I was in a very bad state. Depressed (5.3). It was during the most critical time ever in my life. I found it hard to get on with people and had to really exert myself to be able to get to grips with things. Afterwards I was bouncy, giggling (2.2), lively and filled with deep joy (5.2). It was really about a life-kick (7.1). There was also a kind of religious feeling. It was so bewildering that it almost felt as a salvation (6.3). It was as if I was selected to take part in such an experience when I needed it the most (7.3). I was filled by zest for life and suddenly had quite another view of the grey tomorrow (6.1, 7.1).
>
> This event became a kind of turning point in my life (6.1; 7.1). During the period after the experience it was very important. It helped to loosen all knots that I had within me so that instead of going even further into my depression I started to climb out of it (5.4; 7.1).

20.3 Descriptive System For Sem

The descriptive system (SEM-DS) comprises seven basic categories: (1) General Characteristics, (2) Physical Reactions and Behaviours, (3) Perception, (4) Cognition, (5) Feelings/Emotion, (6) Existential and Transcendental aspects, and (7) Personal and Social aspects. Each of these contains a number of sub-categories, as seen in Table 20.1. They are briefly exemplified and discussed below.

20.3.1 General characteristics

This category has two subcategories:

(a) *Unique experience*. SEM is described as a unique, fantastic, incredible, unforgettable experience.

(b) *Hard-to-describe experience, words insufficient*. Many participants state that it was difficult or even impossible to describe their SEM in verbal terms.

20.3.2 Physical reactions and behaviours

This category includes three subcategories:

(a) *Physiological reactions*. The most common physiological reaction was tears, described by 24 per cent of the participants, more in women (28 per cent) than in men (18 per cent). The next most common were thrills (chills, shivers: 10 per cent), and piloerection (goose bumps: 5 per cent). These reactions
p. 555 seem to appear when one is moved (taken, captivated) by the music and/or in situations ↳

p. 556 ↳
in which one is especially receptive or expectant. They were usually connected to positive feelings; however, tears occasionally also appeared in connection with negative feelings such as anxiety, sorrow, and despair.
Other physiological reactions reported to a lesser extent were muscle tension or relaxation, warmth (perspiration), palpitation of the heart, changed breathing, trembling/quivers, various reactions in the chest and stomach, lump in the throat, dizziness, and pain. Most of the physiological reactions

reflect activation of the sympathetic nervous system; however, tears involve the parasympathetic system (see Chapter 11, this volume).

(b) *Behaviours, actions*. There were essentially two different kinds of behaviours. On the one hand, activities such as jumping, dancing, clapping hands, shouting, singing along, and the like were reported by 11 per cent of the participants, and were typical of audience reactions at rock/pop concerts. On the other hand, the opposite reaction—to become motionless, quiet, and interrupt any activity—was described by 9 per cent of the participants, and occurred mostly in connection with classical music.
A special reaction was the desire to conceal any visible reaction that may reveal one's strong feelings; one should 'behave'. Another special reaction was the inability to speak, sing, or play because one was overwhelmed, sometimes to the extent that one could not stand the situation and had to get away from it. Some participants reported that, after a strong experience at a concert, they tried to avoid other people in order to be alone with their thoughts and feelings.

(c) *Quasi-physical reactions*. Examples of quasi-physical reactions, reported by about 9 per cent of the respondents, were feeling light or weightless, feeling as being lifted from the ground, or feeling as floating/soaring. Other reactions were that the body felt as if as filled with music ('the whole body is music'), or feeling as if charged, ruled, or being carried away ('kidnapped') by the music. The most spectacular examples of quasi-physical reactions were out-of-body experiences. There were about ten reports in which the person suddenly was looking at her-/himself from outside (e.g. musicians watching their own performance).

20.3.3 Perception

Perception of music involves many sense modalities, mainly auditory, tactile, and visual.

Auditory

Certain aspects of SEM may be described as mainly auditory in nature (rather than purely musical), such as noticing a special timbre, a special loudness, or special acoustical conditions such as the reverberation, direction and diffusion of sounds. To feel totally surrounded/enclosed by sounds/music was described as a very strong experience.

Tactile

Loud music may evoke tactile sensations in different parts of the body; for instance: 'I feel how the bass comes in from the ground via the soles of my feet, continues up through my calves, thighs, the spine and I am filled by the music.'

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Visual

Visual impressions of the performers (their appearance, devotion, communication, charisma), the stage setting, the audience and its reactions were reported by about half of all participants. It was not uncommon to report the experience in visual terms; for example: 'That was the best concert I have ever seen.'

Other senses, synaesthetic perception

There were occasional examples of impressions in other sense modalities (e.g. smell) and of synaesthetic perception, for example, colour impressions in connection with certain instruments, composers, or pieces of music. Other possibly synaesthetic phenomena were impressions of a special light surrounding or filling the person ('I was sitting in a huge light-globe, filled of music'; 'I felt as if filled with a strong light, as if I was fluorescent').

Intensified perception, multimodal perception

Respondents also described a kind of intensified perception. One perceives the music more intensely than usual, and pays attention to every detail: 'This piece engraved itself into my consciousness, tone by tone.' This type of experience borders on cognitive aspects (Section 20.3.4). Respondents also emphasized the importance of multimodal perception; that is, the combination of simultaneous auditory, tactile, and visual impressions.

Musical perception-cognition

This category contains statements about perceived 'objective/technical' qualities of the music or the performance (see also Musical cognition-emotion in Section 20.3.4 below).

20.3.4 Cognition

Cognitive aspects of strong experiences may be partitioned in the following, partly overlapping, aspects.

Changed/special attitude: expectancy, receptivity, absorption

About 30 per cent of the participants reported that they felt expectant, curious, open and receptive, 'hungry for music'. On the other hand, there were also respondents who were 'neutral', and a few even had negative expectations.

Whatever the case, the music suddenly or gradually demanded full attention. One is totally absorbed by the music, nothing else matters. There are no thoughts, no analyses, just presence, the here and now. Reactions such as these were reported by about 20 per cent of the respondents. For performers, absorption meant total focus on the performance in order to achieve one's utmost.

Changed experience of situation, body-mind, time-space, part-whole

Absorption may assume many forms. It may be felt as a special mood/atmosphere, especially in a situation
p. 558 with live music. The world around disappears, one dwells in one's ↳ own world, inaccessible to others. Time stands still, does not exist; the whole experience regardless of its length is contained in a single 'now'. One may lose consciousness of the body, and the ego may feel dissolved or merged in something greater. Everything is unreal, like a dream, 'it can't be true'. One wants this state to last forever, and it is a disappointment to return to 'reality' afterwards. Everything seems to fit together, all impressions are concordant—the music, people, time, place, atmosphere, the surroundings, etc. Suddenly everything feels simple, natural, and self-evident. Some form of the above reactions was described by about 35 per cent of the participants.

Loss of control

Strong experiences mean a loss of control, surrender to the experience: one is surprised, amazed, touched, taken, even hit, shaken, shocked, spellbound, totally overwhelmed. The music goes straight through all cognitive barriers into one's innermost being. It may even become unbearable ('I can't stand it any more, please stop').

Reactions like these were found in reports from 42 per cent of the respondents. Many of them obviously involved emotional aspects, and other researchers might rather put them under Feelings/emotion below. While acknowledging the emotional aspects, I still prefer to put them under Cognition as they clearly represent a different way of processing the music.

Changed/special relation to the music

Reactions such as absorption and loss of control usually also imply a special relation to the music. One feels enclosed by, embedded in, drawn into the music, merges with the music, identifies oneself with the music, feels at one with the music. It is as if the music addresses oneself, one understands what it says, it seems genuine, true, natural, self-evident, as if it were timeless. Such reactions were reported by about 20 per cent of the participants.

Performers feel as if they surpass their usual competence, everything works, it feels as if 'someone else is playing me'. Such experiences represent peaks in musicians' lives and provide strong motivation to continue performing music.

Associations, memories, thoughts

About 12 per cent of the respondents reported various associations and memories linked to the music. They were highly idiosyncratic and concerned specific people, specific events, situations, or other music. Many (27 per cent) contributed thoughts and reflections about the music, such as whether or not they recognized the music, and what in the music may have elicited the strong reaction. There were also reflections on the importance of music, in general or with regard to special music, and on possible reasons why people have different musical preferences.

Imagery

The music may evoke various inner images, such as of nature, people, situations, and events, dreams of another environment, another life, something different and better. Listeners may imagine that they themselves are standing on the stage performing the music. Inner images were reported by about 10 per cent of the participants.

p. 559 Sometimes SEM may be elicited by 'inner music'; that is, imagined music. There were about ten reports of such experiences. Music is 'heard', it just comes for no obvious reason and 'sounds' as clear and distinct as live music. Some respondents realized that it was 'only' imagined music, but for others the experience was so vivid that they were surprised to learn that there was in fact no sounding music present at all.

There were also a few reports by composers, who reported strong experiences while composing, especially on certain occasions when they, after a long period of futile attempts, suddenly got the idea of how the music should be worked out. It was like a flash, a kind of creative ecstasy—suddenly everything seemed obvious, as if the music composed itself.

Musical cognition-emotion

This category contains statements about the music or the performance in 'subjective/emotional' terms, for instance regarding the perceived emotional expression of the music (cf. Musical perception–cognition in Section 20.3.3 above).

20.3.5 Feelings/emotion

The SEM reports contained a large variety of feelings that we have sorted into four groups: Intense feelings, Positive feelings, Negative feelings, and Different (mixed, conflicting, changed) feelings.

Intense/powerful feelings

About 15 per cent of the subjects reported intense/powerful feelings in general: 'I had to close my eyes, it was such an enormous emotional experience'; 'An emotional charge that was about to blow us up'; 'Overwhelming waves of feelings that were thrown forth as reaction to the music'. It is thus the intensity and power of the evoked feelings that were emphasized, without mentioning any specific feeling.

Positive feelings

As could be expected, this is the largest group. Some kind of positive feelings were reported by 72 per cent of the respondents. Number and percentage of subjects reporting different positive feelings are shown in Table 20.2 in an approximate order from low to high arousal; feelings that are close in meaning are put together (e.g. peace, calm, harmony, stillness).

Table 20.2 Number and percentage of subjects reporting different positive feelings/emotions, ordered (approximately) from low to high arousal

Feeling/emotion	Number	%
Peace, calm, harmony, stillness	106	11.1
Safety, warmth	44	4.6
Humility, insignificance	9	0.9
Wonder, admiration, reverence, respect	31	3.3
Solemnity, patriotism	19	2.0
Contentment, satisfaction, gratitude	86	9.0
Enjoyment, delight, sweetness, beauty	260	27.3
Joy, happiness, bliss	370	38.8
Elation, excitement, tension	92	9.7

The by far most frequently mentioned feelings were joy, happiness, enjoyment, delight, sweetness, and beauty. They were often mentioned together in different combinations. (While beauty is usually thought of as a perceived quality of the music, it is clear that the respondents also used beauty as synonymous with enjoyment.) The next most frequently mentioned feelings were, on the one hand, low arousal feelings such

as peace, calm, harmony, and stillness; and on the other hand high arousal feelings such as elation, excitement, tension, euphoria, intoxication, rapture, and ecstasy. Contentment, satisfaction, and gratitude were also frequently mentioned. The remaining feelings were reported less frequently, some of them rarely (humility, insignificance, solemnity, patriotism).

Negative feelings

Negative feelings are by definition excluded from Maslow's concept of peak experience. However, some kind of negative feelings were reported by 23 per cent of our respondents. Most of these feelings were not particularly 'serious', and were usually not caused by the music itself but depended on associated circumstances, such as unhappy love, illness, loss of friends or parents, attempted suicide, or intolerant others. Number and percentage of subjects reporting different negative feelings/emotions are shown in Table 20.3.

Table 20.3 Number and percentage of subjects reporting different negative feelings/emotions ordered (approximately) from low to high arousal

Feeling/emotion	Number	%
Feel tired, faint, exhausted, 'empty'	80	8.4
Feel lonely, abandoned, small, insignificant	6	0.6
Longing	9	0.9
Melancholy, unhappiness, sadness	82	8.6
Confusion, nervousness, tension, worry	52	5.5
Frustration, disappointment	14	1.5
Embarrassment, shame	14	1.5
Discomfort, (psychic) pain, envy, jealousy	30	3.1
Anxiety, fear, dread, despair	36	3.8
Anger, rage, hate	8	0.8
Shock, horror, terror, chaos, panic, unbearable	18	1.9

The most frequently mentioned negative feelings were melancholy, unhappiness, and sadness, and feeling tired, faint, exhausted, and 'empty'. The latter feelings usually appeared just after the music had finished; the listeners had got such a strong experience that they felt 'totally gone'. Musicians who had invested all their energy in the performance felt exhausted (but may have felt happy as well).

The next most frequently mentioned negative feelings were confusion, nervousness, tension, and worry. Nervousness was mentioned especially by musicians just before their performance. The remaining feelings were reported less frequently, some of them rarely—for example, embarrassment/shame, which usually depended on the inability to conceal one's strong reactions in front of other people, and feeling lonely, abandoned, small or insignificant. To feel small/insignificant was also mentioned under Positive feelings. When feeling small/insignificant appears here under Negative feelings, this is because these feelings were mentioned in connection with expressions of feeling lonely and abandoned. When they are put under

p. 561 Positive feelings, they have ↳ appeared in connection with the expression of humility, which is rather more positive than negative.

As mentioned above, only a minor part of the negative feelings were caused by the music itself. Musical elements eliciting negative feelings were usually a loud sound level, sharp/shrill timbre, and frequent dissonances (for examples, see Gabrielsson, 2008).

Different feelings (mixed, conflicting, changed)

Feelings may change during the course of the music. Different feelings follow each other, positive and negative feelings are mixed, negative feelings are replaced by positive feelings, etc. Some kind of mixed feelings were reported by 13 per cent of the subjects, changed feelings by 11 per cent.

Music associated with broken love may evoke bittersweet feelings as well as music associated with pleasant events in the past that may never appear again. Musicians' nervousness before a performance may successively be replaced by feelings of trust in one's ability, perhaps ending in happiness, even euphoria: 'we made it'. Afterwards they may feel tired and happy at the same time. There were several examples of how music may act as a therapeutic agent, turning negative feelings into positive ones. Still other examples of change from negative to positive feelings were found in reports of strong experiences of music during funerals.

Using music to affect one's mood

Many respondents reported that their SEM made them use the same music in the future to affect their
p. 562 mood, either by listening or performing the music or simply by ↳ imagining the music or the situation in which SEM occurred. The experience thus becomes a resource for the future. In fact, although we did not specifically ask for this, about 10 per cent of the respondents spontaneously reported that they use music to affect their mood. They have a selection of musical pieces designed for different situations, such as when tired after long work, when driving the car, when preparing for an examination, to get in the mood for a party, and the like. This is similar to findings in reports of the use of music in everyday life (DeNora, 2000; Juslin & Laukka, 2004; Laukka, 2007; North, Hargreaves, & O'Neill, 2000; Saarikallio, & Erkkilä, 2007; Öblad, 2000; see also Chapters 7 and 18, this volume).

20.3.6 Existential and transcendental aspects

Many SEM reports touched on questions of life, existence, and transcendental experiences.

Existential aspects

SEM may include reflections on the meaning of life and existence. The music may be felt as a mirror of life, its greatness as well as its transiency, its different phases, and its mixture of feelings: 'pain, sorrow, passion, joy—yes, everything, life, death, to exist as a human being'. It may lead to changed views of oneself, of other people, and of existence in general, and may give rise to action. Some respondents reported that just a few minutes of music radically changed their whole life.

SEM may also convey a sense of special presence in life, an intense feeling of living, just here, just now. On such rare occasions, the only thing that matters is simply to 'just be', to let all worries and 'musts' sink away and to enjoy the privilege of existing and receiving what the world and life may offer.

A variant of this are experiences described as 'ultimate', 'unrivalled', even 'sacred', moments in life, experiences of such strength and character that one cannot expect to experience them ever again—'it can't

be better than this', 'now I can pass away happy'.

Some version of the above existential aspects was found in about 8 per cent of the respondents. The majority (about three-quarters) of these reports concerned the meaning of life/existence and changed views of oneself, of other people, and of existence in general.

Transcendental aspects

Experiences of transcendence have been sorted into five somewhat overlapping groups:

(a) Experiences characterized as extrasensory, magical, mysterious, occult, extraterrestrial, heavenly, or spiritual. The latter terms (heavenly, spiritual) may also refer to religious experiences, but are placed here when it is clear from the context that they don't refer to religious experiences; for instance: 'It was a spiritual experience without having anything to do with religion.'

(b) Experiences described as ecstasy or trance. These terms are used interchangeably by the respondents as well as by experts (see comments in Gabrielsson and Lindström Wik, 2003).

p. 563 (c) ↳ 'Out-of-body' experiences or similar experiences, also earlier mentioned under Quasi-physical reactions.

(d) Cosmic experiences: experiences of infinity, timelessness, and eternity, or the experience of merging with something greater; merging with the universe.

(e) A neighbouring group of experiences of other worlds, other forms of existence.

Some version of the above transcendental aspects was found in close to 15 per cent of the respondents, about 5 per cent each for alternatives (a), (b), and (d + e). There were about ten reports of out-of-body experiences.

Religious experiences

Religious experiences may be considered a special class of transcendent experiences with the special characteristic that they involve a relation to a higher power, a god. Reports with religious contents have been sorted into five somewhat overlapping groups:

(a) Experiences of very general or vague religious character; for instance: 'I felt religious' or 'It was a religious experience.'

(b) Experiences including visions of heaven, an afterlife, paradise, or eternity.

(c) Experiences of special spiritual peace, a holy atmosphere, and/or a Christian community.

(d) Experiences of religious communication, either that the music conveys a religious message, or that one seeks contact with God through prayers or songs of praise.

(e) The strongest and most detailed reports of religious experiences appeared in descriptions of salvation and meetings with the divine—God, Jesus Christ, or the Holy Spirit.

Some kind of religious experiences in SEM was reported by about 11 per cent of the participants. Alternative (d), experiences of religious communication, was the most frequent, about twice as frequent as each of the other alternatives.

20.3.7 Personal and social aspects

Many respondents reported that SEM had important consequences for their personal development and quality of life.

New insights, possibilities, needs

SEM may provide new insights, open new possibilities, and arouse certain needs as exemplified in the following (partly overlapping) aspects, reported by 41 per cent of the respondents:

(a) The experience may provide new insights into oneself, into others, and into life in general. Latent thoughts and feelings may become apparent; it feels as if one is reaching one's innermost being.

(b) The experience makes the person feel free/liberated, inspired, refreshed, reborn, lifted, enriched, matured as a human being.

p. 564 (c) ↳ The experience is described as an inner cleansing, release of pent-up feelings, catharsis, a healing experience.

(d) The experience may provide consolation, hope, relaxation, relief, power/energy, courage, a kick.

(e) The experience may make the person more open/unreserved. Usual defences and control mechanisms disappear, one feels ready to face new experiences without prejudices.

New insights, possibilities, and needs concerning music

Almost half of the participants (44 per cent) commented on consequences regarding their attitude and relationship to music:

(a) Most comments indicate that the person developed interest in a certain piece of music, a certain musical genre, or a certain composer or artist. One takes every possibility to listen to the music again, buy records, new sound equipment, attend concerts, etc.

(b) One gets increased interest and curiosity concerning music in general, a new view of what music can mean and how it can be used.

(c) The experience evokes a wish to learn how to perform music or to continue performing music more than ever before.

(d) About ten participants were inspired to compose music or write lyrics to songs.

(e) For about ten respondents, the experience resulted in a decision to choose music as a profession. Five of these respondents were still children at the time of the SEM, four were teenagers.

(f) One wants other people to realize what fantastic experiences may be brought about by music. About 30 participants thus wanted to tell other people about their SEM, perform music to them, inspire them to listen to music, encourage them to perform themselves, etc.

(g) As noted earlier, many respondents were inspired to use music to affect their mood or even to use music as a form of therapy for themselves.

In general, then, SEM provided a strong motivation to continue the relationship with music, in listening and/or performance (cf. Manturzewska, 1990; Sloboda, 2005, pp. 175–189).

Confirmation, self-actualization

To feel confirmed—accepted, understood, valued, needed, chosen—is a fundamental need for everyone. Music may be felt to reflect and confirm one's own person and/or make the listener feel chosen to receive the music. Moreover, performing music is a way of being seen and noticed, and may open new possibilities of expressing oneself. About 15 per cent of the participants commented on these questions:

(a) Most comments (about half) reported that the experience provided some kind of confirmation and increased self-confidence. Common examples are musicians whose performance was praised by the audience.

p. 565 (b) ↳ Other comments reported that the music seemed to reflect one's personality, one's thoughts and feelings. One is not alone, 'there are others who think and feel in the same way as I do'.

(c) Still other comments indicated that the person feels especially chosen to receive the music, the music is directed just toward oneself. There may be many people around, but 'they played solely for me'.

Community, communication

There were frequent comments on music's ability to generate community and communication. Four aspects may be distinguished:

(a) Community among listeners (e.g. among listeners attending the same concert).

(b) Community among performers, either described by performers themselves or as observed by people watching the performers.

(c) Feeling of community/communication between listeners and performers was a strong component in many reports.

(d) A few respondents described a kind of boundless community, community with the whole of mankind.

Such comments were given by 18 per cent of the participants, with about equal distribution across alternatives (a), (b), and (c).

20.3.8 Some supplemental results

Most SEM (81 per cent) occurred during listening to music. The remaining ones (19 per cent) occurred during one's own performance of music or, in a few cases, while composing music. Most SEM (73 per cent) occurred with live music, the remaining 27 per cent with reproduced music (records, radio, television, etc.). The largest share of live music included folk music, religious music, and scenic (e.g. opera) music, whereas pop music had the largest share of reproduced music. More than half of the participants (54 per cent) had heard the music some time(s) earlier. This figure was higher (67 per cent) for the youngest participants (⟨ 30 years) but lower (41 per cent) for the oldest participants (= 60 years). Most respondents did not get the same strong experience when they heard/played the same music again. Some respondents said that 'it was still a strong experience but not as much as then', others declared that 'this time there was no strong experience at all'. On the whole, SEM is not a frequent phenomenon. Most participants said that SEM may occur about once a year or less. Some respondents even reported that this was their only SEM so far.

There were no large differences between musicians' and non-musicians' descriptions of listening experiences. Musicians tend to use a few more technical terms, and their own experiences as musicians may

be hinted at, but the basic features of the experience are very similar for both groups. In fact, some professionals pointed out that their usual analysis of the music and the performance seemed irrelevant in SEM—as one of them said: 'I just listened to the music.' More details and discussion of these results are given in Gabrielsson (2008).

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20.3.9 SEM in performers

As pointed out above (Section 20.3.8), most SEM occurred while listening to music. This was true even for the participants who were musicians themselves. For professional musicians, listening experiences comprised 71 per cent of the cases, while 29 per cent occurred in connection with their own performance.

There are some aspects typical for SEM during one's own performance. Performers may feel that they suddenly 'understand' the music completely, are at one with the music. A young pianist, practising one of Bach's preludes and fugues, felt as if she was charged with Bach's spirit, and the music became self-evident. A singer practising Schumann's *'Mondnacht'* was suddenly 'within the song', as if he were standing in the moonlight, not performing the song but living in it; each tone meant something special and he understood everything.

Many performers report intense feelings in interaction with other performers, not least in improvisation. The opportunity to play together with more advanced musicians is highly rewarding, and inspires to further practice. Another important factor is audience response. Positive feedback from the audience inspires performers to still higher achievement, which increases audience feedback still more, and so forth.

Some performers' SEM occurred in situations in which they initially felt extremely nervous, but then successfully overcame their performance anxiety, resulting in extreme happiness and increased self-confidence. Others described performances in which they were overwhelmed by the expression in the music, and were unable to perform adequately, just simulated performing.

Maybe the strongest experiences occur in what many musicians call 'magic moments' when everything works. There are no problems whatsoever; it is as if somebody else takes care of the performance —'somebody is playing me', 'the music plays itself'—one feels as if one is a listener rather than a performer. Such experiences are real 'peaks', they compensate for all the hours spent in laborious practice, and provide strong motivation to continue performing.

Many reports include SEM while singing in a choir. The voice gets support and resonance from others, and it sounds better and louder than otherwise. One is part of something greater, sharing the expression and power that the choir may achieve. It may act as confirmation and may increase self-confidence, in combination with collective pride in the choir's achievements. Moreover, choir singing often generates close social relationships.

20.4 Note on music in SEM

Detailed description of what music appeared in the participants' SEM is given in Gabrielsson (2006, 2008). Some key findings are briefly summarized here.

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About 1,300 examples of music were mentioned. While earlier studies (by Maslow, Panzarella, Laski) indicated that strong experiences were almost exclusively triggered by classical music, the present investigation indicates a much more diversified distribution, encompassing 16 categories as follows (numbers in parentheses indicate percentage of the total distribution):

Classical, non religious, music (30.6 per cent)
Religious music, mostly classical (15.6 per cent)
Scenic music (opera, operetta, musical; 6.6 per cent)
Folk music (5.7 per cent)
Jazz music (6.1 per cent)
Rock music (6.6 per cent)
Pop music (3.5 per cent)
Songs, tunes, hits, etc. (9.7 per cent)
Entertainment music (1.6)
Mixed genres (in popular music; 3.0 per cent)
Dance music (1.2 per cent)
Improvisation (0.7 per cent)
Certain artists (mostly classical; 3.2 per cent)
Music from other cultures (0.5 per cent)
Certain instruments (2.6 per cent)
Others, unspecified (2.8 per cent).

Using a still simpler division, one may say that 'classical' music (the first three categories plus Certain artists) occupies a little more than half of the total number, while 'non-classical' music (Folk music, Jazz, Rock, Pop, Songs/tunes, Mixed genres, Entertainment music, and Dance music) accounts for about 37 per cent. However, there are marked differences related to the participants' gender and age. Women have a higher representation of classical genres than men, whereas men have a higher representation of jazz and rock music than women. The older the participants, the more classical music; the younger the participants, the more pop, rock, and mixed genres. The largest difference is between older women (= 60 years) and younger men (⟨ 30 years). For older women, classical music appears in 74.4 per cent of the cases compared to 29.6 per cent for younger men. On the other hand, common categories of 'popular' music (jazz, rock, pop and mixed genres) appear in 51.1 per cent of the cases for younger men, but only in 1.2 per cent for older women.

With regard to the participants' age at the time of SEM, 35.3 per cent of SEM occurred before 20 years of age, and 62.7 per cent before 30 years of age. These high values partly reflect the fact that almost a third of the participants were less than 30 years old. Detailed lists of composers, artists, and pieces of music are provided in Gabrielsson (2006), and, especially, Gabrielsson (2008). The latter reference also explores some relationships between musical genres and SEM reactions.

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20.5 Influencing Factors

Any experience of music depends on the interplay between three overall factors: the music, the person, and the situation. It is an illusion to believe that SEM depends solely on musical factors. The same piece of music may be experienced differently by different persons, and differently in different situations. It seems that there has to be a unique coincidence of 'the right music for the right person in the right situation' to elicit SEM. The following paragraphs provide a condensed review of influencing factors abstracted from Gabrielsson (2008).

20.5.1 Musical factors

Participants' opinions on what features in the music contributed to SEM revealed a variety of factors, extending from the impact of a single tone or chord to the piece as a whole. SEM may be related to, for instance, the timbre of an instrument or voice, intonation (perfect or special), sound level (loud or soft), dynamics, tempo, mode, rhythmic/melodic motives, harmonic progressions, themes, phrases, movements, text/lyrics, and various formal aspects—all these in specific ways in each individual case. Many respondents simply referred to the emotional expression of the music. Others referred to the qualities of the performance, such as the performers' skill and personal expression, their appearance, engagement, and charisma.

20.5.2 Musical factors

Many respondents emphasized that the reason for their SEM must be sought in themselves, and suggested a number of possible factors such as physical and mental condition (e.g. feeling well, relaxed, tired, depressed, ill), attitudes and expectations in relation to the music (e.g. open, curious, expectant, reserved, 'suspicious'), earlier experience (or not) of the same or similar pieces of music, and musical knowledge in general. Many also indicated that SEM occurred because they had reached a certain age or maturity: 'the time was ripe for such an experience'. Furthermore, many referred to heightened sensitivity during teenage years. Some suggested that they may have been longing for music that would reflect their thoughts and feelings, and thus serve as confirmation. Performers may have been eager to demonstrate their skill, to express themselves and gain appreciation and confirmation. Several respondents referred to characteristics of their personality (e.g. introvert-extrovert, optimistic-pessimistic), or to the influence of cultural, political, and religious attitudes. Last but not least, the music may have been associated with emotionally significant persons or events (e.g. love relationships, important other persons, exotic places, war, and death).

20.5.3 Situational factors, physical and social

It seems that SEM may occur in any place or at any time. In this study, the most common places were at
p. 569 home, in churches, concert halls, assembly halls, and outdoors, ↳ but there were many other places mentioned as well, even such as hospitals, hotels, shops, workrooms, and military camps.

The acoustical conditions may be very influential, such as good diffusion of sound and appropriate reverberation. To feel surrounded by the music was mentioned as an important aspect. Visual impressions were generally important as well, especially regarding the appearance of performers and audience (if any).

Instances of SEM extended over almost 100 years, from 1908 to 2004, and the respondents were affected by what music was heard or performed at different times during this epoch in Sweden. Other time aspects concerned SEM during different seasons of the year and different times of day or night, the latter often associated with how awake or tired the respondent felt. Some reports indicated that the borderland between wakefulness and sleep may be favourable for intense experiences. Music on the radio during the night has brought relief and support to persons in difficult situations.

There were three possible social situations represented in the reports (the respective percentages appear in parentheses): being alone (19 per cent), together with acquaintances (68 per cent), or together with unknown people (12 per cent). In most cases, then, SEM occurred in the presence of other people. Their attitudes and reactions may enhance one's own reaction; for example, one subject remarked that 'if I were there quite alone listening to the artist, it wouldn't be the same thing at all'. On the other hand, the presence

of others may restrict one's reactions, for instance, conceal any visible reaction that may reveal one's strong feelings. In solitude, however, one can let one's feelings and reactions come out uninhibited.

20.5.4 Interplay of music, person, and situation

It is obvious that reactions in SEM depend on the interaction between musical, personal, and situational factors (the latter two are sometimes indistinguishable). Their influence varies from case to case, but none of them can ever be excluded. Even in reports where musical factors appear to be strong determinants, there are usually influences from other factors as well. In many cases, personal and/or situational factors are more important than the music—for instance, if a piece of music is associated with war, with happy or unhappy love, with beautiful nature, with certain ceremonies, etc. Scherer et al (2002) likewise found a highly varying mixture of influencing factors (see Section 20.1).

20.6 Discussion

Reactions in SEM are of many different kinds: physical, quasi-physical, perceptual, cognitive, and emotional. They may also involve existential, transcendental, and religious aspects, and have important personal and social consequences. The SEM Descriptive System (SEM-DS) is an attempt to represent this multitude of reactions in a condensed form. It should be noted, however, that it represents accumulated
p. 570 evidence from some ↳ 950 respondents. Any single SEM report does not contain more than a fraction of the complete system. Yet each report represents a unique music experience that ought to be read in its whole in order to grasp the background and essence of the experience. Some 50 reports have been translated into English and published in Gabrielsson (2001, 2002), Gabrielsson and Lindström (1993, 1995), and Gabrielsson & Lindström Wik (2000, 2003). More than 500 reports appear in the most complete presentation of the project (Gabrielsson, 2008).

SEM-DS is no 'final' description. It is a proposal, subject to continuous modification and refinement. Many of its different aspects agree with the criteria for peak experiences proposed by Maslow (1968, 1976), and with results presented in Panzarella (1980), Laski (1961), Privette and Landsman (1983), and Scherer et al (2002). However, SEM-DS is far more complete and based upon a much larger number of respondents and reports than in previous work.

The present reports vary much with regard to what aspects are emphasized. Focus may be on any aspect(s) in SEM-DS, such as perceptual aspects (e.g. timbre, intensified perception), cognitive aspects (e.g. loss of control, changed relation to music, imagery), feelings/emotions (mostly positive, sometimes negative), existential aspects (e.g. meaning of life), transcendental aspects (e.g. cosmic experience, experience of other worlds), religious aspects (e.g. meeting the divine), personal aspects (e.g. new insights, confirmation of identity), or various combinations of different aspects. SEM-DS offers a convenient way of comparing different kinds of strong experiences, and can be used for comparisons with results from investigations on music in daily life (see references at the very end of Section 20.3.5).

Feelings/emotions are the most frequently reported components in our SEM reports. There are, however, reports in which feelings/emotions are not mentioned at all. This does not necessarily mean that they were absent, but rather that the respondent's focus was on other aspects. Furthermore, feelings/emotions are frequently interwoven with cognitive or perceptual-cognitive aspects. Most of the aspects listed under Cognition (Table 20.1) have emotional connotations. For example, changed experience of body and mind, or of time and space undoubtedly include feelings, although it may be hard to tell precisely which ones. There are likewise feelings involved in other cognition categories, such as loss of control, changed relation to the music, associations/memories, and imagery. Experiences of existential and transcendental character also

involve strong feelings, not to mention religious experiences. Many personal aspects reported as consequences of the experience are described in terms of feelings, for instance feeling liberated, inspired, relieved, uplifted, or feeling confirmed in one's identity. Generally, our respondents' reports of their experiences often defy common technical terminology and classification in psychology—at least until we arrive at more precise definitions of central concepts such as perception, cognition, and emotion and their internal relationships.

In the account of feelings/emotions (Section 20.3.5) positive and negative feelings were tentatively ordered with regard to activation level, in accordance with the valence-arousal or 'circumplex' model (Russell, 1980). This model is appropriate for surveying a large number of feelings/emotions in a condensed way, and offers a convenient alternative for the present descriptive purposes. However, this should not be understood
p. 571 as taking a stand in the discussion regarding different theories on emotion. In fact, ↳ retrospective accounts of feelings/emotions can hardly be unambiguously used as arguments for any of the competing theories of emotion. Further comments on these questions, as well as on the validity of retrospective reports and autobiographical memories, are given in Gabrielsson (2001) and Gabrielsson and Lindström Wik (2003).

Strong experiences are, of course, not unique to music. Our participants indicated that they had strong experiences in many other contexts, for instance in nature, love, religion, literature, art, theatre, film, sex, and others (Gabrielsson, 2008). Best known are numerous examples of mystical experience investigated in the psychology of religion (e.g. Geels, 1991; James, 1902/1985; Stace, 1960), which show many reactions similar to those reported in peak experience (Maslow, 1968), ecstasy (Laski, 1961), and SEM. A survey of related empirical studies on religious experience is given in Lindström Wik (2001). Becker (2004) surveyed trance experience in different cultures, especially religious institutionalized trancing. She used the term 'deep listeners', that is, 'persons who are profoundly moved, perhaps even to tears, by simply listening to a piece of music' (p. 2), and regarded deep listening as 'a kind of secular trancing, divorced from religious practice but often carrying religious sentiments such as feelings of transcendence or a sense of communion with a power beyond oneself' (p. 2; see also Chapter 6, this volume).

Strong experiences with music are sometimes seen as examples of aesthetic experience (e.g. Panzarella, 1980). However, this concept is notoriously hard to define (see also Chapter 22, this volume), and none of our participants referred to aesthetic experience. Konečni (2005, 2008) regards aesthetic experience as a trinity of awe, being moved, and thrills, with aesthetic awe as the central component. Furthermore, music may become sublime and induce aesthetic awe 'only when it is performed in vast architectural spaces with superb acoustics' (Konečni, 2008, p. 124), for instance in European mediaeval cathedrals. There are a few experiences in our material that approach this condition. However, whether or not one accepts Konečni's definition, or any other definition of aesthetic experience, it would only apply to a minority of the experiences in our collection of SEM reports.

Strong experiences, whatever the domain, are not a common topic in mainstream psychology, nor in music psychology. They are a relatively rare phenomenon, but may be of profound importance for the individual, as reported both in this chapter (e.g. Section 20.3.7) and in previous studies (Section 20.1). It is urgent, therefore, that they be given much more attention in psychology than hitherto, using a variety of approaches. Experimental procedures may be used to find out what features in the musical structure are related to different aspects of SEM (cf. Sloboda, 1991, and similar studies in Section 20.1). However, strong experiences may depend as much on personal and situational factors that lie outside experimental control. Continued research on strong experiences should apply a flexible interplay between naturalistic and experimental approaches in order to combine their respective advantages and compensate for their respective drawbacks. It is my conviction that free phenomenological report is an indispensable component in this work.[1]

Recommended Further Reading

1. Becker, J. (2004). *Deep listeners. Music, emotion and trancing*. Bloomington, IN: Indiana University Press.

2. Whaley, J., Sloboda, J. A., & Gabrielsson, A. (2009). Peak experiences in music. In S. Hallam, I. Cross, & M. Thaut (eds), *Oxford handbook of music psychology* (pp. 452–61). Oxford: Oxford University Press.

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Notes

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