

# 8

## THE DEVELOPMENT OF "Musikerleben" in adolescence: How and why young people listen to music

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### MUSICAL EXPERIENCE, MUSIKERLEBEN AND MUSIC APPRECIATION

Musikerleben is a common experience, but a German term which is perhaps impossible to translate into English. It can be defined as the sum of psychic processes which accompany the experience of music in situations when music is in the focus of interest: When a person is not only hearing, but listening to and appreciating music. The nearest English equivalent would be "music appreciation", but with its "awareness of salient characteristics"<sup>1</sup> the definition of this term seems to be more restricted than Musikerleben. In comparison with Musikerleben, music appreciation tends to be a more intellectual approach to music based on knowledge that can be acquired in college classes. By using this knowledge the listener is able to trace the structure of the music and recognise its salient characteristics. Music appreciation in this sense corresponds to the idea of "strukturelles Hören", a concept of the ideal listening style Adorno (1968/1976) developed in his writings on music aesthetics. Neither is Musikerleben identical with musical *experience*, which is a much broader concept (including activities such as playing an instrument, singing, remembering or reading about music). Musikerleben has nothing to do with taste or preferences, but a positive attitude towards music is certainly a precondition. Furthermore, Musikerleben is also part of aesthetic experience, but it is not necessarily an "intense subjective and personal experience", as this term is described by the American colleagues

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of the SRIG (Price, 1986). On the contrary, in a perceptual world determined by the omnipresence of various audio and audiovisual media, *Musikerleben* must be thought of as varying in intensity on different levels of attention. "Strong experiences with music" as discussed by Gabriellson and Lindström (1994) have their counterpart in "diffuse listening", when music receives almost no attention, reducing *Musikerleben* to a minimum.

### RELATED LITERATURE

Research in music psychology has focused mainly on the cognitive aspects of *Musikerleben*, though some research has attempted to answer the question of how and why people enjoy music.

Vernon (1930) tackled this problem with a methodologically unusual approach: he organised special concerts for his subjects who stated their thoughts and feelings while listening to music in an elaborate questionnaire and in free comments. Using those quantitative as well as qualitative data, he developed the idea of "true visualisation" as "essentially an emotional response" (p.52), "a kind of day-dream stimulated directly and continuously by the music as it proceeds" (p.57). With regard to the empirical data he had gathered (but did not report), he found that "true visualisers" are comparatively rare but "wholly absent among the most musical" (p.63). Visualising is interpreted positively, because it adds to the fascination of music and can be viewed as a desirable aspect of music appreciation. The unusual and surprising aspect of Vernon's approach is the assumption that there may be desirable components of music appreciation experienced mainly by non-musicians and that the musical experts' listening styles must not necessarily be a model for music lovers and amateurs!

Yingling (1962) has also worked with qualitative and quantitative methods. He hypothesised four reactions in listening to music: "associative", "emotional", "intellectual", and "sensory". These may constitute various different patterns. All four dimensions were found in unstructured verbal descriptions as well as in the questionnaire data, with students in "appreciation" courses showing a dominantly "intellectual" response more often than other students. "Physical sensing of music" seems to him to be "important for its apprehension" (p.119)—a very rare point of view.

In contrast to Vernon (and his "true visualisers"), Crickmore (1968) had the idea that music appreciation should, among other features, be characterised by the absence of mental pictures. As a British author with a "Gestalt" approach, his use of the term "music appreciation" may perhaps come a bit closer to *Musikerleben*. He developed a special questionnaire to ascertain a priori defined patterns of reaction, which involve both an "active and a passive element" (p.239). His idea of musical experience comes close to what later has been discussed as "flow" (Csikszentmihalyi, 1975).

Hedden (1973) used a more elaborate multivariate design in developing his 20-item "music listening reaction scale" to gather information "about how

subjects said they reacted when they listened to orchestral music" (p.226). Using factor analysis, Hedden found five different dimensions of response to music: "associative", "cognitive", "physical", "involvement" and "enjoyment". In this study, as well as in a later one by Lewis and Schmidt (1991), correlations with selected aspects of personality were found. By summing up the individual ratings for the different items the last named authors reduced the reaction scale to a single dimension.

### TYPOLOGIES

In addition to this handful of empirical studies, other authors have investigated *Musikerleben* in a more introspective, philosophical manner. Alt (1935) and Müller-Freienfels (1936) reviewed the work of numerous authors who developed concepts of different dimensions of *Musikerleben*, especially dimensions constructed by opposites, such as "Stoff-Form", "pathetisch-ästhetisch", "Abstraktion-Einfühlung" or "appollinisch-dionysisch". Alt was one of the first German authors whose (typological) ideas were based on empirical data (texts written by students), although today some methodological aspects of his study appear outdated. Following a philosophical tradition, he developed two typologies of "musikalisches Genießen" and "musikalisches Werten" and attempted to find out which of these ideas could be verified in the verbalisations of musically interested students.

Some decades later, in his "Einleitung in die Musiksoziologie", Adorno (1968/1976) published a brilliant but strongly biased essay about "Typen musikalischen Verhaltens". He developed the idea that except for the musical expert's highly intellectual, structural way of listening to music, there are only inferior listening styles, such as "emotionale Hörer", "Ressimenthörner" or "Jazzfans". What is most remarkable about this text is that although it lacks any empirical evidence it is generally accepted in Germany—with questionable effects on music education! In most of the studies cited the authors try to differentiate between different types of *Musikerleben*, but unfortunately they usually do so in an evaluative manner. Most of them not only disagree about what should constitute *Musikerleben*, but also fail to give reasons for their biased evaluation of its different components.

Vernon searched for "true visualisers", but what is it that makes other visualisers not "true"? Crickmore, referring to the ideas of Wing, searched for one special pattern of music appreciation, but failed to explain why only one such pattern should exist. Finally, Yingling's conclusion that "as a result of instruction in Music Appreciation, the *sensory, emotional and associative* aspects of the music are largely obliterated by the intellectual aspect" (p.116) raises the question of why such a modification would be desirable.

At this point it is perhaps evident that the study of *Musikerleben* should be free of normative ideas. People develop different ways of listening to and of "using" music. If we try to understand music as a human phenomenon, we must be aware of these differences, even though we can neither precisely describe nor

understand them so far. With this in mind, we began a longitudinal study in 1991 on the development of Musikerleben. First results are discussed in the following sections.

## DEVELOPMENT OF THE QUESTIONNAIRE

Taking into account the evidence from the previously mentioned studies, a set of 40 items was constructed to ask for habitual aspects of Musikerleben. They all began with: "When I listen to music,..." and were then continued by a statement, such as: "..., I like to hum and sing" or "..., it makes me feel better", for which respondents were asked to rate their agreement on a 5-point scale. Subjects were encouraged to think of music they liked, music they often listened to. One special problem emerged in formulating aspects of structural listening in a way that children aged 11 would understand. After discussions with music teachers and music majors this first set was reformulated and reduced to 26 items, which were then used in a pilot study (n=118 students aged 11 to 13). Subjects were invited to write down additional items if they felt that there were relevant aspects not mentioned in the questionnaire. We then formulated a final version with 32 items which were used in a study with a sample of n=1224 students aged 11 to 20 ("Hörertypologien", Behne, 1986a).

Searching for the different dimensions of Musikerleben in such data can be done in two ways, by using either factor analysis or cluster analysis. Factor analysis is normally used to find orthogonal dimensions. Given our scanty knowledge of Musikerleben we decided to use variable cluster analysis (Schlosser, 1976) to avoid violations of orthogonality associated with factor analysis. Variable cluster analysis yielded 8 variable clusters (including 26 of the 32 items).<sup>2</sup>

A slightly enlarged version of this questionnaire ("habitual music listening patterns") was used in a crosscultural investigation by Lehmann (1994a), who gathered data in the USA and in Germany. For a subsample in his study he found a retest-reliability (after 3 months) of  $= 0.886$ , which seemed of acceptable magnitude.

To date, several other studies have been conducted using this type of questionnaire (with slightly varying numbers of items). The comparability of results is problematic as variable cluster analyses of different sets of data seldom yield exactly the same structures. However, there is usually great convergence of findings. Each study can therefore only be interpreted in its own right, considering the unique composition of its synthetic variables. Nine variable complexes (listening styles) emerged from the first data of the longitudinal study (1991), such as "compensating listening" (consisting of 5 items, see Table 8.1<sup>3</sup>) or "emotional listening".

TABLE 8.1  
Clustering of Items Creating the 9 Listening Styles in the Longitudinal Study  
(data gathered in 1991, subjects aged 11)

<i>When I listen to music, ...</i>	
<i>Compensating</i>	...., it changes my mood. ...., it really calms me down, if I was excited before. ...., it is possible that I can find my own moods and feelings in the music. ...., I feel less lonely. ...., it makes me feel better.
<i>Concentrated</i>	...., I like to close my eyes. ...., I like to follow the various themes.
<i>Emotional</i>	...., I pay attention to what types of feelings are expressed through the music. ...., it is for me above all a matter of sentiment.
<i>Distancing</i>	...., I like to identify the musical style (to say whether it is Folk music or Modern Jazz or baroque music). ...., I try to understand the words of the vocal part. ...., I follow the musical lines of a special instrumental part. ...., I try to grasp the structure of a piece of music (repetitions, variations).
<i>Vegetative</i>	...., it really gets under my skin. ...., I assume a different body position. ...., it can happen that I am captivated by the rhythm. ...., I sometimes feel my heart beat faster, my skin prickling, butterflies in my stomach.
<i>Sentimental</i>	...., I like to dream. ...., I remember things of the past. ...., it makes me think about myself. ...., I sometimes want to cry. ...., I'd like to be far, far away.
<i>Associative</i>	...., I have pictorial images. ...., I invent a story, as if I were watching a movie.
<i>Stimulative</i>	...., I like to play it very loud. ...., it makes me feel excited, even aggressive.
<i>Diffuse</i>	...., my attention is divided. ...., I like to do other things besides just listening.

## FIRST RESULTS

This first study (Behne, 1986a) was cross-sectional. It yielded a very clear trend for most components of Musikerleben: For the ages 10 to 13, a moderate decline of the originally already low level of acceptance for the respective items could be observed. But after age 13, most components of Musikerleben showed a dramatic increase. The greatest increase was found for the "vegetative" and the "emotional" listening style, with the youngest showing the least and the oldest the most pronounced acceptance. At first glance these results suggest that Musikerleben develops in the late years of adolescence, predominantly after the peak of puberty. For reasons of methodology, however, such a conclusion is not possible, because cross-sectional studies do not take into consideration factual changes in the lives of individuals. They can be interpreted only in the sense of differences between persons of different ages. This drawback was the main motivation for conducting a longitudinal study.

In the cross-sectional study it was, for the first time, possible to search for correlations between different ways of Musikerleben (listening styles) and music preferences. We differentiated between verbal ("Do you like Jazz?") and sounding preferences ("Do you like this music?"), followed by an unlabelled music example). Verbal and sounding music preferences are far from being identical. These discrepancies and their possible explanations are very interesting and are discussed elsewhere (Behne, 1986a). Table 8.2<sup>4</sup> gives correlations  $> = 0.20$  (all significant at 0.001%) between three listening styles and the various music preferences. Like many other authors we expected

TABLE 8.2  
Highest Correlations ( $> = 0.20$ ) Between Listening Styles and Two Sorts of Music Preferences

Listening styles:	Sounding Preferences:	Verbal Preferences:
distancing	Beethoven Ex.1 (0.22) Mozart Ex.1, Vivaldi, Dufay (0.20)	Klass.Konzertmusik (0.28) Oper (0.21) Chor (0.20)
emotional	Beethoven Ex.1 (0.37) Brahms (0.32) Corelli (0.26) Mozart Ex.2 (0.25) Mozart Ex.1, Bach, Vivaldi (0.23) Hindemith (0.22) Simon & Garfunkel (0.21) Beethoven Ex.2 (0.20)	Klass.Konzertmusik (0.27) Reggae (0.26) Musicals, Liedermacher (0.22) Operette (0.21)
vegetative	Beethoven Ex.1 (0.27) Simon & Garfunkel (0.21) Brahms (0.20)	Reggae (0.26) Liedermacher (0.21)

correlations to be high between a "distancing" listening style and classical music and between an "emotional" listening style and popular music.

As can be seen in the first section of the table, "distancing" listening does indeed correlate with classical preferences, especially with the category "Klassische Konzertmusik". "Emotional" and "vegetative" listening, however, both correlate positively not only with popular music but unexpectedly also with various other preferences, nearly all of them examples of high culture music (e.g. Beethoven). No negative correlations between any kind of listening style and any kind of preferred music could be found. One explanation for this astonishing result may be that the "emotional" listeners are also those with the greatest musical curiosity. A greater contrast between expected and actual results cannot be imagined. It is obvious how misleading such unfounded expectations concerning the complex relations between preferences and Musikerleben can be for music educators whose aim it is to motivate adolescents.

A similar questionnaire was used by Lehmann (1994a) in his cross-cultural study. Using the same items he asked for the habitual aspects of Musikerleben and for reactions to three sounding music examples. This was done to reveal habitual patterns, formed during individual development, and to see how stable these behavioural patterns prove to be when the listeners are confronted with unknown music. The author found that the components of the habitual listening patterns generally showed a greater intensity than the situational ones. A remarkable effect was found for those groups who either preferred or disliked the music very strongly: to like or to reject certain music is closely related to great differences in the intensity of the listening styles. The intensity of music preferences seems to be a mirror of the intensity of Musikerleben.

## RESULTS OF THE LONGITUDINAL STUDY

I will now present the initial results of the longitudinal study concerned with the development of Musikerleben during the years of adolescence (11 to 17). The main objective of this study is to look for processes of change in the development of Musikerleben, i.e. how the listening styles and their interaction with different aspects of music preferences can be interpreted in the context of individual biographical events. For example, will adolescents with problems in school develop a more intense compensating listening style than students without such problems? Up to now 155 children have been surveyed four times, at ages eleven years and eight months, eleven years and ten months, twelve years and thirteen years. The sample reflects the social structure in the city of Hannover, Germany (population 600,000). The children take part voluntarily, although their motivation to cooperate is reinforced by a small payment, and by a living-room-type atmosphere with sweets and soft drinks offered to them. The children are asked to rate the different aspects of their Musikerleben on the described questionnaire (39 items). In an additional questionnaire they are asked

for their music preferences (verbal and sounding) and for several other aspects of their daily lives (how and how often they use different media, musical activities, problems they may have etc.). As shown in Table 8.1, 28 of the 39 items could be bundled to nine listening styles using variable cluster analysis. Fig.8.1 gives the changes of the nine listening styles over time: L1 refers to the beginning of the study (children aged 11.5), L3 refers to the third investigation after 7 months, and L4 to the last after 19 months.<sup>5</sup> The centrepoint of the scale (ranging from 1 to 5) is 3.0. The asterisks in the graph indicate levels of significance (\*  $p < 0.05$ , \*\*  $p < 0.01$  and \*\*\*  $p < 0.001$ ). Asterisks on the left indicate significant MANOVAs with repeated measures, those on the right represent special contrasts between first (L1) and third (L4) measurement point. Significance between adjacent points (asterisks between L1 and L3, L3, and L4, respectively) are computed as nonorthonormalized contrasts using transformed variables (instead of repeated measures).

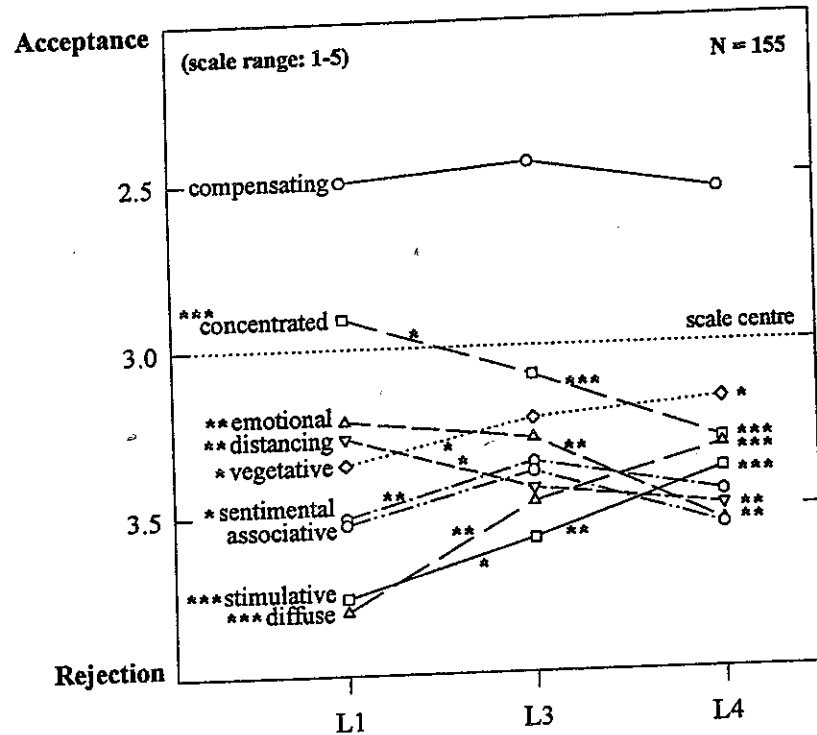


FIG. 8.1 Variations for nine listening styles over time

It can be seen that the majority of the listening styles show only slight intensity, with means below 3.0. This coincides with the early cross-sectional study mentioned above, i.e. components of Musikerleben are only weakly developed at the beginning of the second decade. To use music for mood-management ("compensating" listening), is by far the most important listening style at this point. This is in agreement with other results of our study, showing that already at this early age children have definite and distinctive ideas of what kind of music they would like to hear in a sad, angry or happy mood. Of the other listening styles, the "concentrated" and "emotional" style show a medium intensity, while the "diffuse" and "stimulative" are poorly developed.

With the exception of "compensating", "sentimental" and "associative" listening there is a general tendency for components with initially higher intensity to decrease over time, while those that were the least intense at the beginning show a clear tendency to increase. Although at first (L1) all components (with the exception of "compensating" listening) are well differentiated at low intensities, 1.5 years later (L4) they are nearly all similar. There are two main trends: The more cognitive components ("concentrated" and "distancing") tend to weaken while more body-orientated components ("vegetative", "stimulative") gain greater intensity over time. "Diffuse" listening—the weakest component at the youngest age—shows the greatest increase, with an associated proportional decrease of "concentrated" listening.

Now to the possible correlations between Musikerleben and the problems adolescents may experience. Subjects (in L3, at the age of 12) were asked to indicate how frequent (often=2, seldom=1, never=0) they had problems concerning school, boredom, family, outward appearance, depression, friends, health, loneliness, fear, worries about the future. A problem index was computed for the weighted frequency of problems, summing up a "2" for any "often" answer and a "1" for any "seldom" answer. This way the sample could be divided into three nearly equally sized groups ( $n = 53 + 47 + 54$ ) with low, medium, and high frequency of problems.

A MANOVA with the nine listening styles as dependent variables and weighted frequency of problems as a factor with three levels was computed. The analysis yielded a significant multivariate effect ( $F=2.06, p=0.01$  Pillais). Fig. 8.2 shows the means for those variables with significant univariate effects. For the two extreme groups (with low and high problem frequency) asterisks indicate whether the contrasts (in relation to the mean of the whole sample) were significant.

As could be expected, there is an effect on "compensating" listening, but it is only the weakest effect, showing that children with many problems tend to listen in a slightly more compensating manner. More pronounced, however, is the effect on "sentimental" listening: it is significantly lower for those with few problems and significantly higher for those with many problems. The third effect indicates that children with few problems have habitually "vegetative"

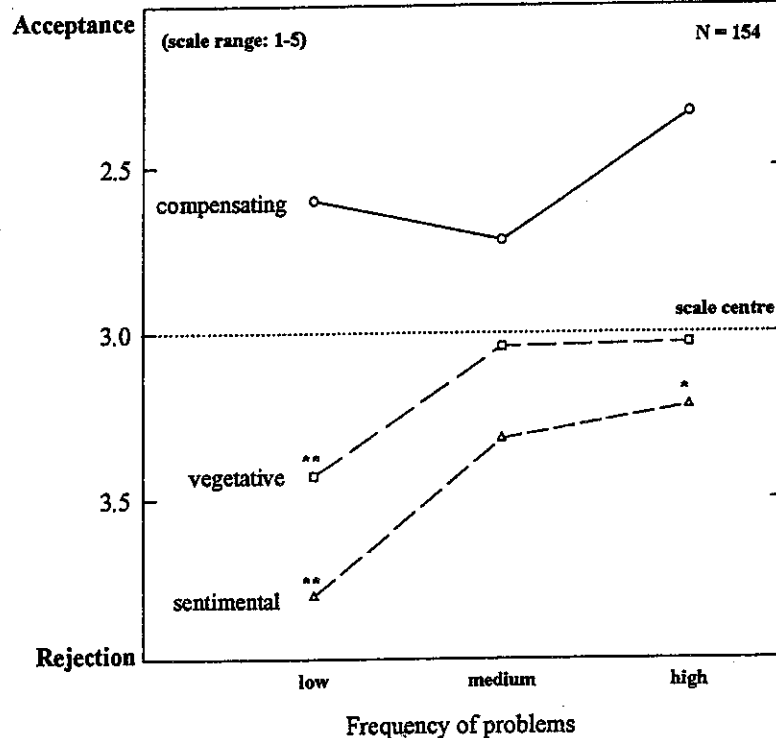


FIG. 8.2 Listening styles and frequency of problems

concomitants while listening to music in only a modest degree. In a general sense our hypothesis that "compensating" listening corresponds with the frequency of problems was confirmed by a multivariate effect. Unexpectedly an even stronger effect was found for "sentimental" listening. A "compensating" listening style is an active strategy of mood management, whereas "sentimental" listening shows a more passive tendency. "Sentimental" listening is another way to cope with problems by escaping into dreams and into the past.

So far we have only considered the frequency, not the quality of problems. Can we suppose that worrying about the future will have the same consequences on music listening styles as depression or trouble in school? Extreme groups were formed for each of the ten potential problem areas mentioned above by considering only those who gave "often" or "never" as an answer (neglecting those who indicated "seldom" in the questionnaire). With two exceptions (loneliness, fear) the so constructed subsamples were large enough (> 15) to compute ANOVAs for the nine listening styles as dependent variables, and the remaining eight types of problems as independent variables. Table 8.3 gives an overview of the significant effects and shows the corresponding means.

TABLE 8.3  
Relations Between the Experience of Specific Problems and Listening Styles

Listening style (dependent var.)	Problems (independent var.)	"often"	"never"	F	p
Compensating	Depression	<b>2.26<sup>1</sup></b>	2.71	4.23	.04
Concentrated	Depression	<b>2.92</b>	3.50	5.58	.02
Emotional	Worries about the future <sup>2</sup>	3.24	3.81	6.44	.01
	Depression	<b>3.12</b>	3.72	5.68	.02
Distancing	Outward appearance	3.88	3.30	9.06	.00
	School	3.74	3.20	6.43	.01
Vegetative	Depression	2.63	3.47	15.74	.00
	Worries about the future	2.81	3.38	8.87	.00
	Friends	2.84	3.34	6.19	.02
	Outward appearance	2.92	3.37	5.21	.03
	Family	2.91	3.30	4.30	.04
Sentimental	Depression	2.87	3.83	23.26	.00
	Worries about the future	3.15	3.70	8.64	.00
	Health	3.15	3.67	6.12	.02
	Friends	3.13	3.59	5.16	.03
	Outward appearance	3.23	3.66	4.93	.03
Associative	Depression	3.12	3.99	11.88	.00
Stimulative	Family	2.93	3.61	9.31	.00
	Boredom	2.93	3.50	4.86	.03
	School	3.07	3.62	4.47	.04
Diffuse	Boredom	3.81	3.21	5.14	.03

<sup>1</sup>Lower values of means (boldfaced) indicate a higher intensity of the respective listening strategy.

<sup>2</sup>The "problems" are ranked for each listening style in the order of significance level.

As can be seen, "depression" (in the sense of sadness) is the most dominant problem: it influences six of the nine listening styles and for most of them it has the greatest effect compared to the other problems. For this age group experiencing depressive moods is the most effective reinforcer of the habitual components of Musikerleben. With two exceptions, the sub-groups with frequent problems show greater intensity ratings on all respective listening styles. This trend has already been documented in the first step of our analysis.

We can now see that *certain* problems intensify *certain* styles of listening. Children with different problems chose different coping strategies and, consequently, develop specific ways of Musikerleben: "Sentimental" and "stimulative" listening are two examples of highly specified problem-profiles with not a single problem having effects on both listening styles. Subjects who are having trouble in the family and at school and suffer from boredom show high ratings on "stimulative" listening. Depression, worrying about the future

and problems concerning health, friends, and outward appearance are experienced by subjects with a preference for "sentimental" listening. An almost identical problem-profile was found for "vegetative" listening differing only in one out of five problems.

The great number of problems having an effect on these three listening styles suggests that "compensating" listening may not be the only means of coping with problems. Results indicate that we have to differentiate between psychological ("sentimental") and physiological ("vegetative", "stimulative") coping strategies. This raises the question of how far these differences are due to personality traits. "Vegetative" listening, for instance, may be linked to a higher sensitivity for problems caused by the outer world as well as to physiological sensations of the inner world. But further investigations into the causal relations between problem experience and listening styles would be necessary to back up these assumptions.

Regarding four further listening styles ("compensating", "concentrated", "emotional" and "associative") we find that ratings support the above made statement that frequently having certain problems tends to intensify the different listening styles. But a reversed effect emerged for the two remaining listening styles, for "distancing" listening and even more so for "diffuse" listening. In the case of "distancing" this reverse effect is easily explained: Students with such an intellectual approach to music are "good" students who seldom have problems with school. They also seem to have hardly any problems with their outward appearance, perhaps because they place greater importance on academic achievement.

The reversed effect for "diffuse" listening may be seen as the consequence of a coping strategy: if music is used as a medium of mood or problem management, it cannot be just an unimportant part of the background. Together with other details of Table 8.3 not mentioned here, we can conclude that individual characteristics of music appreciation must be interpreted in the context of individual history as individual ways of coping with life.

### USING MUSIC AS GRATIFICATION

Several aspects of Musikerleben change over time, but we do not know why. So far, there is no definite theory to explain these changes, but perhaps the "uses and gratification" approach (Katz et al., 1974), a concept from media theory, may be applicable to the field of music behaviour (Wells & Hakanen, 1991). The results reported concerning the experience of individual problems may be interpreted as evidence that adolescents use certain music because they expect certain gratifications, i.e. it may help them cope with their problems. Everyday experience tells us that people use different music in different ways in different situations. How can we demonstrate these diversities, and how can we find possible patterns in this behaviour? Some selected results of an earlier questionnaire study (Behne, 1986b) may help to structure this complex field.

A sample of  $n=391$  students (ages 13 to 15) were asked to imagine different emotional situations, for example, a situation of anger: "Imagine you had a fierce quarrel with your best friend and you are terribly angry. If in this situation you chose a piece of music, what would it sound like?" A list of eight pairs of opposites (see the semantic differential in Fig.8.3 for the original and the translated adjectives) describing the preferred music were given. Students rated their "situative preferences", gave concrete musical examples and tried to explain why they chose them. Besides anger, they were also asked for music preferences in situations of joy, sadness, and contentment.

The results showed clear differences between the four situations. In a joyful mood, students would like to listen to music which can be described as happy and gay, lively and fast. In a contented mood they would prefer a music with similar but slightly less pronounced attributes. For the two negative situations, however, there were no clearcut preferences, because students disagreed on which music they would most like to hear. When high variances result in questionable means (regression toward the mean), cluster analysis can help find groups of individuals who show similar response patterns while maximally differing from other groups. To give an impression of how different individual preference patterns can be, I will confine myself to some selected patterns of these analyses.

Cluster analysis of the music preferences in a situation of anger yielded 12 different clusters (Fig.8.3, for three examples). Cluster 1 ( $n=77$ ) preferred a very

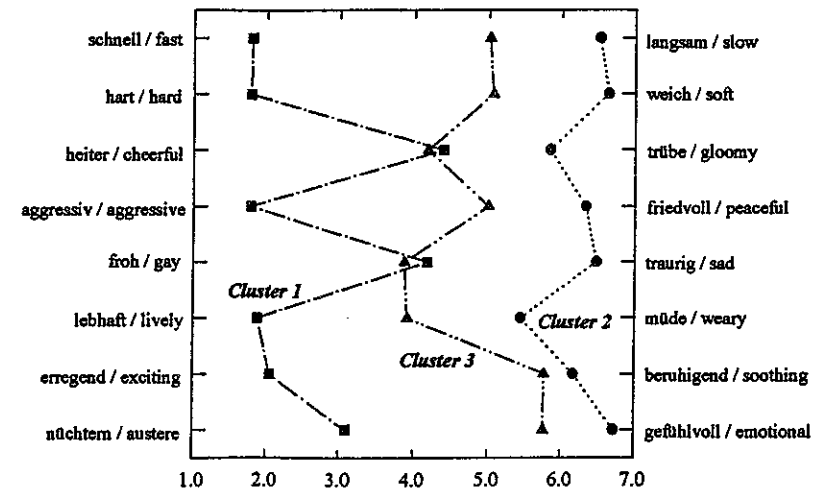


FIG. 8.3 Three ways of coping with anger with the help of music

fast, hard, aggressive, and lively music. This preference may be interpreted as a specific coping strategy, lustily living out all feelings of anger, wanting to keep up this mood for a while, but not reflecting the cause of the anger.

The subjects of Cluster 2 ( $n=25$ ) chose in most cases attributes opposite to their imagined mood state: when angry, they would prefer very slow, soft, peaceful, emotional, and sad music. These students seek consolation in music, they would like to be sad and stay in a sad mood for a while, perhaps because they perceive themselves as being the losers in an imagined quarrel. Cluster 3 ( $n=70$ ) is characterised by a slight tendency to the middle of the scale, but nevertheless showing a preference for calming and emotional music. It may be interpreted as less intensive "comfort-seeking", but in contrast to Cluster 2, there is no desire for sadness. One of the other profiles tends to be very close to the centre of the scales and could be interpreted as a desire for no music at all. The choice of music varied similarly when another negative emotion—sadness—was to be imagined.

So far the results of this study are exemplary (for further details see Behne, 1986b). The outlined examples of findings show that children at this early age have already developed differentiated strategies of coping with moods, especially bad moods, resulting in distinguishable music preferences in mood-induced situations. Hopefully the results of this longitudinal study will enable us to answer the question of how stable these patterns will prove to be. Gembris (1991) replicated our study with adults using a different method for cluster analysis. Despite these alterations he found similar characteristic cluster profiles. So we may say that generally individual differences in music preferences reflect the diversity of coping strategies.

## DISCUSSION

In the last ten years the described questionnaire for different aspects of *Musikerleben* has been used in several studies and has proved to be a reliable instrument to differentially describe the development of *Musikerleben*. This developmental process has to do with coping, or to be more exact, with different coping strategies. The most pronounced listening style at the age of 11 to 13 is "compensating" listening. Evidently there are various ways of compensating as can be shown by the dramatic differences in listening strategies with respect to imagined situations of anger (Fig. 8.3) and sadness. "Stimulative" and "sentimental" listening can alternatively be interpreted as compensating, as they seem to reflect different problem experiences (Table 8.3). "Stimulative" listening is more pronounced for boys, "sentimental" listening for girls, suggesting possible gender-specific coping strategies. The tendency toward more body-oriented ways of *Musikerleben* at the beginning of puberty was anticipated and confirmed.

It is quite obvious that even the youngest children of our sample already have clear strategies of how to use music for mood-management. The changes over time appear like communicating tubes: the dramatic increase in intensity of the initially weakest components ("diffuse", "stimulative" listening) is synchronous with the decline observed for the two cognitive components ("concentrated", "distancing" listening). The significant decrease of "emotional" listening at the beginning of puberty may be attributed to other reasons; such as a growing self-consciousness regarding emotional issues.

Results show surprisingly clearly how strongly individual listening styles are connected with the experience of individual problems, depression appearing to be the most important experience in this context. In most cases plausible explanations for the interrelations between problem experience and listening style are possible.

Musical experts tend to think of a "compensating" listening style as an inappropriate behaviour towards a piece of music as a work of art. As members of a cultural upper class they think of such a plebeian way of using music as a misuse which should be restricted to trivial music, to pop-songs, "Schlager", musical "Kitsch" and to products of low culture in general. But there is no empirical support for this attitude. In a study of concert audiences in Germany Dollase, Rösenberg, and Stollenwerk (1986) found that visitors of so-called high-culture concerts (classics by Beethoven or serious entertainment) reported having more problems in their everyday lives than those who attended more popular events. The first rated themselves higher than the latter for using music as a means of consolation. Our own results support this view: having problems seems to enhance the intensity of *Musikerleben*. Adolescents use *Musikerleben* to help them cope with their problems and this, perhaps, is why for very many adolescents music is one of the most important things in the world.

Several questions pertaining to the methods used remain unanswered. How many dimensions does *Musikerleben* really have, and how can we compare the results of different studies? Which items should be bundled to form listening style constructs? Should this decision be based on the data structure at the beginning of the study (age 11) or at the end (age 17)? Is *Musikerleben* connected with personality traits, and if so, can individual ways of listening to music be interpreted as aspects of personality?

In a recent study, Lehmann (1994b) tested the hypothesis that the intensity of habitual listening is correlated with general "affect intensity" (a construct of Larsen & Diener, 1987). That such a consistency was not found suggests that intensity of *Musikerleben* could also be interpreted as "musical sensitivity" in a wider sense. In a very special sense, musical sensitivity is part of a concept of musical ability in Gordon's "Music Aptitude Profile" (1965). In a more general sense this idea is part of the somewhat old-fashioned concept of musical ability of Révész: "Unter Musikalität im allgemeinen sind das Bedürfnis und die Fähigkeiten zu verstehen, die autonomen Wirkungen der Musik zu



erleben, . . ."<sup>6</sup> (Révész, 1946/1972, p.163). Given that Musikerleben is probably one of the core aspects of musical ability and the strongest motivating factor for human interest in music, we have to ask why it has not received far more attention in the field of psychology of music.

## NOTES

1. As defined by the "Affective Response Special Research Interest Group (SRIG)" (Price, 1986).
2. For further details of this process, including the question at what point in the dendrogram the analysis should stop, see Behne (1986a).
3. See Lehmann (1994a) for translations of the most relevant dimensions. More detailed information may be obtained from the author.
4. In column 2 of this table the respective music examples of the sounding preferences are shortly mentioned.
5. The second step of the survey (L2) is not mentioned here because it dealt with different aspects of Musikerleben.
6. "Musicality is generally understood as the need and the ability to experience the autonomous effects of music . . .".

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