British Journal of Educational Psychology (2000), **70**, 255–272 *Printed in Great Britain*

The importance of music to adolescents

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Aims. The study aims to determine the importance of music to adolescents in England, and investigates why they listen to and perform music.

Sample. A total of 2465 adolescents (1149 males; 1266 females; 50 participants did not state their sex) between 13 and 14 years of age who were attending Year 9 at one of 22 secondary schools in the North Staffordshire region of England.

Method. A questionnaire asked participants (a) about their degree of involvement with musical activities; (b) to rate the importance of music relative to other activities; and (c) to rate the importance of several factors that might determine why they and other people of their age and sex might listen to/perform pop and classical music.

Results. Responses indicated that i) over 50% of respondents either played an instrument currently or had played regularly before giving up, and the sample listened to music for an average of 2.45 hours per day; ii) listening to music was preferred to other indoor activities but not to outdoor activities; iii) listening to/playing pop music has different perceived benefits to listening to/playing classical music; iv) responses to suggested reasons for listening to music could be grouped into three factors; and v) responses to suggested reasons for playing music could be grouped into four factors.

Conclusions. These results indicate that music is important to adolescents, and that this is because it allows them to (a) portray an 'image' to the outside world and (b) satisfy their emotional needs.

In England, the Qualifications and Curriculum Authority (QCA) has recently formulated a statement of aims and objectives as part of its consultation materials (QCA, 1999). It is proposed that 'Music can change the way children feel, think and act ... Music enables children to define themselves in relation to others, their friends,

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colleagues, social networks and to the cultures in which they live ... The teaching of music deepens and extends everyday experiences, providing new opportunities and forging important links between the home, the school and the outside world' (p. 162).

This view of school music extending beyond schools themselves may represent an important new perspective on the heated debates which have raged in the music education literature in recent years. For example, Ross (1995, 1998) provides some sustained evidence that music is one of the least popular subjects in the secondary school. He refers to some of his own survey data which showed that music was rated the least popular of 11 school subjects by 3882 and 2250 12–16 year-olds in surveys in 1971 and 1996 respectively. Ross (1995) suggests that attempts to modernise the music curriculum have failed; that music teachers have stuck to their traditional concerns rather than adapting to new challenges; and that because music cannot be taught as a conventional school subject at this level, more flexible criteria of evaluation are demanded.

These arguments are also reflected in Mills' (1997) analysis of the differences between the quality of music teaching in primary and secondary schools (as rated by government inspection reports during the academic year 1993–4). Even though secondary school music is typically taught by music specialists, and primary music by non-specialists, it emerged clearly that ratings of class music lessons for 11–14 year-olds were lower than those for younger age groups (5–7 and 7–11 year-olds), and also that ratings for music were lower than for any other school subject at this age level. Mills looked in more depth at the criteria used by the inspectors to produce these ratings. It emerged that secondary school music lessons usually had very clear and uniform written goals, with little account taken of individuals' musical experience; that lessons were often overplanned, such that there was little room for flexibility; and that the content of music lessons was less appropriate and engaging to secondary pupils.

It seems very likely that any solutions to these problems go well beyond the nature of teaching technique: as Ross suggests, it is probably more meaningful to consider the function of school music in teenagers' lives as a whole than to analyse individual lessons. There can be little doubt that music out of school is a vitally important part of the lives of most teenagers, and that we should perhaps focus on the disjunction between music at school and music at home, which appears to widen rapidly in early adolescence. The present study therefore aims to determine the importance of music to adolescents in England, and investigates why they listen to and perform music.

The importance of music to adolescents is indicated by data collected in the USA on the extent of their music consumption. In the USA, annual sales of pop music recordings exceeded the $1 billion mark in 1967 (Frith, 1987), the $2 billion mark by 1973, and the $4 billion mark by 1978 (Zillmann & Gan. 1997). More recent estimates put this figure at over $12 billion for 1994 (Geter & Streisand, 1995). These sales translate into very high music listening times. Davis (1985) estimated that between the 7th and 12th grades, American adolescents average 10,500 hours of elected listening to pop music. An earlier study by Lyle and Hoffman (1972) reported that half of their male adolescent participants listened to music for three hours per day and that half of their female adolescents listened for four hours per day. More recently, Brown, Campbell, and Fischer (1986) and Sun and Lull (1986) reported similar figures regarding the consumption of music television.

However, there is comparatively little data from other countries. For example, Frith (1987) reported that in 1984, 97% of British adolescents owned audio recorders. Similarly, Fitzgerald, Joseph, Hayes, and O'Regan (1995) reported that Irish adolescents placed their interest in music above all other leisure activities. Some Swedish research has reported a similar pattern of results. Bjurström and Wennhall (1991) interviewed 1000 16–25 year-olds about their leisure time interests, and found that 94% described themselves as 'very interested' or 'fairly interested' in music. This was a considerably higher percentage than for any other activity, including sports, and the level was approximately the same for both boys and girls. However, Bjurström (1993) also pointed out that music as a school subject was much less popular amongst this age group, and that there were clear gender differences in the instruments learnt by boys and girls at school. Finally, a study of British people (North & Hargreaves, 1995) indicated that late adolescence may represent a 'critical period' in the determination of musical taste.

Whilst music might be important to British adolescents, it is equally important to determine why this is so. Although few studies have addressed participation in music, there are a number of studies concerning what adolescents might gain through participation in school, community, and other leisure activities. These studies indicate amongst other things that participation can improve the extent to which adolescents utilise their talents, and reduce the incidence of delinquent behaviours (see e.g., Jones & Offord, 1989; Rathunde & Csikszentmihalyi, 1993). For example, Mahoney and Cairns (1997) examined the relation between involvement in school-based extra-curricular activities and early school dropout. Annual assessments between 7th and 12th grades were completed for 392 adolescents. School dropout rate (i.e., failure to complete 11th grade) among at-risk students was markedly lower for students who had earlier participated in extra-curricular activities compared with those who did not participate.

Other studies on the effects of participation in non-musical activities indicate that these might facilitate identity development and peer group affiliation. For example, Eder and Kinney (1995) examined extra-curricular activities and informal activities in two American schools over a period of one year. Participation in many extra-curricular activities was associated with increased popularity and peer status: athletics was consistently associated with improved male peer status, and cheerleading had a similar effect for females. Similar findings are reported by Eder (1985), Brown and Lohr (1987), and Kinney (1993).

The majority of research on why adolescents engage in specifically *musical* activities has been carried out in the context of what has become known as the 'uses and gratifications' approach. This has been favoured particularly by sociologists, who have presented participants with a list of reasons as to why they might be interested in music. The participants then indicate the extent to which each reason applies to them. For example, Gantz, Gartenberg, Pearson, and Shiller (1978) found that American adolescents reported listening to music in order to relieve tension, distract themselves from worries, help pass time, and relieve boredom. Similarly, Sun and Lull (1986) found that passing time was the main reason for listening to music reported by their sample. Similar findings are reviewed by Zillmann and Gan (1997).

As noted above, research on participation in non-musical activities indicates that this may bring about improvements in peer relationships. Given this, one possible use or

gratification that may ensue from musical activity is that adolescents might employ music as a guide to the likely characteristics of the fans of particular styles, and as a means of defining their own identities. More specifically, if adolescents listen to so much music, it is not unreasonable to suspect that an expressed preference for a particular style may carry an implicit message to other adolescents regarding a range of attitudes and values. Frith (1981, p. 217) suggests that sub-cultures form around pop music styles (e.g., rock 'n' roll, hippies, punks, new romantics, ravers) precisely because 'all adolescents use music as a badge' which communicates values, attitudes, and opinions to others. For example, this 'badge' function of music may explain why several studies indicate that adolescents who listen to certain 'rebellious' forms of pop music such as heavy metal or rap may also be more likely to engage in delinquent behaviours than those who do not listen to such styles (e.g., Arnett, 1991; Bleich, Zillmann, & Weaver, 1991; Hansen & Hansen, 1991; Trostle, 1986; Yee, Britton, & Thompson, 1988). However, 'the wealth of proposals concerning the social influence of musical preference and its expression stands in contrast to a scarcity of pertinent empirical investigations' (Zillmann & Gan, 1997, p. 173): the potential *social* function of music has been the subject of little investigation.

Indeed, at present only two empirical studies have investigated the relationship between music and adolescents' opinions of others. Zillmann and Bhatia (1989) presented participants with a videotape of a potential date who discussed various aspects of him/herself, including his/her preferred musical style. Manipulations of the latter influenced the extent to which participants perceived the person on the tape as romantically attractive. For example, women who expressed a liking for classical music were perceived by males as more attractive than those who preferred heavy metal. In a similar vein, Sargent and Weaver (1996) found that students who affiliate with hard rock are perceived as less sophisticated but more rebellious than those who like other musical styles. Given the lack of empirical evidence, Zillmann and Gan (1997) conclude that 'The often asserted and occasionally theory-based cognitive and affective benefits of attachment to musical taste groups, then, remain to be demonstrated' (p. 175).

Gender stereotyping is another factor that has been proposed as a means of explaining adolescents' musical behaviour (see review by O'Neill, 1997). In particular, young people seem to have clear, stereotypical notions of whether particular instruments are primarily for boys or for girls. For example, O'Neill & Boulton (1996) presented 9–11 year-olds with six musical instruments, and asked the children to rank order these in terms of the extent to which they would like to learn to play them. Girls showed a stronger preference for flute, piano, and violin, whereas boys expressed a stronger preference for drums, guitar, and trumpet. There is also indirect evidence that parents may help to perpetuate these stereotypes. Abeles and Porter (1978) asked parents to choose an instrument for a (hypothetical) child of theirs: parents were more likely to select a clarinet, flute, or violin for a daughter and were more likely to select drums, trombone, and trumpet for a son.

In addition to these stereotypes there is also evidence of actual gender differences in musical activities. For example, Crowther and Durkin (1982) studied 12–18 year-olds, and found that girls had more positive attitudes towards music than boys at all ages. Indeed, girls were more likely to play musical instruments than boys, and they also attended more concerts. Similarly, Eccles, Wigfield, Harold, and Blumenfeld (1993)

found that girls reported more positive competence beliefs about music than did boys, and Colley, Comber, and Hargreaves (1994) found that liking for music as a school subject was associated with higher 'femininity' scores. In conjunction, studies such as these point indirectly to the possibility that gender might be an important factor in determining the importance of music to adolescents.

It is worth noting that we are not arguing that *only* social factors mediate adolescents' musical behaviour. For example, research in experimental aesthetics (see review by Hargreaves and North, in press) has illustrated how factors such as musical complexity and prototypicality can influence musical preference during adolescence. We would not deny the validity of such research: our case is that the importance of social factors may have been relatively underemphasised in empirical research, and the present study aims to investigate this possible imbalance.

In order to investigate these issues, a large sample of 13- to 14-year-olds were presented with questionnaire items to assess their degree of involvement with music. Participants were then presented with a list of activities (e.g., going shopping), and asked to rate how important listening to music was relative to each: this allowed an estimation of the importance of music relative to other activities. Additional questions investigated whether those who played musical instruments did so at the expense of or in addition to music listening. Finally, participants were presented with a list of 12 potential reasons why they might listen to pop music, listen to classical music, play pop music, and play classical music. The participants were asked to rate the extent to which each applied to them, and give a separate rating of the extent to which each reason applied to someone else of their own age and sex. This allowed investigation of what participants expect to achieve by listening to and playing different musical styles.

Method

Participants

The participants were 2465 adolescents (1149 males; 1266 females; 50 participants did not state their sex) between 13 and 14 years of age who were attending Year 9 at one of 22 secondary schools in the North Staffordshire region of England. The catchment areas for these schools represented virtually the full range of parental socioeconomic status. The sample represented 72% of the total number of Year 9 pupils attending these schools, and the response rate from individual schools ranged between 51% and 97%. These response rates varied because some individual classes within the schools were unable to complete the questionnaire due to teaching commitments. Two further schools declined the opportunity to participate in the study.

Questionnaire design

An eight-page questionnaire (available from the authors) was designed by the authors and consisted of 28 main items, only some of which are reported here. All the items required participants to respond using 0–10 rating scales on which 0 represented the low end of the scale and 10 represented a corresponding high point. The only exceptions to this were those items associated with respondents' level of involvement in musical activities which involved categorical responses (e.g., 'Do you currently play a musical instrument?') and frequency responses (e.g., 'On average, how many hours a day do you

listen to music?'). All items were pilot tested in the East Midlands region of England to ensure that the questions were comprehensible and unambiguous to the target age group.

Procedure

The questionnaires, together with written instructions concerning their administration, were sent to a Year 9 co-ordinator who had been identified by each school. The instructions specified that the questionnaire should be administered in classrooms to all 13–14 year-olds (Year 9) under test-like conditions, and that students should not be allowed to talk to one another. Participants were informed that they would remain anonymous throughout, and that their responses would be completely confidential. The questionnaire required approximately 15 minutes to complete.

Results and discussion

Degree of involvement with musical activities

Respondents were asked to state whether they currently played a musical instrument, and if so, then to state what they played. If participants listed more than one, then they were asked to circle that which they considered to be their main instrument. In total 439 respondents (17.8%) indicated that they currently played, and in response to a supplementary item, 1275 respondents (51.7%) indicated that they had played an instrument in the past but since given up. Of those currently playing an instrument, 163 (37.1%) played keyboard or piano; 52 (11.8%) played the guitar; 40 (9.1%) played the flute; 36 (8.2%) played the violin; and 30 (6.8%) played the clarinet. No other instrument was played by more than 5% of those currently playing. In conjunction, these figures indicate that a high proportion of the sample had experience of playing musical instruments.

Further items on the questionnaire investigated the frequency with which respondents listened to music. First, they were asked to state how often they listened to music, and were given five response options. Seventy-one participants (2.9%) reported listening 'not very often'; 245 (9.9%) reported listening 'some days'; 627 (25.4%) reported listening 'most days': 528 (21.4%) reported listening 'once or twice a day'; and 977 (39.6%) reported listening 'as often as I can' (i.e., more than once or twice a day). Respondents were also asked to state how many hours per day they spent listening to music, and this yielded a mean of 2.45 (SD = 1.64). Note that respondents who currently played a musical instrument reported spending 2.65 hours per day listening to music, and this figure is slightly higher than the overall mean. In addition to this, those who currently played a musical instrument reported spending a mean of 1.18 hours per day playing. In other words, the time spent playing a musical instrument seemed to be in addition to, rather than instead of, the amount of time spent listening to music.

A further item asked respondents to state with whom, if anyone, they normally listened to music. Altogether 1479 (60.0%) reported listening on their own; 619 (25.1%) reported listening with friends; 141 (5.7%) reported listening with their family; and 140 (5.7%) responded 'other'. In other words, adolescent music listening is predominantly carried out in isolation. Finally, respondents were presented with a list of eight musical

styles and asked to rate their liking for these. An 'Other (please specify)' option was also included if the respondent's favourite musical style was not included on the list. Mean ratings and standard deviations are presented in Table 1. It is perhaps worth noting that 636 respondents (25.8%) nominated an 'Other' style as their favourite. Of these, 390 respondents nominated a type of dance music (e.g., hardcore, hip hop, house, jungle, kinetic, rave, or techno). In other words, approximately one-eighth of the sample stated dance music as their favourite, and they did not see this as part of either 'pop' or 'rock'. 'Indie' (with 120 nominations) was the only one of the 'Other' styles to receive more than 20 nominations.

Table 1. Mean liking ratings (and standard deviations) assigned to eight musical styles

Musical style	Mean liking rating	SD
Opera	0.58	1.40
Folk	1.28	1.84
Classical music	1.44	2.27
Jazz	2.71	2.66
Rock	3.61	3.13
Rap	5.51	3.09
Soul	5.96	3.08
Pop	8.59	2.18
Other	9.25	1.45

In conclusion, this section has shown that adolescents are very involved with musical activities. A large percentage of them either do play or have played an instrument. Also, adolescents report spending a great deal of time listening to music, predominantly whilst on their own. Finally, the sample had a clear preference for listening to pop and dance music: they were only ambivalent about other modern musical styles such as rap or rock, and disliked strongly styles which originated less recently such as folk or classical music.

Importance of music relative to other activities

A second section of the questionnaire investigated the perceived importance of listening to music relative to other activities. Participants were presented with 10 other activities (see Table 2), and were asked to rate (from 0 = 'not at all true for me' to 10 = 'really true for me') the statement that 'I would rather listen to my favourite music than . . .'. The mean ratings in response to each statement are presented in the second column of Table 2. Given that the mid-point of the rating scale was 5, these indicate that respondents preferred listening to music to any other indoor activity (doing homework, chatting with parents, or reading), with the possible exception of watching TV. A MANOVA was also carried out on respondents' ratings to investigate any possible effects of gender. The result of this was significant (F (10, 2233) = 41.93, $p < .001$), which indicates that the importance of music listening relative to other activities varies between the sexes. There were several univariate effects of gender, and the statistics for these are presented in Table 2. Males reported that they would rather listen to music

than go shopping, whereas females reported that they would prefer to go shopping; similarly, females reported that they would rather listen to music than play computer games, whereas males reported that they would rather play computer games. It should also be noted that one consequence of the large sample size employed here is that even small differences can give rise to statistically significant results: therefore the reader is cautioned to also consider the mean ratings presented.

Table 2. Mean ratings of the importance of listening to music relative to other activities and summary of univariate MANOVA statistics

	Mean	SD	Mean for males	Mean for females	F	p
Visit friends	2.31	2.93	2.64	2.02	29.52	< .001
Go shopping	4.05	3.85	5.40	2.84	277.59	< .001
Go to a youth club	4.52	3.69	4.70	4.37	4.11	< .05
Play my favourite sport	3.58	3.71	3.33	3.80	11.06	= .001
Watch TV	4.40	3.36	4.11	4.66	18.01	< .001
Play computer games	4.77	3.65	4.09	5.37	72.30	< .001
Read books	5.77	4.04	5.86	5.69	0.81	n.s.
Do homework	6.42	3.98	6.19	6.62	6.43	= .01
Chat with mum or dad	5.49	3.63	5.26	5.69	6.88	< .01
Go to the cinema	3.50	3.62	3.79	3.24	12.56	< .001

d.f. = 1,2242 in all cases

Although admittedly speculative, in conclusion this section seems to suggest that adolescents report spending a considerable proportion of their leisure time in musical activity (see previous section) perhaps because they are unable for some reason to engage in other activities which take place outside the home. When asked to state whether they prefer musical activities to a range of other activities which take place outside the home, then they consistently report preferring the latter. Furthermore, gender differences in preference for different leisure activities relative to music seem to correspond with gender stereotypes.

Expectations of the benefits of involvement with different musical styles

The previous results indicate that music is an important part of home life during adolescence, and the remaining items on the questionnaire attempted to identify why this might be so. Two questions contained a list of 12 statements (see Table 3) concerning why someone of the respondent's own age and sex might listen to either classical or pop music respectively. Respondents rated each statement on a scale from 0 = 'definitely not a reason' to 10 = 'definitely a reason'. Given that the two musical styles were rated in a repeated measures design, a series of repeated measures t-tests was carried out to investigate differences between responses to these two musical styles for each of the 12 statements in turn. These in effect indicate whether the respondents believed that there are different reasons for listening to pop and classical music.

The results of these are reported in Table 3, and differences between the ratings assigned to the two musical styles indicate clearly that respondents believed that people listen to classical and pop music for different reasons. More specifically, they believed

that an adolescent will listen to pop rather than classical music in order to enjoy the music; to be creative/use their imagination; to relieve boredom; to help get through difficult times; to be trendy/cool; to relieve tension/stress; to create an image for him/herself; to please friends; and to reduce loneliness. In contrast, respondents believed that people listen to classical rather than pop music in order to please parents and to please teachers.

Two similar questions investigated the reasons why respondents believed that someone of their own age and sex *played* classical and pop music. The same 12 reasons were rated as above. Repeated measures *t*-tests were carried out to investigate differences assigned to the two musical styles in question, and the results of these are presented in Table 3. These indicate clearly that respondents believed that people play classical and pop music for different reasons. More specifically, they believed that people play pop rather than classical music in order to enjoy the music; to be creative/use their imagination; to relieve boredom; to help get through difficult times; to be trendy/cool; to relieve tension/stress; to create an image for themselves; to express their feelings/emotions; to please their friends; and to reduce loneliness. In contrast the respondents believed that people play classical rather than pop music in order to please their parents, and to please their teachers. It is also interesting that this is the same pattern of results to that obtained when respondents were asked to state the reasons why someone of their own age and sex *listened* to classical and pop music: in other words, the respondents seemed to believe that people play and listen to a particular style for the same reasons, such that the perceived benefits of participating in these two types of musical activity are perhaps undifferentiated.

Respondents were also asked to rate the reasons why they listened to music themselves in terms of the same 12 statements as above. A factor analysis was carried out on participants' responses to these 12 statements. Varimax rotation of the principal components solution yielded three factors with eigenvalues greater than one, and together these accounted for 53.8% of the variance in respondents' ratings. Factor loadings greater than 0.30 and the correlation matrix are presented in Tables 4a and 4b respectively. These loadings suggest that Factor 1 might be interpreted as 'creating external impression', since the highest loadings were for items concerning pleasing people; being trendy/cool; and creating an image. Factor 2 might be interpreted as 'fulfilling emotional needs', since the highest loadings were for items concerning the expression of emotions; getting through difficult times; and reducing tension/stress. Factor 3 might be interpreted as 'enjoyment', since the highest loadings were for items concerning enjoyment of the music; and relief from boredom.

A MANOVA was carried out to test for any effects of respondent gender on the resulting factor scores. The result of this was significant (F (3, 2211) = 58.43, $p < .001$), with univariate statistics indicating a gender effect on scores for Factor 1 (F (1, 2213) = 46.87, $p < .001$) and Factor 2 (F (1, 2213) = 122.47, $p < .001$). The mean scores on Factor 1 for male and female respondents were 0.15 and −0.14 respectively, and the corresponding figures for Factor 2 were −0.24 and 0.22 respectively. These show that males were more concerned than females with the external impression created by their music listening, and that females were more concerned than males with how music listening could aid their emotional needs.

Respondents who stated that they currently played a musical instrument were asked

Table 3. Results of repeated measures *t*-tests to investigate whether respondents believed that people listen to and play classical and pop music for different reasons

	LISTENING TO MUSIC					PLAYING MUSIC				
Reason	Mean for classical music	Mean for pop music	*t*	d.f.	*p*	Mean for classical music	Mean for pop music	*t*	d.f.	*p*
To enjoy the music	5.39	8.87	39.08	2121	< .001	6.08	8.11	26.67	2110	< .001
To be creative/use his/her imagination	4.54	4.83	3.17	2101	< .01	5.59	6.30	9.63	2092	< .001
To relieve boredom	4.26	7.08	29.91	2064	< .001	4.98	6.30	16.90	2058	< .001
To help get through difficult times	4.30	5.29	11.32	2080	< .001	4.21	4.97	10.12	2065	< .001
To be trendy/cool	1.86	6.42	45.47	2092	< .001	2.49	6.10	32.62	2067	< .001
To relieve tension/stress	4.70	5.14	4.96	2081	< .001	4.50	4.91	5.48	2065	< .001
To create an image for him/herself	2.87	5.36	25.23	2085	< .001	3.46	5.44	21.20	2079	< .001
To express his/her feelings/emotions	4.49	4.53	0.47	2074	n.s.	5.02	5.18	2.19	2061	< .05
To please his/her parents	3.69	1.89	20.61	2088	< .001	4.88	3.52	15.85	2080	< .001
To please his/her teachers	3.10	1.54	18.84	2089	< .001	4.62	3.25	16.27	2081	< .001
To please his/her friends	1.88	4.65	29.96	2096	< .001	2.44	4.82	27.69	2084	< .001
To reduce loneliness	3.92	4.60	7.84	2099	< .001	4.07	4.33	3.68	2087	< .001

Table 4a. Factor analysis of reasons why respondents listened to music themselves

Reason	Factor 1 loading	Factor 2 loading	Factor 3 loading
To enjoy the music			0.63
To be creative/use his/her imagination		0.61	
To relieve boredom			0.68
To help get through difficult times		0.71	
To be trendy/cool	0.57		0.49
To relieve tension/stress		0.66	
To create an image for him/herself	0.49	0.42	
To express his/her feelings/emotions		0.79	
To please his/her parents	0.80		
To please his/her teachers	0.78		
To please his/her friends	0.81		
To reduce loneliness	0.34	0.46	
Eigenvalue	3.36	1.98	1.11
Percentage of variance	28.0	16.5	9.2

to rate why they played music themselves in terms of the same 12 statements as above. A factor analysis was carried out on participants' responses to these 12 statements. Varimax rotation of the principal components solution yielded four factors with eigenvalues greater than 1, and together these accounted for 71.7% of the variance in respondents' ratings. Factor loadings greater than 0.30 and the correlation matrix are presented in Tables 5a and 5b respectively. These loadings suggest that Factor 1 might be interpreted as 'fulfilling emotional needs', since the highest loadings were for items concerning getting through difficult times; relieving tension/stress: and expressing emotions. Factor 2 might be interpreted as 'creating external impression', since the highest loadings were for items concerning being trendy/cool; creating an image; and pleasing friends. Factor 3 might be interpreted as 'pleasing people', since the highest loadings were for items concerning pleasing parents, teachers, and friends, Factor 4 might be interpreted as 'aesthetic motivation', since the highest loadings were for items concerning enjoyment; and creativity.

A MANOVA was carried out to test for any effects of respondent gender on factor scores. The result of this was significant ($F(4, 322) = 4.56, p = 0.001$), with univariate statistics indicating a gender effect for scores on Factor 2 ($F(1, 325) = 13.97$, $p < .001$). The mean factor scores for male and female respondents were 0.31 and -0.13 respectively, which again indicate that males were more concerned than females with how playing music might impress people. More generally, it is interesting that the factors reported in Table 5a concerning why respondents *play* music seem very similar to those reported in Table 4a concerning why respondents *listen* to music.

Summary and general discussion

These results indicate a high level of involvement in musical activities amongst adolescents. For example, 17.8% of respondents reported playing musical instruments

Table 4b. Correlation matrix for reasons why respondents listened to music themselves

Reason	Enjoy the music	Be creative/ use imagination	Relieve boredom	Help get through difficult times	Be trendy/ cool	Relieve tension/ stress	Create an image	Express feelings/ emotions	Please parents	Please teachers	Please friends
Be creative/use imagination	0.14										
Relieve boredom	0.21	0.13									
Help get through difficult times	0.11	0.26	0.19								
Be trendy/cool	0.06	0.15	0.15	0.12							
Relieve tension/stress	0.15	0.23	0.22	0.37	0.14						
Create an image	0.05	0.33	0.11	0.20	0.47	0.24					
Express feelings/ emotions	0.08	0.41	0.11	0.42	0.19	0.39	0.44				
Please parents	0.14	0.13	−0.02	0.09	0.25	0.04	0.28	0.19			
Please teachers	−0.12	0.15	−0.03	0.07	0.21	0.03	0.25	0.20	0.72		
Please friends	−0.05	0.08	0.05	0.05	0.41	0.03	0.31	0.15	0.52	0.50	
Reduce loneliness	0.03	0.24	0.23	0.25	0.18	0.25	0.26	0.35	0.23	0.21	0.32

Table 5a. Factor analysis of reasons why musicians play music themselves

Reason	Factor 1 loading	Factor 2 loading	Factor 3 loading	Factor 4 loading
To enjoy the music				0.84
To be creative/use his/her imagination				0.80
To relieve boredom	0.41	0.34		0.31
To help get through difficult times	0.81			
To be trendy/cool		0.89		
To relieve tension/stress	0.82			
To create an image for him/herself		0.77		
To express his/her feelings/emotions	0.71			0.35
To please his/her parents			0.92	
To please his/her teachers			0.90	
To please his/her friends		0.68	0.45	
To reduce loneliness	0.67			
Eigenvalue	4.37	2.18	1.05	1.01
Percentage of variance	36.4	18.1	8.8	8.4

currently, and over 50% reported having played in the past but subsequently giving up. This considerable interest in music was also reflected in respondents' listening: the latter was reported as normally carried out in the absence of others and in addition to any time spent playing a musical instrument. These results clearly parallel the American data reported in the introduction concerning the amount of time and money adolescents spend on pop music. Furthermore, respondents unsurprisingly demonstrated a clear preference for pop music, although they were comparatively antipathetic towards other styles, even when these were modern (e.g., rap).

However, the apparent importance of (particularly pop) music may be more by default than design. Table 2 indicates that the respondents preferred listening to music to other *indoor* activities with the possible exception of watching TV. Nevertheless, of the activities presented here, all those which might be expected to involve *leaving the home* were preferred to music listening (although there were two gender interactions consistent with gender stereotyping in which this was not the case). It may be that adolescents spend such a large amount of time involved in musical activities because they cannot leave the home (perhaps because of a lack of money or parental restrictions) to engage in other, preferred activities.

There was also evidence that the respondents had clear expectations of the potential benefits of listening to and playing both classical and pop music. In particular, respondents seemed to believe that there were few differences in the reasons for playing or listening to a particular musical style: the two activities were perceived as offering much the same benefits. However, respondents' expectations regarding classical music were very negative. In short, ratings suggested that the only perceived benefits of being involved with classical rather than pop music were that involvement with the former would be more likely to please teachers and parents. Factor analyses of the reasons why the respondents listened to and played music themselves explains why this might be so:

Table 5b. Correlation matrix for reasons why musicians play music themselves

Reason	Enjoy the music	Be creative/ use imagination	Relieve boredom	Help get through difficult times	Be trendy/ cool	Relieve tension/ stress	Create an image	Express feelings/ emotions	Please parents	Please teachers	Please friends
Be creative/use his/her imagination	0.51										
Relieve boredom	0.27	0.35									
Help get through difficult times	0.22	0.39	0.43								
Be trendy/cool	0.12	0.25	0.39	0.37							
Relieve tension/stress	0.22	0.35	0.40	0.67	0.37						
Create an image	0.20	0.36	0.28	0.41	0.68	0.44					
Express feelings/ emotions	0.31	0.43	0.26	0.56	0.31	0.58	0.42				
Please parents	−0.11	−0.03	0.08	0.02	0.17	0.05	0.18	0.13			
Please teachers	−0.15	0.03	0.09	0.10	0.21	0.10	0.23	0.17	0.74		
Please friends	−0.06	0.06	0.22	0.23	0.57	0.26	0.49	0.22	0.43	0.48	
Reduce loneliness	0.06	0.14	0.32	0.42	0.32	0.44	0.35	0.42	0.21	0.31	0.51

in both analyses, the use of music to create an impression with other people accounted for a considerable proportion of the variance in respondents' ratings. Since pop music was preferred over classical music to such an extent it is easy to see why listening to or playing classical music is viewed so negatively: it presents a poor impression of oneself to others. This has clear parallels with the literature (reviewed above) on involvement in other, non-musical activities, which also seems to point to the role of these activities in defining adolescents' relationships with their peers.

One other interesting aspect of the results concerns the sex differences that emerged on factor scores. The pattern of differences seems to correspond with gender stereotyping (see, e.g., Manstead & Hewstone, 1995, for a general overview; and research on gender stereotyping in music described in the introduction) in that females seemed to report that music could be used as a means of mood regulation whereas males reported that music could be a means of creating an impression with others. The latter must require some effort, since the respondents reported that they usually listened to music on their own: if they listen to music in isolation, then they must make a point of informing others of the activity in order to create this impression. Furthermore, these findings correspond with the uses and gratifications literature described in the introduction which indicates that identity formation and mood-management are two of the principal reasons American adolescents give for listening to pop music (although the present data concern both playing and listening to both classical and pop music).

Before concluding, it is worth noting three issues for future research which stand out clearly as a result of the present study. First, why should adolescents differ in their preferred musical style or in their decision to play one instrument rather than another? One answer to this may involve the notion of *self-to-prototype matching* (see, e.g., Burke & Reitzes, 1981; Cantor, Mischel, & Schwartz, 1982; Chassin, Presson, Sherman, Corty, & Olshavsky, 1981; Cohen, 1981; Holcom, Lehman, & Lord, 1993; Moss & Frieze, 1993; Niedenthal, Cantor, & Kihlstrom, 1985; Niedenthal & Mordkoff, 1991; Price & Bouffard, 1974). This states that a person is more likely to chose one activity or object over another if the prototypical image of the former corresponds more with the person's own self-image than does the prototypical image of the latter activity/object. An earlier study (North & Hargreaves, 1998) indicated that such a process may well help to explain adolescents' musical tastes. Second, leading on from this, it would also be interesting to investigate why adolescents participate in one form of musical activity over another; why they change liking for particular styles; why they drop out of musical activity; and why they may choose not to participate at all. Finally, there is considerable scope for individual differences in the present data. For example, factors such as playing versus not playing a musical instrument might well have interesting effects on adolescents' attitudes towards different styles of music (see Hargreaves, North, & O'Neill, 2000).

These results confirm that music is of central importance in the lives of most young people, fulfilling social and emotional as well as cognitive needs. There can be little doubt about its place and value in the school curriculum at all age levels, but our results provide more detailed insights into the particular problems of secondary school music. The central importance of music in the lives and identity of many teenagers seems to develop outside rather than inside the classroom: our results correspond with data described in the introduction which suggest that school music is out of touch with the

needs of many pupils. This is shown by the alarmingly high proportion of our respondents who reported having started to learn an instrument and subsequently giving up, as well as by the generally negative view of classical music which they expressed.

One solution to problems such as these is for music teachers to focus more on music listening and performing which occurs outside the school. The English QCA (1999) argue that 'the teaching of music ... introduces pupils to different forms of music making and response, both individual and communal, developing a sense of group identity and togetherness' (p. 162). This new broader view of the role of music education in relation to the external social world may provide a direction in which music teachers can re-define the role of their subject. As Mills (1997, p. 76) asks, 'should secondary music teachers give less emphasis to teaching music, and greater emphasis to teaching pupils?' The present results suggest they perhaps should, since music has profound social psychological connotations for adolescents.

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Received 12 March 1999; revised version received 7 July 1999