

THE ROLE OF FAMILY INFLUENCES IN THE DEVELOPMENT OF MUSICAL PERFORMANCE

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ABSTRACT

Interviews were conducted with the parents and children of 257 children who had all studied a musical instrument but who differed in the extent of their mastery. The purpose of the study was to investigate the role of the family in the development of musical ability. It was discovered that the most successful children had parents who were the most highly involved in lessons and practice in the earliest stages of learning. These successful music learners often had parents who were involved with music themselves. Parental involvement in music typically took the form of listening to music rather than performing it, and tended to increase over the child's learning period. The children who failed to continue with lessons had parents who were, on average, less interested in music and who did not change their own degree of involvement with music over their child's learning period. There were also differences in the way in which siblings influenced the music learners. The highly successful children had siblings who were perceived as having a positive influence. In contrast, the least successful children tended to perceive their siblings to have played a neutral role. Overall, the most musically able children had the highest levels of family support.

INTRODUCTION

Parents influence their children in many ways, and the particular kinds of support they can provide may have a major influence upon the nature and form of a child's accomplishments (Baumrind, 1989; and Csikszentmihalyi, Rathunde and Whalen, 1993). Although a stable family environment may not always be necessary in order to reach a high level of achievement, studies of the biographies of prize-winning scientists show that most have enjoyed relatively stable family lives, characterised by the continuous availability of parents (Zuckerman, 1977; Berry, 1981; 1990; see also Howe, 1990; Ochse, 1990). Moreover, research by Schaffer (1984, 1989, 1990) and Henderson (1984a, 1984b) reveals the value of collaborative learning for the child with other family members to assist in the development of higher levels of competence in cognitive and social skills. In an activity like musical instrument learning, a stable and structured family life may contribute towards sustaining and motivating the necessary learning activities essential for the development of musical skills.

There is some evidence that musically outstanding individuals tend to have especially supportive parents (Howe and Sloboda, 1991a&1991b; Manturzevska, 1986, Sloboda and Howe, 1991; Sosniak, 1985, 1990). However, the existing studies have a number of methodological limitations, and one must be cautious in concluding from them that high levels of parental support and influence differentiate individuals of very high musical competence from those who are merely competent. Neither Sosniak (1985) nor Howe and Sloboda (1991a & 1991b) included comparison groups of young people who had not been successful at performing an instrument. Therefore, it is not possible to conclude from

the findings that children's musical success is directly related to the degree of parental involvement observed. In addition, partly because the numbers of participants in previous research studies have been small, and partly because the questions that were posed concerning the exact nature, and amount of support and encouragement provided by the parents were relatively unspecific, our knowledge about the precise ways in which parents contribute to their children's musical development is far from complete.

Previous music investigations have focused on parent's influences, but have paid little attention to the role siblings may have in the child's musical development. In the general developmental literature, sibling rivalry has been shown to have a significant effect on development (Buhrmeister and Furman, 1987). Younger siblings as young as twelve months old are found, for example, to imitate their older siblings (Abramovitch, Corter and Lando, 1979), often treating the older siblings as teachers (Dunn and Kendrick, 1982). Older siblings generally display more teacher behaviour towards their younger siblings (Berndt and Bulleit, 1985). In addition, there appears to be a gender difference in the influence of older siblings, with older sisters being perceived as more effective instructors than older brothers (Cicirelli, 1976). One purpose of the current investigation was to examine the influence of siblings on music learning.

The present study was designed to address a number of specific issues. The first of these is parental involvement in music lessons. Although some instrumental teachers welcome and encourage parents to attend lessons along with their children (Jorgensen, 1986), other teachers

prefer the parent not to be present. We were interested to see whether high achieving young musicians had parents who were more involved in their lessons.

Of course, information given to the parent by the teacher will have little direct effect on the parent's behaviour unless the parent also becomes involved with the child's practice at home. On a-priori grounds it is possible to predict that parental involvement with practice will have a proportionately greater effect on a child's progress than involvement in lessons. This is because much of the activity that determines an individual's level of achievement takes place at home during practice sessions. Practice accounts for the majority of time that most young musicians spend engaged with their instrument (see Ericsson, Krampe, and Tesch-Romer, 1993). It is predicted, therefore, that the highest achieving young musicians will have parents who are highly involved in their children's practice.

Although any parent can exhort a child to practice, the motivation literature suggests that sustained increased performance arises most effectively when clear and achievable goals are set, and individuals receive accurate and timely feedback on their achievement (Latham and Lee, 1986). Weekly lessons can fulfil some of these functions, but translating weekly targets into daily routines may not come easily to children, and only those parents who have a rather detailed idea of what the teacher requires are likely to be able to offer effective means for structuring individual practice sessions. It is anticipated that the parents of the most successful children will be those who have attended some

lessons and have also provided some support or supervision for the child's practice sessions.

Practice with the parent also provides the child with a model of practice that can be employed when s/he begins to work autonomously (Schonell, 1961). We would predict, therefore, that the effect of parental involvement is greatest at the earliest stages of learning, assisting the child to establish self-structured working patterns.

There exists considerable evidence that one of the most crucial ways to aid intellectual growth is through the interactions that take place between parent and child, so long as the interactions are non-threatening to the child's sense of self-esteem (e.g. Bruner, 1973). It is hypothesised, therefore, that parents who follow rather than lead their child's growing musicianship might assist the learning process most. In other words, the children who attain the highest levels of musical achievement are most likely to have parents whose involvement in musical activities increases after the child begins lessons, reflecting their child's increasing involvement in music.

On the basis of previous research (Sloboda and Howe, 1991), it is also predicted that many parents of successful young musicians will not be performing musicians themselves. Non-performing parents may be more inclined than performing parents to treat minor musical accomplishments as significant and therefore enhance their child's sense of self-esteem or 'specialness' through generous praise for such achievements. Indeed, it is arguable that the parent who is a highly skilled musician might present a role-model which the child would perceive as unattainable. In such

cases, the child may feel disempowered, or believe it is pointless to persist with learning because s/he is so unskilled in comparison with the expert parent.

Finally, it is predicted that a sibling who is already enjoying some musical success, like the musical parent, may have a potentially de-skilling effect on the child under consideration, especially where the sibling is older and has acted as an initial stimulus for music learning to take place. However, since there is some evidence that older sisters tend to have a more favourable influence on the music learning process than older brothers (cf. Cicirelli, 1976, quoted earlier), we would also predict that older sisters may be perceived more favourably than older brothers in the music learning process.

In summary, we predict that a successful music learner will:

- i) have parents who are involved in their music lessons;
- ii) have parents who have a direct involvement with their practice;
- iii) have parents whose involvement in practice will have a proportionately greater effect on the music learner's progress than involvement in lessons;
- iv) have parents who follow rather than lead their growing musicianship;
- v) have parents who do not have high levels of musical performance skill;
- vi) generally not have a sibling who is already enjoying some musical success, especially where the sibling is older, male and has acted as an initial stimulus for music learning to take place.

METHOD

To observe directly the circumstances surrounding the emergence of musical skill, tracing infants from birth through to achieving musical competence would be the ideal method of study. However, very large samples of the general population would need to be studied since only a small number of the total population actually begin learning musical instruments at all, and only a minute proportion of these learners persist to become skilled musicians. For these reasons, most of the existing research has relied retrospective interviewing methods (cf.

Manturzevska, 1986; Sloboda and Howe, 1991; and Sosniak , 1985).

The problem with such methods is the unreliability of memory over the life span. In order to increase reliability, we adopted a structured interview technique in which child and parent were interviewed independently and corroborative evidence for responses was sought. In addition, a substantial proportion of the sample had only recently started lessons, and so were very close in time to the events they were asked to recall.

Questions were asked about many aspects of the child's musical life including formal and informal practice on each instrument learned, and the child's perception of the role of music in her/his life. The sub-set of questions focused on in this paper investigated the following areas:

- i) Parental involvement in lessons at different ages;
- ii) Parent's role in the initiation of practice ;
- iii) Parental involvement in supervising the child's practice at different ages;

- iv)-v) Parents' own involvement in music;
- vi) Parents' own change in musical involvement over the music learning period of the child;
- vii) Sibling influence.

Participants.

The participants in this study were 257 young people aged between 8-18 years who had received tuition on at least one musical instrument. They were divided into five groups, selected to reflect different levels of musical competence. The groups were comparable in terms of the proportion of male and female participants, and in the kinds of main instrument played, socio-economic backgrounds, and the range of the participants' ages.

Group One, consisted of 119 young musicians who attended a selective specialist music school. Entrance to this school is decided by competitive auditions and in accordance with these audition assessments, individuals in this group were regarded as highly competent and successful musicians. *Group Two* included 30 young people who had applied for, but who had failed to gain a place at the specialist music school. Twenty three young people made up *Group Three*: These were individuals who were sufficiently serious about a musical career for their parents to have made enquiries about applying to the music school, but who did not follow up their enquires. *Group Four* comprised 27 children who had all learned musical instruments at a state school of a similar social composition to the school attended by participants in Group One. Finally, *Group Five* included 58 children who had started playing an instrument but had ceased doing so at least one year prior to the present

study. A third of the children in this group had terminated playing after receiving less than 6 months of lessons, another third had persisted playing for between 6 and 12 months, and the final third had persisted for more than 12 months.

Differences in musical competence between the subject groups were confirmed by examining achievements in Associated Board and Guildhall School of Music Grades. These are examinations that are often used as reference points for musical achievement for competition eligibility and university entrance requirements. An analysis of mean Grade level scores at age 11 revealed that the groups differed significantly (ANOVA; $F(4, 248) = 62.76, p < .0001$) with Group One having achieved the highest Grade level, Group Five the lowest, and the other groups intermediate levels (see Figure 1).

Insert Figure 1 about here

Procedure

Each child was interviewed alone by one of the authors, either face-to-face (75% of the interviewees) or by telephone (25% of the interviewees). In addition, at least one parent of each child was interviewed in a similar manner (75% by telephone, and 25% in person). Target questions were used to establish the reliability of the children's responses. From a total of 514 interviews, there was only one case where child and parent disagreed.

In order to ensure that interviewees had time to locate any documentary evidence (diaries, reports etc.) that would assist them to provide accurate answers, two advance notifications concerning the nature of the information they would be asked to supply were given. It was also made clear that if a respondent did not know or could not recall, the answer to the question she or he should say so, as is reflected by the fact that the number of respondents providing responses to the questions depicted in Tables 2 and 3 is sometimes less than the number of respondents to whom questions were posed.

The questions and response categories were derived from those used by Sloboda and Howe (1991) in coding their interview data. The number of response categories varied between 3 and 6 depending on the question and, for the purposes of analysis, these categories were treated as points on an ordinal scale. Changes in behaviour over time were recorded in three-year periods from when the child was 3 years old to when s/he was 17 - that is, 3-5 years, 6-8 years, 9-11 years, 12-14 years, and 15-17 years.

The interviewer provided all the respondents with identical concrete examples of the kinds of behaviours that the questions asked about. Here, for instance, is the wording given to both child and parent when introducing question (i) which examined parental involvement in lessons:

I would like to ask you about parental involvement in lessons. We're looking at the period from the very first music lesson until now, therefore, there may have been changes over time. So, at the first lessons:

i) did you all attend the lessons together, with parents sitting in the lesson; ii) did parents wait outside the lesson, but speak to the teacher as the lesson was over; iii) did parents provide transportation to and from the lessons, without engaging in discussion with the teacher; iv) did parents have no involvement in the lessons because, for example, the lessons happened at school? Did this involvement change over time? If so, when and how?

For questions (i) to (v), the interviewees were all given four response categories from which to choose appropriate the appropriate response (see Table 1). For Question (vi) there were three response categories which established whether parental involvement in music had (a) decreased, b) remained the same or , c) increased, since their child began learning an instrument. There were also three response categories for Question (vii) examining sibling influence on a child's musical activity. Interest could be rated as either: a) negative, b) neutral, or c) positive, and where there was a positive or negative influence, respondents were also asked to specify further, from the following list, the type of influence: 1) inspired by the sibling, 2) copying the sibling, 3) bullied by the sibling, or 4) jealous of the sibling. These questions were asked with respect to each of the child's siblings.

In all face-to-face interviews both the interviewer and interviewee worked on a chronological grid so that several pieces of information could be depicted at once, enabling specific points in the child's playing career to be related to other events (Associated Board Grades, birthdays etc.). In the telephone situations, the interviewer would read out the relevant related events. A separate grid was used for each instrument

learned. From these responses, mean levels of involvement across all instruments were computed for each age period.

The absolute number of children for whom it was possible to collect data about parental influences at young (3-5 years) and older (15-17 years) ages was often small, because many children did not begin learning instruments until the age of 6 or older, and because many of the Group Five participants had given up prior to 15 years of age.

All responses were coded at the time of interview, and interviews were tape recorded so that the reliability of the original coding given by the interviewer could be checked. Taking a sample of 10 interviewees, an inter-rater concordance of 95% was found between two independent raters in the coding given.

RESULTS

As subjects were required to indicate their responses on a continuum (as determined in the earlier studies of Sloboda and Howe, 1991), and as their responses were often averaged across a number of instruments, it was decided that, for consistency, parametric analyses would be preferred when examining all group differences.

i) Parental involvement in lessons

The initial approach to examining the data was to calculate the mean level of parental involvement in lessons over three year age periods (3-5, 6-8, 9-11, 12-14, and 15-17 years), averaged across instruments.

One-way analyses of variance revealed that in the three youngest age

bands there were significant group differences in parents' mean involvement in lessons on all instruments played: at 3-5 years $F(4,71) = 6.36, p < .001$; at 6-8 years $F(4,217) = 15.02, p < .0001$; and at 9-11 years $F(4,237) = 15.10, p < .0001$. Post-hoc Tukey tests showed that Group One was rated as having had significantly higher parental involvement than Groups Four and Five ($p < .01$). That is, between the ages of 3 and 11 years the average level of parental involvement in lessons was highest in Group One and lowest in Groups Four and Five. The mean scores obtained by Group One indicate that parents typically received regular feedback from teachers, whereas parents of Groups Four and Five at most provided transportation to the child's lessons. There were no significant group differences in parental involvement over the ages 12-14 and 15-17 years.

It might be expected that those individuals who started playing an instrument earlier would have greater parental input in lessons regardless of the group they were in, as younger children have less autonomy and are more dependant on their parents at earlier ages. For this reason, we entered the age of starting the instrument as a covariate for first and second instrument learned, and for the first and second three-year period of learning. These analyses revealed that for both the initial and subsequent three year learning periods Groups One, Two and Three experienced a greater degree of parental involvement in lessons [Initial three years: First instrument - ANCOVA, Group effect $F(4, 244) = 9.882, p < .001$; Second Instrument - ANCOVA, Group effect $F(4,218)= 6.979, p < .001$. Subsequent three years: [First instrument - ANCOVA, $F(4, 186) = 6.149, p < .001$; Second Instrument - ANCOVA; $F(4,162)= 4.716, p = .001$].

We also averaged the initial level of involvement in lessons across all instruments played, as some children played more than two instruments. The mean levels of involvement displayed by parents of children in the five groups over all instruments in the initial and subsequent 3-year periods are presented in Table 2.

[Table 2 about here]

A repeated measures analysis of variance (MANOVA) with 'time period' (initial three years and subsequent three years) as the within subjects factor, revealed that there was a significant difference between groups in the overall level of parental involvement in lessons [$F(4,277)=18.45$, $p < .001$], and that there was a significant effect of time period [$F(1,227) = 12.84$, $p < .001$]. In addition, there was also a significant interaction [$F(4, 227) = 3.52$, $p < .01$]. The cause of the interaction was primarily that while the level of parental involvement in lessons for Groups Four and Five was initially low, parents in both Groups went on in the subsequent three years to display levels of involvement in lessons that were comparable to the other more musically competent groups. The mean scores in Table 2 show that the shifts in the parental involvement in lessons by Groups Four and Five were from displaying mean scores equivalent to 'no involvement in lessons' to having mean scores which indicated that parents were 'accompanying the child to the lessons'.

For the 54 children in Group One who had received lessons for additional third and fourth time periods, a further analysis of variance

was undertaken examining differences in parental involvement across time period. There were no significant differences, indicating that Group One received consistently high levels of parental involvement in lessons across the entire learning period.

Overall, it is evident from these findings that the parents of individuals in Groups One, Two, and Three were equally involved in lessons across the first six years of study. Indeed, around 60 % of the parents in Groups One, Two and Three obtained scores of 3 or above, indicating that they received regular feedback from the music teachers or were actually present during their childrens' lessons on both first and second instruments. In the case of Group One, parents sustained this level of involvement for up to twelve years. In contrast, the parents of individuals in Groups Four and Five were the least involved in their children's lessons in the early years of playing an instrument. The majority of these parents were doing no more than providing transportation to lessons. By the fourth year of study, a substantial number of the parents in Groups Four and Five became more involved by providing transportation to lessons.

ii) Parent's role in initiating practice, and iii) Parental involvement in the child's practice

Examination of the parent's role in initiating practice (Question ii) in three year age bands from 3-6 years through to 15-17 years, averaged across all instruments, showed no significant group differences. Also, examination of parental role in initiating practice at the time of starting lessons - initial and subsequent three year periods - revealed no

significant differences between groups. The overall mean levels for the parental role in initiating practice revealed that all children required some parental assistance in order for practice to be undertaken. For example, all children had to be regularly reminded to practice.

The amount of parental involvement in practice over all three year periods of study averaged was across instruments. As with parental involvement in lessons, these data were re-analysed to examine potential group effects for the first and subsequent 3 year periods of study.

A repeated-measures analysis of variance (MANOVA) revealed no significant group differences or effect of group or time period, but showed a significant interaction of group by time period [$F(4, 227) = 3.14, p = .02$]. However, as Table 3 shows, the differences contributing to this interaction are small. All mean scores fall within a very narrow range (2.6-3.0). Parents in all groups tended to ask questions or offer advice about practice, rather than have no involvement or directly supervise the practice. In other words, parents are uniformly and moderately involved in their children's practice.

[Table 3 about here]

It was hypothesised that successful children would have parents with a high degree of involvement in both lessons and practice. To test this hypothesis, the proportion of parents in each group scoring 3 or more on both the relevant questions was calculated by examining data from the

first instrument learned in the initial and subsequent 3 year periods of learning. There were significant differences between groups for both time periods. For the initial period, around 60% of parents in Groups One and Two scored 3 or more on both items. That is, they at least received regular feedback from teachers and at least offered advice or asked to hear pieces during practice. Fifty percent of Group Three and 40% of Group Four parents scored 3 or more on both items, but only 25% of parents in Group Five who were in this category. This difference in the distribution of responses differed from that expected by chance (Chi squared = 11.36, $p < .001$). For the subsequent three year learning period, between 60 and 67% of parents in Groups One, Two, Three and Four scored at least 3 on the response coding. Only 33% of Group Five came into this category. Again, the difference in distribution of responses was significant (Chi squared = 6.76, $p < .05$).

Thus, Groups One and Two are characterised by high levels of parental involvement in both lessons and practice. Groups Three and Four show intermediate levels of involvement which increases in subsequent years, while Group Five shows consistently low levels.

iv) and v) Parental involvement in listening to, and playing, music

Although the interview included questions asking about parent's listening and playing activities with respect to both popular and classical music separately, the pattern of responses across these areas of questioning was very similar, showing no significant differences. Therefore, a composite variable with a maximum score of 22 was created for each parent by adding together the scores obtained on each of the

four questions. The mean levels of involvement for each group on this new variable are displayed in Table 4 .

[Table 4 about here]

One-way analyses of variance (ANOVA) revealed that the groups differed significantly in the degree to which both parents were involved in playing and listening to music themselves [Fathers; $F(2,239)=7.8$, $p < .0001$; Mothers; $F(4,246) = 7.10$, $p < .0001$]. Post-hoc tests revealed that : a) the fathers of the young people in Groups One and Two were more involved in music than the fathers of Groups Three and Five; and b) the mothers of individuals in Group One were more involved in listening and playing music than the mothers of the young people in any other group (Tukey test, $p < .01$).

Although the parents in Group One were most involved in music they were not, in general, performing musicians. The mean scores show that they typically do no more than listen to music at home.

vi) Parents' own change in musical involvement over the child's music learning period.

In Groups One, Two and Three between 20% and 40% of fathers reported that they had become more involved in music after their child began lessons compared with before. In contrast, only around 3% of

fathers in Groups Four and Five reported this to be the case. This group difference in the distribution of responses was significant (Chi-squared = 38.6, $p < .00001$). Similarly, around 30% of the mothers of children in Groups One, Two and Three reported an increase in their musical activities after the child started music lessons, compared with less than 5% of the mothers in Groups Four and Five. Again the groups differed significantly in the distribution of responses (Chi-squared = 37.1, $p < .00001$).

Thus, for Groups One, Two and Three the child's progress at learning an instrument appears to be associated with an increase in their parents' involvement in music, whereas there is very little change for the parents of Groups Four and Five.

Taking the results of questions v) and vi) together, it appears that the parents of Groups One and Two are slightly involved in music, but become more involved as their child's interest grows. Group Three parents are somewhat less involved in music than Group One and Two parents, but also become more involved during the child's period of learning. In Groups Four and Five the parental interest in music is minimal and there is no increase in this interest as a result of the child's involvement in music-making.

vii) Sibling influence.

Of the total of 257 children interviewed, 209 (81%) had one or more sibling, and this proportion was not significantly different for any group. Of the 209 children with siblings only 69 (27%) had two or more

siblings. To allow inclusion of all children with siblings our first analysis related to the sole or eldest sibling.

Initial examination of responses revealed that only four of the 209 subjects with siblings rated their eldest or sole sibling as having had a negative influence. One of these was a member of Group One, and the other three were in Group Two. Thus, the vast majority of individuals rated their eldest sibling as having a neutral or positive influence. However, the distribution of the reports of neutral and positive responses was different across Groups (Chi-squared = 23.22, $p < .01$). Significant positive reports of siblings occurred more in Groups One and Two (54% and 52% respectively) than in Groups Three, Four and Five, in which only 32-39% were reported as having a positive influence.

Concerning the form of influence exerted by siblings, the majority of respondents indicated that they were either inspired by the sibling musically, or had imitated the sibling. The distribution of these responses varied across groups, with a significantly greater proportion of respondents in Groups One (62%), Four (50%) and Group Five (61%) being inspired by their eldest sibling than in Groups Two and Three (35% in both), (Chi-squared = 17.48, $p < .05$). Ten respondents indicated that their siblings had bullied them in some way, but 6 of these individuals reported that this had a positive, rather than a negative, influence. All the subjects who perceived bullying as being a positive influence were in Groups One and Two.

Overall there was a tendency for the siblings of individuals in the less musically able groups (Groups Three Four and Five) to have no

influence rather than a positive one, whereas those in the more able groups were more likely to have an eldest or only sibling who had a positive influence. When examining the influence of only those siblings who played an instrument (180 in total), exactly the same pattern of responses was obtained. This result contradicts the initial hypothesis that musical siblings may have a de-skilling effect on the child.

The data were examined to ascertain whether positive or negative influences predominated when either the gender, age, or instrument played by the sibling were taken into account. However, analyses of variance reveal that there were no significant effects of any of these potentially influencing factors. Again, this result contradicts the initial prediction that older sisters may have more positive influences than older brothers.

DISCUSSION

The current findings confirm that children who successfully acquire musical skills are likely to experience high levels of parental support in music. One of the strongest positive family influences in acquiring musical skills appears to be the role of the parent in lessons, with the most successful learners having parents who typically either received regular feedback from the teacher, or were present in the lessons. Furthermore, parental involvement in lessons was maintained at a constant level across the successful child's entire learning period. These findings provide further empirical justification for the results obtained by Sosniak (1985) and Sloboda and Howe (1991, Howe and Sloboda, 1991

a & b), and illustrate that parents may involve themselves for up to 12-15 years in their child's lessons.

Examination of the child's instrumental practising showed that parental involvement also occurred, but this was not a feature exclusive to the successful music learner's family. All the children studied, that is those who successfully acquired musical skills and those who gave up music learning, received similar levels of parental input, typically in the form of requests that the child should practice, and that the practice should be heard by the parent. It appears, therefore, that practice is an activity which all parents realise requires support. This particular result suggests, contrary to our initial hypothesis, that on its own moderate degrees of parental support in practising may be insufficient to help children to develop their musical skills successfully. However, when the data were re-analysed to isolate those parents who were highly involved in both lessons and practice, Groups One and Two did show a significant advantage over the other groups. It is therefore the combination of parental involvement in lessons and practice which seems to be crucial.

Examination of the interview transcripts reveals that around 20% of the parents of Groups One and Two drew links between lessons and practice, by stating that their own presence in lessons enabled them to provide useful instructions and feedback to their children during practice sessions. Here are two examples of parents' comments about this:

A) Yes, I used to sit in the lessons so that I knew what Sally was supposed to do in her practice. It meant that I could always give her some help if she could not remember what she had to do.

B) We've got to know Emma's teachers really well, so there's no messing about: if she has not been getting something right, I hear about it and then I can ask her to work on it at home.

These quotations suggest that the information acquired by the parent from the teacher may assist the child's learning. It is also noteworthy that none of the parents of Group Five (those children who ceased learning) mentioned any influence of the teacher's instructions on their own involvement in their child's practice.

Parental involvement in musical activities also appears to have a positive effect on the music learner. It is important to emphasise, however, that most parents were found to have broad interests in music, rather than performance expertise as such. Once again, these findings confirm both Sosniak (1985) and Sloboda and Howe's (1991, Howe and Sloboda, 1991a & b) earlier finding that it is not necessary for children to have musician parents in order for them to develop as musicians themselves. However, the current study adds to the previous work by showing that the parents of the successful learner had increasing involvement in musical activities over their child's learning period. This finding appears to support our initial hypothesis that parents who follow rather than lead their own child's growing sense of musicianship may assist the learning process most.

Parental involvement in music enables us to differentiate between the groups of children studied. Group One, the most highly musically skilled group, had parents who were the most interested in music. The type of

their interest in music seems to provide an insight into why these parents were also committed supporters of their children's lessons and practice. For example, one parent commented:

I thought it was a wonderful opportunity for my daughter to start to play an instrument. I love music and admire the skills of top performers, but I never had the chance to learn myself. So, when Sophie started piano lessons, I used to sit in and try to help her. Now that she's older and lives away at school, I miss not hearing her play in the house, so I've decided to start having piano lessons.

Turning to siblings as the other family members who may have a role in a child's musical development, our results did not reflect our initial hypotheses. There were, for instance, no gender differences between siblings, nor were non-musician siblings found to be more or less influential than musician siblings. However, there was clear evidence of the significant role of the eldest sibling. The form of influences were similar (children inspired, imitated, or bullied by their sibling) across groups. Yet, these influences were perceived to have mainly positive benefits on the children in Groups One and Two, whereas in Groups Three, Four and Five the sibling role was perceived to be more often neutral. This differing influence of sibling across the Groups might be accounted for in terms of the family dynamics and how the music learner's own motivations have been developed. We know, for example, that the participants in Groups One and Two were given the most support by their parents in their musical activities. It follows that the siblings may mirror the parental pattern of support by either listening to or participating in lessons and practice of the young music learner.

Therefore, the sibling may also contribute towards providing external motivation.

For the Groups with less parental involvement, it is perhaps less likely that siblings will not be perceived to have a positive influence on the young music learner, since the overall family dynamic is not be one of high involvement and support, so far as music is concerned. Thus, even though a child in Group Five may have imitated their sibling by starting lessons, this activity would not have been followed up by high levels of parental support, and therefore, a positive influence of the sibling might not be obtained.

Taking both parent and sibling results together our evidence points to the parents as having the most critical role in motivating and supporting the child's learning. Each of our experimental groups, selected and defined on a-priori grounds as displaying widely different levels of musical achievement and motivation, show a distinctive set of family influences, with highest achievement being accompanied by the highest levels of family support and involvement. As Sosniak (1990) expresses it: the development of high level skills depend greatly on the efforts of a number of people on behalf of the accomplishment of one.

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