

Exploring children's motivation for instrumental music

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Running head: Motivation for instrumental music

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Introduction

With only a few exceptions (e.g., Eccles & Harold, 1991; McKeachie, 1983), research on children's achievement motivation has focused on academic domains (e.g., reading and math). Recently, however, attention to children's motivation in non-academic domains has been called for (Weiner, 1990). Among many non-academic domains of activity, music is particularly understudied. Unlike sports, for example, music was not listed as a keyword for this conference. Like sports, however, instrumental music may provide many children with an important, alternative avenue for personal achievement and growth. Therefore, this study is designed to lay a groundwork for further research in the area of motivation for music.

Key questions addressed in this paper include: What factors predict children's choice of music as their prime interest? What factors predict the level of children's engagement in musical activity? Specifically, I explore the social-cognitive and affective components of children's motivation for instrumental music. I also relate these motivational factors to actual behavioral outcomes, focusing on (a) the choice, (b) the level of activity, and (c) parental involvement in children's instrumental music activity. Finally, I examine whether there are any age and gender differences with respect to the behavioral outcomes of motivation for music.

To answer the above questions, I conceived of a conceptual framework for this study based on a number of social-cognitive theories of achievement motivation. First, Eccles' expectancy-value model of activity choice (Eccles et al, 1983, see also Markus & Nurius, 1986; Pintrich, Wolters, & Garcia, 1996) is used to outline the influences on children's motivation and achievement outcomes of (1) children's self-schemas (i.e., perceived competence, liking, and interest), (2) parental involvement and socialization, and (3) gender role stereotypes. The Eccles' model also stresses the role of children's affective experiences with their parents during activities (e.g., enjoyment or pressure) (Eccles, 1983; see also Csikszentmihalyi, 1975). Finally, achievement goal theories (e.g., Dweck & Leggett, 1988; Nicholls, 1990) highlight the motivational effect of an orientation to mastery goals, in contrast with the detrimental effect of an orientation to performance goals.

Methods

Participants

This study is part of an on-going longitudinal research project investigating the academic as well as non-academic experiences of 849 children initially drawn from 10 elementary schools in southeastern Michigan. The sample consists of 240 third graders,

246 fourth graders, and 363 sixth graders with about an equal representation of boys and girls.

Measures

All the variables used in this study are based on children's own self-reports. Data were collected during the fourth year of the study. There are two broad categories of variables: first, behavioral outcomes of motivation as criterion variables, and second, social-cognitive and affective components of children's motivation for instrumental music as predictor variables.

Criterion variables: Three behavioral outcomes of children's motivation were measured: (a) Choice was operationally defined as children's preferred activity choice between sports and music; (b) the Level of Activity refers to the frequency of children's practice in instrumental music; and (c) Parental Involvement refers to the frequency of parent's help or play with children's instrumental music activity. See Appendix for the actual questionnaire items and their scales.

Predictor variables: Eight predictors were drawn from previous research in achievement motivation: (1) gender, (2) age, (3) self-schemas, (4) perceived parental value, (5) perceived enjoyment, (6) perceived pressure, (7) mastery goal, and (8) performance goal. Questionnaire items for the first 4 variables were asked for all the participants, while items for the remaining 4 variables were asked for only those who chose music as a favorite activity. Most of the items used 1-7 Likert-type scales. See Appendix for a sample of the actual questionnaire items, their scales, and the reliability of the constructs.

Results

Descriptive analyses

About half of participants in this study (or 405 children) reported that they play or are learning to play at least one musical instrument. Piano was the most frequently names instrument by these children. When each child was allowed to list up to 3 selections, 141 children (or 35%) reported piano as their choice of musical instrument. Flute was the distant second choice: 61 listings (or 15%). Violin was the third in order: 39 listings (or 10%). Trumpet or cornet, electric keyboard, and clarinet were the other popular musical instruments that were reported by children.

Among these 405 children who reported their choice of musical instrument, 345 (or 85%) actually played or practiced a musical instrument at least some of the time. Of these 345 music players, 86 (or 25%) practiced once per week or less, 126 (or 37 %) a couple of times per week, and 133 (or 32%) almost everyday, and the remaining 22 (or 6%) every day. However, not all of these players chose music as their most preferred activity. Given a choice between sports and music, only one third of the actual players, or 131 children,

chose music or both music and sports as a favorite activity. Including those non-players of musical instrument who chose music as a preferred activity (e.g., singers), the total number increased to 173, which is about one fifth of the total sample.

The results of Chi-square tests revealed some age and gender differences with respect to children's interest and engagement in instrumental music (see Tables 1 through 3). First, disproportionately more girls chose music as their favorite activity than did boys. And disproportionately more sixth graders preferred music or both music and sports to sports than did third and fourth graders. Second, girls reported spending more time on practice than did boys. However, there was no significant age difference in terms of practice time. Last, with respect to parental involvement in children's instrumental music, boys were no different from girls. However, there were some age differences indicating a significant decline in parent's involvement with children's age. In summary, while parents spent about an equal amount of time in instrumental music with their sons and daughters, girls were more interested and involved in music. Regardless of gender, children were increasingly interested in music with age, but their level of musical activity did not change. Older children (i.e., sixth graders) reported less parental involvement in their musical activity than did their younger counterparts.

Relational analyses

To determine the predictors of children's motivation for instrumental music, multiple regression analyses were performed. First, Choice was regressed on the first 4 predictor variables. Then, the Level of Activity and Parental Involvement variables were regressed on all 8 predictor variables. The following patterns are clear from the regression analyses:

(a) Choice

As Figure 1 shows, the Choice of music as a prime interest was positively related to children's (1) Gender (Female), (2) Age, (3) Self-schemas, and (4) Parental Value. First, the stereotype about music as a female-type activity is supported by the data from children at this developmental level. Children's gender turns out the most powerful predictor for the choice of music ($\beta = -.27^{***}$). Second, as children moves from 3rd to 6th grade, more and more children consider music to be their favorite activity. Obviously, this developmental trend has to do with the public schools' policy on formal music programs. There appears to be a surge of interest in music sometime between the fourth and sixth grades (see Table 1). Up to about the fourth grade, children's interest is dominated by sports. However, with the start of music as a school program, the diversification of

interest seems to be triggered. Furthermore, as children grow older, they may develop new interests or “discover” talent in music.

Third, children’s self-schemas in the music domain seems the second most powerful predictor ($\beta = .23^{**}$) next to gender. It is not surprising that those who feel capable in music and value it are more likely to choose music over sports than those who feel unfit to music. Lastly, perceived parental value has a slight, but significant, influence on children’s own choice of music. Children at this age group seem to still identify with their parents’ values in music.

(b) Level of Activity

The level of instrumental music activity was measured by the frequency of practice. Of course, the frequency of practice is one of many indicators of children’s effort in music. In general, as Figure 2 shows, the level of children’s engagement in instrumental music was positively related to (1) Self-schemas, (2) Perceived Pressure, and (3) Mastery Goals, but negatively related to (4) Performance Goals.

First, positive self-schemas in music was the strongest predictor for the level of children’s engagement in instrumental music ($\beta = .28^{**}$). As was the case with Choice, children engage in musical activities more when they feel capable in music and value it. Second, perceived parental pressure seems to be associated with increased practice time. Children at this developmental level are sensitive to parents’ pressure and demands (e. g., “My mom gets upset with me when I don’t do well at playing music”). Third, an orientation to mastery goals (i.e., “I want to learn or practice new skills or musical selections”) was associated with an increase in practice on the part of children. Fourth, in contrast, an orientation to performance goals (i.e., practice “to be better at playing music than other kids”) was detrimental to the pursuit of instrumental music ($\beta = -.19^*$). A performance goal orientation may lower a child’s appetite for music. Lastly, positive affect resulting from enjoyable experiences with parent(s) in musical activities bolsters children’s motivation for instrumental music. However, this effect was not statistically significant ($\beta = .17, p=.06$).

It is important to note that there were no gender effects or age effects when others predictors were jointly taken into account. In addition, for those who indicated that they wanted to play music, gender stereotype favoring females disappeared. Among the music players, boys and girls spent about an equal amount of time in practice. Similarly, on average the amount of time for practice didn’t seem to fluctuate over the years.

(c) Parental Involvement

Parental involvement in children's instrumental music was considered as an independent behavioral outcome, rather than a predictor, of children's motivation. This consideration was made on an intuitive ground that children's activity with music would be based on (or inseparable from) their parent's decision or initiatives. In general, as Figure 2 shows, parental involvement was negatively related to (1) Age, but positively related to (2) Self-schemas, (3) Perceived Parental Value, and (4) Perceived Enjoyment.

First, as is true with other activities such as reading, parental involvement in music declined with children's age. It may be that while parental involvement is on the decline, children's autonomy is gradually on the rise. Second, parents would be inclined to get involved in children's "schematic" activity rather than in "aschematic" one. Third, children's perception of parental value in music was predictive of parental involvement. Parents who cared about music would be more involved in their children's music activity. However, it is also reasonable to believe that parents' involvement in their children's musical activity influenced children's perception of their parents' valuing of music. Lastly, parents were more likely to get themselves involved in their children's musical activity when both of them enjoyed the activity.

Discussion

There is a great deal of overlap in the predictors of choice and parental involvement. In fact, there are 3 common predictors: age, self-schemas, and perceived parental value. This overlap suggests that these common factors underlie the two apparently different behavioral outcomes. It appears that children's choice of music as a preferred activity domain is influenced by their parents. In contrast, there is little overlap in the predictors of the level of activity and parental involvement. With the exception of self-schemas, there is no overlap. This independence suggests that different factors underscore two different outcomes. It appears that the level of activity is more regulated by children themselves than is parental involvement.

It becomes clear that self-schemas plays a key role in predicting all three different behavioral outcomes. Self-schemas would provide children with a sense of control (i.e., efficacy and confidence) as well as a sense of direction (i.e., interest, importance). Consistent with previous research (Markus & Nurius, 1986; Pintrich, Wolters, & Garcia, 1996), self-schemas in the music domain also mediate the direction (i.e., choice) and effort (i.e., level of activity) toward children's achievement behavior in instrumental music. Given the cross-sectional nature of the data as well as the relational nature of the analyses, however, it is not clear whether positive self-schemas are the cause or the outcome of the increased level of engagement in instrumental music.

Why do self-schemas matter so much? In academic activities such as reading and mathematics, virtually every child is expected to do well or work hard whether or not he or she likes it. In contrast, not everyone is expected to do well in music. Music, particularly instrumental music, requires a certain amount of talent and skills on the part of players to make it interesting or bearable. If a child does not have such a talent or a desire in music, it may be difficult for him or her to persist.

Then why does perceived pressure positively predict children's engagement in instrumental music, and not negatively? One might speculate that parental pressure creates anxiety on the part of children, which, in turn, deters them from approaching the practice situation. Children's effort in instrumental music is likely to be a function of both their own decision and other's decisions (e.g., parent or music teacher). In other words, the level of engagement is not only regulated by children themselves, but also regulated by others, for example, via scheduling and monitoring by parents. Therefore, when children are not self-motivated, some external push might help them "jump-start." Gradually, then, children may incorporate this external pressure into their own self-regulation. One has to wonder about the long term outcomes, however.

We sometimes think of young musicians as competitive and oriented toward out-performing others. It is natural to assume that this orientation toward performance goals would lend to more practice. But the level of children's engagement in instrumental music as measured by the frequency of practice was negatively associated with such a performance or competition orientation. Instead children's practice time was positively associated with a desire to play musical instruments for the sake of learning new skills or musical skills (i.e., mastery goals). These findings are consistent with previous research on academic domains such as reading and math (Dweck & Leggett, 1988).

Besides mastery and performance goals, other goals were also considered at the preliminary stage of this study. Particularly, social goals or affiliation goals (e.g., "to be with my friends") was expected to play a significant role in children's motivation for instrumental music. So it would be interesting to speculate why these goals didn't predict to children's engagement in musical activity. It seems reasonable to characterize instrumental music as a rather solitary activity. It is particularly so when most of the instrumental musical activity at this age group does not involve social interaction with peers. For example, hanging out with friends is not a viable option for those who take piano lessons or practice flute at home. However, the social goal is likely to play a greater role when children are given a chance to join a band or orchestra at the upper grade levels in school.

What are the implications of the results for motivational practices in music education? Given the significant role of self-schemas, parents and teachers must be attentive to children's interest and talent in music and help them realize their potentials. When children's self-motivation is not strong enough, some external motivational structure such as parental pressure may help children to start. However, it is not certain whether this motivational strategy would have any lasting effect.

Finally, motivation for music must be understood in the context of individual's ongoing stream of behavioral choices among various activities that may serve as alternative avenues for personal achievement and growth. We should not focus too narrowly on academic motivation. For that matter, we need to draw attention to non-achievement domains (e.g., altruistic behaviors, affiliation needs) as well as to achievement domains when we attempt to understand children's development.

This study has a number of important limitations. First, due to its cross-sectional design, we can only infer developmental trends from age differences found in this study. It is also difficult to draw cause-and-effect relationships from the cross-sectional results. Second, I relied on children's self-report for both predictors and outcomes of instrumental music. Future research should use sources other than children's own self-reports to measure the behavioral outcomes of children's instrumental music activities. With the aid of longitudinal designs and more sophisticated analyses capable of untangling cause-and-effect relationship, we would be able to understand better the antecedents and consequences of children's motivation for music.

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Appendix

Variables used in the study and sample questionnaire items

Criterion variables

(a) *Choice*

- Some kids are really interested in sports and spend their time playing and practicing their sports skills. Other kids are really interested in playing musical instruments and spend their time playing and practicing music. Please check the area you are most interested in.
0= Sports, 1= Music or both music and sports

(b) *Level of Activity*

- How often do you practice?
1=never or almost never, 2= less than once per week, 3= once a week, 4= a couple of times per week, 5= almost every day, 6= every day

(c) *Parental Involvement (in Children's Instrumental Music)*

- How often does your mom or dad play musical instruments with you or help you play a musical instrument?
1=never, 2=a little, 3=sometimes, 4=often, 5=very often, 6= a lot

Predictor variables

(1) *Gender*

1= boy 2= girl

(2) *Age (Grade level)*

1= 3rd grade 2 = 4th grade 3 = 6th grade

(3) *Self-Schemas* ($\alpha = .92$, 9 items)

- How good are you at playing a musical instrument?
1=Not at all good 4=OK 7=Very good
- For me, being good at playing a musical instrument is
1=Not at all important 7=Very important
- In general, I find playing a musical instrument
1=Very boring 7=Very interesting
- How much do you like playing a musical instrument?
1=Very little 4=Some 7=A lot

(4) *Perceived Parental Value (in Instrumental Music)*

- How important is it to your parents for you to be good at playing a musical instrument?
1=Not at all important 7=Very important

(5) *Perceived Enjoyment* ($\alpha = .60$, 2 items)

- My parents and I have fun going to my concerts/recitals together.
- I enjoy practicing music with my parents.

1=almost never

4=some of the time

7=all the time

(6) *Perceived Pressure* ($\alpha = .80$, 7 items)

- My mom gets upset with me when I don't do well at playing music.
- My parents make me uptight and nervous about doing well at playing music.
- I worry about letting my parents down when I play music.
- No matter how well I do at playing music, my dad doesn't think it is good enough.
1=almost never 4=some of the time 7=all the time

(7) *Mastery Goals*

Rank order eight reasons for practicing or playing a musical instrument:

- I want to learn or practice new skills or musical selections.
1 = the least important reason 8 = the most important reason

(8) *Performance Goals*

- To be better at playing music than other kids.

Other reasons

- I feel bad about myself when I don't practice music.
- It makes my parent(s) happy.
- So other people will think I'm a good musician.
- Because my parents or teacher told me I have to.
- To be with my friends.
- To be able to perform in front of others.

Table 1. Children's Choice of Music as an Activity of Their Primary Interest: By Gender and Age

	Gender		Age		
	Girls	Boys	3rd Grade	4th Grade	6th Grade
Sports	288 (67%)	384 (93%)	197 (82%)	207 (84%)	268 (74%)
Music	136 (32%)	21 (5%)	40 (17%)	35 (14%)	82 (23%)
Both	8 (2%)	8 (2%)	2 (1%)	4 (2%)	10 (3%)
Chi-squares = 97.6 (df=2), p=.000			Chi-squares = 11.4 (df=4), p=.022		

Table 2. The Level of Children's Activity in Instrumental Music: By Gender and Age (Grade Level)

	Gender		Age		
	Girls	Boys	3rd Grade	4th Grade	6th Grade
Never or almost never	20 (8%)	38 (23%)	15 (15%)	10 (12%)	33 (15%)
Less than once per week	35 (14%)	11 (7%)	13 (13%)	15 (17%)	18 (8%)
Once a week	25 (10%)	17 (10%)	12 (12%)	9 (10%)	21 (10%)
A couple of times a week	77 (32%)	50 (30%)	27 (27%)	19 (22%)	81 (37%)
Almost every day	73 (30%)	40 (24%)	30 (29%)	26 (30%)	57 (26%)
Every day	13 (5%)	9 (6%)	5 (5%)	8 (9%)	9 (4%)
Chi-squares = 21.6 (df=5), p=.001			Chi-squares = 14.7 (df=10), p=.142		

Table 3. Parental Involvement in Children's Instrumental Music: By Gender and Age (Grade Level)

	Gender		Age		
	Girls	Boys	3rd Grade	4th Grade	6th Grade
Never	245 (58%)	267 (66%)	139 (61%)	141 (58%)	232 (65%)
A little	75 (18%)	54 (13%)	28 (12%)	44 (18%)	57 (16%)
Sometimes	42 (10%)	27 (7%)	14 (6%)	25 (10%)	30 (8%)
Often	28 (7%)	22 (6%)	21 (9%)	10 (4%)	19 (5%)
Very often	9 (2%)	11 (3%)	9 (4%)	7 (3%)	4 (1%)
A lot	27 (6%)	22 (6%)	18 (8%)	16 (7%)	15 (4%)
Chi-squares = 8.42 (df=5), p=.134			Chi-squares = 20.2 (df=10), p=.028		

Figure 1: Prediction of (a) Children's Choice of Music as Primary Interest

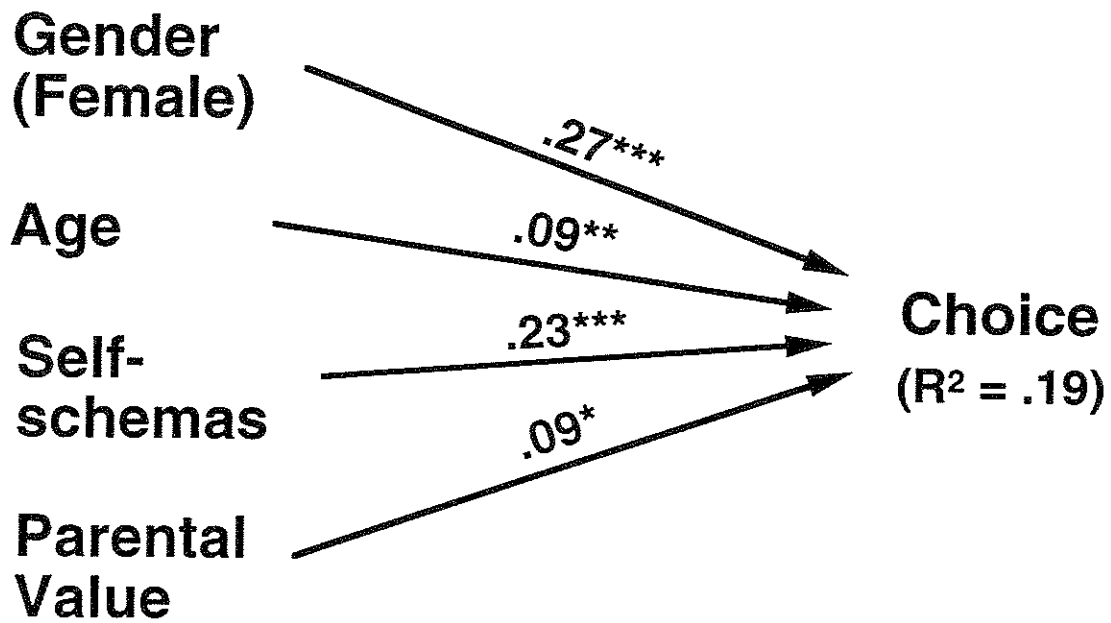


Figure 2: Prediction of (b) the Level of Children's Activity in Instrumental Music and (c) Parental Involvement

