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Tracing Talent Development Across Time:
An Exploration of Adolescents' Commitment
to Athletics and the Arts

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Abstract

Why does involvement in extracurricular activities decrease in adolescence? In this study, 41 semi-structured interviews were conducted with talented adolescents and their families to examine developmental changes and attitudes about involvement in athletics and the arts. Eccles' (1983) expectancy-value model is used to explore changes in levels of commitment. We found that the adolescents could be divided into four groups based on their future plans to persist in their talent domain. Adolescents in these groups did not differ in their expectancies for success in the talent domain, but did differ in the value they attached to the activity and their perception of costs and benefits associated with continued participation. Differing motivations and developmental influences on the four groups are discussed, and recommendations are made for greater opportunities and support for extracurricular activities in high school.
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There is a tendency to focus on adolescence as a period of risk and negative outcomes. However, it is equally important to examine adolescents' involvement in positive, productive activities to gain a broader perspective on adolescents' lives and how they choose to spend their time and energy. Moreover, examining teens who are highly involved in constructive, organized activities may help us learn more about the ingredients of successful adolescent development (Carnegie Council, 1992; Eccles, Blumenfeld, Harold, & Wigfield, 1990). There has been relatively little research on adolescents' involvement in non-academic domains, such as extracurricular activities. Therefore, in this study we explore involvement in activities such as sports, music, and drama to provide a more complete picture of the social contexts of adolescence rather than focusing on academics or problem behaviors alone.

Many adolescents invest considerable time and energy in non-academic activities. Some researchers have expressed concern that participation in these activities takes away from time that could be spent on schoolwork (Coleman, 1961; Steinberg, 1996). However, most research shows that there are positive benefits to participation, such as higher grades, more self-esteem, higher educational aspirations, and lower rates of delinquency (Eccles & Barber, 1995; Holland & Andre, 1987; Otto & Alwin, 1977). In addition, participation in extracurricular activities can foster positive social relationships with peers and significant adults and help to integrate students into the school community (Eccles & Barber, 1995; Larson, 1994; Ryan et al, 1997).

However, despite these benefits, participation in organized activities declines during adolescence (Eccles, Blumenfeld, Wigfield & Harold, 1990; Hustman, 1992). Why do many adolescents decrease their level of effort or commitment, or quit altogether (Eccles, 1983; Eccles & Alfeld-Liro, in press)? Considering the large number of adolescents who show high potential for success in athletics and the arts, it is surprising that we do not see
more of them pursuing their talents into adulthood. This may be partly because of the limited opportunity structure for adult careers in these domains, but that cannot account for all the talented young people who give up on honing their talent. Thus, it is particularly important to understand what motivational and social factors influence the trend towards declining commitment among talented adolescents (Eccles & Alfeld-Liro, in press).

As with other learning and improvement, continuing to cultivate talent in adolescence requires an increase in effort and commitment. However, there are competing issues during this developmental stage that influence decisions about the level of commitment to one’s talent domain. Adolescence is the time when the peer group becomes increasingly important, when individuals begin to assert their autonomy from their parents and make their own decisions about how to invest their time, and when social comparison becomes more salient (Feldman & Elliott, 1990). Additionally, the process of identity development spurs questions about what is important to the self and where to invest one’s time now and in future educational and occupational pursuits.

In addition, the structure of the activity plays a role in influencing an adolescent’s decisions about commitment to a talent domain (Iso-Ahola & Mannell, 1985). In making a decision, an individual needs to evaluate how his or her capabilities and interests match the opportunities and challenges of the activity (Eccles, 1983). According to Horowitz & O’Brien (1986), one of the critical directions for research on talented youth is to explore the characteristics of environments that nurture development of their talents. For instance, the availability of resources, quality of instruction, amount of information and guidance, level of competition and challenge, and support from significant others can either support or hinder continued involvement.

Csikszentmihalyi and his colleagues (1993) conducted one of the few studies that explored talent development over the high school years. They selected a group of high school students who had been nominated by their teachers as having exceptional promise in art, athletics, mathematics, music or science and followed them from the first to last years
of high school. Compared to a sample of non-talented teenagers, these talented adolescents reported undivided interest or "flow" while engaged in their activity, had an openness to experience and a need to find new challenges, and had learned to focus their attention and concentration in their talent activity. Moreover, they found that family and teachers could foster talent development by providing support and challenge and by modeling enjoyment of the activity (Csikszentmihalyi, Rathunde, & Whalen, 1993).

Other research on talent development has focused on retrospective accounts of exceptionally talented individuals (e.g. Bloom, 1985; Scanlan, Stein, & Ravizza, 1989). In his study of Olympic swimmers, concert pianists, and world famous artists, Bloom (1985) found that the role of motivation, commitment, and significant others changed over the course of the individual's involvement in his or her talent domain. In the early years, individuals learned the basic skills in the field and were motivated primarily by enjoyment and approval from their parents and teachers. During the middle years, the emphasis was on precision and accuracy, and individuals were expected to put practice of their talent above other activities. Finally, the emphasis in the later years was on perfecting the talent to the highest level and the development of a personal style. Support and encouragement from families and teachers, access to special teachers and experiences, and appropriate motivational encouragement were critical at each of these stages of talent development.

While this research on exceptionally talented individuals can provide insight into the environmental conditions that are necessary to produce exceptional achievement or skill, few individuals ever reach the level of eminence exhibited by participants in these retrospective studies. However, many adolescents still invest considerable time and energy into non-academic domains. Therefore, it is important to study the factors that support continued participation and achievement across domains for this larger group of talented but non-elite adolescents.

In addition to not being widely generalizable, much of the research on extracurricular participation lacks a conceptual framework and is rife with methodological problems
including self-selection issues, absence of longitudinal designs, and measures that do not account for differences in type and level of participation (Holland & Andre, 1987). Therefore, it is not surprising that there is some controversy about the influence of participation in extracurricular activities on adolescent development. Researchers have tended to simply compare participants' and nonparticipants' scores on outcome measures rather than examining specifically how and why extracurricular participation influences development. Finally, most of the studies have been confined to sports activities with only limited information on adolescents' participation in the arts.

In sum, research is needed that examines the process, and not simply the outcome, of the influence of participation in a wide variety of non-academic domains on adolescent development. Furthermore, more generalizable research on talented adolescents' involvement and in extracurricular activities and potential differences in experience by domain would be beneficial to researchers and educators who are interested in creating environments that nurture talent development. Finally, there is a need for research on talented adolescents that contributes a developmental perspective and considers the socialization and motivational factors that nurture and maintain talent (Horowitz & O'Brien, 1986).

In this interview study, we address the limitations outlined above. We examine how talent development unfolds from childhood through adolescence in order to better understand why some teenagers continue to cultivate their talent and others do not. Our study contributes to the literature (1) by interviewing a sample of adolescents in athletics and the arts who are not necessarily at the elite level, although some of them would be considered extremely talented; (2) by examining changes in levels of involvement over time, paying special attention to motivational issues; and (3) by focusing on decisions about commitment to talent across a variety of domains in the context of everyday pressures of life.
Theoretical model

We use Eccles’ (1983) expectancy value model of achievement-related choices to analyze interview data on how talented adolescents make decisions about their commitment to a talent domain (see Figure 1). According to this model, societal, educational, and family environments influence an individual's experiences with and attitudes toward achievement. These in turn determine the individual’s expectations for success and values for certain activities. Expectations for success depend on the confidence the individual has in his or her abilities and on the individual's estimations of the difficulty of the activity. The value of a particular activity is influenced by several factors including: whether the individual likes the activity (intrinsic value), perceives it as important (attainment value), perceives it as useful (utility value), and perceives few psychological and financial costs. Expectations for success and task value then affect choice about future achievement-related endeavors.

This theoretical model predicts that individuals will choose to invest effort in activities in which they expect to succeed and for which they have a high task value. Eccles and her colleagues have found ample empirical support for this model, such as using it to predict course enrollment decisions, career choice, and activity choice (e.g. Alfeld-Liro & Eccles, 1997; Eccles & Harold, 1992; Eccles, Barber, Updegraff, & O'Brien, 1995). However, this is the first time the model has been applied to a sample of talented adolescents using interview data.

Method

Participants

This study is part of a larger, longitudinal project (Childhood and Beyond Project) about activity choice in childhood and adolescence conducted by Jacquelynne Eccles and her colleagues at the University of Michigan. Participants in this smaller study were 41 talented adolescents (15 males, 26 females) in grades 9, 10, and 12, and their parents. The
adolescents were all European-American and came from a lower to upper middle-class socioeconomic backgrounds in Southeastern Michigan.

A number of indicators were used to identify talented adolescents from the larger longitudinal study of 873 students. First, we used survey data collected in 1989 and 1990 to create separate composite measures of perceived ability, value, and time involvement in a non-academic domain reported by adolescents, their parents, and their teachers. These three composites were then used to identify adolescents who were perceived (by themselves and by others) as being particularly competent (7 on a 7-point scale) in at least one non-academic domain, valuing engagement in that domain very highly (7 on a 7-point scale), and who spent considerable time (by self- or parental report) involved in that activity (more than 5 hours per week in music or more than 7 hours per week in sports). Next, to identify the most talented and involved adolescents from this first pool, we used both telephone interviews with parents and survey data collected in 1994-1995 to identify those students who continued to be perceived as especially talented and who had maintained involvement in the activity. Additionally, we identified students who met our definition for talent but who had recently quit participating in that activity in order to obtain information on their decision to leave their talent domain.

All participating adolescents were talented in at least one non-academic domain such as sports, instrumental music, singing, drama, dance, and art. In this sample, 25 adolescents were involved in a single domain and 16 pursued more than one talent domain (e.g., choir and softball). There were 26 adolescents who pursued sports (football, soccer, baseball, softball, basketball, swimming, and gymnastics); 12 were talented in instrumental music (e.g., piano, violin, guitar, trumpet); 9 adolescents sang in a choir; 6 were involved in dance; 5 adolescents were in drama; and 2 adolescents were in art.

Procedure

The interviews were conducted in the fall of 1995 and the spring of 1996 by five female researchers. Each interviewer attended two training sessions given by experienced
researchers in interviewing methods. These training sessions covered such topics as establishing rapport, effective communication techniques, specific strategies for eliciting responses, and ethical issues. In addition, each interviewer piloted the protocol with an adolescent and parent to determine whether the order of the interview, comprehension of questions, and probes were effective in eliciting the quality and depth of responses we were seeking. Modifications were made to the final protocol based on these pilot interviews.

Each adolescent's family was initially contacted by phone and informed of the purposes of the study. The parent was told that their adolescent had been identified from his or her previously completed surveys as being one of the most highly involved in their talent domain. The parent was asked whether both they and their child would agree to be interviewed about the adolescent's involvement in the talent domain and its effect on the family. Parents were told that each interview would last approximately one hour and that both they and their adolescent would be paid for their time.\(^1\)

Out of 65 participants who met the criteria to be included in the study, 50 agreed to participate; nine refused, usually because they were so busy with activities they could not find the time; and six were not contacted because they had moved out of the geographic region. With eight of the 50 families who agreed to participate, we were not able to find a mutually agreeable time for the interview within our research time frame. Thus, our final sample was 41 families.

One parent (typically the mother)\(^2\) and the adolescent were interviewed individually during the Fall and Winter of 1995/1996. Before beginning the interview, each participant read and signed a consent form about the general procedure, confidentiality, and voluntary nature of participation. Participants were also given the opportunity to ask questions about the study and the interview process. Each interview was audiotaped and lasted approximately one hour.
Interview Protocol

Semi-structured, in-depth interviews were used to prompt discussion about each adolescent’s involvement in their talent domain from childhood to adolescence and about influences of the adolescent’s involvement on the family, and vice versa, over time. The interviewers followed a protocol of questions but let the participants answer the questions in an open-ended manner. Clarification probes ("What do you mean by...?") and elaboration probes ("Can you give me an example of...?") were used throughout the interview to elicit more information and increase the richness of responses. The interviewers proceeded through the protocol sequentially; when the adolescent or parent touched on an issue to be asked later in the interview, the interviewer allowed them to finish but then guided the discussion back to the current topic and revisited the issue again later in the interview.

The interviews for the adolescents and their parents were comparable, with the exception of asking the adolescents more detailed questions about their feelings about their involvement in their talent activity. The initial portion of the interview focused on general questions about adolescence. Once a comfortable rapport was established, the interviewer proceeded to more focused questions about involvement in the talent domain. The questions were organized around the following areas: (a) general changes regarding the adolescent over the last three to four years, (b) the adolescent’s general hopes and plans for the future, (c) family relationships, (d) the adolescent’s history of involvement and accomplishment in the talent domain (e) hopes and concerns about talent domain, (f) the impact of the talent domain on other aspects of life, such as school, peers, and the family, (g) the role of significant others such as family members, coaches or teachers, and peers on their involvement in the talent domain, and; (h) hopes and plans for talent involvement in the future. If the adolescent was involved in multiple activities, the same set of questions was asked about each activity separately.
Data Analysis

We conducted data analysis in several phases. The research team met weekly or bi-weekly to discuss emerging themes and reach consensus before the next phase of analysis. First, each interviewer listened to the audio-tapes of the interviews she had conducted and wrote a structured summary of the main issues for each adolescent. Next, a list of codes was developed by the research team from the common themes that emerged in the interviews and in the literature on talent development. These codes included issues such as: talent history, changes in involvement over time, evaluations of competence, types of motivation, expectations for success, cost and benefits of involvement, the role of parents and teachers or coaches, peer relationships, and plans for future involvement.

Each interview was then transcribed and coded by four of the interviewers and an additional team member\(^3\) using HyperResearch (Hesse-Biber, Kinder, Dupis, Dupis, & Tornabene, 1994)--computer software for coding qualitative data--around the previously generated codes. Each transcript was coded in rotating teams of two so that discussions could take place immediately about which code to use and why. When a disagreement arose, the entire team met to discuss the meaning of the theme and to reach consensus on which code to use. We did not use blind coders because they may not have been as sensitive or as aware of the issues that arise with talented adolescents as was the research team.

In the final phase of analysis, we examined printed reports of codes from HyperResearch, looking for commonalities and differences among the adolescents. The team then met and exchanged ideas about emerging themes. We developed an outline and worked iteratively between the outline and the printed reports to construct interpretations of the issues and reach consensus on the final presentation of results. We imposed post-hoc structure on the data by 1) deciding to focus on commitment, a theme which we had not anticipated would be so critical but one that seemed to be primary and to link with other
themes that were reflected in the talent literature, and 2) using Eccles' (1983) expectancy-value model to frame the findings.

Results

The interviews afforded us insight into talented adolescents' motivation and commitment across time from childhood through adolescence. In order to compare the experiences and attitudes of adolescents who have different levels of commitment, we found it useful to categorize participants based on their plans to continue involvement in the future. In our sample, a small group (n=9) of participants expected to pursue their talent as a career ("career" group). Another small group (n=9) of adolescents planned to continue their talent through college ("college" group). A larger group of participants (n=14) planned to continue their talent in the future but only as a hobby ("hobby" group). Finally, the largest group (n=16) included those who had already quit or expected they would leave their talent domain before the end of high school ("quit" group). The reasons for the participants' classification in each of these groups is given in Appendix A. We used these groups later in the analysis for comparison purposes, and our summary table of participants and their motivation (see Appendix B) is organized around these categories.

The results are organized as follows: we begin with an overview, and then we discuss the two major psychological components of Eccles' model: expectations for success and value. We examine the relationship of these components and how they relate to future plans for participation, with differences in expectations and values by group (career, college, hobby, and quit) discussed when relevant. In the final section, we focus on perceived costs because this construct was especially important in differentiating between adolescents in the four groups.

Overview

In general, we found that early to mid-adolescence (at about entry to high school) was a critical turning point in talent involvement. Prior to entering high school, most
participants had focused on the intrinsic enjoyment they experienced in their talent area; issues of competition, social comparison, or challenge were rarely mentioned. However, beginning roughly in high school, the participants reported focusing more on the competitive aspects of their talent domain, and on how their competence compared to that of their peers. Additionally, they reported beginning to think about the congruence of the values and requirements of their talent domain with their own identity. Sometimes, the adolescents' values and personal goals conflicted with what would be expected of them if they continued their high levels of involvement. Perhaps because they were at a critical period of identity formation, all of the adolescents found themselves having to make a decision about the role of their talent in their future education and occupational pursuits.

We found that there were many sources for participants' motivation to continue participating in their activity (see Appendix B for participants' motivation from childhood through adolescence and Appendix C for a description of the motivation codes). Moreover, the types of motivation reported changed and became more complex as the individuals got older. In childhood, many of the participants seemed to be motivated most by enjoyment and or social contact. However, as they got older, they became motivated by other factors as well, so that by the time we interviewed them in adolescence, many participants had complex motivational profiles. Throughout the paper, we discuss how the four groups compare on their motivation.

The main theme that emerged from the interviews was that adolescents needed to make a decision about whether or not to continue pursuing involvement in the talent domain they had started as children and, if they were going to continue, at what level of involvement. Many of the participants were involved in multiple activities. Staying competitive in each of them required increased time and investment, and the adolescents had to decide on which activity to focus their energy and whether they were willing to put in the effort necessary to compete at higher levels. The following quote from a twelfth grade male in sports illustrates this need to make a decision:
As you get older, you know, the people who stick with it and will always be good separate from the people that are kind of fading away. And if you want to stick with it and be good, you've got to stick with it. And I'm sure if you're talented, you could just not practice at all and still go out there and do your thing. But that never was the case for me. That's why I had to quit all those sports and decide what sports I wanted to seriously play.

*How did you make that decision?*

Basically [basketball's] the best one. That's the one I was best at, and it's the one I liked to play the most. And that's the one I thought I had the brightest future in. (twelfth grade male in sports)

We found the expectancy-value model to be useful in examining this decision process. The level of success the adolescent expected to achieve and the value placed on success in the particular talent domain were critical to their decisions about continued involvement. While we chose adolescents who had high expectations and values in elementary school, we still found variations between them on these constructs during high school.

**Expectations.** We found that adolescents' expectations for success related to their competence, self-concept, perceptions of difficulty of achieving success in their domain, and the opportunities afforded in the domain. We did not find major differences in expectations across the four groups, so we will not distinguish between groups in this section. The one possible exception was the "quit" group who often felt that they would need to put in more effort than they wanted to in order to continue to be good.

Adolescents assessed their competence using social comparisons with peers and sometimes with older role models. The following quote shows this comparison:

*He looked to one student in particular...that was always just one step above him, and he was always trying to attain, you know, compare himself to that boy. From the day he started, from the first recital he heard this other boy play, he's always been real interested in what that boy was doing. (mother of tenth grade male in piano)*

The adolescents who planned to continue their talent as a career tended to compare their own competence with individuals at a higher level. Such comparisons provided individuals with sufficient challenge to continue to reach higher goals. Adolescents also evaluated their competence based on whether they got accepted into a special team or class, won a special award, or received recognition from peers, teachers, or parents.
Adolescents assessed competence in different ways depending on their talent domain. In athletics, objective criteria such as times and scores could be used to compare performances. However, since there are fewer standard methods of comparison in the arts, the adolescents in music and drama felt that assessments of competence were often subjective. This quote by a twelfth grade male in music and swimming illustrates the point:

I have the lowest (voice) in the choir, but what does that mean in the real, vast world? I really do not know. It's not, like, singing is not at all like swimming, where like you have a time. Like, you have to make a cut... Like, if I was going to try and swim for X University. They'd look at my times. More or less. They also look at your potential. But like a lot of it, they look at your times. When I went to audition [for singing], I mean, it's like they like you or not. It's not like black or white. It's not like there is a time involved. (twelfth grade male in music and swimming)

Because it was difficult to compare performances in the arts domains, adolescents felt that decisions about parts or solos were sometimes based more on popularity or whether the teacher liked you than on competence.

It is politics basically in my symphony. If your mom works on the board then it helps you getting up the ladder. (twelfth grade female in instrumental music)

Adolescents' expectations for success were also influenced by their perception of the opportunities afforded by both the school and community. Interestingly, many participants often did not perceive the classes and teams at their high school as conducive to developing talent. Rather, these teams and classes were seen as being more fun and less challenging than community-organized or private teams and classes.

That orchestra... stinks. I dropped it for this year. I was first chair when I got back to school. I kind of just sat myself there. But I was the best one, I swear, in the city. Because the kids just don't care anymore. They do it because they think it's going to be an easy grade and they don't really care. They don't practice. They don't know anything. (twelfth grade female violinist)

I never looked forward to relays [on school team]. I mean, never... I was always the fastest one on the relay... and everybody else is, like, holding me down. I mean, maybe I could have won all by myself, but with everybody else, you know. (twelfth grade male in swimming)

Many adolescents strategically sought out non-school opportunities to enhance their skills and provide them with challenge they felt was absent from their school teams and classes.
The high school gymnastics doesn't teach her the quality of tricks that she needs to compete, so she goes to the club to get that, and she goes to the high school to get fun...The kids are all having a good time. Club gymnastics is more pressure that you perform and do well. (mother of tenth grade female in gymnastics)

I don't really like orchestras as much as private lessons....You get less personal attention. In [school] orchestra you have to play at the level that the whole entire class can play at. It's usually lower than you'd like to play. I was in [another] orchestra on Saturday. So I was in private lessons and two orchestras at the same time. And they played really hard music then and I really liked it. (tenth grade female in violin)

Hence, the level of perceived challenge and opportunity played a large role in adolescents' decisions about whether and how much they would continue to invest.

Regardless of their talent domain, many of the participants discussed how finding the right amount of challenge was important to their continued involvement. If there was too little challenge and therefore a high probability of success, they invested less effort. A mother of a twelfth grade male who quit swimming said:

Well, the competitive side sort of started to die a little bit in high school, because well, the team at his high school had one or two boys who were really good swimmers. And the rest who were not. And so there wasn't a real team push, the team wasn't going to win the league, you know. So he just thought of it as an individual thing. And he was top dog, and I think he got bored, which is silly in a way to say that, but it came easy for him and nobody pushed, except he had to push himself. He had to push himself against the clock... For swimming, he's done it all, been there, done it, won it. He really has." (mother of twelfth grade male in swimming)

Other adolescents perceived the challenge to be too great, and they felt that their level of competence was inadequate to continue competing. Often, this was the impetus for decreasing effort and involvement.

And then it just got to the point where I wasn't producing the same as when I was younger. I just kind of hit my peak when I was about ten or twelve. And it just got to the point where I didn't want to work as hard as you need to be good. (tenth grade female in swimming)

Hence, a match between sufficient opportunities to demonstrate competence in the domain and their own skill, or perceptions of their skill, was critical for continued involvement.

This pattern appears to parallel Csikszentmihalyi's "flow" construct, where motivation is maximized when an individual perceives that the activity affords high challenge and that his
or her level of skill is adequate to take on the challenge (Csikszentmihalyi & Rathunde, 1993).

Finally, for many of the adolescents, the realization that they were good at their activity motivated them to keep investing effort and added to their enjoyment of the activity.

What do you like about it and why is it fun?
I think you know, because like I have a skill for it...You know, it is something that I go out there and I enjoy doing. You know, because I am good at it. I think if I weren't as good I probably would not have stuck with it so long. You know, I probably would have dropped it, you know, last year or a couple of years ago. (ninth grade male in sports)

There have been times I've said I'm quitting after this year, because it would get more frustrating. But the more advanced I get the more fun I have. (tenth grade male in music)

And interestingly, for some adolescents, realizing that they were good at something gave them a sense of identity or belonging. Some of these individuals had not been successful in either academic or social domains. For these adolescents it was extremely important to find a domain in which they achieved some success and received recognition for their efforts.

I think it came at a time in his life when he was looking for something and [his chorus director] was a real positive influence and really got him focused on something... Pete⁶ has not been a very good student, and she gave him some real positive things in his life when there weren't a lot of positive things." (mother of ninth grade male in choir)

I loved it so much, and I think at that point it was just an escape for my life because my life is difficult, just the teasing I got, and I wasn't secure with myself. And being someone else was very wonderful and just the fact that I could do it well. So at that point I couldn't play sports, and I wasn't good at math and all that stuff. And I found something that I was really good at that I could do. (twelfth grade female in drama)

In sum, expectations for success were influenced by adolescents' perceptions of their competence, the perceived difficulty of achieving success in the domain, and the opportunities for enjoyment and challenge afforded in school and in the community.

Values. The important components of value in Eccles' model are intrinsic enjoyment, utility value, attainment value, and perceived costs of involvement (Eccles, 1983). We found that the adolescents in our sample weighed all of these components in
their decisions about the level at which they would continue their involvement. Although the "career" and "college" groups had similar high expectations for success, they were mainly differentiated by the value they placed in continuing their talent activity in the future. Both groups perceived the chances for entrance into professional adult occupations in their talent domain to be slim. For example:

*Why is [baseball] your big dream?*  
You know, to play in the pros would be, like, beyond belief. It's just one of those things, you know, just like everyone dreams about, you know, happens in like 1 of 500,000 or something like that. (ninth grade male in baseball, also involved in music).

However, adolescents in the "career" group still maintained their goal. Although they were realistic about their chances, they were still committed to and enjoyed the challenge of trying for their dream. The main reason for the "career" group's high commitment seemed to be that their personal and professional identity were congruent. That is, achievement in the domain was important to the individual's identity, as well as short and long range plans. This corresponds to the attainment value construct of the Eccles model.

At this point I'm starting to think about what I actually do want to do. Not just, 'What if this happened?' You know... 'What if I don't make it? What if I end up being off-off-off-off Broadway?  
*What would you do then?*  
I'd probably waitess on the side. I would still do it. I mean, at least you're getting paid a little bit...And I've learned to accept the fact that I know how to support myself. Because I am normally broke. I know how to get through a week with only two dollars when I still have to pay for gas and things. (twelfth grade female in drama)

Hence, the adolescents' own values and goals did not conflict with the realities of future pursuit of their talent, but rather their values and goals complemented each other. In some cases, their identities seemed to be so intertwined with the talent domain that they got emotional satisfaction from it and wanted to do the activity all of the time.

I get satisfaction out of playing, even if I'm not playing well.. I love to play. When I want to be alone I play my violin. When I'm feeling depressed I play my violin. And even when I'm feeling really happy I'll play my violin and be happier. (twelfth grade female in music)
This group ("career") seemed to be driven primarily by their high ability, opportunities for mastery, and intrinsic enjoyment. To a lesser extent they were also motivated by the recognition and social contact and support they received (see Appendix B).

In contrast to the "career" group, the adolescents who planned to continue their talent only through college but not as a profession ("college" group) tended to be more practical. Several in the "college" group believed that their talent could be their ticket to a scholarship but had no concrete plans to continue after college. These adolescents saw some utility value in their talent but realized that their life goals were not going to be fulfilled by continuing their talent as a career. Their goals and identity were not as wrapped up in the talent as were those of the "career" group. Instead, they valued financial and occupational stability and were cautious about taking a risk. The following quotes show this ambivalence:

So I'm looking forward to seeing what the [music school] is like. But I'm not at all certain that I'm gonna finish four years of it, but I'm definitely planning on getting a regular, you know, like academic major, I guess I'd say like, something you can make money with. (twelfth grade male in choir)

A couple of my friends are trying to be actors and singers. I have always seen that as being too risky. I don't want to have to wait tables and just wait for my phone call, or waiting for a job... I want to have a job where I know I'll be secure... I could strike it rich and have a show on Broadway or be in a movie or something. That would be great. But I don't think I can take that risk. I can't handle it, and you know, I am afraid that I would be stuck, not necessarily forever, but I would be stuck with the people who don't make it. (twelfth grade male in drama)

This group seemed to be most motivated by enjoyment and social contact and support, and to a lesser extent by ability and mastery.

The "hobby" group was similar to the "career" group in many ways. In fact, these two groups were more alike than any of the other groups, even though they differed greatly in terms of anticipated persistence. They had very similar motivational profiles in terms of ability, enjoyment, mastery, and recognition. Furthermore, neither the "hobby" nor "career" group were motivated by a feeling of obligation, while some adolescents in the other two groups felt obligated to continue. In addition, those in the "hobby" group were
just as good at their activities, just as highly involved, and enjoyed them just as much as the "career" group. The difference between them was mainly in the degree of their focus.

Adolescents who planned to continue the activity just as a hobby did not see their talent as central to their lives, although they were eager to continue their involvement in the future. Hence, adolescents in the "hobby" group had lower attainment value for continuing to achieve in their talent domain than those individuals who wanted to continue their participation as a career. An extremely talented tenth grade male who plays nine instruments and has his own band said about music:

I think I've taken it more as a hobby. I have fun doing it, and I just enjoy playing it. And I have to play all the time. I don't take it seriously, and it's fun for me. (tenth grade male in instrumental music)

In contrast to the "career" group, those in the "hobby" group were not willing to put in the time and effort they perceived to be necessary to forge a career in the domain. Although they continued their involvement because they enjoyed it so much, they often experienced conflicts in their schedules over where to invest their time. Interestingly, many of the participants in the "hobby" group, as well as those who decided to cease involvement altogether ("quit" group), were involved in multiple domains and did not want to have to sacrifice these other activities.

For the "quit" group, not only did they experience schedule conflicts, but the values espoused in the domain were often not congruent with their personal values. These adolescents therefore had negative attainment value for achievement in their domain and perceived high costs to their continued participation. As they began to figure out who they were and where they wanted to invest their energy, many realized that their identities were incongruent with their talent domain. One ninth grade male decided to quit playing basketball, his primary passion, because of his religious beliefs:

It pretty much happened when I was baptized in my church. You know, it's not a rule that you don't become involved in sports and stuff...It's just something that I think a lot of people have thought it's not as good for them spiritually as they thought. It doesn't help them progress and stuff, and I, when I first started I knew it was a rule, but I knew it was kind of expected of me, so I didn't...Well, I just know I'm a very competitive person, and I
think when I was playing, it was too much for my own good. I mean, you see it in the pros a lot, you know, fights will break out because people’s competitive spirits are so high. ...I enjoy the competition, I enjoy being caught up in the competition. But it wasn’t always the best for me, because there were times that it made me do things I regretted later. (ninth grade male who quit basketball)

Another example of this incongruence between the values in the domain and personal values was evident in discussions of the differences between individual and team sports. Often adolescents made a choice about what they would participate in based on these beliefs.

I think that soccer’s a lot more exciting, it has a lot more variety. Just it’s a lot more fun.

*Why is it more fun?*
Um, just because it’s a team sport, and swimming is an individual sport. You swim for your times. And it’s a team sport, but you don’t really concentrate on your team. You don’t think of it that way. You think of it for yourself. And soccer, when you’re playing, you think of the whole team. You’re not thinking of what I can do to be better, you’re thinking of what can I do to make the team better. (tenth grade female in swimming, quit soccer)

The adolescents in the "quit" group seemed to be most motivated by enjoyment, mastery and wanting to beat others. None of them perceived their activity to be useful for the future. They were motivated less by social contact and support than were the other groups and more by a feeling of obligation to continue. It is noteworthy that when this group reached adolescence and gained more autonomy, they realized that they no longer needed to continue participating out of obligation. The following quote by a ninth grade female who quit ballet illustrates this feeling of obligation:

I really liked it up until I was maybe nine or ten. And then it just started to get tedious. It was like, 'Well, time to go to ballet, let's go.' I didn't really like it anymore and my mom was like 'Well, if you quit you aren't going to be doing anything....' She didn't really push, she just stressed it, and the main reason I just stayed with it is because I was afraid she would be like angry with me. And finally I think I quit when I was thirteen. I just, could not take it anymore. I was, like 'Mom, I hate it.' (ninth grade female who quit ballet)

**Costs and Benefits**

One component of value in Eccles' model is the perceived cost of participating in the activity. Since adolescents have limited time and energy, they have to weigh the costs
and benefits of involvement while making choices about their commitment to the talent domain. The decision to invest the time necessary to foster talent is made in the context of a broad array of options available to the adolescent; time spent in the talent area means time that can not be spent on other activities.

The adolescents in our study reported many benefits to involvement including: receiving recognition, experiencing positive social contact and support, establishing an identity, increasing confidence, learning values such as responsibility, organization, and hard work, and providing an outlet for emotions. This quote from an adolescent involved in multiple activities illustrates the variety of benefits that can be gained from participation.

What kinds of things have you learned through your involvement in this that has affected other areas of your life?
Adolescent: I think I have learned a lot of discipline from football... I have never been shy, but I have learned just to become more comfortable speaking with people, I think, through drama. I met a lot of people I probably wouldn't have met any other way. It increased my ability to make friends, it increased my friendships... In football you have to work together to pull a play off. You have to work together as a choir. So I think teamwork, discipline, and friendships that I've made. (twelfth grade male in football and choir)

However, many adolescents also perceived costs to investing their time in one activity at the expense of their other interests. Some of the costs mentioned include: conflicts with social events and being with friends, not having enough time to do other activities, frustration over not doing well, and their involvement not being congruent with their values and identity.

It is noteworthy that both the costs and the benefits of participation were apparent to all adolescents, regardless of their plans for future persistence. They all realized that their time was limited and that continued involvement in their talent domain meant that they would have to sacrifice something else. Interestingly, although the "career" group did perceive some costs, they felt that the benefits far outweighed the costs. Their identities were so intertwined with their talent domain that they could not imagine life without it, even if it meant having to make sacrifices.
I don't even have time to go to work with this [drama], because it's after school every day until six. And I don't have time to do anything. And people have a hard time believing it can actually take so much of my time. But it's just like being an Olympic figure skater. You just love it so much you are willing to dedicate your life... If I could act all of the time I would. (twelfth grade female in drama)

In contrast to the "career" group, the "quit" group perceived the costs as far outweighing any of the potential benefits of their involvement. They believed that the talent domain did not fit with their future goals or core identity and that in order to continue and be successful in the talent domain, they would have to make it their whole life.

What do you think it takes to be a good dancer?
You have to have the desire to do it. You have to have the total commitment, which means going in every day. Going in Friday night for partnering. Going in Saturday all day, staying late for rehearsal. It's like you have to make the choice between if you want a life or if you want to dance. And that's what makes you good. (tenth grade female who quit dance)

Both the "hobby" group and the "quit" group were often involved in multiple activities and experienced conflict over where to invest their time. One area that was frequently mentioned was conflicts in scheduling their different activities. The following quote by a tenth grade female in soccer and drama illustrates the struggle many adolescents felt balancing involvement an activity with other interests.

It's time consuming. I don't have a lot of time to myself. I feel that my weekends aren't even relaxing, especially right now. The rest of the year it's okay, but right now, it's really hard training. The school team starts up for training. And at the same time, I have drama club, so it's like I go straight from soccer to rehearsal. Then on the weekends, it's not even free time to me, it's just when I have to get this work done, or have to do this around the house. And, it's stressful. (tenth grade female in soccer and drama)

Another area that was frequently mentioned was the cost of involvement to social life.

[The reason I quit swimming is because] There's a girl that I swam with.. I don't know I swam with her for probably about six years. And I've known her since I was small, and she didn't start swimming until she was ten and she's made the Olympic Trials this year. She swims probably six hours a day. And she does nothing but that. I mean she doesn't really go out and so, I mean, that's like what I call kind of affecting your life. (tenth grade female in swimming)
Sometimes I wish I could just do something else instead of going to dance every week. 
Like what kinds of things?
Just like going out with my friends and stuff. (ninth grade female in dance)

Considering the increasing importance of peers to adolescents and the range of social activities and options available to adolescents, it is not surprising that many of them experienced conflict over whether to maintain their talent involvement.

To conclude, the adolescents in the four groups could be distinguished by the values they held for continued participation in their activity, including how congruent a career in the domain was with their personal identity, how practical they were about choosing a stable career, and the relative importance of other activities and interests.

Discussion/Implications

The Eccles’ expectancy-value model provided a useful framework for examining adolescent’s choices about continuing involvement in talent domains. In general, the adolescents were not unrealistic about their chances of achieving success in a career. As predicted by the Eccles’ model, and has been found to be true for course enrollment decisions (e.g., Alfeld-Liro & Eccles, 1997; Eccles, Barber, Updegraff, & O’Brien, 1995; Eccles & Harold, 1992), what differentiated adolescents who planned to continue the talent as a career from the other adolescents in our sample were values rather than expectations for success.

Specifically, the two components of value that adolescents weighed most heavily in their decision-making process were attainment value and perceived costs of participating in the activity. Adolescents for whom attainment in the talent domain was important or even central to their identity planned to continue participating as a career. At the opposite end of the spectrum, the adolescents to whom attainment in the talent domain threatened their identity, often because of multiple costs, quit or planned to quit before the end of high school. Hence, these adolescents were making rational choices about their involvement based on the values that were guiding their identity development. Both the adolescents
who were committing their lives to their activity and those who were quitting altogether
were making choices that they felt were best for them.

Highly committed adolescents, who planned to continue their activity as a career,
felt that their identities and future goals were congruent with the talent domain, and they
perceived the benefits of continuing to outweigh the costs. In contrast, other adolescents
felt that the sacrifices they would have to make in terms of future earnings, time for other
activities, and effort were too great to continue their talent as a career. Adolescents who did
not want to take the risk developed alternative plans that either combined their talents and
interests with a more stable occupation or did not include their talent in their future plans at
all. In this sample, the majority of participants made the choice to continue the activity in
some part of their life. However, those who quit involvement in their talent domain, or
planned to in the near future, did so for several reasons, including 1) competing interests
that took priority in terms of where to invest time and energy, and 2) a general feeling that
they would eventually not “make it.”

Our interviews provided a rich picture of the rewards, stressors, and trade-offs of
adolescents’ involvement in non-academic domains. A high level of participation in
extracurricular activities seemed to be both enjoyable and stressful for adolescents.
Adolescents reported many benefits of involvement in their talent domains including: social
contact and support from a peer group with similar interests, recognition, increased
confidence, enjoyment, and learning values such as responsibility and hard work. These
findings add support to recommendations for more opportunities for adolescents to
participate in productive, structured activities (Carnegie Council, 1992).

While a high degree of involvement in a talent domain can provide a positive
context for adolescent development, we also found that adolescence is the time when many
individuals questioned their level of involvement. It is not easy to cultivate talent;
succeeding in these domains requires greater effort and investment than may have been
necessary in childhood. Some adolescents became more invested in their activity, while
others began to question their involvement. At the time when the adolescents were increasingly busy with school, friends, carving out an identity, and planning for college, they had to decide where their activities fit into their lives. Some sought out more challenge and a higher level of commitment, while others quit because they saw no challenge or because the challenges were too great. Some decided that they had come this far and they might as well use their talent to try to get them to and through college, and others just liked the activity so much that they thought they would continue it as a hobby well into adulthood.

The adolescents in our sample were highly motivated, as evident by the multiple types of motivation cited by participants. Most of them were motivated to participate in their activity because they enjoyed it and wanted to improve their skills. Other reasons for participating included being good at it, obtaining social contact and support, receiving recognition, and winning. Thus, adolescents were motivated by both extrinsic and intrinsic factors. We found that even at a time when the activities became more competitive and demanding, adolescents still talked about enjoyment as an important reason for their participation. We may gain insight into the sources of this enjoyment from the other types of motivation that they mentioned.

There were also some interesting differences in the motivational profiles of the four groups. Interestingly, none of the adolescents in the "career" or "hobby" groups mentioned being motivated by obligation. This suggests that for adolescents to continue cultivating their talent into adulthood they have to possess an internal desire to do it. Autonomy and choice appear to be critical to continued involvement. Another difference was that very few of the adolescents in the "quit" group were motivated by social reasons. Often these adolescents quit because their friends were no longer participating, suggesting that, at this developmental stage, having friends in an activity may be particularly important for continued participation. This finding suggests that educators and youth leaders who are
interested in supporting and nurturing talent development should structure activities so that adolescents have the opportunity to meet their social needs as well as master skills.

Besides individual motivation, talented individuals need a supportive, challenging environment to facilitate their development (Csikszentmihalyi, 1997). We found that while some schools had special programs for nurturing non-academic talent, many adolescents felt that the programs at their schools held them back from improving their skills, although they provided opportunities for enjoyment and social contact. Some of the participants in our sample mentioned that they initially took music or art because it was considered an easy class. After they achieved a higher level of competence, however, they wanted more challenge. Many adolescents in our sample strategically sought out other environments in the community to provide them with challenge and opportunities to improve.

We think high schools can gain an important insight from this pattern. During this era of limited financial resources, many schools have eliminated extracurricular activities. Rather than cutting or severely limiting these programs from high schools, our results indicate that extracurricular activities should be given higher priority. These organized activities provide a context for adolescents to develop qualities and skills that are often not fostered in the typical high school classroom (Carnegie Council, 1992). For instance, participation increases the adolescent's ability to establish positive and supportive social networks, provides opportunities for adolescents to learn prosocial values and attitudes such as teamwork and cooperation, and gives them a context in which to develop their identities.

Further, we found that some adolescents were able to gain a sense of belongingness to the school through their activity. This was especially important for those who did not seem to fit in the school in other ways, such as academically or socially. It is especially important that schools find ways to engage adolescents, since so many of them mentally or physically drop out (Newmann, 1992). Some scholars have argued that extracurriculars can increase students' commitment to the school itself, which can then translate into greater
investment in the classroom (Finn, 1989). Furthermore, there is some evidence that extracurricular activities can protect against dropping out of school (Mahoney & Cairns, 1997). Thus, it appears that providing a range of extracurricular programs and encouraging participation in them is a way that high schools can help keep students engaged and optimistic about school.

Limitations

The conclusions of this study should be interpreted in light of the following limitations. First, there are numerous definitions of talent, not all consistent with our operationalization in this study. We defined talent in this study as a high degree (i.e., 7 on a 7-point scale) of competence, involvement, and value in the talent domain as assessed by both the participants themselves as well as their parents and teachers during elementary school. Other researchers have identified talent using objective criteria, such as choosing participants from the most elite teams, orchestras, or drama guilds rather than using self-reports (e.g., Bloom, 1985; Scanlan, Stein, & Ravizza, 1989). However, unlike these other studies, ours has the advantage of being prospective rather retrospective.

Second, our sample comes from middle- to upper-middle class European-American families who probably have greater access to opportunities and resources to develop talent than talented adolescents from less financially advantaged families. Most of the previous work in this area has focused on the talent development process in middle class children. There is still a need for work on the talent development of disadvantaged children whose parents or families may not have the resources or time to play a central role in nurturing talent (Eccles & Alfeld-Liro, in press).

Despite these limitations, this study contributes to the literature by (1) describing the experience of adolescents who are highly involved in extracurricular activities, but not necessarily at the elite level, (2) demonstrating how changes in talent involvement in adolescence parallel changes in development, and (3) highlighting how highly competent and involved adolescents manage their participation across a variety of talent domains with
the everyday pressures of teenage life. Furthermore, we wanted to interview adolescents to build on existing questionnaire data and offer a richer picture of talent development across a variety of activities. The information we obtained about motivation, benefits of involvement, and conflicts of interest and values that individuals experience at this developmental stage can help practitioners to create environments that support talent development.

**Future directions**

The results of the current study also suggest important avenues for future research. Individuals' decisions about involvement are influenced by the support they receive from significant others, including parents, teachers or coaches, and peers. It is important to study the role of these socializers in encouraging or discouraging involvement in these domains. Further research is also warranted to explore possible age and domain differences in talent development in greater depth. In addition, there may be gender differences in talent development. Considering the changing nature of women's sports, one potentially timely area of work is research on gender differences in sports involvement.

While much is known about motivation in academic domains, researchers are just beginning to explore motivation outside of school. Adolescents spend a significant portion of time in non-academic endeavors, and therefore it is important to understand how these contexts affect their development. This study is an important first step.
References


### Appendix A

**Summary of Participants' Future Plans in the Activity**

<table>
<thead>
<tr>
<th>CAREER GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sarah</strong></td>
</tr>
</tbody>
</table>
| **Pete**    | 1) He would like to have a career in music production and performance. Thinks there are many ways to combine careers in music.  
2) His big dream is to play baseball, but he does not think his chances are great. |
| **Mark**    | He wants to be a pro baseball player. His entire family plays baseball, and his dad was almost in the pros. |
| **Laura**   | She wants to write scripts in the future. She plans to move to Canada where there are fewer writers. |
| **Emily**   | She wants to continue in the music business either in performance, management, or composition. She will never give up playing the violin and is trying to get an internship with Disney to play in their orchestra. |
| **Jeff**    | He wants to play professional soccer. He realizes it is competitive but is investigating options to play professional soccer in Europe and the United States. Coaches have been contacting him about scholarships to play soccer in college. |
| **Nicole**  | She wants to be an actress. Her plan is to join a troupe of actors and settle in Chicago. She may teach acting later in her life. Her dream is to make it in Broadway, but she most likely will act with a troupe in another part of the country. |
| **Melissa** | She wants to play soccer in college and coach in the future. She wants to be able to show people how much fun they can have with soccer. |
| **Paul**    | He wants to teach English and Drama and produce high school musicals because it is too risky to have a career as an actor. |

<table>
<thead>
<tr>
<th>HOBBY GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mike</strong></td>
</tr>
<tr>
<td><strong>Dan</strong></td>
</tr>
<tr>
<td><strong>Steve</strong></td>
</tr>
<tr>
<td><strong>Matt</strong></td>
</tr>
<tr>
<td><strong>Jenny</strong></td>
</tr>
<tr>
<td><strong>Lisa</strong></td>
</tr>
<tr>
<td><strong>Diane</strong></td>
</tr>
</tbody>
</table>

*Adolescents may be categorized in multiple groups if they are involved in multiple activities.*
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heather</td>
<td>She will not play soccer in college because kids in college are far beyond her level. She says that soccer is something to do right now which is fun, but she does not want to do it competitively.</td>
</tr>
</tbody>
</table>
| Susan | 1) Her parents made her stop dance in seventh grade because of her grades. She is now involved in show choir. Dance is her passion and she hopes to teach dance to little kids in the future. She also wants to be a veterinarian.  
2) She wants to be softball in the future, but not at the college level. |
| Tracy | She wants to continue playing soccer, but would not want to play somewhere where they play just to win and not to have fun. |
| Andy | He wants to play basketball in college, but probably not on a team. He does not have the patience to deal with coaches anymore. He may want to coach in the future. |
| Ben | He has quit formal lessons in music because he did not want to practice and lessons took away from time with his friends. He is very good and does not think he has to practice. Wants to continue music as a hobby in the future. |
| Jason | Very unrealistic about the future. He wants to be rich, but does not want to go to college. He hopes he will win the lottery. He wants to continue playing baseball in the future. |
| Alex | He will probably continue singing in a church choir, but would only do it in college if a friend does it too. |

**COLLEGE GROUP**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jenny*</td>
<td>She wants to play soccer in college and may have a chance for a soccer scholarship.</td>
</tr>
<tr>
<td>Doug*</td>
<td>He used singing to help him get into college. He applied to the school of music because it is easier to get into than the arts and sciences program at the college of his choice. He wants to try music, but not sure he will finish four years or make it a career.</td>
</tr>
<tr>
<td>Cindy*</td>
<td>She plays flute and wants to do marching band in college.</td>
</tr>
<tr>
<td>Amy</td>
<td>She wants to play softball in college. Coaches have been contacting her about scholarships. Her dream is to play professional sports, but she thinks she will go into psychology so she can help people.</td>
</tr>
<tr>
<td>Heather*</td>
<td>She wants to go into writing or law. She plans to continue doing plays in college and is trying to get into summer programs for writing.</td>
</tr>
<tr>
<td>Patrick</td>
<td>He wants to play trumpet in college. He hopes he can get a scholarship for his music.</td>
</tr>
<tr>
<td>Jessica</td>
<td>She is not taking art class this year because of the time. She does her art on her own: murals for the church, pet portraits for her friends, and the calendar for the school district. She wants to be a veterinarian; she does not see art as a steady job. She wants to combine her love of art and reptiles by doing illustrations for a textbook and plans to continue doing art in college.</td>
</tr>
</tbody>
</table>
| Angela | 1) She wants to play soccer in college and may have a chance for a scholarship  
2) She wants to study art in college, but not sure what type of job she can get with art. |
<p>| Valerie* | She wants to be an engineer. She plans to do marching band in college. |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison</td>
<td>Her mother took her out of gymnastics in 8th grade because her grades were suffering. She misses gymnastics, but does not want to put in the effort to be at the level she was before she stopped.</td>
</tr>
<tr>
<td>Mike*</td>
<td>He does not plan to play football in college. He is too short to play at a good college, and academics are his first priority.</td>
</tr>
<tr>
<td>Dan*</td>
<td>He quit basketball because the competitive nature of sports was in conflict with his religious beliefs.</td>
</tr>
<tr>
<td>Ellen</td>
<td>1) When she was young she wanted to be dancer, but her parents were not very supportive of dancing as a career. She thinks that ballet now infringes on her social activities and does not want to be as involved because she wants to “have a life.” 2) She recently quit piano because she was too overwhelmed with school and dance. She hated practicing and just stopped caring about music.</td>
</tr>
<tr>
<td>Doug*</td>
<td>He quit swimming this year because it took too much time and there was not enough challenge.</td>
</tr>
<tr>
<td>Kristin</td>
<td>She does not want to continue with dance. She thinks it is hard to make it as a career and wants to spend more time with her friends.</td>
</tr>
<tr>
<td>Rick</td>
<td>He wants to go into medicine. He does not think he will play sports in college, because he is not good enough to play on the college level.</td>
</tr>
<tr>
<td>Cindy*</td>
<td>No mention of soccer in her future.</td>
</tr>
<tr>
<td>Sharon</td>
<td>She has health problems and will probably have to quit swimming. She swims primarily for fun and does not plan to swim competitively in the future.</td>
</tr>
<tr>
<td>Ericka</td>
<td>She wants to study genetics. She does not think she will be involved in swimming or flute in the future. She does not think she is good enough to compete at the college level.</td>
</tr>
<tr>
<td>Ashley</td>
<td>She does not want do gymnastics in college. She has spent her whole life doing gymnastics and was in the Olympic Development Program. She found gymnastics frustrating because it requires total commitment.</td>
</tr>
<tr>
<td>Mary</td>
<td>She recently quit ballet. She has not liked ballet for the last several years, but until recently did not feel comfortable telling her mom that she wanted to quit.</td>
</tr>
<tr>
<td>Jill</td>
<td>She stopped music this year because she switched schools and did not have room in her schedule. She does not want a career in music because it is too competitive and it is something that is supposed to be fun.</td>
</tr>
<tr>
<td>Robin</td>
<td>1) She quit dance because got tired of it and there were too many rehearsals. 2) She quit soccer because it was not fun anymore. She felt it became all about who was the best and was no longer fun.</td>
</tr>
<tr>
<td>Valerie*</td>
<td>She can not see herself doing dance in the future because there is no &quot;outlet&quot; for it.</td>
</tr>
<tr>
<td>Claudia</td>
<td>1) She recently quit music because she felt stuck in it and could not get any better. Academics are more important to her than music. 2) She quit softball last year because she was not good enough and did not want to sit on the bench.</td>
</tr>
</tbody>
</table>
Appendix B: Summary of Participants and Motivational Profiles

<table>
<thead>
<tr>
<th>ID</th>
<th>Gender</th>
<th>Grade</th>
<th>Activity</th>
<th>Ability</th>
<th>Enjoy</th>
<th>Mastery</th>
<th>Recognition</th>
<th>Social</th>
<th>Obligated</th>
<th>Different</th>
<th>EBE Involved</th>
<th>BEE BEAT</th>
<th>BOTHERS</th>
<th>OTHERS</th>
<th>RELEASE</th>
<th>USEFUL</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Career Group</td>
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</tr>
<tr>
<td>Sarah</td>
<td>F</td>
<td>10</td>
<td>Multiple Sports</td>
<td>N</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pete</td>
<td>M</td>
<td>9</td>
<td>Baseball</td>
<td>Y</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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* Multiple sports and multiple instruments are considered one activity.

† Adolescents may be categorized in multiple groups if they are involved in multiple activities.
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Appendix C

Description of Motivation Codes

**Ability**—being good at the activity motivates the participant to continue

**Enjoyment**—the participant talks about liking or loving the activity

**Mastery**—the participant wants to improve his/her skills

**Recognition**—the participant seeks recognition (e.g., audience applause, awards, recognition for ability from peers, parents, or teachers/coaches)

**Social Contact/Support**—participates because it is a chance to be with friends and/or provides a group or niche to belong to

**Obligation**—participant feels a sense of obligation to continue because he/she has been participating for so long or because others are counting on him/her

**Beating Others**—participant has a competitive spirit and likes to beat others to be the best

**Usefulness for Future**—participation in the activity can get the participant somewhere (e.g., getting a scholarship or getting into a special program, earning money)

**Emotional Release**—participation is relaxing and/or provides outlet for emotions

**Wanting To Be Different or Unique**—likes being considered unique because he/she does something no one else does

**Wanting To Be Involved in Something**—likes to be doing something to fill time or avoid boredom

**For Others**—participant continues to please others or fulfill others' expectations
Author Note

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Footnotes

1 The parent was paid fifteen dollars and the adolescent was paid ten dollars. The difference in payment was because we had also recently collected surveys and had paid the parent $5 and the adolescent $10. Therefore, the total paid to each participant was $20 for both survey and interview.

2 We asked for the mother when calling participants’ homes because our past experience with these families has indicated that, for the most part, the mothers are more aware than the fathers of both the adolescents’ activities and of the family dynamics over the years. However, we gave families a choice of which parent was to be interviewed. In two cases the father wanted to do the interview and in one case the parents insisted on being interviewed together.

3 One researcher ceased her involvement at this point, and another female researcher joined the team.

4 Adolescents may be categorized in multiple groups when they are involved in multiple activities.

5 It is interesting that when we interviewed parents, they tended to cite fewer reasons for their adolescent’s participation than did the adolescents themselves; apparently, parents are not perceiving the full range of factors that drive their adolescents.

6 Not his real name. All names have been changed.
Figure Caption

Figure 1. Eccles' expectancy-value model of achievement choices.
Expectations for Success

Achievement Related Choice (Commitment to Talent)

Subjective Task Value
1) Intrinsic Value
2) Attainment Value
3) Utility Value
4) Cost