Not You! Not Here! Not Now!

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We have all heard and read many stories about both unfulfilled dreams and the high cost of fulfilled dreams. Virtually all biographies of talented women are filled with incidents in which they were actively discouraged from developing their talent and pursuing their dream. On the Bill Moyer's series 'The Language of Life' on PBS, one of the poets reported that his parents had been appalled when he informed them of his desire to be a poet. They questioned his sanity because it was clear to them that one could not earn a living as a poet. Luckily, his parents did not go on to prevent his pursuit of this dream. The father of a good friend of Eccles was not so lucky. He dreamed of becoming a concert violinist and practiced endless hours while he was a child. When he entered adolescence, his parents told him he should begin spending more time preparing for some form of vocation. When he indicated that he was preparing himself to become a concert violinist, his mother responded by destroying his violin in order to put an end to his foolishness. Finally, we have heard many examples of teachers and school counselors either not informing children and parents of the full range of educational options available or actively discouraging the pursuit of challenging educational careers in our interviews with low income and ethnic minority families.

We will never know how many potential musicians, artists, and poets have been discouraged from pursuing their dreams. The reports of those who persisted and became well enough known to be able to have someone listen to their story suggest that such experiences are not at all rare. In addition, the fact that the number of success stories is small in comparison to the number of youngsters who are identified as showing promise suggests a very high attrition rate—a rate that is undoubtedly an underestimation, as many potentially gifted and talented individuals, particularly individuals from minority groups, are never even noticed. We discuss some of the ways in which this attrition takes place and suggest ways in which high-quality youth programs can help alleviate some of these barriers and open up or support the dreams of more youth.

We also discuss the high cost of success, particularly in sports, to even those who are encouraged to develop their talent. For many of these individuals, success is

achieved at great personal and social costs. For others, success is snatched out of their reach by events and circumstances beyond their control. When these disasters are interpreted as personal failures, the consequences can be devastating, particularly if the individual has invested all of his/her psychological identity in this one talent or interest. We discuss ways in which high-quality youth programs can help reduce these costs.

Not You, Not Here, Not Now

Many young people who show promise as youngsters later drop out of, or disengage from, programs (Arnold, 1993; Eccles & Gootman, 2002; Eccles & Harold, 1992; Fredricks et al., 2002; Goldsmith, 1987; Mahoney, Larson, & Eccles, 2005; Patrick et al., 1999; Subotnik & Steiner, 1993; Tomlinson-Keasey & Little, 1990). Even more disturbing are the number of youth who never even get a chance to explore their potential talents and interests—who are not encouraged to develop or given the opportunity to even discover their talents much less to develop them. Recognition of talent and interest is only one element in the delicate sequence of 'coincidences' (Feldman, with Goldsmith, 1986) that nurture and promote talent in young people, however. Because there are so many elements involved in serious talent development, it is not surprising how rarely the dynamic system works well and produces an adult who has achieved his/her full potential (whatever that might mean). The literature on giftedness and talent has focused primarily on what happens when all goes right in this process; few studies have examined what mechanisms are involved in giving up the pursuit of a talent, and even fewer have examined the often high cost involved in the pursuit of a talent. Even less attention has been given to the factors that must coalesce to allow individuals with less obvious talents and gift to discover their interests and develop the full range of their potential. Thus, we focus most of the research on gifted and talented individuals but also bring in other literatures as available and point out ways how well-designed programs for youth could help ameliorate some of the barriers discussed.

While the title of this chapter conjures up an image of hurt, pain, disappointment, and lost hope, it also hints at the underlying reasons why a young person might decide or be forced to stop trying to development his/her talent. For instance, 'Not you!' refers to characteristics of the young person, such as gender, social class, and ethnicity, that elicit barriers to both opportunities and success. Alternatively, it may refer to the more subtle 'weeding out' on the basis of low socioeconomic status (SES), lack of information, or lack of resources or on the basis of limited adult niches leading to very competitive selection processes.

'Not here!' connotes that the pursuit of a particular talent may not be viable within any specific context. Csikszentmihalyi, Rathunde, and Whalen (1993) suggested that the culture must recognize and value a domain before a person can be recognized as having relevant talents or interests and then encouraged to develop these talent and interests. In addition, cultures vary in the extent to which they make the opportunities

for developing specific talents and interests easily accessible. With the tightening of public school budgets in the United States, we have seen the elimination of whole programs focused on the promotion of talent and interest in the fields of art and music, making the accessibility of training in these domains much more dependent on the family's economic resources and community-based programs than is true in other countries and other cultures.

Subcultures of support (or lack of) can also have profound influences on whether a young person continues in a talent or interest area. Ogbu (1992) described the pressure from African-American peers on academically gifted youth not to 'act white' by excelling in school. In contrast, African-American youth may get too much encouragement to focus on their potential athletic talents given the scarcity of jobs in these fields. In a similar vein, Feldman with Goldsmith (1986) offered an example of a woman who was prevented by her deeply religious parents from playing the piano because they believed it was a sin for a girl to have so much passion.

Finally, 'Not now!' refers to the timing of interest either in the child's life (he or she may be thought to be too old or too young to begin taking music lessons, for instance) or in the parents' life (a parent may decide that she does not have the time, energy, or money to devote to the child's talent or interest at this particular moment). In addition, the child and/or family may have concurrent, competing responsibilities or goals or it may be especially difficult to continue working in a particular talent or interest area after a major transition, such as the musicians that Bamberger (1982) described who must begin to think more specifically rather than holistically about music after they reach adolescence, the talented student of artistic techniques who cannot find employment that allows original or creative work after graduation from art school (Csikszentmihalyi & Robinson, 1986), or the athletically talented female whose body changes in ways that are incompatible with her sport as she passes through puberty.

'Not now!' can also refer to the stage in one's life when one has the time and the support to devote to creative pursuits. Vaillant and Vaillant (1990) divided a group of women who were all identified as gifted in childhood into creative and less creative groups on the basis of their generativity, such as publishing something or starting an organization by the time they were about 80 years old. Significant differences were found in the antecedents of creativity in these women throughout their lives in four areas assessed in previous waves of data collection. The less creative women had not reported a career plan by the age of 26 and showed poor use of leisure time at age 45. The more creative women exhibited higher work satisfaction at age 40 and were active outside the home at age 45. The two groups also differed in the consequences of their creativity in two areas. The more creative women showed more joy in living at age 60 and were rated as having good adaptation between the ages of 65 and 78 (assessed both by a rater and by a blind interviewer). Interestingly, these women's creativity did not surface, for the most part, until later life. The authors concluded that although socialization and social forces may have inhibited their creativity in their younger lives, the authors were optimistic because these creative women were able to realize their full potential after all.

'Not now!' can also refer to the historical period. We give examples of how historical changes in gender roles have coincided with increasing numbers of intellectually gifted women pursuing careers directly related to their talents. The Harlem Renaissance provides another example of unique historical period that fostered the expression of artistic talents among African-Americans. Similarly, we have seen dramatic changes in this century in the United States in the opportunities provided for African-American youth to develop their athletic talents.

There are many ways in which person, place, and time influence the likelihood of talent or interest being allowed to blossom and fully develop. However, because most of the existing work has focused on what it takes to foster the development of talent, we know very little specifically about the mechanisms of 'dropping out' or never getting started. Instead, given that most work has focused on the correlates of high levels of talent and interest development, we must infer these inhibiting mechanisms from the negative cases in these studies. Such an approach focuses our attention on the question 'Why didn't these individuals 'succeed' in developing their talents to the fullest?' Although this is a very important question that is central to the goals of this chapter, it is important to remind ourselves that it is only one side of the picture. There are often very good reasons why people choose not to focus on developing any particular talent to the fullest extent possible. Reasons related to broader life goals and values; reasons related to the high physical, psychological, and social costs of focusing one's energy and time so narrowly; reasons related to the lack of social supports at home, in the community, and from friends; and reasons related to injury and other life circumstances beyond the individual's control (see Arnold, 1995; Eccles & Gootman, 2002; Eccles & Harold, 1992; Fredricks et al., 2002; Fredricks & Eccles, 2004; Kerr, 1985; Mahoney et al., 2005; Patrick et al., 1999; Ryan, 1995; Wigfield, Battle, Keller, & Eccles, 2002).

This chapter discusses how difficult it is to foster the development of talent and interest and how person, place, and time interact with these difficulties in such a way as to make it more likely that some groups of people in some places and at some historical periods will succeed. This chapter refers to findings from the literature on the development of gifted and talented children and adolescents. By describing what has been found regarding the positive influences on talent development, we can begin to speculate about why some people do not continue to develop their talents and interest because one or more of these positive influences are missing in their lives. Rather than define a narrow group of individuals as our focus, we consider a broad range of talents and interests because the letdown for the individual and society is great no matter which type of talent or interest is not allowed to flourish.

We have a particular interest in the role of gender as a risk factor among the gifted and talented. Consequently, many of our examples and much of the data presented focus on gender differences. However, the processes discussed are applicable to other groups, as shown throughout this chapter. Gender just provides one lens through which one can look at barriers to the full development of people's interests and human potential.

Gender Differences in Long-Term Outcomes of the Intellectually Gifted and Talented

We begin with a review of gender differences in the long-term outcomes of intellectually gifted and talented youngsters. We are lucky to have several longitudinal studies of intellectually talented individuals who were identified with objective tests early in their lives. These studies provide us with a very important prospective view of the development of gifted and talented individuals. If there are substantial gender differences in the adult outcomes of a group of individuals identified as equally gifted as youth, then one must consider carefully the reasons for this divergence. We could have focused instead on social class or ethnic differences, but there is far less systematic research on these groups. We suspect, however, that similar processes are involved and that appropriate interventions based in positive youth development programs could help address these group differences as well.

In 1921, Terman began a longitudinal study of approximately 1450 gifted girls and boys between 7 and 15 years of age. Approximately 80% of this sample has been reinterviewed several times over the last 75 years (see Vaillant & Vaillant, 1990). Although bound by its historical period, it provides the best data available for comparing the adult achievements of gifted females and males.

As one would expect, given the nature of gender roles in this culture for this historical cohort of individuals, there were substantial differences in the adult achievements of these women and men. By whatever standard, objective criteria of occupational success one uses, the males achieved more than the females. Although they were equally likely to have earned bachelor and terminal master's degrees, the males were six times more likely than the females to have earned degrees beyond a master's degree. The males were also much more likely to have earned various forms of recognition by the time they were 60 years of age (see Eccles, 1985; Eccles & Harold, 1992) and they were twice as likely to be employed in 1960 (Oden, 1968).

Similar, although less extreme, results characterize more contemporary cohorts. Kerr (1985, 1994), in a longitudinal study of a group of intellectually talented women, documented continuing lower than predicted rates of career 'success' for the women. Many of these women chose to limit their career development in the same ways as the Terman women in order to devote more time and energy to their roles as wives and mothers.

Subotnik, Karp, and Morgan (1989) compared individuals in Terman's study to a group of gifted individuals from a younger cohort and discovered that the differences lay mainly between the women in the two studies. Specifically, the younger cohort of gifted women had more life satisfaction and success values than did Terman women; this younger cohort of women looked more similar to both cohorts of men, perhaps because of greater educational and occupational opportunities and encouragement. However, it should be noted that while a large proportion of the younger cohort of women held advanced and professional degrees, they were not in as many prestigious or high-paying careers as the men in their cohort. Furthermore, the younger cohort

of women still tended to be in traditionally 'feminine' careers, although only 1.2% of them, as compared with 50% of the Terman women, described themselves as housewives.

Similarly, Schuster (1990) compared four cohorts of gifted women, including the Terman women who were the oldest, and found that higher proportions of the younger cohorts reported having lived up to their potential and that professional women rated themselves higher on this scale than homemakers. Schuster also found that younger cohorts of gifted women rated themselves as high, or higher, than those in older cohorts on life satisfaction and competence. However, there was a qualitative difference in life satisfaction such that the younger cohort was much more likely to report being satisfied with career but not personal life. In her conclusions, Schuster cautioned against viewing as similar the meanings and manifestations of giftedness in each cohort, however. This is an example of the importance of the historical moment in defining life for particular groups of people.

However, even though gifted and talented women are pursuing their talents to a greater extent now than in the early part of this century, they are still limiting these pursuits more so than males. For example, let us consider the work by Julian Stanley, Camille Benbow, and their colleagues. Since the early 1970s they have been studying several thousand mathematically and verbally precocious adolescents in conjunction with the Johns Hopkins' Study of Mathematically Precocious Youth (SMPY). Many of these individuals are being followed over time to plot their educational trajectories. This research team (now at Vanderbilt University) has consistently found that gifted girls are less likely than their male peers to enroll in accelerated and/or special programs (Benbow & Stanley, 1982; Stanley, 1976), to respond positively to an invitation to join a gifted program (George & Denham, 1976; Stanley, 1976), to enroll in AP courses in science and to remain on an accelerated math track program in high school (Benbow & Minor, 1986), and to enter college early (Stanley, 1976).

These results illustrate two points:

1. Gifted and talented women are less likely than gifted and talented men to develop their talents to the fullest extent possible in terms of the definition of success in their culture (the United States).
2. There have been a number of historical changes in this pattern—changes that coincide with the liberalization of the traditional female stereotyped gender role.

Both of these points relate directly to our title: 'Not You! Not Here! Not Now!' Many people have argued that these gender differences reflect the impact of gender role socialization on both the psychological development of females and males and the social opportunities made available to females and males in any given culture at any specific historical moment (e.g., Eccles & Harold, 1992; Fox & Denham, 1974; Kerr, 1985).

Eccles and colleagues, in particular, have elaborated a model of how gender-role socialization processes can lead to gender differences in psychological constructs linked to both expectations for success (e.g., self-concept of one's abilities

in various domains, and both confidence and personal self-efficacy for success in various domains) and the value attached to the activities and tasks linked to success in various domains (e.g., interest, focus, and willingness to invest tremendous time and energy). These psychological beliefs, values, and self-perceptions, in turn, are predicted by Eccles and colleagues (e.g., Eccles & Harold, 1992) to explain much of the gender difference we see in the pursuit and development of one's talents and interests. Similar processes also underline the underrepresentation of women of all ability levels in male-stereotyped fields and activities (Eccles, 1994; Eccles & Harold, 1991; Frome, Alfeld, Eccles, & Barber, 2007).

For example, the female gender role has been linked to females expressing less confidence in their abilities in male-stereotyped domains such as math, physical science, and sports. Gifted females are also more likely to underestimate both their ability level and their class standing (Frome & Eccles, 1995; Strauss & Subotnik, 1991; Terman, 1926). Also, gifted females express less interest than gifted males in both male gender-role stereotyped domains and high levels of achievement in general (see Eccles & Harold, 1992).

Eccles and colleagues also discussed how parents, teachers, peers, community leaders, and the media provide females and males with very different opportunities and encouragement to develop various aspects of their talents and interests. These differences perpetuate gender-role stereotypic activity choices and investments in one's own development by influencing exactly who is going to get to pursue which talents and interests and when they are going to be permitted this option. For example, parents in the Terman study and in the SMPY studies held far more gender-role stereo-typic views of their children's talents than was actually evident in the children's own reports. Eccles and colleagues documented how these parental beliefs translate into parental behaviors that end up creating the very gender differences parents originally believed to exist—a fine example of self-fulfilling prophecy (see Eccles, 1994).

However, even more importantly, parents of daughters in the SMPY study noted their children's giftedness at a later age, if at all, than the parents of sons (Fox, 1982). Similarly, both Terman (1926) and Fox (1976, 1982) reported that teachers were less likely to identify girls as gifted and to recommend them for accelerated educational opportunities. Finally, in their study of gifted mathematicians, Luchins and Luchins (1980) reported that 80% of the females, as compared to only 9% of the males, had encountered active discouragement from continuing their math training; this discrepancy was especially pronounced during the college years.

Similar processes are likely linked to social class, religion, and ethnic-based group differences in the availability of opportunities to develop one's interests and talents during childhood and adolescence. The positive youth development movement is now voicing the concern about these inequities and the need to make sure all youths get the opportunity to explore and develop their interests and talents.

Finally, one must not underestimate the power of peers in this process of gender-role channeling. Peers can affect the options seriously considered by either providing or withholding support for various alternatives. These peer effects can be both quite direct (e.g., laughing at a girl when she says she is considering becoming a nuclear

physicist) or very indirect (e.g., anticipation of one's future spouse's support for one's occupational commitments)(for examples of these, see Bell, 1989; Kerr, 1985). The anticipated cost of loss of status among one's peers may be become particularly problematic for both girls and boys during their early adolescent years. Puberty marks a transition in many ways. Several researchers have stressed that this is likely to be a period of gender-role intensification (see Eccles & Bryan, 1994; Hill & Lynch, 1983; Patrick et al., 1999). Peers play a central role in this intensification in part because adolescence marks the beginning of heterosocial and heterosexual relationships for many youth. These youth begin to consider the impact of their behaviors on their potential intimate relationships and on their later marital and family options (Frome et al., 2007; Subotnik & Arnold, 1996). The possibility that a continued high level of focus on one's talent limiting these options may be too great a cost for many individuals, particularly heterosexual females.

Again similar peer processes undoubtedly influence the extent to which youth from various subcultural groups within any society are willing to pursue their interests. Youth centers provide a place in which these peer influences serve to either limit or promote full development of one's interests and talents.

We discuss these points more fully later in the chapter. At this point, we have tried to establish the fact that for gender at least, socially defined and orchestrated roles place constraints on individuals' ability to focus on developing their particular talents and interests. With regard to gender roles, this process has two important facets: First, gender roles define which talents and interests males and females are likely to be encouraged to pursue, in ways that seriously limit the range of options for both females and males (e.g., consider the likelihood of peers encouraging a male's interest in ballet and female's interest in nuclear physics). In this way, gender roles restrict the range of options that are even considered when young women and men are deciding how to spend their time and which talents and skills to try to perfect.

However, perhaps even more importantly, gender roles define the extent to which it is considered legitimate to focus one's time and energy on a single self-oriented goal: developing one's own talent or interest to its fullest potential. Females in this culture are expected and encouraged to be multidimensional and multifocused (see Eccles, 1994; Eccles & Harold, 1992). Also, as adults they are expected, and want, to place a great deal of time and energy nurturing their husband's and their children's development (see Frome et al., 2007; Kerr, 1985, 1994). Such expectations and plans make it very difficult to pursue one's talent or interest with the single-minded dedicated focus often required to achieve success in competitive, talent-based fields.

Although far less work has been done on the power of socially constructed roles and stereotypes on the opportunities made available to individuals from various culturally defined subgroups, a similar process undoubtedly operates here as well. Often, when we think of gifted students, we think of 'white,' middle class, or 'advantaged' children. Partly because of this stereotype, gifted students who are poor and/or nonwhite are overlooked by schools and parents all the time (Olszewski-Kubilius & Scott, 1992). Furthermore, minorities are most likely to be found in the lowest level tracks in public schools (Oakes, 1985), where they are least likely to be

challenged enough to even exhibit talent or to develop high levels of interest in any particular academic subject.

Alternatively, schools and other institutions may focus only on stereotypic areas of talent for different groups. The heavy focus on sports among African-American males and on science and math for Asian groups in the U.S. school systems are good examples of this type of stereotyping. Because of these stereotypes, teachers, parents, and community program leaders may look primarily for the stereotypic talents in each of the groups and overlook other possible talents and interests.

However, lack of economic resources in the home and in the communities of many groups of individuals creates additional limitations on the opportunities children and adolescents from less privileged groups of families have to identify and develop their interests and talents. Developing a particular talent or interest often requires instruction that must be paid for by one's family. Not all families can afford such expenses. Although one might hope that public education and community-based programs might compensate for this difference, schools only provide training for a limited range of talents, and schools in poorer communities usually have fewer resources to provide training in even this limited range (Borland, 2004; Kozol, 1991). Community-based programs can help fill this gap (Eccles & Gootman, 2002).

Finally, as is true of the two types of gender roles, cultural groups likely vary in the extent to which focusing on individual interest and talent is valued and encouraged. It has been suggested that parents in some cultures may value education for their children but see it as a less immediate priority than taking care of the family, being near the family, and maintaining one's status within the family (Olszewski-Kubilius & Scott, 1992). Therefore, gifted and talented students from such backgrounds may receive mixed messages about the importance of family, schooling, and the dedicated pursuit of personal interests and talents. These messages are also likely to vary by gender within each cultural group. While little research has been done in the area of disadvantaged gifted youth, these issues should be kept in mind as we discuss the many factors that may undermine talent and interest development throughout the remainder of this chapter.

Influences on Being Able to Develop One's Interests and Talents

Families, mentors, coaches, and schools

Evidence from a variety of sources points to the overwhelming importance of the social agents in children and adolescents' lives in helping youth develop their interests and talents (Eccles & Goodman, 2002; Eccles & Roeser, 2005). Early in life, social agents are responsible for providing children and adolescents with the opportunities to explore and develop their interests. Later in life they help young people find the opportunities to support their development of their own interests. These opportunities include provision of materials and resources at home, in the neighborhood, at school, and in the larger communities in which the youth live

each day. Without such resources, children will have little opportunity to explore their interests and develop their talents. Families and communities vary greatly in the provision of these resources and in the manner in which such resources are managed. Some families and communities provide few if any of such resources; others provide them but in very controlling manners that actually undermine the children's exploration and confidence; and still others both have the resources and provide them in ways that allow the children to explore their interests and develop their talents in safe and emotional supportive contexts. Work within the positive youth development arena is helping communities and families make these resources available and supportive developmental contexts available to more youth.

Let us say more about these social agents and how they can both help and harm children's interest and talent development. There is overwhelming evidence that families play an extremely important part (for better or worse) in fostering the talent and interest of young people. At the extreme end of talent development, the role of the family can require the involvement of the entire family and large amounts of both time and money. It is not uncommon in such families for the entire family to become focused on the talented child's needs and activities, such that other family members' interests are sacrificed to this cause. For example, the talented child is often excused from household chores and responsibilities so s/he has more time to practice (Sosniak, 1985). Some families will relocate so that the talented child can receive the best instruction available (Feldman, with Goldsmith, 1986). As a consequence of these high levels of sacrifice, parents often cannot attend to more than one child's interests and talents at once, so while another child in the family may be equally talented, the parents may simply be unable to afford (in all senses) to recognize this talent unless it happens to be in a compatible arena (Feldman, with Goldsmith, 1986).

The consequences of such extensive and focused investments can be both positive and problematic for all family members. On the one hand, such high levels of focus are probably needed if children are to reach the top competitive levels in their talent field. On the other hand, such heavy investment can undermine children's intrinsic interest in their talent development and other family members may suffer. The optimal role of the parents in these cases is to focus, direct, and guide their talented children's energies, values, and goals, as well as to locate and then manage their children's access to needed extra-familial resources. However, this must be done in a manner that allows for the autonomy and individuality of the young person as well. For example, Csikszentmihalyi et al. (1993) found that provision for both differentiation and integration is required within the family in order for young people to develop their talents in a psychologically healthy way. Differentiation refers to the encouragement of independence, whereas integration refers to the cohesiveness and supportiveness of the family members. Young people who succeed at very high levels within their talent area and maintain a sense of 'flow' (enthusiasm, joy, and challenge) regarding their performance come from families in which they were pushed to explore and also encouraged and supported, while not having to worry about gaining approval.

It can be inferred, then, that families who either cannot or do not put very high priority on their children's talent development are not going to play a central role

in helping their children develop their talents to the fullest. This includes families who may not recognize the talent in the first place, families who cannot afford to obtain resources to help the children develop their talents and interests, families who have other ideas about what is important for their child's development (based on the parents' own values, beliefs, or stereotypes), and families who cannot, for financial, health-related, or psychological reasons, coordinate the activities, energies, or emotions of the family as a whole in this endeavor.

Given the sacrifices and dedication needed to place such high priority on one's child's talent, it is not uncommon for parents to go to unhealthy extremes in their efforts and involvement—to the detriment of their children's and their own healthy development. Joan Ryan (1995) has collected many poignant examples of these extremes in her book on female athletes. To quote:

> No parent sets out to destroy a girl's life. Yet so many lose their way, seduced by the possibilities. Parents speak of being swept into a maelstrom of competitiveness and ambition so intense they often use the word 'insane' to describe their behavior at the time. What begins as child's play, a way of filling long afternoons, mutates into a tense dance between daughter and parents. Parents fear that if they're not supportive enough, their child will complain years later, 'Why didn't you make me stick with it? Maybe I could have made the Olympics.' But they also fear being too fervent, that they will stand accused of stealing their daughter's childhood. The parents of a gifted child have an unenviable, almost impossible task. They must encourage without pushing. Protect without hindering. Give praise but not too much—a daughter shouldn't be made to feel her performance determines her worth. Too many parents are simply not knowledgeable enough to walk this line, to keep their eyes on their child's welfare and nothing else. Immersed in this aberrant subculture of elite sports, they lose perspective. (Ryan, 1995, pp. 148–149)

Clearly such examples are not what is being promoted by positive youth development experts. Instead, positive youth development experts advocate providing opportunities for developing one's interests and talents within supportive emotional contexts that foster the well-being of all family members. This can be done most easily if there are readily available opportunities for development within the communities, as well as resources to support families in their efforts to facilitate their children's interests and talents.

The need for such extra-familial supports is particularly important for families that live in resource-poor neighborhoods and families that have limited financial resources themselves. For example, Olszewski-Kubilius, Grant, and Seibert (1994) pointed out that the larger social networks are necessary in economically disadvantaged communities—social networks that include 'siblings, grandparents, adults in the community, teachers, and others, not parents, are often the primary influence on the development of talents' (p. 20). Similarly, VanTassel-Baska (1989) demonstrated through case studies of disadvantaged gifted students that the extended family plays an extremely important role in the support and nurturance of talent in these children,

and Olszewski-Kubilius et al. (1994) suggested that the coordination of support and resources in the talent development of disadvantaged gifted students requires the involvement of many individuals, early recognition and continuous support of the talent, strong advocates for the child in school, access to special programs and classes in both schools and the community, information about and management of appropriate experiences and environments for the student, and access and ability to use community experts and resources.

These examples point to the importance of other adults as well as parents in the lives of all children. Although these other adults have been studied less extensively than parents, it is clear that they are very important in all biographical accounts of gifted individuals. These adults can be other relatives or friends who help identify the talent and then mentor the young person in her efforts to perfect the talent. They can also be teachers, coaches, and community program mentors and leaders. Also, just as is true for parents, these individuals can play both positive and negative roles in these young people's lives. On the one hand, they can provide the essential training necessary for perfection. On the other hand, they can push the young person to such an extreme that either permanent physical or psychological damage (or both) results. Again Ryan (1995) provides vivid examples of the latter from her study of gymnasts and figure skaters:

> How do the extraordinary demands of their training shape these young girls? What price do their bodies and psyches pay? ... What I found was a story about legal, even celebrated, child abuse. In the dark troughs along the road to the Olympics lay the bodies of the girls who stumbled on the way, broken by the work, pressure, and humiliation. I found a girl whose father left the family when she quit gymnastics at age thirteen, who scraped her arms and legs with razors to escape the emotional pain and who needed a two-hour pass from a psychiatric hospital to attend her high school graduation. Girls who broke their necks and backs. One who so desperately sought the perfect, weightless gymnastics body that she starved herself to death. Others—many—who became so obsessive about controlling their weight that they lost control of themselves instead, falling into the potentially fatal cycle of binging on food, then purging by vomiting or taking laxatives. One who was sexually abused by her coach and one who was sodomized for four years by the father of a teammate. I found a girl who felt such shame at not making the Olympic team that she slit her wrists. A skater who underwent plastic surgery when a judge said her nose was distracting. A father who handed custody of his daughter over to her coach so that she could keep skating. A coach who fed his gymnasts so little that federation officials had to smuggle food into their hotel rooms. A mother who hid her child's chicken pox with makeup so that she could compete. Coaches who motivated their athletes by calling them imbeciles, idiots, pigs, cows. (pp. 4–5)

These extreme examples of coaching that goes beyond the limits of healthiness call attention to the need for good instruction in the talent area. While these examples

highlight the negative consequences of instruction that is too demanding and not sufficiently supportive, bad instruction can also take the form of too little and too late. Many finalists in the Westinghouse Science Talent Search said that their high schools did not prepare them well enough for the challenges of college-level science. Others said that their undergraduate science was not challenging and stimulating enough (Subotnik & Steiner, 1993). However, as is clear in the examples given earlier, good instruction and mentoring not only entail presenting challenges but also provide emotional support and advice as well as modeling excitement about the field (Subotnik & Steiner, 1993). It is widely lamented that not enough teachers and coaches live up to these ideals. While it is sometimes possible, given enough determination, for a talented individual and her parents to find suitable environments for the nurturance of a special talent, it is more often the case that they do not. Thus, the adequacy of learning environments is crucial to the development of talent; the needs of the growing individual must be met by increasingly high levels of challenge coupled with adequate support (Sosniak, 1985). In contrast, if there are too many stressors present (including inadequate instruction, heavy-handed external control, excessively high levels of anxiety and pressure, and poor quality of school life), a talented student may 'burn out' or experience a debilitating injury that puts an end to a promising future (Fimian & Cross, 1986).

Instructional environments can fail in another way—they may be so foreign to the values and culture of the individual that the individual withdraws or never even tries to enter. Several investigators have discussed this dynamic in reference to gifted females' underparticipation in engineering and physical science (see AAUW, 1993; Bell, 1989; Brody & Fox, 1980; Casserly, 1980; Eccles & Harold, 1992; Seymour & Hewitt, 1997). A similar dynamic may be operating as a barrier to the enrollment of minority youth in many institutions (Eccles & Gootman, 2002; Olszewski-Kubilius & Scott, 1992). For example, Olszewski-Kubilius and Scott (1992) reported that minority students see college life as more lonely and frightening than white, middle class students, although both groups tended to favor colleges they knew something about rather than colleges that are academically rigorous or have course offerings in their fields of interest.

Further support of the importance of these characteristics is provided by Fox (1976). Concerned with the low participation rates of gifted girls in the special program being offered at the Johns Hopkins University for gifted children, these researchers designed a special math class to attract females. This class incorporated many of the 'girl-friendly' principles uncovered by Casserly (1980): It was taught using cooperative learning strategies and included career guidance. In addition, it was taught by females and all the students were females. The class was successful in increasing the participation rates of those gifted female students who completed the program successfully. Unfortunately, longitudinal follow-ups of these students indicate that the long-range impact of this experience was minimal, suggesting that one-shot interventions are not very effective in producing lasting change and that 'girl-friendly' practices need to be a continuing part of gifted girls educational experiences (Brody & Fox, 1980).

Many of these same issues are relevant for the exploration and support of interest and talent development for youth who are not seeking to develop talent to such highly competitive levels. Parents, coaches, mentors, community leaders, and teachers are equally important to the provision of resources for youth of all competence levels to develop their interests. Resources and opportunities must be available and must be provided in appropriate ways so that young people can freely choose to explore and develop their interests. Eccles and Gootman (2002) and Eccles and Templeton (2002) outlined the following characteristics as key to the provision of such opportunities: developmentally appropriate levels of structure, inclusive social networks and social organizational arrangements, social support from adults and peers, strong and clear social norms, intentional learning experiences, motivational scaffolding, and opportunities to experience mattering and leadership. The provision of such opportunities is particularly critical in communities with low income families who cannot afford to purchase such opportunities for their children.

Internal facilitators and barriers to talent development

Both external and internal factors are critical to the development of interests and talents. We discussed several of the external factors earlier. This section focuses on these internal barriers and assets.

Passion is clearly one important internal asset. Just as family sacrifice is often necessary, personal sacrifice and dedication are also essential to developing one's interests and talents to their fullest potential. Such a commitment is easier if one is passionate about her/his interests and talents (and, in fact, most successful talented and creative people are passionate about their work; Csikszentmihalyi et al., 1993). Self-confidence, ability, and desire to focus on a few goals, drive to achieve, and persistence are also necessary for success in pursuing very high levels of talent. Indeed, a single-minded purpose, as opposed to divided attention and goals, is what seems to keep highly talented teens engaged in their domain (Rathunde & Csikszentmihalyi, 1993). During childhood and adolescence, much of one's 'psychic energy' (Csikszentmihalyi et al., 1993) must be devoted to practicing and improving. This leaves little room for other activities; highly talented youngsters watch less television and spend less time socializing with their peers than their average peers and are less likely to be engaged in a variety of other extracurricular activities and work. If this time is not productive, challenging, and enjoyable, the young person may become bored and disengaged.

However, such single-minded purpose and solitary practice can be lonely and socially isolating. If developing one's talent means moving away from home to study at the best schools or with the best teacher, a talented adolescent may decide that the cost is too high, favoring instead whatever instruction is available closer to home (Arnold, 1995; Kerr, 1994). In addition to family ties, if the individual enjoys spending time with friends and has a broader set of goals and interests, the cost of spending so much time on one activity may not be worth the gain. In support of this suggestion,

Tomlinson-Keasey and Little (1990) found that sociability (the high desire to spend time with friends) is related negatively to educational attainment and maintaining one's intellectual skills among Terman's sample of gifted individuals.

Other studies have found that females are more likely than males to have broader interests and values (McGinn, 1976; Sears, 1979). Both Sears (1979) and Kerr (1985, 1994) provided excellent examples of the need to integrate multiple goals in the lives of gifted women. Competing social needs and socially oriented values (a core component of the female gender role) are especially evident in accounts of the conflict between achievement and social roles in the lives of gifted females.

The role of conflict between this social component of the female gender role and achievement in gifted girls' lives is well illustrated in an ethnography of a group of gifted elementary school girls by Lee Anne Bell (1989). She interviewed a multiethnic group of third to sixth grade gifted girls in an urban elementary school regarding the barriers they perceived to their achievement in school. Five gender-role themes emerged with great regularity: (1) concern about hurting someone else's feelings by winning in achievement contests; (2) concern about seeming to be a braggart if one expressed pride in one's accomplishments; (3) overreaction to nonsuccess experiences (apparently not being the very best is very painful to these girls); (4) concern over their physical appearance and what it takes to be beautiful and popular; and (5) concern with being overly aggressive in terms of getting the teacher's attention. In each case, the gifted girls felt caught between doing their best and either appearing feminine or doing the caring thing.

These issues are less critical for the development of more normative levels of interest and talent. However, even in these cases, young people need to be willing to put in the time and energy necessary to become truly skilled in any particular domain of interest. Some youth do not have even this level of interest and would rather become moderately proficient in a variety of skills or would rather spend their time engaged in social and culturally relevant activities. Such an approach is not inherently 'less than' a more focused and motivated approach to skill and interest development. However, it is worrisome if the lack of interest in developing one's interests and talents reflects the lack of opportunity to find one's passion or negative depersonalizing experiences in the social contexts of development that undermine confidence and interest to such an extent that the young people give up on themselves or choose to protect their mental health by avoiding settings that would provide the opportunity to engage in challenging and skill-promoting activities. Positive experiences in well-designed positive youth development programs can decrease the likelihood of such processes.

Let us now turn to other internal barriers. Much of the relevant work has been done with regard to females and interest in science (Eccles, 1985; Eccles & Harold, 1992; Gassin, Kelly, & Feldhusen, 1993; Goldsmith, 1987; Hollinger, 1991; Hollinger & Fleming, 1992; Kerr, 1985, 1994; Kline & Short, 1991; Reis & Callahan, 1989). Many of these barriers have to do with conflicting values over career and family, made problematic by rigid societal gender role stereotypes and the lack of flexibility in the workplace and in the family division of responsibility. These were discussed earlier.

In her study of what becomes of high school valedictorians, Arnold (1995) found that some achieved less than was expected of them after their stellar high school performances because they realized that although they had the ability and discipline, the demands placed on them to excel were external; many were tired of meeting others' expectations but not their own, and thus 'dropped out' of their talent field. Arnold did not find that achievement and life satisfaction were strongly related in this population of high school valedictorians; many exhibited one but not the other. Similarly, Kerr (1994) discovered that many gifted women, as adults, were just as satisfied with homemaking and volunteer work as their gifted female peers who had chosen prestigious career paths. Although this finding prompted Kerr to question the meaning of 'achievement' for gifted women, she was worried about the impact of such life decisions for the larger society. Both Arnold and Kerr found that talented individuals who had not pursued their youthful dreams in adulthood were not necessarily unhappy or frustrated. However, because of barriers both external and internal, we will never know what these individuals could have accomplished or whether they could have found more fulfillment by pursuing their talents in careers. Similar concerns can be raised about the cost to both society and individuals of youth in other disenfranchised groups not being fully supported in their development of their interests and talents.

Psychological processes are important to understanding why people with talent may 'drop out' before achieving their potential. A pessimistic causal attribution style (attributing failure or difficulty to lack of ability rather than lack of effort and support) is one such psychological mechanism. Seligman, Nolen-Hoeksema, Thornton, and Thornton (1990) found that top athletes with an 'optimistic' explanatory style are more likely to improve their performance after disappointing feedback on a laboratory task, whereas those with a pessimistic explanatory style performed more poorly following failure in the same feedback condition. Given that competition gets more difficult the more advanced one's skill development becomes, the likelihood of experiencing some failure is likely to increase as well. Having a pessimistic causal attribution style could lead some talented individuals to drop out of their field just as they are reaching the highest levels of success.

Abra and Valentine-French (1991) also suggested that some talented young people are such perfectionists that they judge their own performance by impossibly high standards. This kind of stress may lead them to withdraw from a field despite performances that others consider outstanding.

Motivational orientation is another internal factor that can undermine continued efforts at developing one's interests and talent. Motivational orientation is often discussed in terms of two components: intrinsic and extrinsic. For example, Csikszentmihalyi and colleagues (1993) contrasted 'flow,' which is an intrinsic motivator, with more extrinsic motivators such as grades and career opportunities. Flow is a very powerful intrinsic motivator because it is linked to increased enjoyment when high challenge and high skill are combined. Extrinsic motivators such as grades or pleasing adults are less likely to sustain interest in developing one's talents to their fullest. Extrinsic motivators, such as the possibility of a career in one's talent

domain, can be a more positive form of extrinsic motivation but its power likely varies across various domains because of differences in the availability of adult career opportunities in different talent areas. In fact, Csikszentmihalyi et al. (1993) pointed out that athletics, art, and music need to be more intrinsically motivated because of the shortage of adult occupational niches in these areas. In contrast, because intellectual talents such as math and science are more likely to lead to interesting and challenging occupations, talented individuals should be more likely to stick with training in these areas even though such training can be quite tedious and boring.

Domain differences and their impact on motivation

Other interesting domain differences have also been found. For instance, Monsaas and Engelhard (1990) found that the goal structure of artistic and cognitive domains has different implications for competitiveness than athletics. Judgment of success in the first two domains depends less on the relative performance of others than it does in athletics. The authors found that talented individuals in athletics were more likely to come from competitive home environments than were talented individuals in the less competitive domains.

It is also significant that certain domains offer more career opportunities than others. For example, a physicist may be able to obtain a job even though s/he may not be the best in the field, whereas an athlete must really be one of the best to enter into professional athletics at all. Therefore, adolescent athletes who aspire to greatness are more likely to be 'putting all of their eggs in one very fragile basket' than are talented adolescent scientists, mathematicians, or writers. The competition is much greater when places at the top are scarce. On the one hand, it may be wiser to choose a more realistic career, but on the other hand success in athletic domains offers a very visible and glamorous 'ticket out' of poverty for many aspiring athletes from low SES backgrounds (Hoop Dreams, 1994). This may lead youngsters from low SES backgrounds to overestimate the probability of being able to become a professional athlete and to devote too much time and energy on this one domain, leaving them ill-equipped to move into another viable career if their athletic dreams do not become a reality. On the other hand, it is difficult to pursue multiple talents fruitfully. Although many talented people exhibit 'multipotentiality,' meaning that they may be capable of excelling in more than one area (Kerr, 1985, 1994), at some point a choice must be made so that the talented individual can focus on more intensive training in one domain to the exclusion of others.

Because the domain of athletics has such a short window of opportunity for an athlete's career (i.e., you must be relatively young to be an athlete) and because several examples of potential pitfalls in sports are particularly striking, we focus particularly on sports in the next few paragraphs.

The probability of serious and often career-ending injury is a somewhat unique hazard of pursuing athletic talent. The pressure in this domain to perform well with one's body often pushes athletes to abuse themselves by performing with injuries or

by artificially or medically altering bodily weight or strength. Recent cases involving steroid abuse by male athletes are good examples of this type of risk. Even more disturbing cases are being considered now with regard to how hard we are pushing athletically talented youngsters. To quote again from Joan Ryan (1995):

> Child labor laws prohibit a thirteen-year-old from punching a cash register for forty hours a week, but that same child can labor for forty hours or more inside a gym or an ice-skating rink without drawing the slightest glance from the government.... Coaches in this country need no license to train children, even in a high-injury sport like elite gymnastics. The government that forbids a child from buying a package of cigarettes because of health concerns never checks on the child athlete who trains until her hands bleed or her knees buckle, who stops eating to achieve the perfect body, who takes eight Advils a day and offers herself up for another shot of cortisone to dull the pain, who drinks a bottle of Ex-Lax because her coach is going to weigh her in the morning.... Some argue that extraordinary children should be allowed to follow extraordinary paths to realize their potential. They argue that a child's wants are no less important than an adult's and therefore she should not be denied her dreams just because she is still a child. If pursuing her dreams means training eight hours a day in a gym, withstanding abusive language and tolerating great pain, and if the child wants to do it and the parents believe it will build character, why not let her? (pp. 11–12)

One gymnast, Julissa Gomez, told her coach, Bela Karolyi, she was miserable from all the intense training and tension 1 year before the Olympics.

> 'Who said you had to be happy?' Karolyi replied. A short time later Julissa sprained her knee. Though her doctor told her to stay off it for a month, Julissa still went to the gym every day—fevers, chicken pox, broken bones and sprains were unacceptable excuses for missing practice.... Karolyi alternately ignored her and harangued her. In his mind, perhaps, he was trying to motivate Julissa to rise above the injuries. The Gomezes were paying him to produce the best gymnast he could, and Julissa could become a great gymnast only by pushing herself through the pain. Like a boot-camp sergeant producing hardened soldiers through humiliation, extraordinary work, and blind obedience, Karolyi had turned a handful of gymnasts into champions. But because twelve-year-old girls aren't soldiers, most of Karolyi's elite gymnasts didn't become champions. Most became entries on a hospital log. (Ryan, 1995, pp. 26–27)

Julissa Gomez was 16 when she broke her neck on a vault in a routine her coach made her perform despite her expressed fear of it. After 3 years of paralysis in the hospital, she died.

For females, aspiring to athletic success may be even more tortuous because of its inconsistency with the female gender role and its inconsistency with bodily changes associated with pubertal development. Females' parents and peers may not want

them to pursue 'men's' sports and become muscular and 'masculine.' Such pressures are likely to push many athletically talented females into more feminine sports. However, pushing them into 'feminine' sports such as gymnastics, ballet dancing, and figure skating can literally take their lives away from them. Image is just as, if not more, important than talent in these sports and females pay the price. There is great pressure to be as thin and light and as pretty as possible so girls starve themselves, have plastic surgery, and do whatever they can to prevent the onset of puberty. For example,

> [Nancy Kerrigan's coach told her] 'As soon as it's a woman's body, it's over. When they have lovely figures like the girl on the street, they're probably too heavy [for skating]. The older you get trying to do children's athletics, the thinner you must be.' [The coach] weighed his skaters at least once a week and forgave neither puberty nor body type for a skater's being anything but rail thin…. 'If you were skating better at a hundred and five pounds but looked better at a hundred, your coach wanted you to be a hundred,' [one] Olympian says…. Size informs every step of a skater's career. At one competition press conference, [a coach] fielded a question about the progress of her skater, [a sixteen year old. The coach] didn't hesitate with her answer: 'She's learned to handle her growth, and she's lost a little weight.' End of answer. She mentioned nothing about [the skater's] learning new jumps or becoming more graceful. (Ryan, 1995, pp. 96–102)

Females' self-esteem is shot by coaches who work them to the limits and by parents who expect too much. Females in these sports 'don't so much retire as expire' (Ryan, 1995, p. 35). If they continue to the 'elite' levels of performance, their spirits often die even if their bodies survive injury and starvation.

Injury itself is a source of psychological distress, as shown by the work of Linda Hamilton (1992, 1994) with ballet dancers. In addition to the pain, it is frustrating not to be able to engage in the rewarding, meaningful activity to which one has devoted ones' life and energies. Often, athletes recuperating from injuries suffer a loss if identity from not being able to participate in the activity. It is difficult, then, not to see oneself as a failure.

The life of young, talented athletes seems much more harrowing than the life of talented individuals in other fields even though these latter individuals also devote extensive amount of time to practicing and perfecting their skill area. Individuals talented in artistic and cognitive ways, as opposed to physical and psychomotor ways, are not as physically vulnerable and are likely have more options for and a greater window of time in which to pursue, future careers.

Finally, while we have discussed many reasons why young people may give up on the pursuit of a talent area early on, the awareness of the realities associated with an adult career in that field can also play a role (Seymour & Hewitt, 1997; Subotnik & Steiner, 1993). For instance, individuals may stop glamorizing a future career in a talent area when they realize the 'down' side, such as the politics of academe, the loneliness and constant travel of the concert musician, the doubtful financial security of the artist, and the limited longevity of an athletic career. Thus, the realities of adult

roles can lead talented individuals to limit their single-minded pursuit of excellence in a particular domain.

Conclusion

In closing, we need to make a critical distinction. We have been talking throughout this chapter about the gifted and talented and their pursuit of excellence in the area of their talent. This is not the same as discussing creativity (Siegler & Kotovsky, 1986). It has been pointed out by those in the field of giftedness that it is one thing to excel in school and quite another thing to produce original and creative works. The differences between these two levels of giftedness may explain why many individuals in the longitudinal studies of talent and giftedness seem to end up in the 'mainstream:' doing well but not achieving eminence (Arnold, 1993, 1995; Goldsmith, 1987; Subotnik, Karp, & Morgan, 1989; Subotnik & Steiner, 1993; Tomlinson-Keasey & Little, 1990). These individuals had high IQs but were not necessarily creative. Conversely, many eminent figures were not identified as gifted when they were children (Csikszentmihalyi & Robinson, 1986). While it is difficult to settle on definitions, it does seem that many of the participants in longitudinal studies of gifted and talented individuals exhibited mastery of a particular academic subject matter without developing passion or commitment to that domain. In this way, they differ from creative individuals who have produced original works and made a unique and very special contribution to their fields.

The point, however, is that many gifted and talented individuals give up something they are good at and we wonder why. More research is clearly needed in order to answer this question. Others never get the chance to even begin this journey. This chapter attempted to outline some of the reasons why some individuals might drop out and others may never even begin to try to perfect their talents. Possible reasons include lack of time, resources and/or energy in one's family and larger social network; lack of information and guidance; lack of productive, challenging work or instruction; dissatisfaction with, or inability to mobilize, the requirements for perfecting one's talent, such as working in solitude and maintaining a singular focus; incompatibility of the demands of the domain with other aspects of one's life and values either as a result of socialization or as a result of life transitions, including pubertal development and taking on of new life roles; maladaptive explanatory or attributional style; injury; burnout; and/or disillusionment with future options or lifestyles in the talent area.

Future research should focus more directly on identifying the reasons why people stop pursuing a specific talent as well as how they cope with this change and how they shift focus to another field or activity. It should also focus more directly on understanding the mechanisms leading to the identification and mentoring of specific interests and talents in various subgroups; particular attention should be paid to the reasons underlying our failure to identify and nurture the interests and talents in so many groups of people, especially people who are nonwhite, poor, and/or female. Finally, more attention needs to be paid to designing instructional

and youth development programs that nurture talent without destroying the spirits and the bodies of our talented young people. Youth development programs provide a unique setting for helping young people explore their interests and talents and then get the help and support they need to develop these interests and talents. In most industrialized countries, schools provide some opportunities to develop these interests and talents if they are directly related to the curriculum and goals of the schools. Beyond schools, many youth depend solely on their parents and families to help them explore and then develop their interests and talents. Such a situation is likely to be effective primarily for rich families, living in resource-rich communities, and for culturally supported interests and talents. It will be much less effective for poorer families, living in resource restricted communities, and for more unusual and counterstereotypic interests and talents. It is in these situations and communities that well-structured and well-implemented positive youth development programs can have a major impact on opening doors for youth of all competence levels and all subcultural groups. By stressing the right of all young people to the opportunities to explore and develop their interests and talents, the positive youth development movement has the chance to expand the horizons of all youth and to facilitate the creation of programs designed to help all youth fulfill their potential.

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