

## Chapter 5

# A Feminine Perspective of Giftedness

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**Abstract** The feminine perspective, the legacy of Leta Stetter Hollingworth, focuses on developmental differences in childhood and equal opportunity. The masculine perspective, the legacy of Francis Galton, equates giftedness with eminence. Women, economically disadvantaged, and culturally diverse groups do not have the same opportunities to attain eminence. The lack of eminent women has been attributed to Darwin's variability hypothesis: since males are more variable than females, more males are assumed to be at the extremes of intelligence, whereas women tend toward the mean. In 1914, Leta Stetter Hollingworth completely discredited this hypothesis. Research for 100 years has demonstrated that there are at least as many gifted girls as boys—even in the highest IQ ranges. Men now disparage IQ tests. Internationally, the field still defines giftedness as the potential for eminence. This chapter discusses masculine and feminine conceptions, the development of gifted girls, and barriers for girls from culturally diverse and low socioeconomic circumstances.

**Keywords** Giftedness · Eminent women · Gifted girls · IQ testing · Diversity · Cultural diversity · Economic Diversity · Sexism · Gender equality

## Introduction

The proposal that men and women perceive giftedness differently was put forth in the chapter, "What Happens to the Gifted Girl?" (Silverman, 1986). In some

respects, this chapter is an update of the previous one, incorporating information about cultural diversity. We will review the origins of the masculine and feminine perceptions of giftedness and current conceptions and discuss the issues facing girls of diverse cultural backgrounds and those of limited economic circumstances.

## How Fathers and Mothers Perceive Giftedness

The idea of masculine and feminine perspectives originated from observing differing attitudes of mothers and fathers of gifted children. Over the last 30 years, 5,600 families have come to the Gifted Development Center in Denver, Colorado, USA, for assessment. The vast majority of those who have initiated contact with the Center are mothers—although this picture is gradually shifting. During the first 10 years, fathers often had to be coaxed into agreeing to have their children tested. At first blush, this sounds perfectly reasonable, as children's education traditionally has been the realm of mothers and finances the realm of fathers. However, deeper, philosophical differences often surfaced in the reactions of the parents during post-test conferences. While mothers were relieved to have their suspicions confirmed with the testing, some fathers viewed the test results with skepticism. After we tested his son, one Dad remarked, "He's only 5. What could he have **done** in 5 years to be gifted?" Other fathers had similar reactions. A physician asked if the error of measurement was 28 points, because he would have been more comfortable subtracting 28 points from his son's IQ. When he was informed that the margin of error was around 5 points and that this meant his son's IQ score might be 5

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points higher, as well as 5 points lower, he was visibly disappointed.

One might guess that the skepticism was monetarily motivated: “Why am I paying for this?” However, fathers who attended parent seminars—some of which were free—had comparable attitudes to the Dads who were clients. After one presentation, a father mentioned that his daughter was reading several years above grade level, but he was “sure” she was not gifted. Another Dad described all the awards his son had won at Stanford University, but, he, too, was certain his son was not gifted. When asked “What would he have to do to be gifted in your eyes?” the man quickly retorted, “Well, he’s no Einstein!”

Cornell (1983) had an analogous finding. Parents often disagreed about whether their child was gifted or not, and the side each parent was on was predictable:

...in cases in which the parents disagree in their perception of the child, it is almost always (13 of 15 cases) the mother who perceives the child as gifted and the father who does not. . . (p. 329)

...The fathers in this study often commented skeptically on their wives’ perception of their children as gifted. (p. 332)

Attempting to understand the basis of the differing viewpoints of these mothers and fathers, it seemed plausible that there could be “distinct masculine and feminine perspectives of giftedness” (Silverman, 1986, p. 56). As we shall see later on, the masculine viewpoint can be held by women and the feminine viewpoint can be held by men, but they seem to emerge from traditional differences in the life experiences of men and women. Men who define themselves by their achievements tend to conceptualize giftedness as achievement or the potential for achievement. From this perspective, to be gifted, one must be recognized by one’s culture as having contributed something of lasting value. The true test of one’s abilities is the quantity, quality, and influence of one’s accomplishments in adult life—often determined by the number of biographies written about an individual (T. Goertzel & Hansen, 2004). It follows that there are no gifted children. There can only be promising children with the potential for greatness.

For a Dad who holds this picture of giftedness, predicting which children will be the most influential adults is a bizarre game of chance, and assessment of that potential in a young child makes little sense. In fact, it seems like a cruel game, particularly for a boy,

because if his son is selected for “the potentially eminent group,” he may be set up for failure—a life of unbearable pressures and false hopes. The father’s protective reaction, therefore, is to deny his son’s giftedness. “I don’t want to rob him of his childhood.”

By way of contrast, if the mother is the child’s primary caretaker, she is apt to experience on a daily basis the dynamic development of her children. She is more likely than her husband to notice if her child is progressing faster through the developmental milestones. Mothers have been found in various parts of the world who observed developmental differences in their children in infancy (Alomar, 2003; Louis & Lewis, 1992). If, at the age of 11 months, her daughter begins asking the names of objects, and if, at 17 months, she is memorizing books, Mom is initially delighted. But when she takes her daughter to a playgroup, delight may turn to anxiety. The mother cannot help but notice that her child is talking in sentences before the other children in the playgroup are combining two words. Awareness of the developmental differences between her child and other children grows into uneasiness. She may wonder, “How will she fit in with the other children?” “Will she be lonely?” “What will the teacher do with her if she’s already reading in kindergarten?” “Should I hide the books?” “I don’t want them to think I’m another ‘pushy parent.’” “Are we doing enough to nurture her abilities?” Questions like these may eventually lead her to seek professional guidance and assessment of her child’s abilities. But taking that step is not easy—particularly without her partner’s support.

When she can no longer ignore the child’s advanced vocabulary and incessant questions, the mother’s fear of “What will happen to my child?” overrides her fear of looking foolish if she has overestimated her child’s abilities. It takes courage to find out just how advanced one’s child might be. As she picks up the phone, a voice in her head is screaming, “What if you’re wrong? All parents think their children are gifted!” In truth, few parents think their children are gifted and want them labeled (Feldhusen, 1998). Parents are actually more likely to underestimate than overestimate their gifted children’s abilities (Munger, 1990; Rogers, 1986). But the myth persists.

For Dad, a child only has the “potential” for giftedness; the child’s giftedness has yet to be proved by means of adult achievements. For Mom, potential for achievement is not the salient issue. She is concerned with her child’s adjustment now, in childhood, and she

has been troubled about her child's welfare ever since she became aware that her child is developing at a faster rate than other children of the same age.

Reviewing the literature in the field, it appeared that male writers perceive giftedness very much like the fathers, and female writers' perceptions tended to mirror those of the mothers. Differences between masculine and feminine perspectives of giftedness become apparent in perusing the earliest writings in the field. Sir Francis Galton, who fathered the study of intelligence, equated giftedness with eminence. Leta Stetter Hollingworth, the foremother of gifted education, objected vigorously to this inequitable criterion. Her writings focused on the psychosocial development and adjustment problems gifted children experience by virtue of their developmental differences. Galton studied eminent men and Hollingworth was the champion of gifted girls and women. Hollingworth taught the first course on "Nature and Needs of the Gifted" at Columbia University Teachers College in 1922 and wrote the first textbook in the field in 1926. The feminine perspective of giftedness was the legacy of Leta Hollingworth, whose message is nearly forgotten in the current milieu. And so our foremother plays a significant role throughout the chapter.

## Giftedness as Eminence

The little book that inaugurated the scientific study of intelligence, the nature/nurture controversy, the field of mental measurements, and the study of genius—*Hereditary Genius*—was written by Galton (1869) when he was approaching 50 years of age. To support his contention that intelligence is inherited and that it varies greatly among human beings, Galton traced the genealogy of many prominent British men, noting the high incidence of eminence in their families. He concluded that eminence is hereditary, that ancient Athenians were genetically superior to Europeans, and that Anglo-Saxons were superior to those of African heritage. Galton was also the founder of eugenics, and it has taken well over a century for the study of giftedness to recover from its racist inception.

Galton made no mention of gender or socioeconomic status. Women were omitted from his discussion because the natural superiority of males was presumed. Fifteen years later, Galton set up the first mental testing center, which measured sensory capacities, such as strength of grip and discrimination of weights. In the

6 years that he operated his Anthropometric Laboratory, Galton (1907) tested 9,337 men and women and concluded that women were inferior in all of their capacities to men (Boring, 1950). Although these early measures of mental ability were completely invalid (Carroll, 1993), they supported the entrenched beliefs at the turn of the century.

Most of the eminent families Galton studied were independently wealthy, but he insisted that social advantages could not create eminence; otherwise adopted children would attain distinction as easily as natural children. Neither did the vicissitudes of life inequitably affect achievement: the cream naturally rises to the top, regardless of misfortune:

High reputation is a pretty accurate test of high ability. . . (p. 2).

It follows that the men who achieve eminence, and those who are naturally capable, are, to a large extent, identical. . . . If a man is gifted with vast intellectual ability, eagerness to work, and power of working, I cannot comprehend how such a man should be repressed. (Galton, 1869, pp. 33–34)

The year of Galton's death, 1911, Leta Stetter Hollingworth began graduate school at Columbia University in education and sociology, eager to take up the cause of gender discrimination. Before coming to New York to marry Harry Hollingworth in 1908, Leta Stetter had taught school in Nebraska. She assumed that she would be able to continue working after she was married, only to discover that married women were barred from teaching appointments in New York City. A single teacher could retain her position if she married, but if she became pregnant, she was dismissed (Klein, 2002). Hollingworth applied for scholarships and fellowships to obtain a graduate degree, and these doors were also closed to her. Women were ineligible for fellowships at Columbia University (Klein, 2002). Discouraged and puzzled by the role society had laid out for her, she pondered the inequality of women's opportunities in society, particularly its toll on gifted women. She called this, "the woman question":

Stated briefly, "the woman question" is how to reproduce the species and at the same time to work, and realize work's full reward, in accordance with individual ability. This is a question primarily of the gifted, for the discontent with and resentment against women's work have originated chiefly among women exceptionally well endowed with intellect. (Hollingworth, 1926, pp. 348–349)

A given woman of the same intellectual caliber as a given man is not of the same economic value as the latter, because masculinity is itself an asset of superior worth. (p. 357)

In 1916, Hollingworth began to study gifted children, but never abandoned “the woman question” (Hollingworth, 1926, p. 348).

In the book that formally initiated the field of gifted education, *Gifted Children: Their Nature and Nurture*, Hollingworth (1926) presented a feminine perspective of giftedness. She challenged Sir Francis Galton’s views in the very first chapter:

An overwhelming majority of illustrious persons have had fathers who were far above the average in social-economic conditions—nobles, professional men, or men successfully engaged in commerce. Very few children of manual workers become eminent in high degree . . . Very few women can be included among those who in the world’s history have achieved first rank for mental work.

One possible interpretation is that education and opportunity are the prime determinants of achievement, since nearly all of the great men have been born in comfortable homes, of parents in superior circumstances. If opportunity were indeed the prime determinant of eminence, then we should expect those who belong to socially inferior categories to be virtually excluded from it. This is just what we do find, since the uncultured, the poor, servants, and women are very seldom found to have achieved eminence. (p. 11)

Unlike the hereditarian views of Galton and Terman, Hollingworth (1926) maintained that what a person *can do* might depend on endowment, but what he or she actually *does do* probably depends on opportunity. Galton provided the fuel for her argument that women have little opportunity to attain eminence:

A very gifted man will almost always rise, as I believe, to eminence; but if he is handicapped with the weight of a wife and children in the race of life, he cannot be expected to keep as much to the front as if he were single. He cannot pursue his favorite subject of study with the same absorbing passion as if he had no pressing calls on his attention, no domestic sorrows, anxieties and petty cares, no yearly child, no periodical infantine epidemics, no constant professional toil for the maintenance of a large family. (Galton, 1869, p. 320)

Hollingworth found this passage an apt description of the plight of gifted women. Citing data collected on the new IQ tests for children, she contemplated what would become of the little girls who tested above 170 IQ:

It will be of social value to observe the deflections from possible eminence which they meet, and to see how many will survive “domestic sorrows, anxieties and petty cares, a yearly child, and periodical infantine epidemics.” (Hollingworth, 1926, p. 68)

It is interesting to note that Galton, the founder of eugenics, had no children.

### ***Dismantling the Variability Hypothesis***

. . . Women furnish few persons of great eminence, yet sisters of great men are of exactly the same ancestry as their brothers. (Hollingworth, 1926, p. 13)

If sisters of eminent men did not become eminent, another explanation was needed besides heredity. Galton’s half-cousin, Charles Darwin, provided that explanation—the variability hypothesis—which persists today, in spite of rigorous research to quell it (Lips, 2005). Darwin (1897) concluded that male members of all species were more advanced on the evolutionary scale than the female members because of greater variability of secondary sex characteristics. The reason so few women had attained eminence was clear to Darwin—they were less variable than males, therefore far fewer were extremely bright or extremely dull. They were all pretty much the same:

The chief distinction in the intellectual powers of the two sexes is shown by man’s attaining to a higher eminence, in whatever he takes up, than can woman—whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands. (Darwin, 1897, p. 564)

Edward L. Thorndike (1906), a devotee of Darwin, warned that postgraduate instruction for women was a poor investment. “A slight excess of male variability would mean that of the hundred most gifted individuals in this country not two would be women, and of the thousand most gifted, not one in twenty” (p. 213). In the second edition of his classic text, *Educational Psychology*, released in 1910, Thorndike presented the following sentiments:

In the great achievements of the world in science, art, invention, and management, women have been far excelled by men. . . . The probably true explanation is to be sought in the greater variability within the male sex. . . . In particular, if men differ in intelligence and energy by wider degrees than do women, eminence in and leadership of world’s affairs of whatever sort will inevitably belong oftener to men. They will oftener deserve it. (p. 35)

When Leta Hollingworth enrolled in graduate school in 1911, E. L. Thorndike became her advisor. It would be easy to imagine that there was a constant war between them. On the contrary, Thorndike was Hollingworth’s greatest mentor—“the most influential to her

intellectual and philosophical evolution as a scientist and teacher” (Klein, 2002, p. 74). Thorndike was a facilitator of learning; he believed in promoting independent thinking in his students. It was in this favorable climate that Leta Stetter Hollingworth (1914) had the spunk to challenge Thorndike publicly, 2 years before she graduated. Her 21-page article, “Variability as Related to Sex Differences in Achievement: A Critique,” was published in *The American Journal of Sociology*:

Thorndike . . . declares . . . that “We should first exhaust the known physical causes” before we proceed to any assumption of mental inferiority in explaining woman’s lack of achievement. But have these “known physical causes” been exhausted if we end with the conclusion that “the probably true explanation is to be found in the greater variability within the male sex”? Surely we should consider *first* the established, obvious, inescapable, physical fact that women bear and rear the children, and this has always meant and still means that *nearly 100 per cent of their energy is expended in the performance and supervision of domestic and allied tasks, a field where eminence is impossible.* (Hollingworth, 1914, pp. 527–528)

As she was completing her master’s degree, Hollingworth was offered a position administering mental tests at a Clearing-House for intellectually limited individuals. This provided her with an excellent opportunity to collect data on the variability hypothesis. One arm of the hypothesis was that there were substantially more males than females among the developmentally delayed. Records of 1,000 individuals brought to the Clearing-House over a 2-year period revealed that although boys brought to an institution far outnumbered girls in the younger age groups, by the age of 16, the situation reversed itself and twice as many women were committed (Hollingworth, 1913, 1914). Hollingworth discovered that men could only survive outside an institution with a mental age of 12, whereas women could survive with a mental age of 6, by means of housekeeping chores, child care, and selling sex, therefore obscuring an accurate count.

In another article published the same year in *The American Journal of Sociology*, Helen Montague and Leta Stetter Hollingworth (1914) shared the results of an even more ambitious project. They undertook a study of 2,000 neonates—1,000 of each sex—and, analyzing 20,000 measurements, demonstrated that the variability of infants was no greater in males than in females. Where variability did exist, it favored the girls. Therefore, the preponderance of men among the eminent could not be traced to greater inherent variability of

males. A better explanation was that variability is more likely to occur where there is more opportunity for its expression and development:

We should expect to find adult males more variable than adult females, because the males are free to follow a great variety of trades, professions, and industries, while women have been confined to the single occupation of housekeeping, because of the part they play in the perpetuation of the species. Thus variability has had comparatively little survival value for women. A woman of natural Herculean strength does not wash dishes, cook meals, or rear children much more successfully than a woman of ordinary muscle. But a man of natural Herculean strength is free to abandon carpentry or agriculture and become a prize fighter or a blacksmith, thus exercising and enhancing his native equipment. (p. 343)

Robert Lowie and Leta Stetter Hollingworth’s article, “Science and Feminism,” in *Scientific Monthly*, ostensibly put to rest the variability hypothesis (Lowie & Hollingworth, 1916). Yet, it continues to rear its ugly head. In the October, 2005 issue of *Discover* magazine, Ellen Ruppel Shell interviewed physician and geneticist, Horst Hameister of the University of Ulm in Germany. Professor Hameister is quoted as saying, “Females tend to do better overall on IQ tests; they average out at about 100, while men average about 99. . . Also, more men are mentally retarded. But when you look at IQs at 135 and above, you see more men” (p. 43). The variability hypothesis refuses to die.

## **Eminent Women**

Women do not fare well in the race for eminence. Of the 768 Nobel Prizes awarded between 1901 and 2006, 34 were awarded to women—4% of the total—with 2 of them going to the same woman in the fields of physics and chemistry: Marie Skłodowska Curie. Twelve of the awards were the Nobel Peace Prize and 10 were in the area of literature. Only 2% were in the sciences (Silverman, 2007). There is no listing of Nobel Laureates by ethnicity:

Few women relative to men have managed to achieve positions of eminence. . . . Men received almost 98% of the Nobel prizes in science areas and 99% of the prestigious awards in mathematics during the 20th century. . . . Women of color, often the targets of double discrimination, have even less representation in the ranks of the eminent than do their ethnic majority counterparts. For instance, the first Ph.D. in mathematics awarded to an African American woman, Evelyn Boyd Collins, was not

granted until 1946; the first African American woman to earn a Ph.D. in physics, Shirley Jackson, received it in 1976; and only in 1987 did the NASA astronaut training program select its first African American female astronaut, Dr. Mae Jemison. . . . Only 2% of the directors of the top 100 companies in Britain are women. . . . Females and males are socialized differently with respect to achievement, . . . males are often automatically accorded more status than females, and . . . women and men frequently differ in their access to the resources. . . (Lips, 2005, pp. 461–463)

Ted Goertzel, with the assistance of his step-niece Ariel Hansen (T. Goertzel & Hansen, 2004), provided a second edition of his parents' study of famous 20th century individuals, *Cradles of Eminence* (V. Goertzel & M. Goertzel, 1962). In the original study, only 14% of the 400 eminent individuals were female. Of these, 44.8% were writers, 14% were singers or musicians, and 10% were actresses—nearly two-thirds of the women (T. Goertzel & Hansen, 2004). The other 22 women represented 6% of the total number of eminent individuals.

In the updated collection of 700 famous men and women, T. Goertzel and Hansen (2004) reported that using the same methodology as the original book, twice as many eminent women were found; however, there were twice as many actresses, 8 times as many athletes, and quite a few in a new category—"Wives, Family Members, and Socialites." In addition, there were less than half as many women writers:

These biases persist in the later samples, with very few women in the categories of political leader, an important category for men. Indeed, part of the increase in women in the sample is due to growth in the category, "Wives, Family Members, and Socialites" [8.5% of the women]. There is also a significant increase in the biographies of women athletes. This bias is not a defect in the sampling; it reflects current social reality. There simply are many more eminent women who are writers [17.3%], singers [9.8%], athletes [8.4%], and actresses [20.6%] than eminent women in top political positions. (p. 318–319)

There is no question that great gains have made in opportunities for women in athletics, but female athletes and their teams are paid substantially less than males (Lips, 2005). At the international level, women have made giant strides politically in the last few years. There are now 30 women ruling countries, compared to 17 in 2005; women leaders can be found in every region of the world (Ho, 2006).

There also has been an increase in female role models in politics in the United States in recent years:

Madeline Albright and Condeleezza Rice as Secretaries of State, and Nancy Pelosi, Speaker of the House, successfully breaking what she called the "marble" ceiling. Currently, there are 16 female US senators; however, only 17% of the members of the US Congress are women. The United States ranks low, internationally, in its representation of women in national legislatures: "71 nations have a greater percentage of females" (Wallenchinsky, 2007, p. 5).

Myra Sadker and David Sadker (1994) asked students from elementary to college age to list 20 famous American women (no athletes or entertainers) within 5 minutes. "On average, students can list only four or five women from the entire history of the nation" (Sadker & Sadker, 1994, p. 130). When so few were able to do this, they made the task easier by asking them to name 10 famous women anywhere in the world; students were still unsuccessful. The focus on men's achievements in history and science books is part of the problem. Most history books are about war and conquest—definitely male territory, and the study of science has not been equally accessible to females:

In the 1970s, analyses of best-selling history books showed a biological oddity, a nation with only founding fathers. More space was given to the six-shooter than to the women's suffrage movement. In fact, the typical history text gave only two sentences to enfranchising half the population. Science texts continued the picture of a one-gender world. . . . Today's history and science texts are better—but not much. (Sadker & Sadker, 1994, p. 7)

The media are also guilty. *Newsweek* magazine published an article on "The Puzzle of Genius" in 1993 (Begley, 1993). Although warned in advance that the term "genius" is rarely applied to women, this concern fell on deaf ears: the 8-page article described the achievements of 55 male geniuses. Only 3 women appeared: Marie Curie, Martha Graham, and Sarah Chang. The winner of two Nobel Prizes—Marie Curie—was stunningly ignored; she was simply listed in parentheses as "motherless." Martha Graham was pictured with no description, but her tutu gave away her profession. And Sarah Chang, the 12-year-old violin prodigy, was not actually in the article; she appeared in a sidebar entitled, "They Burn So Bright," implying that she was likely to burn out! The belief that only men can be geniuses may be so deeply ingrained that the club might not ever offer membership to women:

There is no female genius, and there never has been one. . . .and there never can be one. . . . A female genius

is a contradiction in terms, for genius is simply intensified, perfectly developed, universally conscious maleness (Weininger, 1910, p. 347).

## Masculine Conceptions of Giftedness

Galton established eminence as the quintessential evidence of giftedness. Darwin seconded the motion. Lewis Terman cemented the connection in his *Genetic Studies of Genius* (Terman, 1925). In 1921, Terman received a sizeable grant from the Commonwealth Fund to investigate the childhoods of 300 eminent individuals and to conduct a longitudinal study of gifted children. Catherine Cox (1926), who contributed the second volume of the series, presented evidence of giftedness in the childhoods of eminent individuals, drawn from their biographies, along with estimates of their IQs. The 300 individuals selected for study came from Cattell's "objectively determined" (p. vi) list of the 1,000 most eminent men in history. This list of men included 32 women. Cattell wrote, "I have spoken throughout of eminent men as we lack in English words including both men and women, but as a matter of fact women do not have an important place on the list" (as quoted in Hollingworth, 1914, p. 525).

In the Preface to Volume 2, Terman wrote:

The interests of the editor center largely in the question whether, or to what extent and how, genius is evidenced in childhood, since it is obvious that the answer to this question must be forthcoming before we can rationally set about the formulation of methods for the training of gifted children. (Cox, 1926, p. vi)

Terman (1917) conducted the prototype for this inquiry in an evaluation of Galton's level of intelligence from evidence of his precocity in childhood. He estimated that Galton's IQ was "not far from 200" (p. 210) from the fact that he learned to read at 2 1/2, was able to read any English book at the age of 4, learned his multiplication facts before he was 5, etc. Terman's recognition that advanced development in childhood correlated with level of intelligence was an important foundation for the feminine perspective.

The second part of the grant enabled Terman to study 1,528 children who had attained 140 IQ or above on his *Stanford-Binet Intelligence Scale* (1916b). The "Termites," as they were called, were and continue to be followed for their entire lives. This unprecedented event laid the groundwork for longitudinal studies in

psychology. While the males were unquestionably productive in adult life, none achieved the level of greatness Terman hoped. Critics of IQ testing have used this fact as just cause to denounce intelligence testing.

## *The Benefits of IQ Testing for Gifted Females*

Alfred Binet (Binet, 1905) in France and Lewis Terman (1916b) in the United States, along with the studies of Peter and Stern (1922) in Germany, changed the course of history for women. The development of a scale that could measure intelligence in childhood was a pivotal turning point, challenging the ancient law of the natural superiority of males. Studies emanating from these scales shocked the scientific world, as they demonstrated clearly that girls equaled or surpassed boys in intelligence. Yerkes and Bridges, two of Terman's contemporaries in the new assessment industry, warned him that it would be a serious injustice to the girls to evaluate their scores in light of norms that did not take sex differences into account. They recommended that Terman construct separate sets of norms for boys and girls (Terman, 1916a). He did not heed their advice.

When the first 1,000 Stanford-Binets were administered, Terman (1916a) reported "there was found a small but fairly constant superiority of the girls up to the age of 13 years. At 14, however, the curve for the girls dropped below that for boys" (p. 70). Terman realized that his findings would be met with disbelief. Even he held the variability hypothesis sacred (Borland, 1990). He followed up his results with an analysis of school records and teacher judgments for nearly a thousand students "for evidence as to the genuineness of the apparent superiority of the girls" (Terman, 1916a, p. 70):

The results of all these lines of inquiry support the tests in suggesting that the superiority of the girls is probably real even up to and including age 14, the apparent superiority of the boys at this age being fully accounted for by the more frequent elimination of 14-year-old girls from the grades by promotion to the high school. (p. 70)

The feminine perspective of giftedness, as it was conceived by Leta Hollingworth, was necessarily tied to performance of children on IQ tests. With recognized achievement in adulthood being considered the definitive demonstration of high intelligence,

females were excluded. The advent of intelligence testing of children provided empirical proof of high intelligence in females. IQ tests became the valid, reliable, and cherished method of finding gifted girls. Hollingworth (1926) wrote, “mental tests proved the existence of gifted girls” (p. 347). The evidence was irrefutable. Even Thorndike recognized it:

The trivial difference between the central tendency of men and that of women . . . is the common finding of psychological tests and school experience . . .

One who accepts the equality of typical (i.e., modal) representatives of the two sexes must assume the burden of explaining the great differences in the high ranges of achievement. (Thorndike, 1910, p. 35)

Hollingworth (1926) eagerly publicized the findings of Terman, and Peter and Stern in *Gifted Children: Their Nature and Nurture*:

In the most extensive census at present available [Terman’s study], therefore, among school children testing above 140 IQ, the ratio of boys to girls is 111:100 when allowance is made for the greater number of boys born. The three highest cases—those ranging farthest from mediocrity—were girls, all with IQ above 190.

In Germany, Peter and Stern, testing large groups for children of promise in the *Volkschulen*, report that “the girls do as well as the boys. The ten best girls equal the ten best boys in performance.”

. . . Mental tests have given no explanation of the great disproportion of eminence among men. . . . On the basis of mental gifts alone we should expect for every hundred and eleven men of eminence for intellectual work one hundred women of equal eminence. Moreover, the most eminent persons should be women (since the highest IQ’s found were those of girls).

As this is by no means what history reveals (though we know that intellect in childhood is predictive of intellect in maturity) we must assume that there are powerful determinants of eminence beside intellect. (pp. 67–68)

As we shall see, current studies confirm these results. While gifted women continue to be poorly represented among the eminent (1–6%), gifted girls perform as well as gifted boys on measures of intelligence.

### ***The War Against IQ Testing***

It is interesting that the attack against intelligence tests was launched by men—men of noteworthy achievement. From the masculine perspective, IQ tests are of questionable value, as they fail to predict eminence in adult life. Over 65 years ago, Paul Witty (1940) presented the position that is still popular today:

It is abundantly clear than an extraordinarily high IQ is not an indicator of later attainment that may be regarded as highly or significantly creative; nor do the most remarkable test ratings in childhood warrant expectancies of adult performance which may be characterized as the work of genius. . .

If by gifted children we mean those youngsters who give promise of creativity of a high order, it is doubtful if the typical intelligence test is suitable for use in identifying them. (p. 504)

In the book that shook the foundations of gifted education, Howard Gardner (1983) attacked IQ testing in the first pages:

The hedgehogs not only believe in a singular, inviolable capacity which is the special property of human beings: often, as a corollary, they impose the conditions that each individual is born with a certain amount of intelligence, and that we individuals can in fact be rank-ordered in terms of our God-given intellect or I.Q. So entrenched is this way of thinking—and talking—that most of us lapse readily into rankings of individuals as more or less “smart,” “bright,” “clever,” or “intelligent.” (p. 7)

. . . The tests have predictive power for success in schooling, but relatively little predictive power outside the school context . . . (p. 16)

David Feldman (1984) investigated whether individuals who obtained IQ scores above 180 were “significantly more gifted” (p. 521) than those with IQs in the 150 range. He concluded the following:

On the whole, one is left with the feeling that the above-180 IQ subjects were not as remarkable as might have been expected. . . . While 180 IQ suggests the ability to do academic work with relative ease, it . . . does not suggest the presence of “genius” in its common-sense meaning, i.e., transcendent achievement in some field. For these kinds of phenomena, IQ seems at best a crude predictor. For anything more, we will probably have to look to traditions other than the psychometric and to variables other than IQ. (p. 521)

The title of Robert Sternberg’s book, *Beyond IQ*, is suggestive of its contents:

Many people who have been exposed to the content of typical IQ tests . . . cannot help but be struck by the narrowness of the conception of intelligence that they represent. On the one hand, they provide a fairly broad sampling of higher-level cognitive skills; on the other hand, they fail to sample the kinds of noncognitive adaptive skills that people . . . indicate form a part of intelligence in the real world. (Sternberg, 1985, p. 35)

The indictment against IQ tests by American leaders in the field, endorsed by the media (Snyderman & Rothman, 1988), has had a sweeping impact worldwide.

Nancy Robinson (2008), who has conducted studies of thousands of gifted children, counters the arguments of those who use lack of stellar achievement in adult life to disparage intelligence testing:

Not all students selected for gifted programs will proceed to become gifted adults or world-class performers, to be sure. It would be wrong to criticize selection measures because they do not, by themselves, locate as children those adults who will change the world. For such success, a number of personality factors, high-quality instruction, deep and protracted commitment to one's talent development through both good times and bad, opportunities for advancement, and an appropriate configuration of genes are all required. (Robinson, 2008, p. 171)

### **Current Models of Giftedness**

The masculine perspective—the search for the potentially eminent—has dominated the field for the last century. A search of *Psychological Abstracts* (Albert, 1969) revealed 184 entries on genius, eminence, and distinction between 1927 and 1957, compared with 213 on gifted children and giftedness. After Sputnik was launched, America suddenly valued its gifted children as a national resource to regain its technological supremacy. During this heyday, from 1958 to 1965, there were 295 studies of giftedness and gifted children, compared to 8 on genius. Fifty years after Sputnik, gifted children are still valued for what they can do—and what they have the potential to do—rather than for who they are.

Gifted women, also, have become valued for what they can do. A recent on-line search of the PsycINFO database for “giftedness and women” produced 294 records from 1967 to 2006, references to articles, books, chapters, dissertations, and reports. The word “achievement” appeared in 119 or 41% of the entries in the title, abstract, subject line, or classification code. From 1967 to 1976, 56% of the records focused on achievement, and from 1977 to 1986, that shrunk to 44%. In the first two decades, there were only 41 reports on gifted women, and 20 were concerned with women's achievement. In the last two decades, there were 253 abstracts on gifted women and 98 of these related closely to their achievement. The question of how to groom gifted women to become high achievers is the focus of a great deal of research.

For the last 15 years, there has been a strong movement to do away with “giftedness” and replace it with

“talent development” (e.g., Treffinger & Feldhusen, 1996). This paradigm shift, as Feldman (1992) calls it, involves abandoning testing, especially IQ tests, and replacing the notion of general intelligence with the recognition of multiple intelligences (e.g., Gardner, 1983). The influence of this movement was seen in *National Excellence: A Case for Developing America's Talent*, a report issued by the United States Office of Educational Research and Improvement (OERI) (1993). Representing the official position of the United States, *National Excellence* redefined giftedness in the following manner: “Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment” (p. 26, italics added). Although the term “gifted” remains in common parlance, no new government report has been issued since 1993.

A search for definitions of giftedness revealed that the National Association for Gifted Children in England recognizes five modern definitions and conceptions of giftedness put forth by Howard Gardner, Joseph Renzulli, Francoys Gagne, Robert Sternberg, and Abraham Tannenbaum (<http://www.nagcbrtain.org.uk/>). All of these men subscribe to an achievement view of giftedness, or view giftedness as the potential for achievement. Howard Gardner (1983) postulated seven intelligences based on the culturally recognized achievements of adult males (with the exception of choreographers, such as Martha Graham). Joseph Renzulli's (1978) three-ring conception of giftedness downplays the role of intelligence in giftedness, suggesting that above-average intelligence is sufficient for creative-productive giftedness, along with task commitment and creativity. For Gagne (1985), giftedness is natural ability that must eventuate in talent. Talent is significantly above-average performance in one or more fields of human activity. “Gagne's model has been adopted by the majority of the Australian state education systems” (M. Gross, personal communication, January 19, 2007). Robert Sternberg's (1985) triarchic theory postulates 5 criteria that need to be met for a person to be judged gifted: (1) excellence relative to peers; (2) rarity of a high level skill; (3) the area in which the person excels must lead to productivity or potential for productivity; (4) it is demonstrable through valid assessments; and (5) it is valuable—the excellence the person possesses must be valued by his or her society. Abraham Tannenbaum

(1983) defines giftedness as potential for becoming critically acclaimed performers or producers of ideas. Developed talent exists only in adults.

All good exemplars of the masculine perspective, these definitions were put forth between 1978 and 1985 and are still the most prevalent views. Recognized achievement or potential is what counts, not ability. The feminine perspective is conspicuously absent.

## Feminine Conceptions of Giftedness

The missing element in the achievement-oriented models is the gifted child. With the emphasis on talent development, the field has lost sight of the inner experience of giftedness. The essential characteristics of the feminine perspective have been articulated most eloquently by two men:

For some theorists and researchers, explaining giftedness means describing the conditions that produce gifted achievements. Trapped by the metaphor of “gifts,” they believe that the most important aspect of being gifted is the ability to turn gifts into recognizable and valued accomplishments. The growing emphasis on talent development . . . fosters an achievement orientation. . .

The models and theories set to maximize giftedness regard gifted children much as farmers regard cows and pigs, with an eye to getting them to produce more. They do not describe how giftedness works—how the gifted think, feel, and experience. (Grant & Piechowski, 1999, p. 8)

“How the gifted think, feel, and experience” is the heart of the feminine viewpoint. Annemarie Roeper’s definition of giftedness encompasses all of these: “Giftedness is a greater awareness, a greater sensitivity, and a greater ability to understand and transform perceptions into intellectual and emotional experiences” (Roeper, 1982, p. 21). Throughout her career, Roeper has brought attention back to the child and to the critical role of emotions in the development of the gifted:

It is my belief that the gifted child is emotionally different from others . . .

The Self of the gifted child is structured differently. Their depth of awareness is different. The center of their inner life is different. Their view of the world is more complex in a fundamental way. That is why one cannot say the child is “partially gifted” in certain areas only and not in others. There is a gifted personality structure, and the more highly gifted a child is, the more this difference becomes apparent, and the more often the Self comes into

conflict with the expectations of the surroundings. This difference is then seen as a defect in the child rather than in his or her relationship with an outside world that does not understand. (Roeper, 1996, p. 18)

Deeply concerned with the overemphasis on education for success, Roeper (1990) has stressed that success, as it is defined by the individual, is a natural byproduct of an education that concentrates on the development of the Self.

The feminine point of view focuses on gifted children’s experiences in childhood, not in terms of how they shape or foreshadow their adult lives, but because childhood is precious in and of itself, and children’s happiness or misery is important. Barry Grant and Michael Piechowski (1999) propose that child centeredness is the “moral responsibility of gifted educators” (p. 6):

There is another sense, a moral sense, in which we must recognize the gifted and anyone else we serve. To recognize also means to acknowledge, to accept what we have identified in its own right and on its own terms. This meaning tends to be overlooked. Yet, from the time of Comenius in the 17th century . . . we have had people who stressed recognizing children in their own right, attending to them according to their development, and making learning natural and enjoyable. (p. 6)

We believe, as they did, that first and foremost we have to be child-centered. . . Being child-centered means respecting children’s autonomy, providing experiences that enable children to follow their passions and be self-actualizing, and seeking to understand things from a child’s point of view. The strongest argument for child-centeredness is that it regards children as ends, not means. It provides conditions for children to flourish, become themselves, and it does not impose a way of being on them.

An understanding of the child’s perspective and inner life aids us in assisting children in finding their own way in life. (p. 8)

Similar views are found in the writings of Annemarie Roeper (1990):

We have separated education from psychology and therefore do not know the child . . . Education is usually defined as the answer to the question: “What do we do to and for the child?” It does not emphasize the question, “What does the child bring to this process?” “Who is this child?” “How does the child feel about the process?” (Roeper, 1990, p. 9)

Grant and Piechowski listed Leta Stetter Hollingworth [1886–1939] and Annemarie Roeper [1918–] among the “Child-Centered Torchbearers in the History of Education” (p. 7). These two leaders exemplify the feminine perspective in gifted education. Both found

gifted children utterly fascinating. As counselors, they were capable of entering the inner world of the gifted child. Much like a marine biologist might listen to whale songs in hopes of decoding their hidden meanings, they listened intently to the children until the deepest layers of their experience were revealed to them. They both wrote about the children's loneliness, imaginary worlds, unusual awareness, intense sensitivity, argumentativeness, and inability to fit in. The children shared with them their passion for justice, their fledgling attempts to build a philosophy of life, their quest to find their place in the universe, and their attempts to adjust to a world that is often hostile to the gifted. They both worked with young gifted children, highly gifted children, underachievers, and children of diverse cultural backgrounds. They both described the barriers faced by gifted girls, children of low socioeconomic circumstances and children of color.

They understood the pain gifted children face when they are rejected by their classmates. "The more intelligent a person is, regardless of age, the less often can he find a truly congenial companion" (Hollingworth, 1942, p. 253). Hollingworth (1942) observed that children in the moderately gifted range had a much easier time relating to their classmates than children in the higher IQ ranges:

This tendency to become isolated is one of the most important factors to be considered in guiding the development of personality of highly intelligent children. . . The majority of children between 130 and 150 IQ find fairly easy adjustment. . . Great difficulty arises only when a young child is above 160 IQ. At the extremely high levels of 180 and 190 IQ, the problem of friendships is difficult indeed, and the younger the person, the more difficult it is. (Hollingworth, 1942, p. 264)

Children value relationships far more than achievement. Friendships are central to their happiness; loneliness can be unbearable.

Failed relationships are among the most painful experiences anyone can have. Unfortunately for gifted children, their relationships are typically more fragile than most, and their sense of exclusion can run deep. Relationships with peers are often tenuous . . . The loneliness and sense of rejection a gifted child may experience can have a major impact on the development of the Self.

"I feel invisible. I am invisible. Recess is the worst time," said David. "I feel I don't exist. I cannot stand it. . . The other children just walk around me." (Roeper, 2007, p. 56)

Both women noted that gifted children show an early interest in origins and the meaning in life. "Who made

the world?" "Where did I come from?" "What will become of me when I die?" "Why did I come into the world?" (Hollingworth, 1931, p. 11). "Children's emotional need for understanding their own origins expresses itself in their enthusiasm for dinosaurs, cave-men, etc. They want to know the origin of the species and they want to know their own origin" (Roeper, 1990, p. 52). Hollingworth (1931) discovered that children begin to require logically coherent answers to these questions when they reach the mental age of 12 or 13. The higher the IQ, the earlier the child develops a pressing need for an explanation of the universe. Children who score above 180 IQ desire a systematic philosophy of life and death at the age of 6 or 7 years.

As educators, they both emphasized the importance of interdependence and a sense of community responsibility—feminine values. Both leaders created educational environments for the primary purpose of nurturing the emotional development of gifted children. Annemarie and George Roeper founded The Roeper School in 1941 and it still stands as the oldest private school for the gifted in operation in the United States. The philosophy of the school "is based on the belief in self-actualization, respecting the growth and the uniqueness of each member of the community, as well as the reality of mutual interdependence" (Roeper, 1990, p. 1).

Leta Hollingworth set up experimental classes for gifted children in New York City in 1922 and in 1936 that incorporated "emotional education" (Hollingworth, 1939, p. 585). Infused throughout this program was a beautiful set of human values: basic respect for humanity, awareness of our global interdependence, and commitment to service. Follow-up studies indicate that Hollingworth's program had a profound, lifelong impact on the students (Harris, 1992; White 1990). Harris (1992, p. 102) asked some of these individuals, almost 70 years later, "From your point of view, what constitutes success in life?" Their answers revealed the same values that they had learned in their classes: societal connection, awareness, compassion for others, definitions of success inextricably interwoven with self-actualization, and sensitivity to the needs of others.

Hollingworth and Roeper both spoke of the uneven development of gifted children. "Gifted children have a tendency to surprise us with their advanced abilities, . . . their ability to generalize, their sensitivity . . . On the other hand, they often appear infantile . . ." (Roeper, 2004, p. 145):

To have the intelligence of an adult and the emotions of a child combined in a childish body is to encounter certain difficulties. It follows that (after babyhood) the younger the child, the greater the difficulties, and that adjustment becomes easier with every additional year of age. The years between four and nine are probably the most likely to be beset with the problems mentioned. (Hollingworth, 1931, p. 13)

Their observations kindled the Columbus Group (1991) definition of giftedness, a phenomenological definition that exemplifies the feminine perspective:

Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity. The uniqueness of the gifted renders them particularly vulnerable and requires modifications in parenting, teaching and counseling in order for them to develop optimally. (The Columbus Group, 1991; Silverman, 1993a)

Studying young gifted children, Wendy Roedell (1989) also wrote about the unevenness of their development. She observed that rather than demonstrating high abilities in all areas, these children had definite peaks of extraordinary performance as well as valleys. Their intellectual development usually surpassed the development of their physical development and social skills. They were only likely to excel in those physical tasks that involved cognitive organization.

Roedell (1989) warned that expectations of gifted children need to be based on their level of experience and maturity, not just the level of their cognition. Their advanced reading skills may expose them to information they cannot handle emotionally. A father found his 4-year-old reading the Bible. “She closed the book with a terrified look on her face and said, ‘I’m reading the *Book of Revelations*, and boy, is it scary!’” (p. 22). While young gifted children demonstrate advanced cognition of social relations, their understanding is not necessarily reflected in their behavior. “It is unsettling to hold a high-level conversation with a 5-year-old who then turns around and punches a classmate who stole her pencil” (p. 22).

In an earlier article on highly gifted children, Roedell (1984) described the relationship between level of giftedness and vulnerability, focusing on the children’s sensitivity, feelings of alienation, and lack of societal support:

... There is general agreement that highly gifted children are more susceptible to some types of developmental difficulties than are moderately gifted or average children. Areas of vulnerability include uneven development,

perfectionism, adult expectations, intense sensitivity, self-definition, alienation, inappropriate environments, and role conflicts. (Roedell, 1984, p. 127)

Nancy Robinson (2008) is yet another strong spokesperson for the importance of childhood in the lives of the gifted. She, too, has created exemplary educational interventions for gifted students:

Academically gifted children are at high risk of suffering discouragement and giving up in the clutches of an ill-fitting, slow-moving educational system. We as a society sentence them to at least 6 hours a day, 180 days a year, during 13 years that are critical to their development—more than 14,000 precious hours not including homework. As a society, we are therefore responsible, because we set up the system—to identify those students whose thinking and skills are too advanced for what is being offered them, the level and pace of their learning being significantly more mature than that of their classmates. Having located these children, we are morally obligated to provide them with a better-fitting educational experience, a rigorous academic program that makes it possible for them to continue to grow and to gain satisfaction from their own efforts. (p. 158)

Women leaders in the field see the child, not as “father of the man,” but as a person with unique needs born of cognitive, emotional, and developmental differences. Hear their voices. Joanne Whitmore (1980) defined “intellectual giftedness as exceptional potential for learning and a superior capacity to assimilate, manipulate, and utilize abstract concepts and factual information” (p. 61). For Barbara Clark (1983), giftedness implies total and integrated brain functioning, including cognition, emotion, intuition, and physical sensing. Developmental advancement in one or more areas was the definition proposed in “What Happens to the Gifted Girl?” (Silverman, 1986), as well as in “Early Development of Gifted Children” (Roedell, 1989). Ellen Winner (1996) sees giftedness as precocity, an insistence on marching to one’s own drummer, and a rage to master. In *Empowering Gifted Minds*, Bobbie Gilman (2003) describes giftedness as high-level cognitive functioning, and, in her chapter in *Conceptions of Giftedness*, Nancy Robinson (2005) sees it essentially as reasoning ability—echoing Binet (1909) and Terman (1921). As psychological examiners, their definitions resemble Leta Hollingworth’s (1926): gifted children are those identified as very superior on intelligence tests. Based on the philosopher Immanuel Kant, Deirdre Lovecky (2004) defines giftedness as “*cognition* (precocious development, high cognitive ability, reasoning ability, creative ability); *conation* (high motivation, a passion

to master), and *emotion* (intense emotional experiences, sensitivity, compassion and empathy)” (p. 38).

While some of these researchers limit their definitions to advanced cognitive abilities, or more broadly to advanced development in general, many specify the role of emotions. Others, like Hollingworth, Robinson, Roedell and Silverman, defined giftedness as high-reasoning ability or advanced development, measurable by IQ tests; they also studied the social and emotional development of gifted children. None of the above definitions emphasizes achievement or the potential for recognized accomplishment in adult life. One exception is Barbara Kerr (1994) who focuses on girls’ potential for high achievement:

The definition of giftedness in this book embraces exceptional academic ability as well as creative and specific talents, and its range includes “high-potential” girls (the upper 25 percent on school achievement tests) as well as the near-genius Presidential Scholars. Therefore, it includes almost all who have the potential for excellence in their chosen fields. (p. x)

The most popular perspectives of giftedness, essentially derivations of Galton’s equation of giftedness with eminence, impede the full recognition of giftedness in females. The masculine frame of reference places heavy weight on future achievements and productivity; the feminine view is primarily concerned with the impact of developmental differences on a child’s immediate needs. From the masculine vantage point, intelligence tests are of little value, since they do not correlate with adult achievement; from the feminine, they are a valuable means of assessing advancement and discovering hidden abilities. None of the masculine conceptions concern themselves with emotional development, whereas emotional development plays a central role in the feminine perspective. The emphasis in the former perspective is on demonstration of talent, while in the latter perspective there is more concern for the amelioration of underachievement, and the creation of equal opportunities for children of diverse cultural and economic circumstances (Arnold, Noble & Subotnik, 1996).

## Identification of Gifted Girls

The value that schools place on achievement is quite evident from the admissions criteria used to select students for gifted programs. High achievement

scores or high marks or both are often required for acceptance into a gifted program. The eminent child in school is the winner of the competition for grades and awards. The emphasis is on products, performance, portfolios—the external trappings. Industrious students who are motivated to achieve high marks are thought to be the brightest students in the class. While this is often the case, it is also true that equally bright or even more advanced students may not achieve in the classroom, for a variety of reasons. Exceptionally gifted children may refuse to perform work they have already mastered. Children from culturally diverse groups may not want to stand out from their peers, for fear of rejection.

The focus on academic success favors girls in elementary school, since girls tend to conform to adult expectations, but the picture gradually changes in junior and senior high school, when girls attempt to establish their femininity, becoming more absorbed with their attractiveness and less with schoolwork. The emphasis on achievement is not equitable at any age level for children of low socioeconomic means. When gifted programs are reserved for high achievers, they find and serve primarily higher socioeconomic groups. The gifted come from all social classes, but poorer children have fewer books in the home, fewer role models for achievement and less support for academic success.

Although more attention is given to identification than to any other phase of gifted education, the process bears a disquieting resemblance to the selection of students for acceptance to college. In college admissions procedures, the emphasis is placed on achievement and aptitude scores, indications of high performance. Admissions are highly competitive, with each college selecting the “best” applicants who have the “most promise” for success in and beyond college. The information obtained on each candidate is used solely for the purpose of selection; it has no bearing on the student’s program. When the selection process is completed, the admissions materials of the successful candidates are filed away, while the materials for the unsuccessful ones are discarded.

Identifying gifted children according to the college admissions model portrays the image of the gifted program as an award or privilege for the “best” students. It turns the identification process into a contest with “winners” and “losers.” Parents become vested in their children’s gaining acceptance in the program because they view it as a stepping stone toward admission to the

better colleges and a ticket to success in adult life. Children perceive themselves as failures if they are not accepted in the program. Programs for the gifted should be based on differential *needs* of students, rather than offered as a merit badge to high achievers, whose needs may be being met adequately in the regular classroom.

It is ironic that ability measures, which came into vogue as a way of equalizing the playing field for the poor, culturally diverse and women (Snyderman & Rothman, 1988), have been abandoned for achievement measures, which favor the advantaged. The dictum of multiple criteria for identification has not appreciably increased the percentage of non-White children in gifted programs in the United States (Ford, 2001), whereas IQ testing, with the highly verbal, culturally loaded *Stanford-Binet Intelligence Scale*, unearthed many highly gifted African American children (Kearney & LeBlanc, 1993).

Standardized individual intelligence tests, administered before girls are socialized to hide their abilities, remain the best means of identifying gifted girls. Schools often rely on group tests rather than individual IQ tests because of the expense. Group intelligence, aptitude, and achievement tests are competitive and timed—two strikes against girls. Unfortunately, parents who decide to obtain private IQ testing for their children are much more likely to bring their sons than their daughters. Hollingworth (1926) noted,

In New York City, where children were being selected for special classes for gifted children, *parents and teachers as usual suggested more boys than girls as candidates. . . . Among those chosen from these candidates by mental test as of the requisite degree of intellect, only thirty per cent of the fifty allowed to attend the classes were girls; but of the thirty children whose parents refused permission, or who for other reasons could not join the classes, sixty per cent were girls.* (p. 66, italics added)

Over the last 30 years, 40% of the children brought to the Gifted Development Center have been girls and 60% have been boys. In the first 10 years, the percentage of girls was slightly higher, 43% versus 57% boys. In recent years, it has dipped down as low as 35% girls and 65% boys. This discrepancy in referral rate is common in other assessment centers worldwide. Approximately two-thirds of the clients brought to psychologists for private testing to determine giftedness in the United States are male. Centers in Australia report that three-fourths of their referrals are boys (H. Dudeney, personal communication, January 7, 2007). Rosemary Cathcart, founder of the George Parkyn National Cen-

tre for Gifted Education in New Zealand, observed that “the ratio of boys to girls was consistently between two to three boys for every girl referred for assessment. That stayed the same over a ten-year period” (R. Cathcart, personal communication, January 20, 2007):

When I run workshops on identification for teachers, I begin with a selection of short case histories and ask the teachers, without any input from me, to discuss these as “children referred as possibly gifted” and to decide whether or not the referrals should go ahead. One of the case histories describes a very quiet, very compliant little girl achieving at a just-above-average level at school whose mother describes her as being highly inquisitive as a preschooler, full of questions, grasping things very quickly, and learning to read by herself—in fact as reading *Anne of Green Gables* for herself before starting school (based on an actual child).

I have given that workshop I suppose about 200 times now, and I am still finding that at least 80% of all teachers instantly dismiss that child as clearly not gifted. Most say she simply has a pushy mother—“That child’s problem is obviously the mother,” many say. Many will add, “She might be able to read the words, but of course she won’t understand them,” ignoring the fact that NO child sits and reads their way through a book (especially a non-picture book reliant solely on text) which they cannot comprehend at least at some level. My personal rating of my level of success with these workshops rests on how many of these teachers have changed their minds about this child by the end of the session! But I think it illustrates very well the kinds of assumptions that lead to this imbalance in our referrals. (R. Cathcart, personal communication, January 20, 2007)

Similarly, the Gifted Kids Programme in New Zealand, aware of the gender imbalance in their referrals, has conducted target workshops to correct the situation. Deborah Clark, Associate Principal, believes that three interventions have altered the gender ratio: (1) Since 90% of the students are referred by teachers, they let the teachers know that they have been referring mostly boys and ask, “Where are your girls?”; (2) They run annual workshops on hidden gifted students, including gifted girls; and (3) They offer staff meetings at schools that consistently under-identify girls in which they discuss characteristics of gifted children. In 2002 and 2003, before they initiated these workshops, referrals for males ranged between 65 and 80% of the total. From 2004 through 2007, there has been a steady increase in the referrals of girls; boys now comprise approximately 55% of the referrals (D. Clark, personal communication, January 21, 2007).

Nancy Robinson and her colleagues have amassed data from several large-scale longitudinal studies of

young gifted children. Among their findings are that parents' perceptions of their children's precocity are accurate, standardized test results correlate with actual behavior, and standardized testing of young children predicts later performance:

These findings confirm the accuracy of parental descriptions of their children's behavior. They tell us to trust parents who think that their children's behavior is advanced—whether or not we have seen that behavior in school. But the studies also do something else. They confirm that the results of standardized tests *are strongly correlated with the children's actual behavior at home*. Furthermore, each of the above studies had a 2- to 5-year longitudinal aspect, and in each case, the scores initially attained by the children were predictive over time for the group as a whole. (Robinson, 2008, p. 168)

The large database of the Gifted Development Center (N = 5,200) supports the accuracy of parents as identifiers of giftedness, as well as the findings of Terman, and Peter and Stern (Hollingworth, 1926) nearly a century ago. Girls continue to perform as well as boys or better on individual IQ tests. The distribution of IQ scores in the exceptionally (160+ IQ) and profoundly gifted (175+ IQ) ranges is 40% girls and 60% boys—identical to the gender distribution of our sample. Very similar to Terman's findings with 1,000 children, 4 of the 5 highest IQ scores were achieved by girls, including the highest IQ score (262 + IQ). These scores were obtained on the virtually untimed *Stanford-Binet Intelligence Scale (Form L-M)*, which is still permissible to use as a supplementary test (see Chapter 48). This particular scale is not exactly gender friendly: all the items are about boys and men.

Scores in these upper ranges are often questioned or dismissed, but then, so are rapid advancement through the developmental milestones and early reading ability, other clear indicators of giftedness in girls. The findings that there are as many profoundly gifted girls as boys have been shared with several newspapers, magazines, and television news programs for two decades, and never appears newsworthy enough to report. To report anything positive about IQ tests would go against the grain of the industry (Snyderman & Rothman, 1988). Instead, the reporters continue to jump on the "Kill-the-IQ-test" bandwagon. It is no wonder that females continue to feel inferior in intelligence to males. All the evidence of their intelligence is either suppressed or ignored.

## The Development of Gifted Girls

Precocity in gifted girls may escape notice because girls are expected to develop faster than boys. Girls tend to be more robust babies, and learn to talk, count, and read earlier than boys (Silverman, 1986). The significance of girls' early development is diminished by those who ascribe to the maxim: "early ripe, early rot." Ready for school at an earlier age, gifted girls are often more successful than boys as early entrants to kindergarten (Callahan, 1979; Robinson, 2004). When programs are designed for young gifted children (ages 4–7), there is never any difficulty finding an equal number of boys and girls. But gifted girls mysteriously vanish as they get older. Myra and David Sadker remarked, "Girls are the only group who begin school scoring ahead and leave behind, a theft occurring so quietly that most people are unaware of its impact" (as quoted in Silverman, 1995).

Gifted girls are chameleons. From the time they enter school, or even preschool, they learn how to behave exactly like the other girls in the group so that they will be accepted. If their classmates are developmentally less mature, gifted girls will frequently don the mental attire of their friends and soon will be imperceptible from them in thought, manner, and achievement (Silverman, 1993b). A preschool director who was very interested in identifying gifted children in her school remarked that she had no difficulty spotting the boys, but she could not pick out the girls. At the age of 4, they had already gone into hiding. Gifted boys are more visible, as they attempt to gain teacher attention or annoy the other students or demonstrate leadership or withdraw. They usually reject classmates who are not as capable as themselves. By way of contrast, gifted girls treat school as a social experience, and they use their considerable talents to gain acceptance, blending into the group, and becoming invisible. When mothers describe girls' advanced abilities at home that are not demonstrated in school, they are often patronized: "All parents think their children are gifted." As Rosemary Cathcart described above, teachers easily discount the early signs of giftedness reported by parents, unless they see confirmation of these skills at school. Gifted girls will not show their true capabilities at school unless several of their classmates are equally capable.

Parents usually provide a safe environment in the home for gifted girls to reveal their abilities. Only one indication of gender bias has been found at our

Center with any regularity. The parent questionnaires ask if the child shows any signs of leadership. Mothers respond that their young son “likes to be the boss,” “is the captain of the ship,” “assigns roles to other children,” “takes the lead in games,” “decides what games to play, who should be what character,” etc. Responses for girls (and exceptionally gifted boys) often include the word, “bossy.” “She’s so bossy I’m afraid she isn’t going to have any friends.” Preschool and primary teachers respond similarly, even asking for advice as to how to correct the “bossiness” they observe in gifted girls. In children’s literature, such as *Little Miss Bossy* (Hargreaves, 1981), as well as literature on highly capable adolescents, the term “bossy” appears only in relation to girls (Gilligan, 1989; Lutfig & Nichols, 1990; Olszewski-Kubilius & Kulieke, 1989). It seems improbable that the leadership skills of gifted 4-year-old girls vary to such a degree from the boys that the term “bossy” is warranted to describe them. It is more likely that these differences are in the eye of the beholder, with boys being socialized to be leaders and girls being socialized to be followers (Silverman, 1993b).

The peer group is a major factor in the socialization of girls. “Most girls know deep down that standing out can get you in big trouble” (Simmons, 2002, p. 106). Nine-year-olds can be particularly cruel to girls who are different from the pack in any way, shape or form. “The other girls watch and talk about everything: what she eats and wears, whom she plays with” (Simmons, 2002, p. 170). If the group turns on her, the gifted girl becomes “poison.” No one will play with her, invite her to parties, look at her, or acknowledge her existence. They will make fun of her, tell rumors about her, and find other ways to humiliate her. Anyone who dares to be nice to her will find that they are “poison” too. This is a very effective method of squelching giftedness (Silverman, 1993b). Lee Anne Bell (1989) found that by fourth or fifth grade, girls who exhibit outstanding academic ability begin to lose self-confidence, become extremely self-critical and often lower their effort and aspirations to conform to gender stereotyped expectations.

If acceleration is being considered, boys are more likely to leave their peer group at any stage of development in the hope of learning more at higher grade levels, but girls usually need to be accelerated before the age of 8. From that point forward, they are at the mercy of their peer group and will not leave them, no

matter how unhappy they might be at their grade level. The risks involved for girls are higher than for boys:

In fourth grade, Tracy stunned her teachers by completing her math workbook during the first week of school. She was promptly skipped a grade into a class notorious for meanness. On the first day of fifth grade, the girls refused her at the lunch table, sniping that she wasn’t really a fifth grader. They forced her to eat alone. . . .

The lunchtime isolation quickly became a school-day pastime for the popular girls. They continued to ostracize Tracy throughout middle school, telling her she was stupid, that her jokes were bad, her clothes all wrong.

. . . Tracy looked up and said, “You don’t know how much courage it takes me to go to school every day.” (Simmons, 2002, p. 217)

In *Odd Girl Out: The Hidden Culture of Aggression in Girls*, Simmons (2002) offers strategies for parents, teachers, and counselors to combat the covert aggressions in girls. It is essential for educators and parents to be aware of the subtleties of its expression, as well as its devastating impact on girls’ self-concept.

Early entrance is an ideal alternative for girls, as the peer group of children slightly older than themselves is established from the beginning of school. “When schools are locked into an age-in-grade format, early admission to kindergarten may be the **only** window of opportunity available to gifted girls” (Kerr, 1991, p. 408). Research support for acceleration, especially early entrance, is strong (Colangelo, Assouline & Gross, 2004; Feldhusen, Proctor & Black, 2002). A recent review concluded, “We can lay firmly to rest the myth that acceleration is inherently dangerous for gifted students” (Robinson, 2004, p. 64). This key option for gifted girls is impossible without access to early identification.

Yet, *National Excellence* (OERI, 1993) warns against the identification of preschool and primary gifted students:

These suggestions are not intended to imply that schools should label preschool and primary students as gifted and talented. They should not. Instead, preschools and primary schools should develop a curriculum for *all* that nurtures the strengths of children and encourages its staffs to do the same. (OERI, 1991, p. 28)

This is a national agenda that favors males. If giftedness is perceived as the potential to attain eminence in a specific domain of talent, late identification makes sense. Children who are identified as high achievers later in their school careers are more likely to be successful adults.

Another reason to identify girls early is that by the age of 8 or 9 years, many girls have learned that it is “smart not to be too smart”—that it is more important to fit in with the other girls than it is to develop one’s own abilities. It is difficult to get an accurate IQ score on an 8-year-old gifted girl who will not guess, who will only respond if she is absolutely certain she is correct, or who bats her eyelashes and says sweetly, “I don’t know,” even when she *does* know the answer. Early identification of gifted girls is crucial.

A great deal has been written about the plight of pre-teen and teenage gifted girls (see Silverman, 1995, for a summary); there is insufficient space in this chapter to deal with more than a few of the issues. This is a turning point for many bright girls. As girls develop gender identity at this age, they must choose between femininity and achievement, which is considered a masculine quality. Those who choose achievement face torment from both the boys and the girls. In their early teens, gifted girls see few advantages of being gifted and often sacrifice their gifted friends to gain acceptance by less capable classmates (Buescher, Olszewski & Higham, 1987).

Rachel Simmons (2002) asked a group of teenage girls in the United States to name the qualities of a perfect girl and the qualities of a girl no one would want to be. Highest in the list of qualities for the ideal girl were “very thin,” “pretty,” and “blond.” Among the traits in the opposite list were “brainy,” “opinionated,” “professional,” “serious,” “strong,” “independent,” and “bookish” (pp. 124–125). It is little wonder that girls’ self-esteem is negatively related to their achievement (AAUW Educational Foundation, 1992). For boys, the opposite pattern occurs: high achievement leads to high self-concept.

Just at the stage of development when gifted girls are most vulnerable and begin to doubt their intelligence, a term creeps into educators’ vocabulary that does untold damage: “overachiever.” When educators of the gifted are asked to visualize an underachiever and write down the first name that comes to mind, and then they are asked to write down the first name of an overachiever, two-thirds of the underachievers invariably are male and two-thirds of the overachievers are female. When asked to define “overachievement,” participants describe typical traits of high achievers, such as “working hard,” that have been scorned. Fen-nama (1990) found that junior high school mathematics teachers attributed the success of their best male math

students to ability and the success of their best female math students to hard work. Gifted girls share the belief system of their math teachers: boys have ability and girls just work really hard.

Underachievement is a psychological reality. It is always possible to have a significant discrepancy between one’s ability and one’s performance. In fact, a case can be made that most gifted children are forced into patterns of underachievement because the level of work they are required to do in school is usually much less than their capabilities. But “overachievement” is an oxymoron: no one can achieve more than she is capable of achieving. The term implies that the person makes up for lack of ability by hard work. It is a sexist expression that serves no useful purpose; it simply demoralizes, weakens the confidence of gifted females, and leaves scars that last a lifetime (Silverman, 1993b).

Although some theorize that boys’ abilities are more real than girls because they correlate with adult achievement, there is strong reason to believe that the progressive loss of talent in girls can be traced to the effects of socialization, which steadily erode gifted girls’ self-confidence and undermine their aspirations. Gifted girls appear to “plateau” in their abilities as soon as they turn their attention to dieting, clothes, and preoccupation with boys. Suddenly, boys take the lead in academic achievements—a lead sustained throughout the rest of their lives. In the United States, boys outperform girls on college board examinations, thereby securing admission to the most selective colleges and obtaining a substantial proportion of scholarships (Sadker & Sadker, 1994):

On average, girls get better grades than boys at all levels of schooling but score lower than boys on key standardized tests administered to 11th and 12th graders. For example, boys outscore girls (with discrepancies greatest for African American and Hispanic girls) on both the verbal and mathematics sections of the Scholastic Aptitude Test (SAT) and on all subsections of the American College Testing Program except English (ACT). As a result girls lose millions of dollars in scholarship funds. In 1988–89, 63 percent of the National Merit Scholarship semi-finalists were boys while only 32 percent were girls (sex of 5 percent of the students not identified). Since girls continue to earn better grades, there is continued evidence that the test is biased in favor of boys. (The Mid-Atlantic Equity Center & The Network, Inc. 1993)

Is it possible that males are more successful from high school on because gifted females simply stopped

caring and gave them the lead? It is not a real competition if half of the players give up the race (Silverman, 1995).

## Issues of Cultural Diversity

Former Texas Governor Ann Richards once remarked, “Ginger Rogers did everything Fred Astaire did. She just did it backwards, and in high heels” (Farrell, 2007). Richards’ witty comment highlights the unrecognized and extraordinary abilities of women. Gifted females of color and those from poor and working-class backgrounds often have similarly unrecognized abilities. They must overcome incredible odds to reach the level of success of their male counterparts.

Meeting the needs of gifted females from ethnically diverse backgrounds, racial minorities, and lower socioeconomic families represents a challenge for educators today. Most of the research found on cultural diversity and economic disadvantage has been conducted in America. Demographic changes in the US population are evident by the fact that Hispanic students now represent the majority ethnic group in many school districts in states such as California, Florida, Texas, Illinois, and New York (Castellano, 2004). It has been estimated that the non-White population in the United States will exceed the White-European population within the next century (Evans, 1996). Culturally and linguistically diverse students require special consideration in order for their abilities to blossom.

Yet, surprisingly, under-representation in gifted education programs has increased for Hispanic Americans and African Americans since the late 1970s (Ford, 2001). Under-representation of minorities in gifted education programs has been attributed to all of the following: test bias, lack of teacher referrals, deficit-based educational models, underachievement, negative peer pressure, deficit thinking, and stereotype threat (Ford, 2001; Ford, Grantham, & Milner, 2004; Ford, Harris, Tyson & Frazier Trotman, 2002). Deficit-based educational models are based on the assumption that minority students are deficient and, therefore, unable to reach high standards.

While there has always been a great deal of concern about the cultural loadings of IQ tests, it must be remembered that “virtually every other form of psychological evaluation, whether by objective tests

or by subjective judgment, is far, far worse” (Bereiter, 1976/1977, p. 43). In the 1970s, Virginia Ehrlich (1978) created the Astor Program for Gifted Children in New York City for inner city 4- to 8-year-olds. After trying several “culture fair” tests, she found many more gifted African American children on the *Stanford-Binet Intelligence Scale, Form L-M*. Kathi Kearney and Jene LeBlanc (1993) pulled together a significant body of research on gifted African American children, conducted over a span of 60 years, some of which had never been published. Without an exhaustive search, nearly 200 African American children were found in various studies that scored above 130 on the Stanford-Binet, a strong test of abstract verbal reasoning ability, including several who scored in the exceptionally gifted range (160+) and one girl who scored 200 IQ. These studies were marginalized as they called into question the stereotypic beliefs that African Americans had inferior intelligence, as well as the opposing beliefs that IQ tests, especially highly verbal, culturally loaded tests like the Stanford-Binet, could *not* identify gifted African Americans.

Whenever a negative stereotype exists about a particular group’s ability, its members experience what is called *stereotype threat*. “An individual’s awareness that he or she may be judged by or may fulfill negative stereotypes about her or his gender or ethnic group can have a dramatic negative effect on performance” (Lips, 2005, p. 44). If the stereotype is that one’s gender or ethnic group is less intelligent, this is likely to corrode the self-confidence of members of the group when performing intellectual tasks. One study found that African American and White undergraduates performed equally well when told an experiment involved understanding the psychology of verbal problem solving. When a second group was given identical tasks and told their individual verbal ability was being assessed, African American students solved only half as many problems as White students (Ford, Grantham, & Milner, 2004). The stereotype of intellectual inferiority appears to have decreased the performance of African American college students.

It is becoming more widely recognized that social conditions, including poverty, racism, and inferior schools, contribute to the plight of minority students (Parrish, 2004) and inhibit the development of talents in gifted girls (Evans, 1996; Kerr, 1994). Attention to cultural diversity in the literature on gifted women has increased during the past 40 years. As evidence,

a PsycINFO database search of “gifted” and “women” showed an increase of over 20% for references from the earliest (1967–1976) to the latest (1996–2006) decade. Of the 294 records identified in the search, 60 included culture or diversity in the title, abstract, subject line, or identifier codes. Diversity was found far less often (only 7) than culture(s) or cultural (including socio-cultural and cross-cultural), which appeared in 54 references; only one reference included both terms.

Classification of references in 10-year intervals is shown in Table 5.1. A substantial increase in the percentage of records covering cultural issues had occurred by the mid-1970s. However, just 25% of more recent references include the topic. Therefore, only a relatively small percentage of the current literature on gifted women is addressing this important issue.

**Table 5.1** Proportion of PsycINFO references to culturally diverse gifted women

Years	Records	Percent
1967–1976	1 of 23	4
1977–1986	4 of 18	22
1987–1996	20 of 111	18
1997–2006	35 of 142	25

## Sexism and Racism

In her classic book, *Feminism is for Everybody*, Bell Hooks (2000) describes a movement to end sexist oppression in today’s society. This includes not only the commonly accepted rights of women to equal employment and pay but signifies an end to sexism, racism, and social class oppression. Looking within the American educational system, barriers to success often exist for female students of color, those from poor and working-class backgrounds, those for whom English is a second language, and immigrants. Understanding how these cultural differences impact student learning is paramount. For example, second-language learners may not grasp the meaning of complex concepts because of language differences, rather than perceived differences in ability (Klug, 2004).

Prejudice against different “others” also interferes with the recognition of the talents and abilities of ethnic minorities. When comparisons are made to White, middle-class, European standards, students from different cultures are often seen as inferior and

lacking certain skills. Behaviors that do not fit with mainstream expectations are often misunderstood (Klug, 2004). For example, African American girls’ play in a Head Start program was seen as aggressive when it involved oppositional talk and teasing. Sociologists, however, showed their style of interaction to be a form of communal activity among minority females, one in which friendship is established and identities constructed (Corsaro, 2005). In much the same way, Italian school children engage in *discussione*, which involves animated public discussions and extended group debates, these often occurring when one child opposes the views of another. This common activity, simulating adult exchanges, is often highly stylized and valued by children for its shared routines (Corsaro, 2005).

Awareness and attention to the unique cultural, social, and psychological factors of gifted students from minority groups are needed. Issues of racial and ethnic identity often hamper the progress of these students. Group allegiance and negative peer pressure can threaten academic success for minorities who may be seen as abandoning their own culture to accept that of the dominant societal group. This is true for minority members in any culture.

African American women have reported personal strengths based on strong kinship networks and socialization to egalitarian gender-roles and independence; yet, they continue to face barriers based on sexism and racism (Kitano, 1998b). Likewise, Latina women, who “described their culture and homes as valuing education, achievement, hard work, and interpersonal relationships,” struggle to overcome gender and racial oppression in their everyday lives (Kitano, 1998a, p. 143). Sexism and racism take many forms; researchers in the field have categorized them as external and internal barriers to gifted females’ advancement. External barriers include gender-role stereotyping at home and at school (Reis, 2001); acculturation to gender inequality (Reis, 2001); a lack of role models, mentors, and counseling (Kitano, 1994/1995); and sex-role traditionalism (Thorne, 1995). Contextual factors often lead to internal or interpersonal obstacles, including feelings of insecurity (Cohen, 1998), self-doubt, self-criticism, lowered expectations, fear of success (Reis, 2002; Thorne, 1995) and lack of belief in one’s ability (Reis, 2002). All of these factors can undermine women’s self-efficacy in their personal, academic, and professional lives.

To understand the influences on gifted female learners from diverse backgrounds, we must consider the parents, extended family, and community effect (Sethna, 2004). The community effect is the combined influence from living in a particular community, including the neighborhood school attended; the language or dialect spoken; the social class of the residents and their attitudes and values; the percentage of families who own their own homes have computers and Internet access; the percentage of peers who attend college or are involved in gang activity, etc.

Examples from two different cultures, Asian and Native American, show contrasting expectations of gifted girls. Because parents of Chinese, Japanese, and Indian origins faced a competitive educational system in their homeland, they encourage their children to be especially diligent in their schoolwork so they can go to the very best college to which they can gain admission. They believe that “teacher’s skills and student’s diligence—not innate intelligence” predict children’s school success (Sethna, 2004, p. 107). For this reason, parents of Asian descent expect their children to work hard to hone their intellectual skills. When it comes to college they expect they will choose high-status professions, particularly those in the field of medicine, law and engineering (Sethna, 2004). Their daughters bear the parental expectation that they will distinguish themselves.

In contrast, the expectation of parents of Native American females is just the opposite. Kerr (1994, p. 176) called gifted Native American girls “the most neglected minority” group in the educational system, pointing out their cultural beliefs often lead them to hide their intellectual abilities. The most prominent of these is a strongly-held belief in the communal nature of society in which focus on the individual, i.e., being smarter than one’s classmates violates powerful social mores (Kerr, 1994; Klug, 2004). Distinguishing oneself must be placed within the accepted cultural milieu of the community. “In order to encourage Pima girls to put themselves forward for a pageant featuring traditional and modern talents, it was necessary to stress the pride which the community would feel in the accomplishments of the young women” (Kerr, 1994, p. 177). The same values have been found among the Maori in New Zealand. In cultures such as these, identifying a gifted group may be more effective than identifying a gifted child.

## ***Social Class Bias***

For sometime now educators and counselors have recognized the discrimination gifted women of color experience based on both sexism and racism (Evans, 1996; Kerr, 1994; Kitano, 1998a,b). Being female and non-White are characteristics that are almost always evident on sight. Another prejudicial characteristic not as visible, and often not as recognized, is social class. Females who grow up in economically disadvantaged circumstances are frequently less prepared for the academic setting and teacher’s expectations.

Children’s social class is based on their parents’ socioeconomic status (SES), which reflects their education, occupation, and level of income. Social class is a way of life that determines the neighborhood children grow up in, the schools they attend, and the workplace roles that are familiar to them. Socialization practices differ markedly by social class in part because parents’ values are influenced by their working conditions. Upper-middle-class parents, who exercise more autonomy on the job, encourage independence and self-direction in their children. By contrast, working-class parents emphasize conformity and discipline because those are most often the keys to success in their jobs (Elkin & Handel, 1989).

The observations of Annette Lareau and her research associates of middle-class, working-class, and poor families revealed that middle-class parents’ approach to childrearing resulted in a “transmission of differential advantages to their children” (2003, p. 5). This was most evident in institutional settings, such as the school, where children’s skills in reasoning and negotiating were highly valued. Middle-class children’s larger vocabulary, ability to express their opinions, and general “sense of entitlement” served them well in the classroom, while children of poor and working-class parents were constrained in their interactions within the school. This “sense of constraint” on the part of poor and working-class children was due in large part to the fact that their parents were not as comfortable in dealing with school officials, seldom criticized teachers, and were willing to go along with any decision these professionals made. For example, one young girl’s poor reading ability was allowed to go on for several years because her parents did not take a more aggressive role in identifying the problem.

Despite the fact that all the parents in Lareau’s (2003) study were concerned about their children’s

education, the strategies of middle-class parents, both African American and White, more closely matched the expectations of teachers and principals, who themselves were middle class. In an educational system heavily influenced by middle-class culture, children from lower socioeconomic backgrounds are at a disadvantage, often lacking the confidence in interactions with professionals necessary to be effectual. An article highlighting recent trends in England reported

...social class is the most reliable educational indicator, with children from higher socioeconomic groups consistently outperforming their less affluent peers. This issue is at its most acute in respect to the gifted and talented, with many gifted and talented pupils from disadvantaged backgrounds failing to achieve highly in the general education system. (Eyre & Geake, 2002, p. 20)

Working-class families' typical male-centered attitudes and gender-role stereotyping have an effect on the career aspirations of gifted girls, encouraging them to stay within the bounds of feminine roles and female occupations. A gifted Latina woman in Kitano's study (1998a) describes her parents' encouragement in the following way:

...to them doing well was just passing everything because I was a girl. . . .As long as I was passing, I was fine because I was a girl. When I was younger there wasn't a whole lot expected of me except to be a good girl. (p. 146)

Her teachers held similar expectations for her: "My teachers would say, 'She's really sweet and cooperative.' To me that [meant] I have achieved my maximum potential. Nobody ever commented on my intelligence or potential for advancing" (p. 146).

Effective female role models and successful mentors are rarely available to gifted girls from low-income families. The fortunate girl is the one who is able to find a teacher who encourages her talent (Kastberg & Miller, 1996). When girls pursue goals of their own, they pay a price:

It was constantly the tug of war between feeling like I wasn't being a good daughter because I had left home to go to college. My father didn't want me to leave home. That became a very, very serious point of contention. My family did not support me financially or economically from that point on. It still hurts me because they didn't. (Kitano, 1998a, p. 146)

In one study, the attitudes and beliefs of gifted minority and economically disadvantaged women, when given the opportunity to attend a prestigious college, were described as going "from powerlessness to empower-

ment, from self-deprecation to self-efficacy" (Cohen, 1998, p. 360). The key to success for many minority women has been use of one or more coping strategies ranging from acknowledging the negative elements and moving on to ignoring and reframing them (Kitano, 1998b). The following interview illustrates both the barriers and the coping strategies of one gifted female from a low-income background.

### **Case Study: A Personal Interview**

Following a small group discussion of the effects of racism and sexism in society today, an African American doctoral candidate agreed to an interview (Miller & Silverman, 2007). The questions used were adapted from Kitano's (1998a; 1998b) studies of gifted minority females.

1. *What personal characteristics did you display during the school years that might have indicated your high ability?*

I was always very mature for my age, I developed an extensive vocabulary quite rapidly, and I learned new tasks very quickly. My second-grade teacher is the person who decided that I should be tested for my school's gifted program. I think that I remember the day she decided to do so. We had just received a math worksheet that we were supposed to spend the last hour of class working on and then take home for homework. I finished within a few minutes and was sitting at my desk staring off into space. I don't know if she hadn't noticed before that this is how I usually completed my work, but I remember her walking by my desk and asking if I was done. I said, "Yes," and she just looked confused. She checked my answers and they were all right. A few days later I was told that I would be tested for gifted.

2. *In what ways did major socialization agents—family, community, school, peers—contribute to or hinder you in reaching your goals?*

I think that being labeled as gifted early on contributed to my achievement because it was one force in my life that told me I was smart and I could accomplish great things if I wanted to when so many other people either didn't notice my abilities or doubted that they existed. I think the one thing that I truly learned from the gifted program

(as the program itself wasn't that great) is to look for a challenge. Since things came to me pretty easily, I wasn't used to exerting effort to accomplish anything and I couldn't see the value in doing so. Throughout all of elementary and middle school my teachers talked about challenges like they were good things and they assumed I was looking for them. At some point I internalized those values, and have frequently found myself pushing my limits as an adult just to keep myself entertained and see what I can really do.

Just as much as being in the gifted program helped me achieve, I think it also hindered me. I was pulled out of class a couple times a week which made me feel very different. Everyone knew where I was going and I felt like a freak. Also, most of the time we spent in gifted, we didn't really do anything important; we spent most of our time drawing pictures and talking. I developed the opinion that the point was just to distract us for a few hours so we wouldn't be quite so bored and act up in class. We got back to class, caught up, and were still bored. By the time I got to middle school, I was so sick of feeling different that I intentionally tried to do poorly in my classes (the funny thing is, I still got A's and B's) because I thought that everyone would think I was normal if I got grades like they did. None of my gifted teachers ever tried to talk to us about how we felt being pulled aside for the program; they assumed that we thought as highly of ourselves as they did.

Some of my regular teachers were also not helpful. My 6th grade history teacher was adamantly opposed to the whole idea of having a gifted education program—and he told us so. He didn't think it was necessary and that we shouldn't be treated as though we were special. He would oftentimes refuse to let us leave his classroom if we happened to have history at the same time we had gifted. Needless to say, his behavior didn't make me feel any better.

I'm sad to say, but I think another thing that got in my way had to do with my parents. Since my older brother is also highly intelligent (he was also tested for gifted but didn't hit the 98th percentile—given what he used to do as a child, I think his test was an underestimate) my parents didn't think there was anything unusual about the things we could do. There were no rewards for doing well, but plenty

of criticism when we did poorly (my parents just didn't know what had gotten into me in middle school). One time, in elementary school, I brought home my report card and showed it to my father. He looked at my grades and told me I wasn't smart, I was just a brown-noser. I didn't know what a brown-noser was, so I had to look it up in the dictionary. I was deeply hurt by my father's lack of faith in me. I never even spoke to my teachers at school—how could I be a brown-noser?

3. *What roles were played by societal-institutional factors (e.g. social movements, racial or gender bias)?*

I think that one of the biggest reasons it took so long for my second grade teacher to notice me (and the fact that neither my kindergarten nor 1st grade teachers before her ever noticed me at all) was that, no matter what I did, no one could fathom that a little black girl could be that smart. When I got to college, I became very involved in working against racism. While I was still frequently underestimated, especially because of my gender, it didn't take long for me to emerge as a leader both on campus and off. I learned that I had a voice, and that if I spoke up loud enough, people would listen.

4. *What were the most difficult barriers you faced in reaching your goals?*

Mostly economic hardship and cultural differences. It is a very different world below the poverty line, and I've had to learn to negotiate middle- to upper-class culture through my contact with higher education. Someone I know compared it to immigrating, and that's exactly how I feel sometimes.

5. *What strategies did you use to succeed?*

I can't honestly say that I really had that many strategies. After a year of trying to be dumb in middle school I decided to make more achievement oriented friends so that I would feel more like I fit in. I was heavily recruited by colleges throughout high school, so I just went to the one I thought I'd like the best. When I got there I didn't have the discipline to do the amount of work they expected us to do (especially in comparison to the rich kids who'd spent their entire lives in prep school that I was graded against). I didn't actually do anything to change my situation though; I just kept trying to coast through school because it had always worked before. After my first two years I decided to get serious, and then my only strategy was to actually do my homework.

I never really studied much for tests and would still say that I'm not the most disciplined person in the world when it comes to academic work.

6. *How would you describe your social class background and its effect?*

As I mentioned previously, I grew up below the poverty line (add my race and my giftedness to that and you can see why difference was so painful for me). Although I still feel the effects of poverty, in that I do not have as much financial help as my classmates, I realize that my situation has changed and I am better described as middle class. This is weird for me because for the majority of my life and all of my formative years I have been a poor kid. No matter how much money or education I have, I will always be a poor kid in some ways. But I will also be middle class. People who have written about women of color in my situation say we live in the "borderlands." It seems to fit my experience well.

Issues of cultural identity (Kitano, 1998b) or identity confusion (Kastberg & Miller, 1996), evident in this case study, are common in the lives of gifted minority females and those from disadvantage. Most of the successful African American women studied by Kitano described themselves as "definitely 'not assimilated' but bicultural" (1998b, p. 278) with one foot in the culture of their heritage and the other in the world they inhabit as middle-class professionals. They considered their ability to go between the two cultures or to "live in a double world," moving easily between diverse settings, as crucial to their success. Some gifted minority women also refer to themselves as "bilingual," using their educated language to communicate with colleagues and their familiar dialect to maintain connections with family and friends (Kastberg & Miller, 1996). This duality of culture and language creates a complex inner struggle for some, including feelings of loss and identity confusion, but for others it represents a source of pride and accomplishment.

## What Represents Success to Gifted Women?

Subotnik, Kassan, Summers and Wasser (1993) studied graduates of Hunter College Elementary

School, a co-educational school designed according to Hollingworth's educational principles. These researchers seemed somewhat disappointed about the fact that none of these former students demonstrated stellar productivity in their adult lives. Instead, they chose happiness, which coincided with the family and school values that "celebrated social adjustment" and "discouraged obsessive attention to special talent or recognition" (p. 118). They raise the question of whether gifted education programs should support individual values of happiness, satisfaction, and fitting into society, which gears them toward moderate productivity, or should they urge students to transform the world. "True genius ... is likely to be driven, compulsive, and never fully contented. We may be enriched at his or her expense" (p. 119). They saw each course as having merit and justification. Barbara Kerr (1994) expressed similar concern that her gifted classmates failed to fulfill their girlhood dreams, since they had adapted so well to women's traditional roles. The eminent women she studied had very different values and life experiences; they were passionate about their life's work and less socially adapted.

These questions need to be grappled with if we are to understand the life goals of gifted females. Do most gifted girls want to change the world when they grow up? Or are they content to influence the lives of their children and their community, to educate themselves and work in their chosen fields in a way that serves the whole rather than calling attention to themselves?

Constance Hollinger and Elyse Fleming (1992) studied 126 gifted and talented young women for 14 years before they began to wonder if they were asking the right questions. Did women define achievement or success in ways substantially different from men? They were inspired by Eccles (1987) and other scholars who asserted that the traditional definition of achievement is stereotypically masculine. "From a relational vantage point, the growth and maturing of a significant relationship may well rival in importance and value a promotion to a corporate vice-presidency" (Hollinger & Fleming, 1992 p. 208). They asked their participants, "What do *you* consider to be your three greatest achievements since you graduated from high school?" (p. 209). The responses of these gifted women led them to the following conclusions:

Despite their accomplishments in traditional areas of achievement, these gifted young women, when defining their own achievements, also report personal

and relational areas of achievement. . . . Their responses indeed validated the need for an expanded definition of achievement that includes not only educational, career and financial accomplishments but also accomplishments that fall within other personal and interpersonal life spheres. (p. 209)

Carole Harris (1992) reported similar findings in her longitudinal study of students who had been enrolled in Hollingworth's experimental classes:

Most of the subjects in the Hollingworth group, about 85%, also speak of achievement in terms of their children and personal satisfaction, along with feelings of peace, happiness, and creativity with relation both to the arts and to family life. (p. 102)

Willard White (1990) conducted a follow-up study of three of Hollingworth's subjects—two women and one man—who scored above 180 IQ. He asked them what they considered to be their greatest achievements. The man referred to his mathematical theories and the two women replied, their children. All three had devoted some part of their lives to improving education.

From these studies, it would seem that our definition of achievement for the gifted, particularly gifted women, is too narrow. All point to the necessity of broadening what we value as domains of achievement so as to include those emotional/relational spheres in which many gifted women choose to devote their energies. Women's models of success include individual self-actualization, volunteerism, and community service (Arnold, Noble & Subotnik, 1996; Cohen, 1998).

Did all the "great men" in history discover, invent, or create entirely on their own or were the paradigmatic shifts and discoveries actually the result of a team effort within a hierarchical social structure, so that only one man received the credit? Women seem to be comfortable and effective working collaboratively in a team effort rather than as isolated individuals. Some examples are the Stone Center's self-in-relation theorists at Wellesley College (Jordan, Kaplan, Miller, Stiver & Surrey, 1991) and the group that produced *Women's Ways of Knowing* (Belenky, Clinchy, Goldberger & Tarule, 1986). Group endeavors seem to acknowledge more fairly the process by which new ideas come into being, as well as meeting both relational and achievement needs. From this perspective, women would not be shut out of the highest regions of merit, nor would they have to choose between their need for relationships and their need to fulfill their creative potential.

## Implications and Recommendations

The conceptions of giftedness that inform gifted programs either help or hinder the identification and development of gifted girls. If gender equity and equitable access of culturally diverse and economically disadvantaged students are goals of the program, then the emphasis on achievement needs to be reconsidered in favor of a child-centered approach, with attunement to diversity. The following key principles will assure a more inclusive program:

- Collect information about developmental advancement in early childhood.
- Take parents' perceptions of their children's advanced abilities seriously.
- Identify gifted girls in preschool and primary grades.
- Use untimed tests, preferably standardized individually administered IQ tests. (See Chapter 48.)
- Provide opportunities for early entrance to school.
- Group gifted children for instruction, so that gifted girls do not feel constrained to hide their abilities.
- Keep track of distributions of gifted students by gender, ethnicity, and socioeconomic status. When inequitable distributions are found, take active steps to correct the situation, such as staff development and conducting searches for hidden gifted students.
- Review textbooks for gender representation. Augment texts with other resources that provide feminine role models, particularly women of color.
- Provide counseling and support groups for gifted girls, where they feel safe discussing gender issues.
- Ban the words "bossy," "overachiever," and other sexist terms.
- Have strong sanctions against covert female bullying. "Existing rules should be amended to prohibit *specific* behaviors such as rumor spreading, alliance building, secret telling, and severe episodes of non-verbal aggression" (Simmons, 2002, p. 249).
- Create policies against sexism in school. Be alert to subtle forms of sexism.

The development of gifted girls begins in the family. Parent seminars can educate families regarding the early indicators of giftedness and effective ways to advocate for their daughters. Parents, as well as teachers, should hold high expectations for girls (Kitano, 1998a). It is wise to tell girls early in life that they are intelli-

gent (Kerr, 1991) as it is easy for them to lose confidence in their abilities. Girls do not have to choose between social acceptance and achievement when they have the support of other girls like themselves. Whenever possible, group gifted girls together for instruction and provide opportunities for them to interact with other advanced students.

When gifted girls learn early in life that they can master work they initially deem as “too hard,” they are more likely to take on more difficult tasks as they get older. Although they often underestimate their abilities, gifted girls are usually happiest when they are intellectually challenged (Kerr, 1991). It is essential that our brightest girls be guided into taking 4 years of mathematics in high school, as well as other rigorous courses:

Few gifted girls are aware of the absolute importance of mathematics to their future goals. Frequently, gifted girls drop out of math and science courses for superficial reasons, not realizing that most college majors leading to high-level careers and professions require 4 years of high school preparation in math and science. (Kerr, 1991, p. 411)

Those girls who suffer from math phobia should be given tutoring to overcome their fear. Callahan (1991) asserts that there should be as many remedial mathematics teachers available to adolescent girls as there are remedial reading teachers available to young gifted boys. This requires recognizing that mathematics is as vital for girls as reading is for boys.

Discrepancies in scores between males and females in college board exams are partially due to the fact that these tests are timed. Experiments in which girls take the tests untimed have greatly diminished the gender gap (Dreyden & Gallagher, 1989; Kelly-Benjamin, 1990). Sadker & Sadker (1994) recommend that scholarship opportunities be based as much on grades as on timed aptitude and achievement tests, since girls with high-grade point averages in mathematics but lower SAT-Math scores than boys demonstrated higher performance in college courses.

College preparation, life planning, and career counseling are extremely helpful for gifted girls (Kitano, 1998a). Female role models and mentors need to be available to provide guidance and support to gifted girls in the pursuit of their goals (Reis, 2001). Introduce girls to role models of women who have chosen different life paths (Phelps, 1991) through classroom speakers, career days, biographical study, films, shadowing a professional for a day or so, internships,

mentorships, and apprenticeships. Research with same-sex schools internationally has demonstrated that they promote leadership and higher achievement in girls in high school and undergraduate school (Callahan, 1991; Granleese & Joseph, 1993; Kerr, 1991; Riordan, 1990; Sax, 2005; Schwartz, 1991).

### ***Supporting Cultural and Economic Diversity***

Understanding and supporting gifted female students from diverse backgrounds, including students of color, those from economic disadvantage, and those with language difficulties, require attention to the broader social context and recognition of bias. Knowledge of the cultural values, beliefs, and practices of those who influence gifted females, such as parents, relatives, and community members is vital (Ford et al., 2004; Klug, 2004; Sethna, 2004). It is extremely difficult to recognize gifted girls when they are hesitant to raise their hand, speak in class, or admit they know the answer. The goal of educators should be to provide a climate in which girls can learn and grow and still feel comfortable in their family and neighborhood.

Just as difficult as recognizing exceptional minority females is acknowledging the effect of prejudice on their performance, especially when it is subtle and practically invisible. Preventing the detrimental effects of discrimination on those at the intersection of gender, race, and social class is a challenge for all those in education today. The responsibility for alleviating underachievement is ours as educators; it starts with creating an environment free from prejudice where every girl's talents are nourished.

Dismantling gender and racial stereotypes benefits both females and males by allowing them to pursue their talents without the risk of violating powerful social norms. Stereotype threat, a response to negative stereotypes based on sex or race, has been shown to adversely affect a person's everyday behavior and performance on verbal and mathematical tests (Lips, 2005). Eliminating this threat may encourage females to pursue math and science in grades 1–12 and to select college majors built on those skills, e.g., engineering, chemistry, and even physics. It may encourage minority women to pursue careers in fields where few, if any, role models exist.

Sociologist William Corsaro (2005) recommends improved not-for-profit child care and more government supported early education programs in an attempt to improve the condition of poor children in the United States. "High-quality early education programs for three-to six-year-old children are widely available at low cost in Europe. France and Italy, for example, have developed excellent early childhood education programs for three- to six-year-olds with near universal attendance" (p. 290). An early start increases the likelihood minority girls and boys and those from low-income and working-class families are on equal footing with those from middle-class families when they enter kindergarten. This is particularly important for bilingual children and those for whom little preparation for school has been available. Corsaro also recommends expanding America's Head Start program from a half day to a full day and extending the program to cover many more of those who are eligible. Currently less than half (42%) are enrolled, due to lack of US government funding. This would provide the early exposure to learning skills economically disadvantaged minority children so desperately need.

Social-class discrimination holds back many gifted females, and the necessity of addressing this issue is more evident today than ever. From early education programs, such as the compensatory Head Start program for underprivileged children (Corsaro, 2005) to those serving exceptional women from economically disadvantaged backgrounds, such as the Ada Comstock program at Smith College (Cohen, 1998), evidence exists that enriched educational opportunities for females are paying off.

To end sexism, racism, and social class oppression in gifted education, we must break down the barriers to success too often experienced by underrated girls, female students of color, and those who are economically disadvantaged. Neutralizing gender stereotypes, by making them "less rigid and inclusive of fewer aspects of behavior," has the potential to benefit women even more than men because power and status have been associated with qualities assigned to males (Lips, 2005, p. 51). Without the belief in stereotype behaviors that lead to submission, deferral, and rejection of some occupations altogether, women's self-confidence and aspirations could rise to new heights and their goals surpass any previously imagined.

## Conclusion

Our field draws its nourishment from Leta Stetter Hollingworth and all of the feminine energy that has been devoted to gifted children. It is not accidental that Hollingworth was passionate about the plight of gifted women and gifted children. "The Woman Question" is as much with us today as it was in 1926. Do we pour our considerable energies into developing our gifted children at the expense of ourselves or do we go for glory? If we are satisfied with doing our part for the good of the whole, then glory is not the goal. We can still make a difference in the world, even if no one remembers our names.

Eminence is a man's game. Driven by the competitive spirit, it is a gentleman's war, with the victor gaining a permanent place in history. Predominantly white males set up the rules of the game, decide who can play, and decide who will win. Like all wars, it has winners and losers. Even Margaret Mead failed to get into *Cradles of Eminence* (V. Goertzel & M. Goertzel, 1962) because she did not have two biographies written about her at the time. Some women will find their way into the ranks of the eminent, but at what price?

All of the longitudinal studies of the gifted have the same message. Terman and Oden (1959) found that their "Termites" defined success in adult life in terms of vocational satisfaction, a happy marriage and family life, helping others, and a well-adjusted personality. Sears and Barbee (1977) found that the women in Terman's study at midlife (mean age 62 years) were generally happier if they had worked outside the home, but not necessarily in a noteworthy manner. Hollingworth's students and children she studied above 180 IQ, as well as those found by other researchers, had relational goals and were deeply fulfilled being of service to others. The goals for the gifted are not fame and wealth: those are the goals of high achievers.

Developmental differences, observable in early childhood, are reliable indicators of giftedness. They are culture-blind and gender-blind. Gifted children of every color, in every nation, in every culture, and in every social class, develop at a faster rate than their age peers. Their mental growth outstrips their physical abilities, and so they have uneven, asynchronous development. They tend to be highly sensitive. "It feels like I have no skin." They feel the pain of others and want to be of service. Their awareness and moral sensitivity, derived from the marriage of cognitive

complexity and emotional sensitivity, are not valued by society. These are not advantages in the race to fame. It is their vulnerability that requires accommodations, rather than their potential to contribute to society. Our role as educators is to enable all children to fulfill their potential, but we must remember that they must be allowed to define success in their own terms.

Greater awareness is needed of the sexism in society and in school that robs gifted females of equal opportunities in education and employment. In gifted education, it is important to recognize the benefits to girls and children of diverse cultures to identify them early on individual IQ tests. The highest IQ scores in African American and White samples have been attained by gifted girls. This information needs to be taken seriously.

Active commitment is needed in order for gender equity to become a priority. Policies eventually change the opportunities for gifted girls and women. "In Norway, the government was so embarrassed by the low representation of women on corporate boards (7.5%) that it ordered all public companies to appoint women to at least 40% of the all board positions by 2005 (Goldsmith, 2002)" (Lips, 2005, p. 463). Policies that recognize women's dual roles as care givers and as workers are essential. On December 6, 2005, a joint statement on gender equity in higher education was issued by the presidents of nine major American research universities: CalTech, Harvard, MIT, Princeton, Stanford, UC Berkeley, U. Michigan, U. Pennsylvania and Yale. They recognized that barriers still exist for women in science, engineering, and in academic fields throughout higher education. They pledged to change institutional policies, provide resources and to take significant steps toward enabling academic careers to be compatible with family care giving responsibilities (Jaschik, 2005). Newly elected Speaker of the U.S. House of Representatives, Nancy Pelosi, has pledged to bring issues of "care" to the forefront: health-care legislation, minimum-wage laws, and ethical standards for legislators. These policies make a difference. Each of us makes a difference with our lives, each of us contributes to the whole.

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