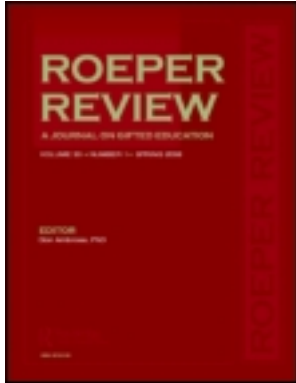


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Perceptions of developmental, social, and emotional issues in giftedness: Are they realistic?

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Perceptions of Developmental, Social, and Emotional Issues in Giftedness: *Are They Realistic?*

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We questioned 285 undergraduate students enrolled in human development and educational psychology courses about their perceptions of issues related to giftedness. Participants responded to statements that reflect potential myths or misconceptions related to development, family relations, emotional functioning, and social functioning among individuals who are gifted. Many of the group's perceptions followed no dominant trend and varied little from published evidence. The exceptional issues involved perceptions of homogeneity among children who are gifted, synchronous development, emotional and social functioning in children who are gifted, and emotional functioning of their non-gifted siblings. In the latter three cases, participants overestimated the probability of distress. We discuss implications for programmatic needs, and the need to educate the public regarding disparate and stigmatizing perceptions.

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Based on anecdotal reports and literature-based discussions, a number of perceptions are evident regarding the characteristics and needs of children who are gifted. These perceptions are sometimes discussed as myths by authoritative authors, with accompanying documentation to support or refute these myths (e.g., Winner, 1996). Attitudes about special education services for children who are gifted or talented have indeed been studied frequently (Begin & Gagne, 1994). However, researchers

have only occasionally focused deliberately on the depth with which perceptions about developmental, social, or emotional issues are held by the public (e.g., Solano, 1987). Recent studies directed toward perceptions about characteristics of children who are gifted, including their social and emotional needs, family functioning, and predictions of future performance, are difficult to find in the refereed literature.

The purpose of our study was to investigate the attitudes and perceptions of university undergraduates toward developmental, social, and emotional issues in giftedness. The results of our survey provide a sample of the extent to which individuals, particularly those entering the teaching profession, hold selected beliefs about the characteristics of giftedness, regardless of the presence or absence of empirical evidence supporting these perceptions. Our rationale in exploring these perceptions is to gather empirical evidence that can guide relevant practices in educating teachers, parents, their children, and the general public, thereby diminishing the effects of potentially harmful misperceptions. We also sought to explore differences in attitudes and perceptions between university students who have and have not been identified as gifted.

We chose topics for our survey of perceptions based upon a combination of literature-based resources and anecdotal statements we have gleaned from parents, teachers, and individuals with vested interests in giftedness. To organize areas of interest, we identified three general topics related to these issues: (a) development and family environment, (b) social and emotional functioning, and (c) predictions of future accomplishments. The following sections discuss the literature, briefly addressing components of each topic, and summarizing evidence available in the refereed literature offering confirmation or refutation of the specific issues we evaluated.

Developmental and Family Environment Issues

Perceptions of giftedness often incorporate views about whether or not such children represent a homogeneous group and whether development tends to be synchronous across several domains. In terms of the influences of environ-

mental press, early advantages and training sought by parents for their children (e.g., Suzuki music lessons) can often prompt doubts among observers that a child is truly gifted or simply well-trained. Finally, parents and teachers sometimes raise concerns about the well-being of siblings of children who are gifted, especially those siblings who are less precocious. Literature-based approaches to each of these issues are addressed in this section.

Gifted students as a homogeneous group. In an early empirical study, Witty (1930) measured and described various characteristics of students who were gifted. In the same era, Hollingworth (1939) also identified characteristics that signaled giftedness, including integrity, originality, and creativity. Descriptions by these two authors have probably contributed to assumptions that being gifted involves a consistent combination of desirable characteristics that are absent in such a combination for nongifted individuals. Terman and Oden (1947), and Tannenbaum (1983), also have depicted generalized characteristics held by children who are gifted.

More recently, breaking down the myth of homogeneity somewhat, Betts & Neihart (1988) presented six profiles incorporating behaviors, feelings, attitudes, and needs of children who are gifted. The idea that a standard pattern of characteristics exists, though it may not necessarily be consistent across children who are gifted, is often used to advise teachers and parents in referring children for special services. Additionally, the intelligence tests commonly used to evaluate children as intellectually gifted, such as the Stanford-Binet Intelligence Scales, Fifth Edition (Roid, 2003) or the Wechsler Intelligence Scales for Children, Fourth Edition (Wechsler, 2003) are based on theoretical approaches that sets of cognitive abilities (e.g., verbal abilities, visual-spatial abilities, memory) are interrelated and contribute to an overall estimate of intelligence.

Following a more heterogeneous theoretical approach, some current theorists (e.g., Gardner, 1987, 1999) advocate the recognition of specific areas of

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remarkable development in individuals, such as musical or kinesthetic giftedness. Gardner's Multiple Intelligences (MI) model, for instance, proposes at least eight kinds of intelligence: linguistic, logico-mathematical, spatial, musical, intrapersonal, interpersonal, bodily-kinesthetic, and naturalistic.

Nevertheless, the debate continues over whether giftedness represents a more or less homogeneous profile. Morgan (1996), for instance, has critiqued the MI model, noting its resemblance to earlier theories, such as Thurstone's (1938) multifactor theory of intelligence. Morgan suggested that the concept of multiple intelligences attractively eases the educator's psychological discomfort of singling out the intellectually gifted or the creatively talented student.

Many school programs continue to depend on global IQ scores from standardized intelligence tests to identify the vast majority of children who are gifted, accompanied by commensurate achievement scores, and behavioral checklists for qualification. This assessment approach grows primarily out of perceptions of gifted children as a homogeneous group, making it difficult or impossible to identify children from at risk subpopulations (e.g., minority groups, children with disabilities).

Synchronous development in giftedness. A general expectation of children whose abilities lie within the average range is that there will be relatively even development in all areas (e.g., intellectual abilities, fine and gross motor skills, social development). Extrapolating expectations of generalized synchronous development to children who are intellectually gifted translates into a hypothetical child of 6 being expected, based on a high level of intellectual ability, to bear herself or himself with the agility and coordination of a 9- or 10-year-old, and to have the social adeptness and emotional maturity to match. A moment of reflection might cast some doubt on these expectations, but the concept of evenly distributed development in children who are gifted certainly lingers. Little can be found in terms of empirical evidence for developmental synchronicity among groups of children who are gifted. It is possible that fictional representations of giftedness in the popular media (e.g., the somewhat dated television series, *Doogie Howser, M.D.*) have influenced the general population's views on this matter.

Perhaps earlier views of homogeneous characteristics of children who are gifted and the concept of a single, highly representative IQ contributed to a perception of synchronized development. However, the Columbus Group (see Silverman, 2002) has specifically included the term, *asynchronous development*, in its definition of giftedness. Some researchers, primarily based on clinical observations, have suggested that development in gifted children is indeed asynchronous across domains (e.g., Delisle, 1990; Roedell, 1984). Baum and Olenchak (2002) specifically noted the tendency of bright students to set high, perhaps unrealistic project goals, while their developmental levels, in terms of fine motor skills, or even project design skills, will not permit them to achieve at the level they expect, leading to frustration. Similarly, Dabrowski and Piechowski (1977) have notably referred to heightened intensities, or overexcitabilities, that can cause children who are gifted to be oversensitive about their accomplishments and their failures.

Silverman (2002) noted that the phenomenon of asynchronous development among children who are gifted has yet to be studied systematically. Although professionals working with children who are gifted may note and try to alleviate problems that evolve from asynchronous development, public perceptions that development across domains is synchronous in such children could seriously affect social, emotional, and educational services for the gifted.

Apparent giftedness may be due to parents' enthusiastic efforts. Related to the nature versus nurture debate, the roots of giftedness remain a topic of discussion in the literature as well as among parents and educators. Discussing this conceptualization of the nature/nurture interaction, A. W. Gottfried, A. E. Gottfried, Bathurst, and Guerin (1994) proposed the Potentiality-Enrichment Theory, identifying giftedness as a process involving a combination of ability, intrinsic motivation, and a cognitively stimulating home environment. Albert (1994) and Henderston (2002) presented evidence that children who are gifted frequently enjoy positive environmental press from their families. Winner (1996) contended that while parents may enrich the environment in response to the child; they "do not create the gift" (p. 309). She suggested that there are varying links

between giftedness and enriched family environments; however, a causal relationship remains difficult to verify.

Effect of giftedness on siblings. Concern for the effects of childhood giftedness on family dynamics has prompted a few research studies in the area of non-gifted siblings' emotional well-being. Keirouz (1990) intimated that the presence of a child who is labeled gifted can result in the non-gifted sibling losing self-esteem. This perception, sometimes perpetuated by professionals, can be linked to a study by Cornell (1983), who originally found that non-gifted siblings of children who were gifted tended to be less well adjusted than comparison children without siblings who were gifted.

However, further research by the same investigator (Cornell & Grossberg, 1986), studying predominantly white, middle-class families, resulted in different findings. In general, emotional or adjustment problems were not found in non-gifted siblings. A notable subgroup of 8 of the 27 siblings studied were perceived as less gifted by their mothers, and did exhibit adjustment problems. Again connecting sibling's self-esteem with maternal behavior, Tuttle and Cornell (1993) found that the labeling of siblings as gifted is associated with negative effects only when the mother's behavior provides the source of perceived differences between siblings.

Greenier (1985), studying 27 pairs of ethnically and socioeconomically diverse siblings, and Li and Adamson (1995), studying 32 siblings of gifted secondary students, reported no difference in general self-esteem, self-perceptions, or self-image for children who are gifted and their siblings. Based on their study of 366 triads (mothers and their two children, some triads with no child gifted, some with one gifted, some with both gifted), Chamrad, Robinson, and Janos (1995) suggested that having a sibling who is gifted may actually be an asset. Finally, Colangelo and Brower (2004) produced evidence, based upon 25 matched pairs of siblings, that nongifted siblings perceive themselves to be happier about their gifted siblings' participation in accelerated programs than the gifted siblings perceived their nongifted siblings to be. In general, the evidence on the topic of sibling maladjustment has been inconclusive, certainly leaning toward no detrimental effects if cognitive differences are not highlighted by parents.

Social and emotional functioning. A frequently voiced concern of parents and educators is that children who are gifted are prone to developing social and emotional problems. Such concerns are historically evident (Lombroso, 1895) and have continued throughout the decades. Attitudes toward social problems of the gifted have been evaluated by Townsend and Gensley (1978) and Solano (1987). Townsend and Gensley questioned a modest-sized group (totaling less than 100) of parents, teachers, and specialists in giftedness, gathering evidence that supported concerns about emotional and social problems in children who are gifted. Solano questioned two groups of approximately 120 college students each. She reported that students held perceptions that individuals who are gifted have a higher probability of problems in the social realm.

Qualitative reports of social and emotional difficulties persist in the literature, potentially helping to sustain the perceptions noted in Townsend and Gensley's (1978) and Solano's (1987) studies. For instance, Rimm (2002) reported that gifted adolescents often report feeling "different" from peers, possibly affecting their social relationships. Freeman (2001) reported that teachers and parents in her longitudinal study seem more inclined to label children identified as gifted as difficult, odd, or unhappy.

The bulk of empirical evidence, however, does not support the perception that individuals who are gifted have higher levels of social or emotional problems than the general population (e.g., Bain & Bell, 2004; Nail & Evans, 1997; Terman & Oden, 1947). Outside of the somewhat dated findings by Townsend and Gensley (1978) and Solano (1987), actual perceptions of these issues have not been explored. Perceptions that giftedness is typically associated with serious social and emotional problems may, indeed, cause harm in terms of expectations, as well as potential misallocation of resources to remediate a problem perceived as dominant across children who are gifted.

School dropout, delinquency, and suicide. Lajoie and Shore (1981) published a review of the literature addressing the popular myths that individuals who are gifted are overrepresented among dropouts, delinquents, and suicides. While carefully acknowledging the existence of these problems among children and adolescents who are gifted, the authors summarized evidence that

was generally counter to the perceptions conveyed by the popular media. Concerning dropout and delinquency behaviors, the evidence that Lajoie and Shore reviewed indicated that children who are gifted are equally represented and underrepresented, respectively.

Data from an earlier era provide some documentation that children who are gifted have a below average incidence of suicide (Terman & Oden, 1947). However, retrospective studies of individuals who have achieved greatness while suffering from emotional problems (e.g., Kaufman, 2001) may continue to influence popular perceptions. Lajoie and Shore's (1981) findings suggest that suicide among the gifted may be more prominent at the college level than at other age levels. Based on recent reviews (Cross, 1996; Gust-Brey & Cross, 1999), little empirical evidence has been forthcoming that verifies the rate of suicide among children who are gifted, probably due to the lack of national data on the gifted status of children committing suicide. Lajoie and Shore suggested that the myth of increased suicide may have arisen from high-profile media reports on suicides of highly able students.

Perceptions among the public that children who are gifted are prone to suicide have not been investigated. However, serious discussion of the needs of children with concurrent giftedness and emotional problems continues (e.g., Kaufman & Baer, 2003). Focusing on the detrimental, and to date poorly documented, effects of giftedness on dropout, delinquency and suicide, can be detrimental to the self-image of children who are gifted.

Predictions of Future Accomplishments

Early giftedness as a sign of future eminence. The idea that early giftedness portends levels of eminence can logically lead to increased efforts to identify and serve children who are gifted. Several longitudinal studies have evaluated success and eminence among individuals identified as gifted in childhood. The most prominent of these (Terman & Oden, 1959) found its group to be generally well adjusted and productive at middle-age. However, Freeman (2001) noted that among the 1,572 individuals in Terman's study, "not one of them has shown signs of eminence in adulthood" (p. 9).

Milgram and Hong (1994) cited the dismay among proponents of gifted services that many children who receive special opportunities "do not attain notable life achievements" (p. 213).

Failing to find expected levels of eminence among 210 former students of a gifted program, Subotnik, Kassan, Summers, and Wasser (1993) proposed some possible justifications for their results, including a lack of drive among participants, and a feeling that leading a happy and fairly successful life was, indeed, the most intelligent thing to do. Subotnik and colleagues' proposed justifications were echoed in Arnold's (1994) findings for high-school valedictorians from the graduating class of 1981. By 1988, several were reporting ideal goals less related to professional achievement and more related to emotional or creative satisfaction.

Although professional levels of education and employment are clearly common among individuals who are gifted, the evidence from longitudinal or retrospective studies has not supported the idea that giftedness predicts future eminence. In view of existing evidence, justifying gifted programs based upon the need to promote eminence among children who are gifted may be misguided. Justification in terms of promoting psychological health and well-being among children who are gifted is probably sufficient. Perceptions of the public concerning the probability of future eminence could lead to some enlightenment concerning the realistic expectations for individuals who are gifted.

Creativity in children who are intellectually gifted. Addressing the broad question about the relationship of intelligence and creativity, earlier researchers (Getzels & Jackson, 1962; Mackinnon, 1962) proposed a threshold effect, that above IQ levels of about 115, creativity and intelligence are poorly correlated. In a longitudinal study, Hall (1985) correlated intelligence and creativity scores for 59 students from the sixth through 12th grades. Intelligence test scores from the Stanford Binet and Wechsler Scales correlated with creativity scores from the Torrance Tests of Creativity at levels ranging from .35 to .83, depending on the intelligence test and on intervals of time (concurrent to 6 years) between testing. Albert (1994) later reviewed the research concerning the relationship between intelligence and creativity, citing inconsistent findings.

Even though firm evidence of a strong relationship between high intelligence and creativity is lacking, develop-

ing creative-thinking skills in intellectually talented children remains a valued goal among some teachers of gifted programs (Bain, Pappas, & Bourgeois, 2003). Although public perceptions of this relationship have rarely been explored, evidence concerning public sentiments could clarify the source of impetus behind creativity training as an appropriate goal for children who are intellectually gifted.

Leadership and giftedness. According to Freeman (2001), association of giftedness with leadership qualities results from an American, or perhaps a North American stereotype. She describes the North American ideal of the "superchild" as a "brilliant sportsman, a natural leader, and a straight A scholar, physically well-formed and probably good to look at" (p. 26). On the other hand, the British stereotype is "weedy, bespectacled, lonely, and much given to solitary reading" (p. 27). Supporting this view, Plowman (1981) suggested the terms charismatic, intuitive, and analytical as "characteristics of gifted and talented individuals [which] also distinguish the extraordinary leader" (p. 14).

The amount of literature addressing this topic suggests a general perception that people with giftedness do, indeed, have inherent leadership potential. For instance, Karnes and Meriweather-Bean (1991) encouraged the training of gifted adolescents to fill needed leadership roles in society. A. Howley, C. B. Howley, and Pendarvis (1986) likewise proposed that leadership roles in areas such as medicine, technology, business, politics, and the arts be fulfilled by individuals who are gifted. Be that as it may, evidence verifying a stronger relationship between intellectual giftedness and leadership talent than between average intelligence and leadership talent is lacking in the refereed literature. General attitudes regarding this relationship have not been investigated. Perceptions of a strong relationship could indeed provide the impetus for strengthening program goals that enhance leadership skills among children who are gifted, in spite of a lack of evidence for the relationship between giftedness and leadership.

Statement of Purpose

In order to gain an estimate of the extent to which beliefs and perceptions are held by groups of individuals, and the extent to which these perceptions

agree with existent evidence, we developed a questionnaire addressing the issues discussed earlier. Specifically, the questions addressed issues related to development, family support or press, social and emotional adjustment, and future accomplishments. Members of our response group were undergraduate students in classes focusing on human development and educational psychology. We were also interested in similarities or differences in perceptions between undergraduate students who previously were identified and served as gifted and undergraduate students not identified as gifted.

We hoped to glean an insight, based upon our results, concerning the match or mismatch between public perceptions of the issues we addressed and the empirical evidence, whether consistent or inconsistent. We also hoped to gain insight into the relationship between popular perceptions and some of the dominant themes addressed in the refereed literature regarding the nature of giftedness. Consistency between public and professional perceptions would seem a necessary condition in order to raise support for the needs of children who are gifted. Consistency also would seem necessary in order to diminish the harmful effects of perceptions that can raise self-doubt in children who are gifted, concerning their own competencies whether emotional, social, or in the realm of future accomplishments.

Method

Participants

Two hundred eighty-five students enrolled in two undergraduate courses participated in our study. A sophomore-level class in human development (HD) included participants ($n = 210$) from 5 sections. A senior-level class in applied educational psychology (EP) included participants ($n = 75$) from 3 sections. Of the total participants, there were 225 females (79%) and 60 males (21%). Two hundred sixty-three (approximately 92%) were White, 10 (3.5%) were African American, 5 (< 2%) were Asian, 3 (1%) were Hispanic, and 4 (< 2%) were Other.

Eight freshmen, 83 sophomores, 71 juniors, 85 seniors, and 38 graduate students participated. Forty percent ($n = 114$) stated their majors as education; 34% ($n = 98$) stated their majors as

humanities (e.g., English, history, psychology). The remainder stated majors of math or sciences (10.5%), the arts (art, music, theatre, or dance: 9.5%), and other (5%). Eighty-one percent ($n = 231$) stated their ultimate goal was to be a teacher; the remaining generally chose goals related to their stated majors. One hundred four participants (37%) stated they had been identified as gifted and received special services as gifted; 178 (63%) stated they had not been identified as gifted (3 participants did not supply this information).

Instrument

Attitudes and perceptions of giftedness survey. This is a 50-item questionnaire constructed to contain four sequential groups of questions. Following the first section of eight questions obtaining demographic information about the respondent, 12 questions were posed concerning the issues addressed here: (a) development and family environment, (b) social and emotional functioning, and (c) expectations of future accomplishments. One of these questions was rewritten following administration to the first group of students (the human development classes) because of difficulty in interpretation; this question is discussed later. The remaining 30 items addressed specific educational issues for children who are gifted and are not reported here. Students were presented the questionnaire in hard-copy format and provided answers on scanning sheets provided for them. Following a Chi-squared analysis for the total group responses on individual items, data were reviewed via frequency analyses, and interpreted quantitatively.

Results

A breakdown of responses for each question, across participants, is presented in Table 1. Results of Chi-squared analyses indicated that responses were significantly different from the expected rates of even distributions across item choices for every item, with the exception of the item on suicide prediction. We discuss results for that item later. Response choices for the total group, by course enrollment groups (HD and EP) and by groups self-identified as having received services (GT) or not having received services (NGT) as gifted also are discussed later. Under each question-

naire item, identified in italics with response choices in brackets, we will discuss relevant results. Item types have been categorized to match the topic areas discussed above: (a) development and family environment, (b) social and emotional functioning, and (c) expectations of future accomplishments. Overall, differences in response choice rates, based on an item-by-item comparison of the percentage of group participants choosing each response, varied between 5% and 14% across HD, EP, GT, and NGT groups (mean = 8.58%).

Development and Family Environment

Giftedness generally predicts that a child will be more advanced in other developmental areas (e.g., fine- and gross-motor development, emotional development, artistic/musical development) than average children of the same

age (agree; disagree). Almost two thirds (63%) of the total participants agreed with this statement. The range of variations in the dominant choice across HD, EP, GT, and NGT agreement fell at 67%, 53%, 61%, and 65%, respectively.

Children who are intellectually gifted generally represent a (homogeneous; heterogeneous) group. For this question, 72% of total participants chose "homogeneous." Variations for selection of "homogeneous" among groups ranged only from 69% to 77%.

Non-gifted siblings of children identified as gifted (often; rarely) suffer from unusual stress because of their relationship with a gifted brother or sister. To complete the statement, 79% of the total participants chose "often." Variation in the dominant choice across HD, EP, GT, and NGT groups ranged only 5% points.

Giftedness, when exhibited in young children, is (most often; seldom) due to parents' enthusiastic efforts to expose their children to early, advanced learning activities. Participants were fairly evenly divided in their response choices to this statement. Slightly more of the total participants (59%) chose "most often." Variations among HD, EP, GT, and NGT groups ranged from 53% to 66%.

Social and Emotional Functioning

Compared to the general population, individuals who are gifted are (less likely; more likely) to suffer from emotional problems during their life span. Sixty-nine percent of the participants chose "more likely." Variations among groups ranged 5% for this choice.

Compared to the general population, individuals who are gifted are (less

Response Rates to Questionnaire Issues by Total Group, Course Enrollment Groups, and Gifted Classification Groups

Issues* and response options	Total group (%)	HD group ^b (%)	EP group ^c (%)	Gifted group (%)	Nongifted group (%)
Developmental synchronicity					
Agree	180 (63%)	140 (67%)	40 (53%)	63 (61%)	116 (65%)
Disagree	105 (37%)	70 (33%)	35 (47%)	41 (39%)	62 (35%)
Homogeneous or heterogeneous group					
Homogeneous	205 (72%)	149 (71%)	56 (75%)	80 (77%)	123 (69%)
Heterogeneous	79 (28%)	60 (29%)	19 (25%)	24 (23%)	54 (31%)
Stress on siblings					
Often	225 (79%)	163 (78%)	62 (83%)	81 (78%)	141 (79%)
Rarely	59 (21%)	46 (22%)	13 (17%)	22 (21%)	37 (21%)
Early giftedness due to parents' efforts					
Most often	167 (59%)	127 (61%)	40 (53%)	68 (66%)	98 (55%)
Seldom	117 (41%)	82 (39%)	35 (47%)	35 (34%)	80 (45%)
Comparative likelihood of suffering from emotional problems					
Less likely	84 (30%)	59 (28%)	25 (33%)	33 (32%)	49 (28%)
More likely	199 (69%)	149 (71%)	50 (67%)	70 (67%)	128 (72%)
Comparative likelihood of problems with social relationship					
Less likely	65 (23%)	46 (22%)	19 (25%)	31 (30%)	33 (19%)
More likely	219 (77%)	163 (77%)	56 (75%)	72 (69%)	145 (82%)
Comparative likelihood of becoming a dropout					
Less likely	254 (90%)	184 (88%)	70 (93%)	99 (95%)	152 (85%)
More likely	29 (10%)	24 (11%)	5 (7%)	5 (5%)	24 (14%)
Comparative likelihood of becoming delinquents					
Less likely	240 (85%)	170 (81%)	70 (93%)	95 (91%)	142 (80%)
More likely	44 (15%)	39 (19%)	5 (7%)	8 (8%)	36 (20%)
Comparative likelihood of committing suicide ^d					
Less likely			11 (15%)	4 (14%)	7 (15%)
Equally likely			54 (72%)	19 (68%)	35 (74%)
More likely			10 (13%)	5 (18%)	5 (11%)
Probability of giftedness as a sign of future eminence					
Excellent	25 (9%)	25 (12%)	0 (0%)	6 (6%)	19 (11%)
Reasonably good	217 (76%)	160 (76%)	7 (76%)	75 (73%)	140 (79%)
Poor	42 (15%)	24 (11%)	18 (24%)	22 (21%)	19 (11%)
Probability of highly intelligent being highly creative					
Very likely	93 (33%)	73 (35%)	20 (27%)	32 (31%)	61 (34%)
Moderately likely	166 (59%)	117 (56%)	49 (65%)	66 (64%)	98 (55%)
Unlikely	24 (8%)	18 (9%)	6 (8%)	4 (4%)	19 (11%)
Intellectually gifted should be selected for leadership					
Agree	42 (15%)	31 (15%)	11 (15%)	20 (19%)	22 (12%)
Disagree	242 (85%)	178 (85%)	64 (85%)	83 (80%)	156 (88%)

Note. * Full questions/ statements appear in the "Results" section. ^b HD = Human development class. ^c EP = Educational psychology class. ^d This question was revised prior to EP class data collection; therefore, HD class data was not included.

Table 1

likely; more likely) to have problems with social relationships. In response to the statement, 77% of total participants chose "more likely." Seventy-seven percent of the HD group and 75% of the EP group chose the same response. Proportions of choices for "more likely" across GT and NGT groups varied from 69% and 82%, respectively.

Compared to the general population of school children, individuals who are gifted are (less likely; more likely) to drop out of school. Ninety percent of total participants, 88% of the HD group, and 93% of the EP group chose "less likely." Ninety-five percent and 85% of the GT and NGT groups, respectively, chose the same response.

Compared to the general population of school children, individuals who are gifted are (less likely; more likely) to become delinquents. Responding to the statement, 85% of the total participants chose "less likely." Responses ranged from 81% to 93% between the HD and EP groups. Following a pattern similar to answers for the question involving school dropout addressed previously, the GT group chose "less likely" at a higher rate (91%) than the NGT group (80%).

Compared to the general population of school children, individuals who are gifted are (less likely; equally likely; more likely) to commit suicide. The initial administration of this item to participants in the HD group offered only two responses, "less likely" and "more likely." Responses from the HD class were approximately evenly distributed and difficult to interpret, based on the limited response options. For administration to the EP classes, the statement was identical but with three response choices instead of two. When administered to the EP group, 72% chose the "equally likely" option, 15% chose the "less likely" option, and 13% chose the "more likely" option. For the dominant choice, groups varied by only 7%. Chi-squared analysis of the response rates for the HD class was not significant; Chi-squared analysis was not completed for the EP group because of the small number of participants.

Expectations of Future Accomplishments

Early giftedness is a(n) (excellent; reasonably good; poor) sign of future eminence (exceptional accomplishment;

ments) in adulthood. Among total participants, 76% chose "reasonably good," only 9% chose "excellent," and 15% chose "poor" in response to this statement. Total variations between groups ranged only 6% for "reasonably good" across groups. For "excellent," response choices ranged from 12% for the HD group to 0% for the EP group. The HD and EP groups selected "poor" at 11% and 24% rates; the GT and NGT groups chose "poor" at 21% and 11% rates, respectively.

Children who are highly intelligent are (very likely; moderately likely; unlikely) to be highly creative. In response to this statement, 59% of total participants chose "moderately likely," 33% chose "very likely," and 8% chose "unlikely." Participants from the HD group were less likely to choose "moderately likely," selecting it at the 56% rate versus 65% for EP participants. "Moderately likely" responses from the GT and NGT groups were selected at the 64% and 55% levels, respectively.

In the main, we should select individuals who are intellectually gifted for leadership positions in society because they have the best inherent leadership potential (agree; disagree). Eighty-five percent of the total participants chose "disagree" in response to this statement. This rate of response did not vary for participants from HD and EP classes. The GT and NGT groups varied 8% on this choice.

Discussion

We set out to investigate the perceptions of university undergraduates toward family, developmental, emotional, and social issues in giftedness. Among these issues, the general trend was for participants to indicate that individuals who are gifted constitute a homogeneous group, that they are generally developmentally advanced in other domains as well as intellectual giftedness (synchronous development), that their non-gifted siblings often suffer unusual stress because of their relationship with a gifted brother or sister (see Figure 2), and that individuals who are gifted are more likely than the general population to suffer emotional stress and problems with social relationships (see Figure 2).

Our participants were fairly evenly divided on the issue of parental efforts influencing the perception of early giftedness, with but a basic majority agreeing.

The majority of participants also agreed that children who are highly intelligent are moderately likely to be highly creative. More than two-thirds of participants took a moderate position on the relationship between giftedness and suicide and on the prediction of eminence.

The overwhelming majority of participants expressed beliefs that school dropout and delinquency were less likely in children who are gifted than in the general population. Finally, there was sparse agreement that individuals who are intellectually gifted should be selected for leadership roles based on inherent leadership potential.

We noted only a few discernable differences in responses from students identifying themselves as gifted compared to students not identifying themselves as gifted. Students who stated they had been served in gifted programs were slightly less likely to link giftedness with school dropout and with delinquency. Other rate differences between the two groups for the dominant choices spanned less than 10%.

Agreement with Empirical Evidence

In terms of evaluating the accuracy of perceptions compared to research evidence, the view of giftedness as a homogeneous entity across children does lag behind the current literature-based theories expressing giftedness as manifestations of multiple abilities (e.g., Gardner, 1999; Sternberg, 1986). Perceptions about synchronous development in children who are gifted are also notably counter to what researchers are finding (e.g., Delisle, 1990; Roedell, 1984), probably reflecting beliefs similar to the homogeneity concept, that children who are gifted are represented by advanced development across domains.

Regarding rates of delinquency, school drop-out, and suicide among children who are gifted, our respondents tended to underestimate the reported dropout frequency and to correctly represent the rates of delinquency and suicide according to the literature (Cross, 1996; Gust-Brey & Cross, 1999; Lajoie & Shore, 1981). Concerning the potential for future eminence among children who are gifted, perceptions did not vary from the longitudinal evidence, nor did beliefs about the relationship between intelligence and creativity deviate from the somewhat inconsistent evidence (Albert, 1994). Perceptions about synchronous development across domains in children who are gifted are

notably counter to what recent researchers are finding (e.g., Delisle, 1990; Roedell, 1984).

The relationship between inherent leadership ability and intelligence probably represents the least documented of the issues presented in our questionnaire. Our results simply represent a record of perceptions on this issue; no disparity between perceptions and the extant literature are recognized.

Limitations and Implications of Findings

Our study represents the views of a large group of undergraduate students, most of whom have set goals of becoming teachers. For generalization purposes, future studies should focus on groups of individuals from other settings, at various educational levels, and with varied professional goals. Perceptions of parents and teachers of children who are gifted should be of specific interest. Because our questions surrounding emotional and social functioning in both children who are gifted and their siblings aroused opinions that were predominantly disparate from the research evidence, questions about these topics might be expanded to investigate perceived problems at specific age levels, identifying the focus of misconceptions. In our study, we did not ask participants to declare whether or not they had a sibling who was gifted. Specific probes might be developed to investigate perceptions of sibling stress among individuals who have siblings who are gifted versus those who do not.

If the notions evaluated here, obtained from undergraduates heading

toward teaching careers, are representative of perceptions from the general public, what can be the impact on program needs of children who are gifted? Will counseling needs focusing on an acceptance of the disparity between abilities within a child be ignored based on a lack of recognition that these needs are important? Likewise, the issue of promoting leadership skills might best be addressed by emphasizing the selection of children who excel in leadership potential, not simply in intellectual development, and including leadership goals in these children's individual educational programs, not necessarily across the board for children who are gifted.

Besides the issue of counseling for problems resulting from asynchronous development and setting goals appropriate to the child's specific abilities (e.g., leadership goals), three additional topics represent significant disparities between perceptions and empirical evidence, raising serious concerns. These were participants' perceptions that children who are gifted are emotionally vulnerable, that they have significant problems with social relationships, and that siblings of children who are gifted tend to suffer from unusual stress (see Figure 2). When perceptions run counter to evidence, particularly focusing on negative characteristics and outcomes, what harm might result? At best, such misconceptions might accentuate programmatic needs for the occasional child, whether gifted or a sibling, who is seriously suffering from emotional stress or social dysfunction. However, the level of erroneous perceptions that occurred in our study theoretically

would support a mandate for intensive intervention services across a limited population of students, potentially taxing spare resources when more appropriate goals (i.e., counseling focused on frustrations due to asynchronous development) are neglected. Parents and teachers of children who are gifted are advised to keep abreast of the empirical evidence concerning emotional and social functioning of this group, and to apply realistic levels of intervention services when indicated. Teachers, school counselors, and school psychologists should *always* be alert to the task of identifying children outside the norms for emotional or social development, but these children may, or may not, be gifted.

One additional issue merits discussion: the paradox of beliefs related to giftedness. How can a group of individuals who are gifted, theoretically represent homogeneous characteristics with synchronous levels of advanced development across domains, vary little from the general public in dropout rates, delinquency, or suicide, and at the same time be exceptionally vulnerable to emotional and social problems? This paradox of perceptions, held by individuals who have been identified as gifted and by those who have not, suggests that gifted proponents should begin to make efforts to educate the general public, and more specifically to educate teachers, parents, and children involved in gifted programs about the nature and level of emotional and social functioning among the gifted, encouraging accurate perceptions and reducing the stigmatizing beliefs that exist toward giftedness. Previous evi-

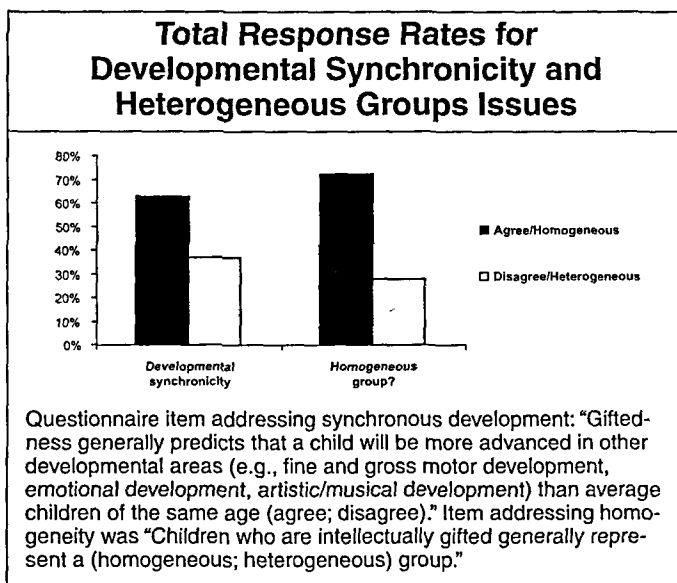


Figure 1

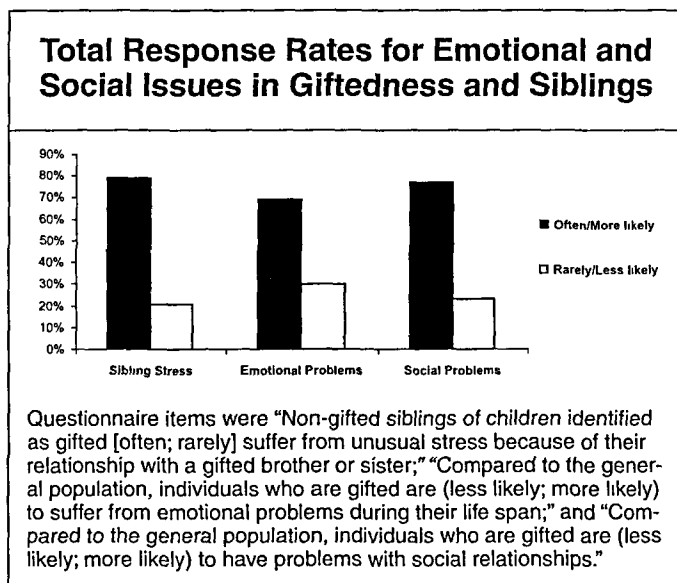


Figure 2

dence from undergraduate instruction has indicated that, when introduced to sources of empirical evidence, perceptions can be altered to reflect conclusions from empirical evidence (Bain, Williams, Isaacs, Williams, & Stockdale, in press). Children who are gifted are often placed front-and-center in their school or community domains, as examples of the best individuals society can offer. The added pressure of erroneous beliefs from the general public that they are most likely headed for emotional and social trauma is unfair to these children.

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