Twelve myths of gifted education

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ABSTRACT

The paper examines the research evidence for many of the issues that are perennially debated with respect to the education of gifted students. The first cluster of contentious topics focuses on how giftedness is recognized; the second on the social and emotional wellbeing of gifted children; and the third on educational provisions for gifted students. The preponderance of misconceptions on these issues leads to misinformation and misguided practices that can disadvantage these students and their families.

INTRODUCTION

Almost a decade ago, Delisle (1994) listed the top ten statements that should never again be made by educators of the gifted. In the same vein, this article details the myths that most irritate – and sometimes enrage – me, as a result of their inaccuracy and the malpractices that they spawn. This paper examines the research relevant to each myth and gives the practical implications of exposing the misconceptions.

MYTHS ABOUT RECOGNITION OF GIFTEDNESS

Some commonly held misconceptions apply to the recognition of giftedness. These include that:

- all parents think that their child is gifted;
- no one is gifted;
- everyone is gifted at something;
- IQ tests are worthless at identifying giftedness.

Myth 1: All parents think their child is gifted

This claim is advanced to me at every teacher workshop that I conduct. At the heart of this contention are two assumptions: first, that parents over-estimate their children's abilities and, second, that teachers are far more accurate identifiers of children's advanced skills. I shall now examine the evidence for each of these assumptions in turn.

Many writers in the field of the education of the gifted report that as parents have detailed knowledge of their child's milestones, motivation and personalities, and see their children in a range of settings and performing a range of tasks, they are skilled at recounting their children's abilities (Feldhusen & Baska, 1989; Robinson, 1987; Roedell et al., 1980). Indeed, in two studies (Ciha, 1974; Jacobs, 1971), parents correctly judged their child's giftedness 76% of the time, compared with 22% and 4.3% for early childhood teachers' ratings in the respective studies.

These findings are similar to those of Louis and Lewis (1992) who found that 61% of parents correctly identified their preschool children's advanced development, with the remaining 39% of the children falling just below the gifted category. Meanwhile, using a cut-off score of an IQ of 130 points, two-thirds of parents in a study by Silverman et al. (1986) correctly recognized their children as gifted, with 100% being correct in their identification if the cut-off score was set at 120 IQ points.

Yet despite such findings about the accuracy of parents' reports of their child's developmental milestones, parents are often dismissed as biased and exaggerated. But, on the contrary, it is more usual for parents to under-estimate their children's giftedness than to overestimate it (Chitwood, 1986), especially when the parents are well-educated (Roedell et al., 1980). Anecdotally, this is also my experience in my own clinical psychology practice, where I find that gifted parents in particular understate their child's skills by a whole category. That is, if a mother refers a child with the comment that her child is 'bright' (that is, is performing in the high-average range which is represented by an IQ band of 115-129), my assessment usually shows the child to be 'mildly gifted' (that is, within the 130-144 range of IQ points); if parents tell me that they think their child is mildly gifted, the child usually turns out to be moderately so (with a measured IQ in excess of 145).

Under-estimation can come about when parents do not know another child with whom to compare their own child's skills; when their social group comprises many children who are similarly advanced and so in comparison it becomes difficult to notice their child's developmental advances; or when, although they notice their child's advancement, they do not realize its extent. Other parents have an inflated view of giftedness based on an image of the child prodigy and so, while acknowledging that their child is 'bright', they do not realize that she or he might indeed be gifted (Mares & Byles, 1994).

The second aspect to the myth that every parent thinks his or her child is gifted is the assumption that teachers are more accurate than parents in their assessment of giftedness. This is not borne out by the research. Teachers' accuracy with identification is generally found to be very low, especially with children from minority cultural groups (Hadaway & Marek-Schroer, 1992). In a meta-analysis of studies about the accuracy of teacher identification of gifted children, Gear (1976) reports accuracy rates of between 4.4% and 48%. Jacobs (1971) found that teachers' ability to identify gifted children was lowest during the early childhood years, when their accurate identification was just below 10%. Tannenbaum (1983) reports similar findings in later studies.

These studies have come under some criticism (see, e.g. Gagné, 1994). It has been realized that teachers can become more accurate in their identification when they are trained to recognize advanced development (Gear, 1978; Roedell et al., 1980), have a list of signs to look out for (Borland, 1978) and have sufficient time to observe children's talents (Denton & Postlethwaite, 1984).

Most of the above studies speak to the rate of parents' false positives, asking if parents nominate as gifted some children who in fact have average abilities. The answer is that they generally do not. The second category of studies looks at teachers' rate of false negatives: that is, the rate at which they overlook giftedness. What remains uncertain is how many parents overlook giftedness in their children? We can assume from the above findings that parents have a lower rate of false negatives than most teachers, but that the rate at which gifted children are overlooked by both parents and teachers remains disturbingly high.

When there is disagreement, then, about whether a child is gifted, parents seem more accurate than teachers. However, on some occasions when teachers believe that a child is not gifted and parents (or psychologists) believe that the child is, both can be correct. I have found that there are two types of children about whom such disparate opinions arise. The first group turn out to be visually gifted and so have to translate the verbally presented information that they face almost exclusively in school into a visual format. The delay experienced as they do this makes them appear to be 'slow'. A second group are those who are intellectually but not academically gifted. There are many ways to be intellectually gifted in addition to the traditional academic domains of reading, writing and arithmetic. Some intellectually gifted children have ordinary talents in these tasks, with only the minority of gifted children being early readers, for example (Perleth et al., 1993), although extremely early readers are often exceptionally gifted (Gross, 1993a). In other words, the parents are right that the children are intellectually gifted and the teachers are right that the children are not academically gifted – but to claim that this means they are not gifted at all is to misunderstand the multifaceted nature of giftedness.

The implication is clear: teachers can generally trust parents' perceptions that their child is gifted. If there is a difference of opinion on the issue, it might be because teachers are more likely to overlook giftedness than are parents, or because children are gifted in domains that do not readily show up within a school curriculum.

Myth 2: No one is gifted

Many times I've spoken with classroom teachers who claim that, in 25 years of teaching, they have never met a gifted child. One preschool teacher with 35 years' experience in Lee's (2000) study reported that he had never met a gifted girl (although he had recognized giftedness in boys). In response, I am often tempted to use the adage from the child protection literature which states, 'I would not have seen it if I didn't believe it'.

Given the above evidence on teachers' rate of false negatives – the rate at which they overlook giftedness – this myth is easy to dismiss. Even the maths tell us that, if 5% (or any other proportion) of the population are considered to be 'significantly above average' in their skills, then 5% of the school population is gifted. A teacher with an average class size of 30 students over 25 years has taught approximately 37 gifted students (being 5% of 750). That the teachers have not realized it speaks to a lack of knowledge about what giftedness is (Plunkett, 2000), and the lack of training of teachers in recognising it. It might also have to do with the outright hostility that surrounds the notion of giftedness in many quarters (Carrington & Bailey, 2000; Cramond & Martin, 1987; McBride, 1992; Sharma, 2001). This hostility is particularly puzzling given that no one is hostile to the notion that some children (roughly the same proportion) have skills that are significantly below average.

Myth 3: Everyone is gifted at something

If looking at the arithmetic alone, this myth can be dismissed quickly. As *gifted* means achieving at significantly above average levels, it is arithmetically absurd to claim that everyone is above average. It is akin to claiming that everyone is six feet

tall and those who aren't are either being stubborn about it or have been measured wrongly.

That this claim is so nonsensical should be enough for the notion to descend into obscurity – except that the concept of multiple intelligences has reinforced it. Under a multidimensional view of abilities, IQ tests can be dismissed because they do not test all aspects of intelligence. Subsequently, it is a small leap to dismiss an assessment of a child as ungifted on the grounds that we have not looked hard enough. The argument goes that if every child has a particular talent, our failure to recognize it is simply due to inadequate assessment.

Unpalatable as it may seem, my experience with children with intellectual disabilities (mental retardation) and even with average learners tells me that, indeed, not everyone has a particular talent domain in which they excel beyond the norm. I wish they did, for their sakes. Of course, this says nothing about individuals' worth as human beings, which is immutable, whatever their abilities.

I believe that, in most cases, abilities across domains (such as those listed by Gardner [1983]) are correlated: children who are capable in one domain are usually very able in most others (gifted children with learning disabilities being a rare exception). Gardner (1983, p. 9) agrees when he says that mostly abilities in each domain work in harmony and so 'their autonomy may be inivisible'. This belief in an underlying general capacity which, for want of a better word could be termed 'intelligence', is probably a relic of my training as a psychologist and I am willing to entertain the possibility of a set of relatively separate capacities.

However, I agree with Gould (1981) who contends that the difference between the general- versus multiple-intelligence camps is a product of the statistical tests that the researchers use. Gould argues that any factor analysis of correlated scores will *always* identify a single factor that accounts for most of the variance, but the maths does not determine what that factor is. Each researcher names that factor, depending on his or her professional orientation and interpretation of other supporting evidence: *g* could be said to reflect individuals' comfort with taking tests, familiarity with pen-and-paper tasks (Gardner, 1983), parents' socioeconomic status (Bowles & Gintis, 1976), the fact that the tests tap a narrow range of abilities which *are* correlated with each other but neglect other dimensions of intelligence (Sternberg et al., 1996), or simply the choices the researcher made about how to conduct the factor analysis (Gould, 1981). In other words, the competing conclusions of these two views can be equally right and equally wrong, depending on the way the statistical analysis and subsequent interpretation are carried out (Gould, 1981).

In the future, neurology might have some answers. It is beyond this paper and my expertise to give a full review of this body of knowledge. However, some preliminary findings suggest a general ability. For example, Eysenck (1986) reports that, owing to efficient transmission between brain cells, gifted individuals process information very accurately - that is, with few errors. As a result, they learn quickly.

Another biological study by Jausovec (1997) showed two things. First, gifted subjects had higher cortical arousal at rest. This could mean that gifted people are more ready to deal with intellectual demands that arise. Second, gifted subjects showed greater arousal while structuring the problem than they did while solving it. Jausovec interpreted this as meaning that gifted individuals are better able than average learners to structure a problem and thus reduce its complexity. In turn, this makes their problem solving more successful (Shore & Kanevsky, 1993).

A preliminary conclusion from such studies is that arousal and efficient functioning of the brain can potentially be employed across skill domains, thus accounting for a correlation between abilities across domains. If we call this generalized capacity 'intelligence', then it is caused by neurological efficiency.

The reason to expose the myth that everyone is gifted is not to diminish the humanity of those who are learning at average levels, but to ensure that we do not use the misconception to dismiss those who *are* genuinely gifted, some of whom will have needs that are not automatically being met by regular provisions and thus for whom adjustments need to be enacted.

Myth 4: IQ tests are worthless at identifying giftedness

The last myth pertaining to the recognition of giftedness arises partly from a belief in multiple intelligences. It upholds that IQ tests are worthless, because they do not measure all of the domains in which humans can be intelligent.

To discuss that, I'll start with a story. Let's say that I have a nagging problem with my back and, after some months of discomfort, consult my medical practitioner. The doctor is not immediately certain from my description of the symptoms whether I have a kidney infection, a problem with a disc, malaligned vertebrae or any of a myriad of potential illnesses - and so asks to examine the symptomatic area. But I refuse the examination, saying 'I don't want you to assess the problem, I just want you to tell me what I should do about it'.

I use this story to explain why I am an advocate of IQ testing for gifted children who are experiencing academic, social or emotional concerns. If we fail to assess, we are asking educators to provide a developmentally appropriate curriculum, without telling them where the child is functioning developmentally. They are shooting for a target whose location is unknown.

Thus some advantages of IQ testing, as I see them are:

- when the findings are explained to them, children can understand more about how their brain functions and so can use it to its best;
- identification of giftedness can counter previous negative explanations of the children's social or emotional difficulties;
- the results can empower parents to advocate within schools for a curriculum that is responsive to their child's atypical needs;
- the results can empower parents in their parenting role, as dissonant levels of development (internal asynchrony) can confuse parents about how best to respond to their child's disparate needs.

Nevertheless, I agree with many of the detractors of IQ tests that the tests measure a limited range of abilities. It is clear that they do not assess musical or sporting talents: they were never designed to and are seldom criticized for the omission; similarly, they do not assess creativity or the emotional intelligences or thinking processes such as analysis or synthesis (Grinder, 1985; Sternberg, 1982, 1986; Sternberg et al., 1996). The reason for these omissions is that these capacities – although very valuable skills to possess and valid to measure - are too difficult to assess reliably. Different test administrators would score children differently for the same answer, which would be akin to measuring length using a piece of elastic. So my conclusion is that it is better to have a reliable measure of a limited range of skills than an inaccurate measure of a wider range of skills: *as long as we continually*

recognize the limitations of the tests and do not put them to uses for which they were not designed and which they can never achieve.

One task that is beyond any single test is the identification of giftedness in educationally disadvantaged children. It is well recognized that multiple measures across multiple settings are needed for accurate assessment, particularly of these children. At the same time, it cannot be said that low test results for disadvantaged children are biased, as the scores *accurately reflect* the children's performances in school; the inequity lies in the children's social disadvantage itself, not the test results. Furthermore, without IQ tests, there would still be educational decisions to be made for these and other children, with teachers' subjective judgments and academic achievement test results being even less defensible bases for these decisions than the IQ tests (Pendarvis & Howley, 1996; Worthen & Spandel, 1991). Having said this, there is a clear imperative to improve the validity of the tests, particularly so that gifted disadvantaged young people are not overlooked. But, in the meantime, the tests are the best tools we have for supplementing information available from other sources. Two of these key sources are educators' and parents' indepth knowledge of a child.

EMOTIONAL STATUS OF GIFTED CHILDREN AND YOUTH

Many myths prevail about the emotional wellbeing of gifted children and adolescents. Those discussed here comprise the views that:

- there is a fine line between genius and insanity;
- gifted children are overexcitable;
- gifted children are perfectionists;
- these children will be poorly adjusted if told that they are gifted.

Myth 5: There is a fine line between genius and insanity

Notions of the 'mad genius' still permeate lay understandings of giftedness – and indirectly contribute to some parents' reluctance to recognize giftedness in their children out of a misguided fear of its supposed implications for the children's emotional status.

The point to start in analysing the evidence is to realize that this view about the increased vulnerability of gifted children is expounded mainly by clinical psychologists (of whom I am one). But it is self-evident that parents consult psychologists when their children are having difficulties: they do not pay for services when there is no need. This means that 100% of the gifted children who consult psychologists are having difficulties at the time. While this informs us of the types of problems such children can experience (which has been a hugely valuable contribution by psychologists to gifted education), nevertheless, we do not know how many gifted children never experience more than the usual ups and downs of life - and so never darken the doors of the psychologist's consulting rooms.

Outside of psychologists' descriptions of the clients who present to them, there is very little evidence of the increased emotional vulnerability of gifted children (Gust, 1997; Gust-Brey & Cross, 1999). Evidential claims are often based on retrospective biographical data about highly eminent artists and other prominent individuals, which information is contaminated by the superstitions and limited medical knowledge of the era when the records were made.

Terman's longitudinal study has been influential in showing that ultimately individuals who are gifted end up *in adult life* as achievement oriented and successful workers who are mostly emotionally well-adjusted and enjoy stable and fulfilling relationships with intimates. This aside, it is still possible that along the way to achieving this, gifted *children* experience more than the usual emotional challenges.

If this is so – and it has not been quantified – it could be for one of two reasons. The first possibility (advanced by the likes of Geake, 1997; Lovecky, 1992; Miller et al., 1994; Morelock, 1996; Piechowski, 1997) is that gifted individuals' highly attuned nervous system contributes both to advanced learning and to an increase in their emotional sensitivity, intensity and responsiveness. A second possibility is that gifted individuals are at increased risk of social and emotional difficulties, not because their nervous system is created qualitatively differently, but because their atypical needs are met either with negative reactions or indifference. As a result, gifted children are forced to adapt to society, instead of the reverse (Taylor, 1996). The source, then, of their emotional difficulties is seen to be the mismatch between their environment and their special needs, not the neurological and psychological make-up of the children as such.

An equally impressive body of researchers and writers concludes that gifted children's social and emotional development actually proceeds *better* than average learners' (Clark, 1997; Grossberg & Cornell, 1988; Janos & Robinson, 1985; Kunkel et al., 1995; Moon et al., 1997; Olszewski-Kubilius et al., 1988; Parker, 1996). This could be due to the support that children receive from their family and wider environment which allows them to be both highly-achieving and well-adjusted, or because most gifted children can use their sophisticated cognitive skills to solve any problems they face and so can make satisfactory adjustments to being gifted (Whitmore, 1980). Clark (1997: 145) puts this another way when she says that, 'the very ability that creates the problem can supply the solution'.

A third and again equally impressive group of researchers and commentators concludes that there is no difference between gifted and average learners emotionally. In other words, there is no increase in emotional adjustment problems in gifted children (Feldhusen & Nimlos-Hippen, 1992; Gallucci, 1988; Grossberg & Cornell, 1988; Lehman & Erdwins, 1981; Neihart, 1999; Robinson & Noble, 1991; Rost & Czeschlik, 1994).

So what accounts for such a variety of conclusions from many of the world's leading researchers and writers in the education of the gifted? The various views could be reconciled by considering the following possibilities.

- **Country of origin of the studies**. Attitudes to giftedness, the resulting educational provisions, and thus the children's own responses to being gifted, are likely to vary between cultures (Webb, 1993).
- **Group versus individual perspectives**. Studies that focus on groups could find evidence that, on the whole, gifted individuals are well-adjusted whereas studies that examine individuals could show up some emotional issues that relate to being gifted (Gallagher, 1997; Schauer, 1976).
- **Differences between those gifted children who come to the attention of adults, versus those who do not**. For gifted children to be studied, they have to be recognized as being gifted. If assessment follows parental referral (which usually results from problems being manifested), the children thus included in a

study could be emotionally atypical of other gifted children whose disturbances do not bring them to the attention of their parents or teachers. Alternatively, when identification is achieved by randomly administered IQ tests, the children's high performance on the tests could signal both their inherent abilities and their satisfactory emotional adjustment (Tannenbaum, 1983). In that case, they might be unusually well-adjusted compared to others in the gifted population. We do not know.

- **Placement**. Much of the research into the social and emotional adjustment of gifted children emanates from those attending gifted programs, as this makes subjects easy to locate. However, access to these programs is often restricted to those who are highly-achieving and so are likely to be both well-adjusted and in receipt of external support for their efforts. Furthermore, these programs could either be meeting the children's needs more than is usually the case and so the children will have fewer difficulties, or the programs could raise expectations for the children's achievement and thus generate more emotional difficulties for them. As placement in gifted programs lowers the children's academic self-esteem (but still to above-average levels), while raising their social self-esteem (Chan, 1988; Coleman & Fults, 1982; Craven & Marsh, 1997; Gross, 1997, 1998; Hoge & Renzulli, 1993; Marsh et al., 1995; Olszewski et al., 1987; Schneider et al., 1989; Wright & Leroux, 1997), either scenario is possible. Furthermore, it is uncertain to what extent findings about gifted children in gifted programs apply to gifted children elsewhere.
- **Age**. There appears to be a downturn in young people's confidence during the early to middle high school years, but levels improve thereafter (although not necessarily reverting to former high levels) (Kunkel et al., 1995; Lewis & Knight, 2000; van Boxtel & Mönks, 1992). Therefore, when younger and late- high school students are studied, there appear to be fewer social or emotional problems (Klein & Zehms, 1996; Kline & Short, 1991) but difficulties emerge in the middle adolescent years.
- **Type of ability**. Verbally gifted children are more socially obvious in more settings and so could have more adjustment difficulties than those whose skills are confined to a restricted domain, such as mathematics (Ablard, 1997; Brody & Benbow, 1986; Dauber & Benbow, 1990; Swiatek, 1995).
- **Levels of ability**. There is an hypothesis that as IQ rises, the uniqueness and, in turn, emotional difficulties of gifted individuals becomes more pronounced (Brounstein et al., 1991; Delisle, 1992; Gross, 1993b, 1997; Kline & Meckstroth, 1985; Kline & Short, 1991; Tannenbaum, 1992; van Boxtel & Mönks, 1992; Whitmore, 1980). This is the curvilinear model of socio-emotional adjustment (Grossberg & Cornell, 1988). However, various studies by (Garland & Zigler, 1999; Norman et al., 1999, 2000; Oram et al., 1995) did not support this model, finding no significant difference in adjustment between moderately and highly gifted students. Even if extremely gifted students were found to have greater adjustment problems, these could arise out of not having their needs met, rather than their extreme giftedness itself (Neihart, 1999).
- **Comparison group.** When compared with children of the same mental age, gifted children's adjustment is similar, but that when compared with same-aged

children, their adjustment is better, particularly in the social skills domain (Lehman & Erdwins, 1981).

- **Other predisposing problems**. It could be that many gifted individuals experience adjustment difficulties as a result of conditions other than their giftedness (Gallucci et al., 1999; Garland & Zigler, 1999). Schauer (1976), for instance, reports that the majority of gifted individuals who were showing signs of poor adjustment in fact had undetected learning difficulties.

This list implies two cautions: first, in generalising study findings across populations and, second, assuming that gifted individuals have a higher than usual *rate* of social and emotional difficulties. It is unlikely that ongoing mental illness and high levels of productivity are compatible (Yewchuk, 1995a, 1995b). However, the information provided from the above studies and the clinical accounts of psychologists does lend some confidence to the conclusion that gifted individuals can experience *different* social and emotional issues compared with their peers (Manaster & Powell, 1983).

We *can* safely conclude that any children or adolescents can experience emotional difficulties in response to their life circumstances. So some gifted children will be represented in this number. In addition, some gifted children experience issues that probably arise from being gifted (that is, from being numerically rare) and from not having their atypical needs met. This can make them a challenge to parent and teach and can cause them to employ coping strategies. But this does not mean that they cannot adjust. It simply means that we must support them so that they can resolve these issues to their satisfaction.

The implication of this conclusion is that parents can be reassured that their gifted children are not emotionally compromised simply by virtue of being gifted. In turn, this recognition will:

- empower parents to raise their children by employing the usual skills that benefit all children;
- reduce parents' reluctance to identify their children as gifted and thus allow them to plan for their children's needs more suitably;
- define outlandish behavior or emotional outbursts that are presently blamed on children's giftedness as the typical behavioral difficulties of any children, which then empowers adults to resolve these in the usual ways;
- avoid dismissing the emotional difficulties of gifted children as being par for the course and instead will recognize these as an actual emotional problem, which will allow the usual support mechanisms to be called on.

Myth 6: Gifted children are overexcitable

Since Dabrowski detailed five ways in which eminent individuals can be 'overexcitable', this view has held great sway within the field of the education of the gifted. It may yet prove to be true but the present state of evidence is seriously flawed. Let's now examine some of the studies.

The first source of support comes from a study by Lewis, Kitano and Lynch (1992) who found that gifted doctoral students did characterize themselves as being more intense on Dabrowski's dimensions of intellectual, and emotional capacities and that these intensities provided positive potential for their personal growth and enriched their lives, rather than representing a neurotic or destructive force.

Naturally, gifted adults who are not striving at such a lofty academic level may differ in excitability profile from the doctoral students in this study.

Again in at least partial support for Dabrowski's characterisation of gifted individuals as intense, Kitano (1990) found no relationship between preschool children's high scores on IQ and creativity tests and displays of overexcitabilities, although the parents reported that children in the highest-IQ brackets were more intense intellectually than less gifted children.

Shaywitz and colleagues (2001) found that highly (but not moderately) gifted boys were active in exploring and experimenting, yielding a restless behavior pattern that was difficult for teachers and parents to cope with and which resembled the behaviors of children with learning disabilities.

Ackerman (1997) found evidence of psychomotor, intellectual and emotional excitabilities (in that order) in gifted adolescents. She hypothesised that motor intensity supplies the necessary energy to achieve, particularly for the 12 to 14 year age group which she studied. On the other hand, fully one-third of the 'nongifted' children resembled the gifted children in their pattern of excitabilities, while a quarter of the gifted students matched the 'nongifted' ones. Ackerman took this to mean that these children were mis-labelled, although it could equally mean that the 'excitable' emotional profile is neither unique nor essential to giftedness.

A further source of evidence comes from a study by LeVine and Tucker (1986). These researchers found that gifted 6 to 8 year-olds showed greater awareness of others' feelings, had more sophisticated moral reasoning and a more internal locus of control than average learners. However, the children's interpersonal perceptiveness could equally be seen to be a cognitive skill rather than a characteristic of emotional sensitivity. As such, it says little about Dabrowski's overexcitabilities.

A further study claims to strengthen the case for overexcitabilities. Tucker and Hafenstein (1997) asked teachers to norminate five children, each fitting the description of one of Dabrowski's categories of overexcitabilities. The researchers then gathered assessment data about each child, questionnaire information from parents and observations of the children in class. The researchers concluded that the nominated children did indeed display the characteristics of intellectual, imaginational and emotional overexcitabilities. However, this flawed research method is akin to volunteering smokers for a study and then finding that they all smoked! The results tell us nothing of how typical the pattern of overexcitability is for gifted children in general.

A more recent study (Bouchet & Falk, 2001) claims to find higher levels of various overexcitabilities in college (university) students who had attended gifted programs in their school years compared with those who did not. However, many of those not in gifted programs could nevertheless still be gifted, in which case the comparison group is tainted. Furthermore, the narrow range of abilities represented by college students renders meaningless correlations on any measures.

Together, then, these studies tell us little: some gifted children are overexcitable in the sense employed by Dabrowski; some are not; and some average learners are overexcitable. Only time will tell if the prediction that gifted children are *more* overexcitable than average is, first, accurate and, second, useful in understanding and meeting their needs.

The implication of being cautious about expecting gifted children to be overexcitable is the same as for myth 5: namely, that giftedness will not be used as

an excuse to indulge children's inconsiderate or uncooperative behavior and thus develop antisocial habits, to the detriment of surrounding individuals and themselves.

Myth 7: Gifted children are perfectionists

Despite a paucity of evidence (Stedtnitz, 1995), and the methodological flaws in the few available studies (e.g. Orange's [1997] study of individuals who attended a workshop on perfectionism which found that most were perfectionists), gifted children are often described as having higher standards for their own performances than do their parents or teachers (Clark, 1997). This trait is commonly called perfectionism. However, it is important to distinguish between the various forms which this drive can take: as Hess (1994, p. 28) states, 'Not all perfectionists are created equal'.

The first form of perfectionism is a healthy drive in which individuals take pleasure from making a real effort and achieving high-quality outcomes. The second type of perfectionism is a destructive form in which individuals strive compulsively to achieve unrealistically high standards and are not satisfied, no matter how well they do, and whose feelings of worth are linked to being successful (Hess, 1994; Parker & Adkins, 1995; Parker & Mills, 1996). According to Roedell (1984, in Prichard, 1985, p. 11):

> Setting high standards is not in itself a bad thing. However, perfectionism coupled with a punishing attitude towards one's own efforts can cripple the imagination, kill the spirit, and so handicap performance that an individual may never fulfil the promise of early talent.

Recent research (LoCicero & Ashby, 2000; Parker & Adkins, 1995; Parker, 1996) describes gifted children's perfectionism as being of the first type, whereby they strive for the excellence of which they are clearly capable. As such it is the engine that drives their achievements and so is not dysfunctional for them (Silverman, 1994).

In my practice as a psychologist, I have found that the children who may be most prone to maladaptive perfectionism are those who have a wide spread of abilities (a high degree of internal asynchrony); who believe that giftedness means that they should be able to learn everything effortlessly (Mendaglio, 1994); or who have perfectionist parents whose caustic reaction to their own mistakes teaches their children how to respond negatively to *their* failures.

Thus, gifted children are perfectionists – in one sense. But perfectionism has a bad name that, in its functional form, it does not deserve. Even though their form of perfectionism is generally useful for gifted children in that it helps them to achieve, it might be misunderstood and poorly tolerated by other people so that, although not a problem for the children themselves, it can become an issue because of other people's reactions (Silverman, 1994a). The implication, then is that parents and teachers must embolden children to reach their ideals, rather than castigate them for having high ideals in the first place.

Myth 8: Children will be poorly adjusted if told that they are gifted

Freeman's (1991) research in the United Kingdom is the most ambitious longitudinal study since the famous Terman study, and deserves wide recognition. One of her conclusions from this study is that labelling children as gifted causes subsequent

emotional maladjustment. In agreement with Freeman is Cornell (1989) who found that when parents used the *gifted* label, their gifted children had lower self-esteem regarding their physical appearance and reported higher levels of anxiety. One potential explanation for such effects is that the gifted label raises adults' and children's own expectations of their performances and the children find it difficult to live up to these.

Socially, while applying the gifted label can give young people status, it can also create a barrier between them and their age mates (Buescher, 1985) such that labelled children are less well-accepted by their classmates (Cornell, 1989). Some claim that this is because labelling children as gifted can make them conceited or pompous. However, as Mares (1991, p. 12) observes, 'This is sheer nonsense. The child is gifted, whether she is identified or not'. Furthermore, it may be the giftedness itself that causes gifted and average learners to perceive the gifted children as different, in which case social barriers would be evident, regardless of whether individuals were labelled or not.

Other researchers paint a more positive picture of the effects of labelling. In a study by Manaster and colleagues (1994), three-quarters of the adolescents had been well aware that they were different, and identification or labelling merely confirmed that. The remaining quarter of the subjects in this study doubted the accuracy of the label. Nevertheless, most accepted the label - even when they did not agree with it. Few had to struggle with coming to terms with their own giftedness as a result of being labelled, as the label merely explained and confirmed their experience.

Robinson (1990) found that adolescents were more likely to reject the gifted label if they felt that their parents disagreed with it, and more comfortable with being labelled if their parents were the first to describe them as gifted.

Other researchers found that most gifted youngsters see the label as helpful if it led to improved educational opportunities; if identification is not followed up with special provisions, being labelled is sometimes perceived as stressful (Hershey & Oliver, 1988; Ring & Shaughnessy, 1993). Together, these studies exemplify the conclusions of Fisher (1981: 49):

> Labels can be useful when they stimulate achievement, enhance self-concept or become a force for allocating additional or scarce resources. Labelling becomes a problem when it is inappropriate, or when the person labelled is in disagreement with the labelers, or when the label becomes a fact rather than a description of certain characteristics...Labels can be helpful or harmful. They can be accurate or misleading...They can be negative or positive. They can be a burden or a welcome recognition.

My conclusion is that there is a third factor at work here, perhaps best illustrated with an analogy: the more fire appliances that attend a fire, the more damage is caused. But the number of appliances doesn't cause the damage: it is the ferocity of the fire that leads both to the attendance of many appliances and to the extent of the damage. In short, correlation does not indicate causality or its direction: that some studies have found a correlation between being labelled as gifted and having adjustment difficulties, this does not imply that the label is *causing* the adjustment difficulties.

This is because parents seek assessment for gifted children usually when they are experiencing concerns about their child's academic performance, behavior or emotional wellbeing. Thus, the presence of difficulties leads to labelling the children

as gifted, whereas gifted children without problems are seldom assessed and thus not labelled. When children who are recognized as gifted subsequently continue to experience problems, this is not to be wondered at: their difficulties initiated the search for a label.

The implication of exposing this myth is that children will be empowered when we tell them about their giftedness. It will allow them to understand the reasons for the differences that they note between themselves and age mates, and help them to manage the dissonant skill levels they display across domains. In my clinical experience, if done skilfully, this does not lead to arrogance or a heightened sense of being special. Indeed, some children grieve at their difference and its implications for their life.

EDUCATIONAL MYTHS

The following four misconceptions under the category of educational myths state that:

- gifted education helps children to reach their potential;
- many gifted children are too socially immature to be accelerated;
- boredom is intellectual;
- curriculum differentiation means doing things differently for gifted students.

Myth 9: Gifted education helps children to reach their potential

There is no evidence yet that gifted education achieves any better outcomes for gifted children than regular placement. Among other reasons, this paucity of evidence reflects the difficulty of quantifying complex outcomes. But while the outcome evidence is accumulating, we must persist with attempts to meet gifted children's needs not because that will produce better long-term outcomes but because that is more likely to meet the children's needs in the present.

The focus on outcomes and gifted children's future potential has profound implications, to which I now wish to turn. First: all individuals have the right 'to reach their potential' - whatever their level of abilities. Second, gifted children do not have any greater obligation to reach their potential than others, as if they must repay the world for the 'gift' that they have received in the form of their sophisticated abilities. A third and related point is that individuals must express their combination of talents, personalities and values in a way that fulfils them – not in an attempt to satisfy others' ambitions for them. If females choose, say, to become full-time mothers and thus not fully exercise their career potential, this is their choice - and if it fulfils their needs, who is to say that this is 'under-achievement'? Fourth, and most basically, there is no way to assess 'potential' nor to know if anyone ever reaches it.

Thus, we adults have no right to impose on gifted children our ambitions for them. Self-actualisation – that drive to fulfil one's mission in life – must be self-driven, not an attempt to meet external expectations. Instead, the aim is for parents and educators to meet gifted children's needs as these are manifested in the present. This will assist the children to be well adjusted and, as a secondary benefit, might embolden them to put in the effort required to meet their goals in life.

The reason that the myth of reaching potential is a dangerous one is that parents' anxieties that their children cannot 'reach their potential' within even exemplary regular programs cause parents to place schools under undue pressure

to offer something extraordinary, when sound educational practice is all that the children require.

Second, parents' anxieties can cause them to place their children under undue pressure to succeed in all endeavours at all times. The anxieties themselves can initiate the children's adjustment problems, rather than the giftedness itself.

Myth 10: Many gifted children are too socially immature to be educationally accelerated

The intent of faster than usual progression through grades or early entry to the next educational setting (that is, acceleration) is to enhance children's achievement by providing a closer match between their needs and abilities and the curriculum which is delivered to them (Benbow, 1991). In so doing, the plan is that boredom will be avoided, along with any behavioral difficulties that can result (Rogers & Kimpston, 1992). A second aim is to promote the children's development of good study skills such as higher-order thinking skills and motivation (Benbow, 1991; Braggett et al., 1997). A third aim is to allow gifted children socially to mix more successfully by placing them with children who differ from them in age but who share similar interests to themselves. Early entry to the next educational setting can prevent later grade skipping with its resulting dislocation from the peer group (Rogers & Kimpston, 1992). Fourth, acceleration aims to capitalize early on children's interests and abilities (Rogers & Kimpston, 1992).

Research consistently reports that acceleration meets all of these academic, social and emotional aims (Benbow, 1991; Clark, 1997; Eales & de Paoli, 1991; Heinbokel, 1997; Janos, 1987; Kulik & Kulik, 1984; Paulus, 1984; Proctor et al., 1986, 1988; Rimm & Lovance, 1992a, 1992b; Robinson & Robinson, 1992; Rogers & Kimpston, 1992; Sayler & Brookshire, 1993; Schiever & Maker, 1997; Shore & Delcourt, 1996; Southern et al., 1989, 1993; Swiatek & Benbow, 1991). One study found that, compared with their classmates, early entrants' relative academic standing increased as they progressed through school (Proctor et al., 1986). Accelerants mostly adjust well socially and emotionally (sometimes after some initial minor difficulties); and they report preferring to be with the older children who are their intellectual peers.

Most studies have found that accelerants display equivalent adjustment compared with equally gifted children who have not been accelerated (Sayler & Brookshire, 1993; Swiatek & Benbow, 1991), and thus no benefit seems to have accrued. However, children who elect to be accelerated might have experienced harm had they *not* been allowed to accelerate: they might have become bored and unmotivated, with a consequent decrease in achievement (Heinbokel, 1997; Swiatek & Benbow, 1991). This, of course, is impossible to measure.

On the other hand, a few authors (e.g. Freeman, 1991) have found some harmful academic, social and emotional side-effects of acceleration. With respect to early school entry, one specific finding was that 20% of early entrants performed poorly in school as assessed by teacher ratings (McCluskey et al., 1996), although this might not have been caused by their early entrance: they might have performed poorly even if they had started school on time. It is also unclear whether subsequent difficulties are due to acceleration as such, to negative attitudes by teachers which result in accelerated children receiving little support in their new placements (Heinbokel, 1997), or to the fact that acceleration is used so rarely that an accelerated child feels abnormal (Southern et al., 1993).

Although findings of harmful side-effects of acceleration are the minority, acceleration is frequently avoided on the false grounds that such ill-effects are common. Teachers in particular often report to parents that their child is too 'immature' to progress at a faster rate through school. But rather than signalling that the child is not ready for school, a lack of social relationships can be a result of being in a socially and educationally inappropriate setting and can improve once the child is more appropriately placed (Braggett, 1992). Furthermore, at any grade level, there is a considerable range of social maturity within any one class and so a less mature gifted child is unlikely to stand out amongst this diversity.

Another common concern about acceleration is that it will mean an early exit from school (Vialle, 1998). However, it appears that the resulting early exit from school is not a problem for accelerants, who continue to do well into university and beyond (Swiatek & Benbow, 1991). Moreover, the alternative of not meeting the children's needs throughout their school years could result in dropping out altogether - that is, an early *unsuccessful* exit. Furthermore, if the children do experience difficulties with early exit, they will be older at that time and so in the meantime might have developed some strategies for solving these problems.

The implications are clear: when considering acceleration, we must assess each child individually. We must listen to the children's and parents' wishes and proceed once the receiving teacher and school administration are equipped with the necessary support to allow adjustments to be made to fill in the gaps in curricular content that the child might have missed through grade skipping (Bailey, 1997; Braggett, 1992, 1993; Heinbokel, 1997; Robinson, 1990). But avoiding acceleration on social and emotional grounds alone, or out of fear of potential problems arising from early exit is unjustified.

Myth 11: Boredom is intellectual

It is an over-statement to call this issue a myth as, unlike the other misconceptions reviewed here, there is no research one way or the other on the issue of boredom, let alone boredom of gifted children. Nevertheless, to state my case: my particular specialty is giftedness in early childhood. Thus, on occasions I support parents' wishes for their child to begin school early or to complete the junior primary (elementary) grades in less time than usual. The main reason for supporting this form of acceleration is for the children to be able to locate intellectual peers. Nevertheless, at the very same time as recommending acceleration, I am aware that it is not a panacea: being exposed to more facts sooner does not come close to meeting the qualitatively different learning needs of gifted children (Schiever & Maker, 1997).

In my practice, I have found that at least one particular subgroup of gifted young children – those who could be said to be emotionally gifted – seem instead to benefit from receiving an emotionally enriched curriculum, rather than more facts sooner. It seems that to these children the regular curriculum has been bleached of its colour or emotional meaning and that learning isolated facts is soul-destroying. For these children in particular I have found some success with the Rudolf Steiner system of education. Paradoxically, this educational system delays teaching the fundamentals of reading, writing and mathematics until the children are aged over seven years. Parents who think of children as needing more stimulation than this are not willing to risk the move to a Steiner school but those whose children are having emotional difficulties (such as refusal to go to school, tearfulness at school, or

loneliness) are often more desperate and thus more willing to take the risk. So it is only to that group I can speak, and then based on very few children.

But the experiment in slowing down the intellectual content and enriching the emotional content of the curriculum is teaching me that perhaps we are misguided in emphasising extra intellectual stimulation of gifted children. These children have taught me that boredom is not necessarily intellectual but emotional.

Myth 12: Curriculum differentiation for gifted students means doing things differently

This brings me to the last myth – that of enrichment programs. I have already stated that provisions for gifted children need to do more than offer the same curriculum earlier. However, the alternatives that I see being provided under the guise of enrichment programs are often misdirected, I believe.

To explain, let's pretend that I believe that the only disability in existence is vision impairment. As a result of my ignorance of other disabling conditions, I offer to children with a range of disabilities a program that provides additional visual stimulation, training in how to move about their environment confidently and opportunities to develop discriminative listening skills. While elements of this program might indeed be suitable for children with other forms of disability - such as cerebral palsy or Down syndrome - on the whole, a visual skills program would not adequately meet the diversity of needs evoked by an array of disabilities.

So it is with gifted education. The plethora of 'thinking skills' curricular packages implies that as long as we are doing something differently for the gifted students, we have achieved curriculum differentiation. It seems to me, however, that there are two flaws in many of these programs. The first and most frequently canvassed one is that applying the likes of problem-solving skills to trivial problems is meaningless (Sawyer, 1988).

The second problem, however, is more fundamental. These programs are built on the notion of children as empty vessels or adults-in-waiting and of teaching as a process of filling children with facts and learning skills so that ultimately they might become skilled workers. This view allows educators to succumb to the push from further up the schooling system to teach facts earlier and earlier (see e.g. Rodger, 1999) (thus robbing information of its meaning, as already mentioned) and yields a top-down approach to curricular planning. Under this model, adults determine which skills and information are of value to children and then set about teaching these. This teacher-directed process of generating a curriculum is not necessarily unresponsive to children's needs, but is nevertheless largely originated by the educator.

In contrast with imposing a curriculum on children, a *bottom-up* approach sees children as already enriched and vibrant human beings (Dahlberg et al., 1999) whose need to generate identities and understandings of the world are the starting point for, rather than an afterthought in, curriculum planning. Rather than attempting to instil a predetermined curriculum, the bottom-up approach respects and responds reflectively to the skills and interests of children and their parents. It does not simply indulge these or rely on improvisation or chance, however: it utilizes educators' expertise and active teaching while also engaging children's (and parents') competence (Fraser & Gestwicki, 2002). It is 'child originated and teacher framed' (Forman & Fyfe, 1998, in Fraser & Gestwicki, 2002, p. 168).

To return to my example of providing vision training for children across disability categories: a top-down approach to education does not assess gifted

children's interests, skills, preferences and needs but rather applies a formula for teaching based on teacher expectations. As there is increased acceptance of the multifaceted nature of giftedness, we must seriously challenge the notion that we can supply the same 'one-size-fits-all' program across this diversity. We would not do it across the range of disabilities, and we cannot justify it across the range of gifts.

CONCLUSION

We cannot revile from the fact that some individuals have exceptional abilities and that they are aware of this. This is not a political statement but a psychological reality. What we choose to do about it, however, is steeped in politics. My political stance is that gifted children have no more rights and no greater obligations to fulfill their 'potential' than any other child. All children deserve an appropriate education and support from their families and wider community in order to meet their present needs. The problem with the myths examined here is that they cloud our perceptions of the needs of gifted children and how we can best support them and their families.

FURTHER READING

General background texts on giftedness

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