Educating Gifted Children

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Introduction

Deciding how to educate so-called "exceptional" students is both a moral and an educational question. Yet there is relatively little literature attempting to take both kinds of considerations into account.[1]

It is generally agreed that weak students unable to cope with the regular curriculum should have extra help. But there is no such agreement about bright children, and programs attempting to provide such help are often controversial.

How might one go about arguing such a case? As we are all too aware, there are many moral theories and many interpretations of those theories; none is without serious objections, and rarely does theory produce an irrefutable answer to a particular problem. One might react by withdrawing from practical ethics, or by giving up on theory. Most of us are, I think, muddling through, choosing the theory whose costs we are most willing to pay, but also noticing that attempting to resolve concrete problems brings us nose to nose with problems for which standard theories have no wisdom. My approach is eclectic, a sort of feminist consequentialism that allows me to take proper account of the facts — without which good intentions will lead to unforeseen and perhaps undesirable results — without falling into some relativistic morass.

What then is the case for special education for bright students? The basic consequentialist argument is clear: children become bored or rebellious if they are not challenged. They may then turn away from intellectual pursuits, often disrupting classes as they do so.[2] If these children then go on to choose occupations below their potential, both they and society lose out. They lose because life satisfaction depends in part on using one's capacities. Society loses because it needs all the competent, imaginative people it can get to solve its problems. Since these problems are a source of misery and suffering, wasting talent is immoral.

In response, many would assert that democracy requires a common education for all children. Special education for weak students is defended on the grounds that it reduces inequality. But if universalizability — the principle that morally relevant differences can justify different treatment — supports appropriate education for these weak students, then can universalizability support unusually strong students? Does the failure to develop their potential (and the concomitant disruption to others) justify the support for appropriate education? The main objection seems to be that it is unfair to use scarce resources to further improve the position of those already better off because of their intelligence. However, there is evidence that intelligent children not given special help can be left worse off than average children to whom the school is geared. It could be argued that these children are still no worse off than those with environmental or genetic strikes against them. But no one holds that *those* children should be abandoned. Furthermore, one need not concede that the only (or

even the best) way to achieve a more egalitarian world is by deliberately failing to develop human potential. It would be far preferable to aim at developing all children's potential, to change oppressive social institutions that promote inequality, and to reduce the hugely unequal social rewards created by current social arrangements.

Definitive conclusions about justice must await answers about the best educational strategies, however. Many approaches to educating intellectually able children have been suggested, from radical reorganization of the curriculum to doing nothing.[3] The two basic—and most feasible—approaches are enrichment and acceleration.

Enrichment and Acceleration

Enrichment

Enrichment attempts to provide greater depth and breadth of material than is usually available within the existing twelve-year sequence. The posited advantage is that children stay with their age-mates, and thus spend the usual number of years in school.[4]

These alleged advantages do not stand up to careful scrutiny. Even if enrichment does enable children to stay with their age-mates, contrary to popular opinion, social maturity correlates more strongly with mental age than chronological age.[5] And why is it desirable for every child to spend twelve years in school? Since children develop mentally, socially and even physically at different rates, it would be plausible to believe that years of schooling should be flexible. For educators focused on "attention to the whole child" reluctance to take this possibility seriously is contradictory and betrays unwarranted reliance on rigid developmental theories.

It has also been argued that enrichment leads to superior academic performance. Research results have been mixed. William K. Durr comments that one of the most thorough studies compiled revealed no changes because of "concentrated enrichment." Objective measures of achievement, social adjustment, or attitudes of individuals toward themselves showed no meaningful improvement, despite subjective reports to the contrary by those involved. Some other studies do show significant results, however. For example, graduates of Cleveland's Major Work Classes did better in "leadership, reading activities, sense of social responsibility, and development of individual attitudes" than members of control groups.[6] One difficulty with both implementing and studying enrichment may be its diverse forms, as well as the potential for programs that sound better than they are. This problem is not imaginary: Dorothy A. Sisk reports that "much of the so-called enrichment of many programs for the gifted and talented is being found to exist only on paper."[7]

Sisk also points out that educators are also finding that although enrichment does increase breadth of information, it often fails to provide occasions for depth.[8] This raises the question whether a good enrichment program is in such sharp contrast with acceleration as has been assumed. This is indeed plausible: how much English, math, or science can one teach without impinging on concepts and techniques usually studied later? Thus "enriched" Algebra I becomes Algebra II. If one does

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encroach on the more advanced curriculum without giving students credit for what they have learned, then boredom is merely deferred. Problems of repetition are likely to be aggravated by changes in curriculum over time, and diversity of curriculum in different systems, since many families move often. If the concepts or techniques are not studied later, one must wonder how significant they are. The case for many enrichment models is therefore somewhat weaker than it appears: their alleged social advantages are dubious, and their academic value cannot be taken for granted.

Acceleration

Acceleration, allowing children to progress faster than usual through the educational system, can be accomplished via one or more of the following: early entrance to grade school, grade-skipping, fast-paced classes, AP courses, credit by examination, or part-time college work.

Both educators and parents seem haunted by the fear that acceleration causes social and emotional maladjustment. However, there seems to be no evidence for it. Cautions about the evils of acceleration abound, unsupported by footnotes.[9] Study after study shows not only that accelerated individuals suffer no harm, but also that in most cases they benefit socially and emotionally from accelerative measures. Daurio provides a thorough review of this literature.[10] Durr summarizes some of these results.[11] Studies done in the thirties and forties showed that grade school accelerates were superior in adjustment, and that secondary school accelerates were as popular and socially active as nonaccelerates. The results of grade skipping appear to be equally reassuring, and students in special fast-paced classes showed no ill effects.[12]

Given this kind of the evidence, it is hard to see why resistance to acceleration is so widespread. Perhaps the studies are mistaken in principle or marred by methodological problems that invalidate them. But there appear to be no attempts to argue for such claims. Perhaps it is assumed that they are biased, since one of the well-known hazards of research is for the expectations of the researcher to bias the results. But then the unanimity of the research results is doubly surprising. One is forced to the conclusion that either no opponents of acceleration have done research, or that if they have, the results changed their minds. Perhaps all the research is outdated and no longer relevant to current circumstances. On the contrary, there is a steady stream of studies and some of the more contemporary ones support the most radical strategies. Some of the most radically accelerated individuals are delighted with the opportunity to satisfy their desire for challenging material and forge ahead academically.[13] The Study of Mathematically Precocious youth (SMPY) longitudinal studies continue to demonstrate long-term benefit.[14]

Perhaps we are witnessing the power of anecdotal evidence about such well-known educational disasters as William James Sidis, an intellectual prodigy who eventually withdrew from the intellectual arena to live in obscurity. But Sidis's undistinguished record could be a consequence of any number of factors, most plausibly, severe parental pressure.[15]

Also common are anecdotal reports of unhappiness on the part of accelerated individuals. But it is well known that anecdotal evidence provides only weak

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evidence. First, is there reason to believe that a larger percentage of accelerates than average individuals show evidence of having been unusually unhappy? And second, even if accelerates were unhappy, it remains to be shown that acceleration was the cause of their unhappiness, given that intelligence is not always an unmixed blessing. The relevant question is how unhappy they were compared to individuals of similar intelligence not accelerated. Hence the worry that acceleration causes social or emotional maladjustment appears to be unsubstantiated.

It is also argued that accelerated children will be at a disadvantage in sports because of their small size. But children develop physically at different rates and younger children can be bigger or stronger than older ones. Furthermore, not all children care about sports, and those who do can be encouraged to take up sports emphasizing primarily skill or intelligence. Or arrangements could be made for children to have gym or play on teams with younger children. If promoting learning is the central goal of education, children should not be held back to secure the lesser goal of promoting sports.

This concern about sports may well arise from a deeper underlying worry that children of very different sizes should not be spending their school hours together. But a "normal" classroom contains children who vary in age up to a year, and who therefore would be different sizes even if all children were the same size at the same age — which, naturally, they are not. A demand for limited variation in student size seems in any case inappropriate for educators who extol the virtues of the heterogeneous classroom in the course of their arguments for enrichment. If other students make fun of a child, teachers should discipline them.

Some have argued against acceleration on the grounds that children should not have to work too hard. But bright children pursuing the usual curriculum work much less than average children, so it can hardly be regarded as unfair to give them more advanced work. The objection that an accelerated child must work too hard also makes sense only if one is more concerned about having everyone cover a given amount of material, rather than helping each individual realize his or her potential. Last, this worry fails to take account of the fact that for many people, both children and adults, congenial and challenging "work" is often perceived as pleasurable.

These arguments exhaust the principal non-academic objections to acceleration. Let us therefore now turn to the academic ones.

One objection to acceleration is that it does not make sense to accelerate individuals when their talents may lie in only one or two areas. But research shows that talented individuals often excel in many areas.[16] Camilla P. Benbow suggests that if otherwise able children are weak in one area, they can be given individual help.[17] This is at least as plausible as keeping a student at a lower level to accommodate the weaker area.

Another objection, aimed primarily at grade skipping, is that acceleration causes gaps in students' knowledge. Since this method of acceleration is one of the most convenient, it is important to determine whether such gaps are a problem. But research shows this worry to be unsubstantiated; even for the most radically

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accelerated students in the SMPY program, gaps do not seem to hinder progress; perhaps one reason is that there is a great deal of review and repetition built into the curriculum in most school systems.[18]

It is also argued that accelerated students grasp only superficially the material they cover. Thus Gibb asserts that accelerates have superficial mathematical understandings, but she provides no support for her view, and S.P. Daurio found no evidence for it.[19]

What about other areas where superficiality would be still harder to demonstrate? The charge of superficiality would in any case apply only to classes that attempt to cover material faster than usual. It is not relevant to early entrance or grade skipping, in which cases material is covered by the accelerated student at the same pace and therefore at least as thoroughly as by average students. However, the objection depends upon the dubious thesis that to learn something quickly is to learn it only superficially, and ignores the obvious fact that individuals learn at different rates, and the fact that the more interested one is in a subject the better one tends to learn it.

Hence it is clear that none of the alleged disadvantages of acceleration stand up to scrutiny.[20] One might nevertheless ask what positive reasons there might be for using it.

Some such reasons have already emerged in the foregoing discussion: many studies show that acceleration is significantly beneficial. SMPY studies show, for example, that "accelerated youths who reason extremely well mathematically will tend to go much further educationally, in more difficult fields, and at more demanding universities, than if they were left age-in-grade."[21] Moreover, such opportunities may well lead to greater social adjustment.[22] One study showed, for example, that a group of students who entered college early had higher grade point averages, got more scholarships, won more academic awards, held more class offices and took part in more activities, including athletics.[23] This researcher found that those who showed greatest evidence of maladjustment were bright individuals who had not been accelerated, and average ones who had been accelerated. And not only do accelerated students do better than nonaccelerated ones, but Frederick Tuttle concludes that positive harm may come of failure to accelerate.

Clearly, accelerated bright children forge ahead academically. But why do they succeed better socially? The most plausible answer is provided by the aforementioned evidence that social development is more strongly correlated with mental age than chronological age, and that people tend to have the most satisfying friendships with those who understand the world at a similar level of complexity.

A further advantage of acceleration is that individuals can squeeze more education into less time, so accelerated students typically have more schooling than others do. Perhaps part of the explanation is that boredom extinguishes interest in learning and challenge reinforces it.

Faster progress also readies individuals for work earlier. This has obvious financial advantages, if society can offer them jobs. Having more productive years

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has special significance for the research professions. Harvey C. Lehman's studies show that the most productive years in many professions are the early thirties; scientific discoveries peak even earlier, with much brilliant work being done by individuals in their twenties or even their teens.[24] So helping more children advance faster means more new discoveries.

In sum, the arguments in favor of enrichment are weaker than one might think and the objections to acceleration are far less substantial than they are often taken to be, and the arguments for it more compelling. Thus, in the absence of more radical ideas (such as providing every student with much more individual attention), it is clear that on both academic and social grounds, the backbone of measures for superior students should be acceleration.

Moral Conclusions

Broader moral considerations reinforce this position. One is simply the cost-benefit analysis. Enrichment programs tend to be quite expensive, requiring extra teachers and facilities, whereas acceleration tends to save money. Jackson has elaborated some of these financial advantages of acceleration for individuals and for society. Just entering college with a year of AP credit could save a year of study, reducing economic strain on families and students, as well as providing state and federal governments with substantial tax revenues. If appropriately extended across society, social and personal outlays on education would be significantly reduced, individuals could earn additional billions of dollars a year, and tax collections would rise significantly.[25]

Such financial considerations may sound crass, but it should not be necessary to point out that money spent one place is lost to other needs. Since expenditures on defense seem untouchable, social welfare expenditures play off against each other in a zero sum game. So it is immoral, other things being equal, to spend money pursuing objectives that could be achieved more cheaply. The same argument holds within the field of education, for we are not providing everything average and disadvantaged students need, and changing this situation will not be cheap. If there are proven strategies that allow us to help better students while liberating resources for others, it is immoral not to prefer those strategies.

Other moral reasons for choosing acceleration rather than enrichment are connected with smaller scope, but still important, moral issues: problems in identifying appropriate participants in special programs, and the development of snobbery among the chosen, together with lack of self-confidence among those not chosen. Labeling some children "gifted" may create undesirable feelings of superiority in those so designated, and feelings of inferiority in those failing to qualify. Worse still, such labels may be artificial and self-fulfilling prophecies based on inadequate criteria.

Although we do not have good information about the first issue, it seems reasonable to believe that the worst offenders are likely to be programs separating students for frequent short periods, and those providing cultural enrichment that might be desirable for all children. It also appears reasonable to believe that acceleration is less likely to cause unnecessarily painful emotions. Acceleration can

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be done discreetly; accelerates have no special privileges except those conferred by being in a higher grade, and their old classmates do not have to witness their constant comings and goings.

Because of the potentially undesirable consequences of sorting pupils into different categories, it is crucially important that the sorting criteria be reliable. IQ has been one of the most widely used, yet IQ tests have been the subject of enough justifiable criticism to warrant considerable skepticism about their worth. This problem is aggravated by the general problem of somewhat arbitrary cut-off points. The same problem arises, to a lesser extent, with acceleration, and the solution, it seems to me, is the same in each case. Decisions about students' programs ought to pay at least as much attention to motivation, achievement and multiple-ability tests such as the DAT and SAT, as to IQ.[26] The force of this point is multiplied by evidence that achievement has a good deal to do with self-confidence. Furthermore, the role of expectation in eliciting good performance is still unclear. Perhaps ability is not fixed, but can be increased to some extent even at relatively late ages. This raises questions about programs that do assume it to be fixed, and which can be offered only to a small percentage of the population because of limited resources. This is not a problem for acceleration: students can be accelerated any time their performance justifies it, and there is in principle no limit to the number of students who can finish school early.

These questions assume special importance because of the association of race, class, and income with selection into gifted programs. If even part of mental capacity is due to the environment, then this finding raises overwhelming questions about justice. If any motivated student can try acceleration (quietly dropping back if unsuccessful), that would help counteract such discrimination.

In conclusion, there is a strong case for special treatment of superior students, although it does not follow that any given program is defensible. As there is evidence that the results of acceleration are more favorable to individuals, their families, and to society than enrichment, it should be the main way of accommodating the needs of bright students.

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1. An appealing exception is Renzulli's work, as in, for example, Joseph S. Renzulli and Sally M. Reis, "The Enrichment Triad/Revolving Door Model: A Schoolwide Plan for the Development of Creative Potential," in *Systems and Models for Developing Programs for the Gifted and Talented*, ed. Joseph S. Renzulli (Mansfield Center, Conn.: Creative Learning Press, 1986), 217-68.

2. Kevin G. Bartkovich and W.C. George, *Teaching the Gifted and Talented in the Mathematics Classroom* (Washington D.C.: National Education Association, 1980).

3. See Renzulli, *Systems and Models*, for a variety of models for recognizing and developing talent. Unfortunately, despite this array of models, "doing nothing" still appears to be a popular option to judge by a survey by Karen L. Westberg and Francis X. Archambault, Jr. Whether it happens out of conviction that there is something wrong with special attention to bright children or whether teachers are still generally expected to provide it in the context of the regular classroom remains to be shown. Certainly, adapting teaching to accommodate individual differences is challenging, because it requires special training and more work. See Karen L. Westberg and Francis X. Archambault, Jr., "Multi-Site Case Study of Successful Classroom Practices for High Ability Students," *Gifted Child Quarterly* 41, no. 1 (Winter 1997): 21-32.

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4. See D.A. Worcester, "Enrichment," *Educating the Gifted: Acceleration and Enrichment*, (revised and expanded proceedings of the ninth annual Hyman Blumberg symposium on research in early childhood education), ed. W.C. George, S.J. Cohn, and J.C. Stanley (Baltimore: Johns Hopkins University Press, 1979), 98-104.

5. For further discussion, see M.C. Reynolds, J.W. Birch, and A.A. Tuseth, "Research on Early Admissions," in *The Intellectually Gifted: An Overview*, ed. W. Dennis and M.W. Dennis, (New York: Grune and Stratton, 1976).

6. S.P. Daurio, "Educational Enrichment versus Acceleration: A Review of the Literature," in George, Cohn, and Stanley, *Educating the Gifted*, 23.

7. See Dorothy A. Sisk, "Acceleration versus Enrichment: A Position Paper," in George, Cohn, and Stanley, *Educating the Gifted*, 236-38. Gary A. Davis and Sylvia B. Rimm repeat this concern in *Education of the Gifted and Talented* (Englewood Cliffs, N.J.: Prentice-Hall, 1985), 121.

8. Sisk, "Acceleration versus Enrichment," 236-38.

9. See, for example, Gibb, "Educational Acceleration of Intellectually Talented Youths," in George, Cohn, and Stanley, *Educating the Gifted*, 220-21.

10. Daurio, "Educational Enrichment versus Acceleration," 24-53.

11. W.K. Durr, *The Gifted Student* (Oxford: Oxford University Press, 1964), chap. 6.

12. J. R. Hobson, "High School Performance of Underage Pupils Initially Admitted to Kindergarten on the Basis of Physical and Psychological Examinations," in George, Cohn, and Stanley, *Educating the Gifted*, 165-67.

13. See, for example, Colin, in Camilla Persson Benbow, "SMPY's Model for Teaching Mathematically Precocious Students," in Renzulli, *Systems and Models*, 21.

14. Ibid., 19.

15. See K. Montour, "William James Sidis, the Broken Twig," *American Psychologist* 32 (1977): 265-79.

16. Davis and Rimm, *Education of the Gifted and Talented*, 128-29.

17. Benbow, "SMPY's Model," 12-18.

18. Davis and Rimm, *Education of the Gifted and Talented*, 99-101.

19. Gibb, "Educational Acceleration of Intellectually Talented Youths," 220-21 and Daurio, "Educational Enrichment versus Acceleration."

20. See Davis and Rimm, *Education of the Gifted and Talented*, chap. 5.

21. Benbow, "SMPY's Model," 23.

22. Reynolds, Birch, and Tuseth, "Research on Early Admissions."

23. Frederick Tuttle, *Gifted and Talented Students* (Washington D.C.: The National Education Association, 1978), 16-19.

24. Harvey Lehman, *Age and Achievement* (Princeton: Princeton University Press, 1953), chap. 1.

25. D.M. Jackson, "A Possible Economic Correlation of Acceleration for the Individual and for Society," in George, Cohn, and Stanley, *Educating the Gifted*, 204-5.

26. Renzulli and Reis emphasize this point in "The Enrichment Triad/Revolving Door Model," 216-64.

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