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Editors-in-Chief: Albert Ziegler
               Jiannong Shi
This journal

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This issue of *Talent Development and Excellence* contains the first demonstration of an exceptional format for presenting and discussing new ideas: A target article and peer commentaries. As Editors-in-chief, we are extremely pleased that the first target article has been penned by Prof. Françoys Gagné, Honorary Professor of Psychology at the Université du Québec à Montréal, Canada. He presents his position on academic talent development and the equity issue in gifted education to our readers. The peer commentaries address various very potent aspects and pose a series of constructive questions. Since the driving function of peer commentaries is to stimulate discussion, Prof. Gagné wrote a rejoinder.

The level of quality found among the peer commentaries was, in our view, a broad success. Forty scholars have been able to participate in the discussion. We would therefore like to make two announcements: Anyone who wishes to see a specific topic as the subject of a target article, and feels this topic is appropriate for the type of discussions being held in our journal, should send their suggestions directly to us. In the same vein, all persons who may be interested in participating in future peer commentaries should let themselves be registered in our e-mail distribution lists by sending a short message to one of the following two addresses:

editor@iratde.org

or

editor2@iratde.org

At this point we would also like to remind you that it is also possible to submit electronic manuscripts for possible publication in *Talent Development and Excellence* through either of these two addresses.

The Editors-in-Chief, *Talent Development and Excellence*

Albert Ziegler  Jiannong Shi
Academic Talent Development and the Equity Issue in Gifted Education

Françoys Gagné

Abstract: The equity issue with regard to the underrepresentation of socioeconomically and ethnically disadvantaged students in gifted education has its source in judgments of unfair identification practices. After describing that issue and its factual basis, I show: (a) that an often overlooked statistical phenomenon exacerbates the disproportions; (b) that similar and even much larger disproportions exist in and outside general education without any advocacy group bringing out accusations of unfair access rules; and (c) that the source of our field’s equity issue resides in the fact that most current gifted programs have little to do with “real” academic talent development, inspired by a meritocratic ideology. Using basic definitions from my Differentiated Model of Giftedness and Talent (DMGT), as well as a detailed definition of the talent development process, I argue that if most gifted programs were reoriented to follow the DMGT’s Academic Talent Development (ATD) model, the equity issue would lose its relevance.

Keywords:
achievement gap, equity, giftedness, talent, talent development, meritocracy, gifted programs, DMGT

The equity issue in gifted education takes its name from expressed judgments by many professionals and scholars that members of disadvantaged groups suffer from unfair selection practices, which leads to their significant underrepresentation in gifted programs. The disadvantaged concept targets mainly students from low SES strata and/or some ethnic minorities. Both groups significantly overlap. The equity issue is not specific to gifted programs in the USA. I chose to focus on its manifestation in that country because of the better availability of published data and position statements. Moreover, for that same reason, I will center my discussion on ethnic disproportions (under, as well as over representations) in program participation. But it should be clear that both my diagnosis and the solution I propose apply to any form of underrepresentation in talent development programs, and extends to any country where the equity issue has been brought up.

I will first briefly describe the equity issue as advocates of ethnic minorities, especially the African-American minority, portray it. I will then survey other talent development situations, within and outside general education, in most of which ethnic disproportions greatly exceed those observed in our field. I will show that none of them generate accusations of unfair access practices, thus making the equity issue a phenomenon almost endemic or circumscribed to gifted education. As the main cause for that specificity I will target the fact that most U.S. gifted programs have little to do with “real” talent development. I will define the concept of talent development within the framework of my Differentiated Model of Giftedness and Talent (Gagné, 2003, 2009a), then describe how it manifests itself in arts, sports, and general education. I will then argue that a reorientation of our intervention priorities toward academic talent development programs based on a meritocratic ideology would not only render the equity issue irrelevant, but would offer the best answer to the special educational needs of academically talented students.

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Gifted Education and Disadvantaged Populations

How does the equity issue manifest itself in gifted education? Let us look first at the data, then at their interpretation, and, finally, at accusations expressed by minority advocates.

Survey of SES and Ethnic Disproportions

The underrepresentation of disadvantaged students in gifted programs leaves no room for doubt. For example, using data from the National Educational Longitudinal Study, Borland and Wright (2000) pointed out that “almost half of the eighth grade students identified as gifted and placed in gifted programs were from families in the top SES quartile, whereas about 9% were from the bottom quartile” (p. 587). This represents a 5:1 ratio between the two extreme quartiles. Said differently, five times as many identified gifted students have parents in the top 25% of the socio-economic status (SES) scale compared with the bottom 25%. For her part, Ford (2003) cited a series of statistics on the representation of various minority groups within gifted programs covering the 1978–1992 period. Table 1 shows the 1992 data, which do not differ substantially from earlier periods.

I found Ford’s computation of her U and O indices somewhat misleading; I have proposed a much simpler way to assess degrees of under and over representation (see Reference Note 2). According to that revised formula, the prevalence of Blacks and Hispanics in gifted programs reaches approximately 60% (.57 and .58) of their respective population ratios. In other words, strict proportionality would require that program coordinators identify nationally approximately 75% more Black and Hispanic students (e.g., for Blacks: missing .43 / observed .57; .43/.57=.75). Note that one minority group, Asian students, shows an opposite effect, an overrepresentation of 75% (7% vs. 4%).

A Situationally Amplified Phenomenon

The disproportions presented in Table 1 are amplified by an unavoidable statistical phenomenon that affects the selection of populations or samples from the tail end – either tail – of a normal distribution of scores. It applies equally well to the selection of intellectually deficient individuals or intellectually gifted ones, to the selection of poor families or high-income families, to the selection of very slim individuals or obese ones, and so forth. All these examples represent non-average or tail end populations. The statistical amplification phenomenon manifests itself when we compare percentages of selected individuals from two or more populations with different means, like Black/White IQ or academic achievement differences. As we select people farther from the mean, group disproportions in the percentage of selected individuals increase considerably; and, of course, that amplification effect grows as mean differences increase. But, even small mean differences between groups produce a very significant amplification effect. To better illustrate the situation, let us use an example.

It is a well-known fact that a moderate correlation exists between parental SES and their children’s IQ. Summarizing the data, Jensen (1998) states that “the population correlations between [parental] SES and IQ for children fall in the range of .30 to .40” (p. 491). Imagine that we compare populations from three SES levels: lower, average, and higher. For the sake of the illustration, we will assume that their children have respective IQ means of 95,

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>% in school population (E)</th>
<th>% in gifted programs (O)</th>
<th>(O – E) difference</th>
<th>Under/Over %</th>
<th>Revised indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>21.1</td>
<td>12.0</td>
<td>-9.1</td>
<td>U = 43%</td>
<td>.57</td>
</tr>
<tr>
<td>Hispanic</td>
<td>13.7</td>
<td>7.9</td>
<td>-5.8</td>
<td>U = 42%</td>
<td>.58</td>
</tr>
<tr>
<td>Asian</td>
<td>4.0</td>
<td>7.0</td>
<td>+3.0</td>
<td>O = 43%</td>
<td>1.75</td>
</tr>
<tr>
<td>Amer. Indian</td>
<td>1.0</td>
<td>0.5</td>
<td>-0.5</td>
<td>U = 50%</td>
<td>.50</td>
</tr>
</tbody>
</table>

Note. Adapted from Table 39.1 in Ford, 2003, p. 507. * See Reference Note 2.
100, and 105. The three curves appear in Figure 1. Based on the fact that IQ distributions have an identical 15-point standard deviation (SD), the two pairs of adjacent populations differ by .33 SD, a modest difference if we consider that existing White/Black IQ or academic achievement differences are at least twice as large. For instance, citing Sattler’s (1992) reputed Assessment of children handbook, Ford states: “Data indicate that Black and Hispanic students score about one [standard] deviation below White students on standardized intelligence tests” (2003, p. 511). Similarly, the signatories of the famous Mainstream Science on Intelligence (MSOI) document affirm: “As large national surveys continue to show, black 17-year-olds perform, on the average, more like white 13-year-olds in reading, math, and science, with Hispanics in between” (Gottfredson, 1997, p.15).

The data at the bottom of Figure 1 show percentage distributions for different IQ score ranges: 95–105, 106–115, 116–125, and >125. That tail end range, which includes approximately the top 5% of a normally distributed (M=100) population, could be labeled the “gifted” range.

Between-group percentage differences close to the mean (the 95–105 range) are virtually nonexistent (25%, 26%, 25%). As we move away from the mean, percentage differences increase progressively. In the 115–125 zone, just above the first SD, twice as many (15% vs. 7%) people are selected from the higher SES group as opposed to the lower one; it represents a .47 (7/15) underrepresentation for the lower SES students. At the “gifted” level (>125, or top 5%), the disproportion between the top and bottom curves exceeds three times (10% vs. 3%), which corresponds to a .30 underrepresentation of children from the lower SES group. The data are clear: the farther away from the mean we place the selection threshold (e.g. 1% instead of 5%) the larger the disproportions will be. Even between two adjacent groups with respective means only .33 SD apart, the underrepresentation of low SES “gifted” students would be approximately .50 (5% vs. 10%, or 3% vs. 5%), a disproportion larger than even the revised Black or Hispanic U values shown in the right-hand column of Table 1.

Considering (a) that mean differences as small as .33 SD generate tail end disproportion ratios of 2:1, and (b) that White/Black-Hispanic group differences on IQ or achievement
test scores – the two most common selection criteria – easily reach, and even exceed the .7 SD difference between the two extreme groups in Figure 1, we should observe in Table 1 much higher disproportions – both over and under – if program coordinators selected their gifted population strictly on the basis of IQ and/or achievement scores. In other words, the comparison between the Figure 1 and Table 1 data strongly suggests that many school districts are bending backwards to include as many minority students as possible without completely putting aside their most common selection instruments, namely group IQ tests and school grades. Our field cannot avoid the statistical phenomenon of tail end amplification of group disproportions; even though they diverge in many aspects, all existing definitions of giftedness or talent agree that our field’s target population falls at least within the top 10% of the general population in terms of abilities.

The Equity Issue

Most scholars and professionals who talk about these disproportions consider socio-economic or ethnic underrepresentation a clear case of inequity. In their view, it goes well beyond a simple educational or social problem, becoming a real moral issue. Moral inequity is clearly implied when Ford (2003, p. 518) complains: “How many more diverse children must suffer while we debate this issue?” Borland and Wright (2000) use an equally strong language when they talk about “the serious and destructive consequences of this state of affairs” (p. 588). What seems clear to all these analysts is that equity means the total disappearance of any disproportionate representation between social or ethnic groups within gifted programs. When Ford asks: “Why are [culturally] diverse students underrepresented – consistently and grossly underrepresented – in gifted education?” (p. 506), she explicitly maintains that there will be no equity until it disappears. Similarly, Gentry, Hu, & Thomas (2008) note: “Broadening definitions and conceptions of giftedness and the associated identification procedures, as well as professional development, have been recommended as actions necessary to solve the problem of underrepresentation” (p. 199). The expression “solve the problem” confirms once again a common perception that there is no justification for minority underrepresentation in gifted programs.

These scholars claim that underrepresentation results in large part from improper identification practices based on mostly invalid definitions of the key concepts of giftedness and talent, but especially what Borland (1997) has labeled the “socially constructed” giftedness concept. For her part, Ford (2003) puts the blame on the educational system, more specifically (a) on “the pervasive deficit orientation that prevails in society and our schools,” (b) on “low referral rates of diverse students” by teachers, (c) on an almost exclusive reliance “on tests that inadequately capture the strengths and cultural orientations of these students,” and (d) on “educators’ lack of understanding of cultural diversity” (p. 507). As they loudly protest over situations of underrepresentation, they remain completely silent about the overrepresentation of Asian students. Shouldn’t we ask ourselves why our identification practices are judged to block Black – and Hispanic – access to gifted programs, whereas they have the opposite effect for Asian students? That eminently relevant question remains unaddressed.

I do not intend to discuss in detail the complex etiology of ethnic disproportions in educational, artistic, or athletic attainments. That complex question is totally irrelevant to the present discussion; indeed, only two facts are useful to anchor my argumentation: (a) ethnic under-representations exist, and (b) they give rise to strong protests, mainly with regard to the African-American situation. My more modest goals are twofold: (a) demonstrate that similar – even much larger – disproportions appear, without giving rise to any equity issue, in almost any other field associated with talent development; (b) explain why these other fields are immune to inequity accusations. I found ethnic disproportions everywhere I looked for comparative data; and everywhere I found them they were taken for granted by most people. Almost nobody ever judged them to result from unfair educational practices. Let’s look at a few examples.
Other Cases of Talent-Related Ethnic Disproportions

The examples below illustrate ethnic disproportions (a) in college-level educational attainment, (b) in the University of California system, (c) among doctoral music students, and (d) in sports.

Educational Attainment

Gifted education holds a marginal position within the larger field of general education. Within that larger field, obtaining a college degree could be considered, broadly speaking, a minor form of talented achievement. Are there ethnic disproportions among college degree holders? Of course! The data in Table 2, collected for the year 2007 (U.S. Census Bureau, 2008a), show the percentage of U.S. 25-year-old + within a variety of ethnic groups who have completed at least four years of college. Globally, 29% of U.S. adults have done so; we can infer that almost all of them hold a bachelor's degree. We observe a general parallel with the Table 1 data, namely a significant underrepresentation of Blacks and Hispanics, .64 and .44 respectively, counterbalanced by an equally large overrepresentation (1.82) of Asian college graduates. Controlling for their population ratio, almost three times as many Asians as Blacks (52% vs. 18%) hold a college degree. And the Asian overrepresentation with Hispanics reaches 4:1 (52% vs. 13%). These statistics do not bring up the equity issue. Virtually no one accuses teachers or school administrators of any morally objectionable selection practices; most etiological analyses focus on long-term social and cultural influences.

University of California Freshmen

The second example targets the ethnic distribution of students in the State of California's public university system, the University of California (UC). The UC data presented in Table 3 accompanied a New York Times article on Asian overrepresentation in U.S. colleges and universities (Egan, 2007). The first column shows the ethnic distribution of the California population in 2006. The next four columns present ethnic distributions for the newly admitted undergraduates (Fall 2006) in the four largest UC campuses. The last two columns contain rough average percentages and U/O indices. Again, we observe a

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Table 2. Within-Group Percentages of U.S. Adults (25+) Having Completed Four Years of College

<table>
<thead>
<tr>
<th>Group</th>
<th>Percent</th>
<th>U/O indices^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. population</td>
<td>28.7%</td>
<td>---</td>
</tr>
<tr>
<td>White</td>
<td>31.8%</td>
<td>1.11</td>
</tr>
<tr>
<td>Hispanic</td>
<td>12.7%</td>
<td>.44</td>
</tr>
<tr>
<td>Black</td>
<td>18.5%</td>
<td>.64</td>
</tr>
<tr>
<td>Asian</td>
<td>52.1%</td>
<td>1.82</td>
</tr>
</tbody>
</table>

Note. Adapted from U.S. Census Bureau, 2008a. ^ See Reference Note 2. U.S. population percentage used as denominator.

Table 3. Ethnic Distribution (in %) of Freshmen (Fall 2006) on the Four Largest UC Campuses

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>State pop. ratio (%)</th>
<th>L. A.</th>
<th>Davis</th>
<th>Berkeley</th>
<th>Irvine</th>
<th>U/O Indices^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>44</td>
<td>31</td>
<td>33</td>
<td>29</td>
<td>23</td>
<td>29 .66</td>
</tr>
<tr>
<td>Hispanic</td>
<td>35</td>
<td>13</td>
<td>13</td>
<td>11</td>
<td>12</td>
<td>12 .34</td>
</tr>
<tr>
<td>Asian</td>
<td>12</td>
<td>43</td>
<td>43</td>
<td>46</td>
<td>56</td>
<td>47 3.90</td>
</tr>
<tr>
<td>Black</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3  .43</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>2</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>9 ---</td>
</tr>
</tbody>
</table>

Note: Adapted from table embedded in Egan, 2007. ^ See Reference Note 2.
similar, but much stronger pattern of ethnic underrepresentation for Blacks (.43) and Hispanics (.34). For example, the number of Hispanic Freshmen should literally triple (3 x .34) for their group’s representation to equal their population ratio. The new element here is the significant underrepresentation (.66) of White students. All these U indices have one source: the exceptional overrepresentation of Asian students. Their number equals no less than four times (3.90) their ratio in the state population (47% vs. 12%). The U/O indices for gifted programs seem very modest when compared with the UC ethnic distribution of its Freshmen.

Californians apparently accept this extreme situation with equanimity. This exceptional phenomenon originated in a 1996 decision by 54% of California voters to uphold Proposition 209, which aimed to amend the state Constitution. It said in essence: “the state shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting” (see Proposition 209 in Wikipedia). Former ethnic “targets” – the politically correct term for “quotas” – associated with affirmative action disappeared, giving rise progressively to the results shown in Table 3. Keep in mind that these disproportions are amplified by a stronger tail end selection effect than the one assumed for the Table 1 data. We face here a very high selection ratio. According to Egan (2007), only the top 10% of all candidates, no doubt already self-selected on the basis of their high-school performance, were admitted as Freshmen in 2006. The University of California gave priority to their SAT II results. Compared to its earlier version, the SAT-I, the revised admissions test gives more importance to academic knowledge than to cognitive reasoning. By and large, these extreme disproportions are judged a fair application of a strict performance-based admission policy. According to Egan (2007), Berkeley’s chancellor, Robert J. Birgeneau, insisted that his university was a strict meritocracy confirmed by law. The chancellor added that if the percentage of Asians were to increase to 60%, or even 70%, there would still be no attempt to reduce their number.

Music

The third example brings us outside general education, into the well-known field of talent development in music. Each year, an organization called Higher Education Arts Data Services (HEADS) compiles a diversity of statistical information, using annual reports from all member institutions of the National Association of Schools of Music (NASM). The sample also includes a group of non-member institutions, which volunteer to participate in the data collection. Considering its size (600 + reporting institutions) and diversity of states covered, that “sample” certainly comes close to a population survey of all graduate-level music students. The dozens of tables HEADS creates from that database include distributions of doctoral music students according to specialization, year of study, gender, and ethnic group. The six major areas of specialization chosen by the 6062 doctoral students identified in the 2007–2008 database were Piano (n=870), General music education (n=571), Conducting (n=469), Composition (n=435), Other (n=366), and Musicology (n=346). The other half of the doctoral population was dispersed among thirty other specializations.

The data presented in the last three columns of Table 4 were extracted from Charts 27 & 28, which summarize information obtained from 66 music schools having reported at least one student currently enrolled or having graduated from a doctoral program in 2006-2007 (HEADS, 2008). Keep in mind that we have here an extreme case of tail end selection amplification because of the progressive weeding out of lower achieving music students through each successive selection point, from the earliest training years to the pinnacle of music education represented by a Ph.D. diploma. The first column gives population ratios for the three main racial groups in the U.S. population, based on the 2005 census (U.S. Census Bureau, 2008b). Hispanics were not considered a distinct racial or ethnic group.
Table 4. Ethnic Distribution (in %) of Doctoral-Level Music Students in the United States

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>U.S. pop. ratio</th>
<th>All students (n=6062)</th>
<th>Gen. music educ. (n=571)</th>
<th>Piano/violin (n=1117)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White + Hispanic</td>
<td>80.2</td>
<td>65.6 (.82)</td>
<td>66.7 (.83)</td>
<td>34.0 (.42)</td>
</tr>
<tr>
<td>Black</td>
<td>12.8</td>
<td>3.5 (.27)</td>
<td>8.8 (.69)</td>
<td>0.7 (.05)</td>
</tr>
<tr>
<td>Asian</td>
<td>4.3</td>
<td>16.7 (4.0)</td>
<td>4.4 (1.0)</td>
<td>43.2 (10.1)</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>2.7</td>
<td>14.2 (---)</td>
<td>20.1 (---)</td>
<td>22.1 (---)</td>
</tr>
</tbody>
</table>


But we can assume that the White group contains very few of them. The census data reveal the presence of almost exactly three times as many Blacks (12.8%) as Asians (4.3%). The second column illustrates the ethnic distribution of the 6062 doctoral music students identified through the survey. We can observe approximately one-fourth (.27) as many Black students as their ratio in the population; by contrast, the percentage of Asians equals four times (3.98) their population ratio. Said differently, although Asians correspond to just a third of the Black population, there are approximately five times as many Asian doctoral music students as Black ones (16.7% vs. 3.5%). This represents a fifteen-fold (3.98 vs. .27) disparity in representation between the two ethnic groups.

In one area of specialization, General music education (column 3), the disproportion between Black and Asian doctoral music students significantly decreases (.69 vs. 1.02). On the other hand, in another pair of specializations, the combination of students in piano and violin (column 4), which accounts for a substantial 18% of all surveyed doctoral music students, we observe the largest disparity between Black and Asian students. Only eight (0.7%) Black students appeared in the database as opposed to 483 Asian students. Black students in that specialization represent barely 1/20th of their 12.8% ratio in the general population, as opposed to 10 times more Asian students than their population size (43.2 vs. 4.3). Here, the disparity between the two groups exceeds 60 times (0.7 vs. 43.2). It is worth noting that Asian students (n=483) outnumber White/Hispanic students (n=379), although the U. S. Asian population is almost 19 times smaller. Are these high disproportions the source of complaints from minority group representatives? Not at all. Just as with the previous two examples, everyone accepts the fairness of the selection system and the offered curriculum.

Sports

The last set of examples comes from the most structured talent development field: sports. There we find almost endless examples of ethnic disproportions, sometimes by Caucasians (e.g., swimming, figure skating, skiing), sometimes by Asians (e.g., gymnastics, table tennis), and frequently, as we will examine in more detail, by Black athletes from the U.S. or from African countries. In a fascinating and controversial book, Entine (2000) explored in depth the genetic, physiological, cultural, historical, and economic roots of Black athletic superiority in many sports. He sets the scene with a series of impressive statistical data showing the extent of that group’s domination. Here are just a few.

Check the NBA [National Basketball Association] statistics: not one white player has finished among the top scorers or rebounders in recent years. White running backs, cornerbacks, or wide receivers in the NFL [National Football League]? Count them on one hand. Roll the calendar back decades, to the 1950s, to find the last time a white led baseball in steals … Don’t expect to see a white man set a world record in a road race – any race, at any distance from 100-meters to the marathon. (p. 19)

All of the thirty-two finalists in the last four Olympic men’s 100-meter races are of West African descent. The likelihood of that happening based on population numbers alone – blacks with ancestral roots in that region represent 8 percent of the world’s population – is 0.0000000000000000000000000000000001. [Yes, 33 zeros!] (p. 34)

All told, Kenya has collected thirty-eight Olympic medals since the 1964 Olympics … Based on population percentages alone, the likelihood that this Texas-sized country could turn in such a remarkable medal
performance is one in 1.6 billion .... One small district, the Nandi, with only 1.8 percent of Kenya’s population, has produced about half of the world-class Kalenjin athletes and 20 percent of all the winners of major international distance-running events. (pp. 39–40)

I will complete this survey with statistics from the three major spectator sports in the United States. The percentages in Table 5 were gathered during the 2006–07 season (Lapchick, 2007). The first column of data gives ethnic ratios within the U.S. population as of 2005 (U.S. Census Bureau, 2008b). Baseball remains mainly a White sport. Both Blacks and Asians are underrepresented by ratios of .66 and .56 respectively. However, Blacks dominate both the sports of football and basketball, with five to six times as many players as their ratio in the U.S. population. That implies of course a strong underrepresentation of Whites and Asians. For instance, the .30 U/O index for White basketball players indicates that they account for less than a third of their 80.2% population ratio. All involved parties fully accept these disproportions: players, managers, spectators, journalists, and analysts. That acceptance pervades both athletics and professional sports. The decades of racial athlete discrimination in sports are mostly gone, replaced by the search for the most talented athletes; and it is clear that Blacks enjoy a significant “natural” advantage for many sports. If we consider the tail end amplification effect mentioned earlier, it means that modest group advantages will create large disproportions among the best athletes.

Summary

Ethnic under/over representation appears almost everywhere in general educational attainments, in many specialized educational fields, as well as in most sports. These ethnic disproportions often exceed sometimes by a huge margin, those observed in gifted education. None of these situations of extreme disproportions give rise to accusations of biased access procedures, like the ones quoted earlier from Ford (2003) or Borland & Wright (2000). Contrary to our situation, all concerned parties accept these ethnic disproportions, whatever their direction, as fair representations of performance differences. Why is that so? I believe that Berkeley’s chancellor Birgeneau gave a clear and simple answer: meritocracy. A meritocratic ideology does not address issues of etiology; it focuses on the here and now of achievement. A meritocratic ideology gives priority to performance – the main operationalization for merit – as the criterion of access to, and progress in a “real” talent development program. Observable performance creates an equitable comparison basis, thus effectively silencing inequity accusers. Unfortunately, most current gifted programs have little to do with “real” talent development. Consequently, they open the door to the equity issue. My empirical support for that strong judgment about existing gifted programs requires that I first define the concept of talent development, as well as its application to K-12 gifted programs.

The Concept of Talent Development

The proposed definition for the talent development concept derives directly from my Differentiated Model of Giftedness and Talent (DMGT) (Gagné, 2003, 2009a), a talent development theory anchored on distinct definitions for the two key concepts of giftedness and talent. Because of their usefulness in the following discussion, I will present these two definitions, and then briefly describe their respective role within the DMGT framework.

Table 5. Ethnic Ratios (in %) for Three Major U.S. Professional Sports

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>U.S. pop.</th>
<th>Baseball</th>
<th>Football</th>
<th>Basketball</th>
</tr>
</thead>
<tbody>
<tr>
<td>White + Hispanic</td>
<td>80.2</td>
<td>88.9 (1.11)</td>
<td>31.5 (.39)</td>
<td>24.0 (.30)</td>
</tr>
<tr>
<td>Black</td>
<td>12.8</td>
<td>8.4 (.66)</td>
<td>67.0 (6.23)</td>
<td>75.0 (5.86)</td>
</tr>
<tr>
<td>Asian</td>
<td>4.3</td>
<td>2.4 (.56)</td>
<td>1.5 (.35)</td>
<td>&lt;1.0 (&lt;.20)</td>
</tr>
</tbody>
</table>

Note. Adapted from Lapchick, 2007, pp. 16, 26, 45. a U/O indices added within parentheses.
Defining Giftedness and Talent the DMGT Way

Giftedness designates the possession and use of outstanding natural abilities, called aptitudes, in at least one ability domain, to a degree that places a person at least among the top 10% of age peers.

Talent designates the outstanding mastery of systematically developed abilities, called competencies (knowledge and skills), in at least one field of human activity to a degree that places a person at least among the top 10% of age peers who are or have been active in that field.

Said differently, the concepts of giftedness and talent are somewhat synonymous with the following pairs of concepts: aptitude vs. achievement, potential vs. performance, naturally developed vs. systematically trained, or origin vs. outcome (see Gagné, 2009b, for a detailed discussion). These differentiated definitions allow us to conceive talent development as the progressive transformation of outstanding natural abilities (gifts) into outstanding knowledge and skills (talents) in a specific occupational field. Figure 2 illustrates the structure of the DMGT. Outstanding natural abilities (gifts) from one or more domains serve as raw materials for the progressive construction, through the talent development process, of the systematically acquired outstanding knowledge and skills (talent) characteristic of a particular occupational field or sub-field. Two sets of catalysts, intrapersonal and environmental, facilitate or hinder the talent development process.

Defining Talent Development

The simple definition of talent development described above says little about the concrete modalities of that transformation process. As part of the recent update of the DMGT, I proposed a much more detailed analysis of the talent development process. As shown in Figure 2, the developmental (D) component has been split into three sub-
components: Activities, Investment, and Progress. Each of them is further broken-down into more specific facets. That detailed analysis led to a more technical definition of that process, as follows: "Talent development (TD) is the systematic pursuit by talentees, over a significant period of time, of a structured program of activities aimed at a specific excellence goal" (Gagné, 2009a, p. 67). The neologism talentee – analogous to mentoree – describes any person actively involved in developing one or more talents, whatever the field. For the sake of the present discussion, we can extract from that definition six main constituent elements: (1) an enriched curriculum/training program; (2) a clear and challenging excellence goal; (3) selective access criteria; (4) systematic and regular practice; (5) regular and objective assessment of progress; (6) personalized – accelerated of course – pacing. Together, these six constituent elements summarize the DMGT's TD model.

The heart of a "real" talent development program consists in an enriched curriculum or training program (#1). I prefer to use the term "enriched" instead of the more common – and politically correct – term 'differentiated, for the simple reason that the concept of enrichment represents the specific form of differentiation appropriate for talented learners. The curriculum must be enriched because the pace and the difficulty level of any curriculum designed for average learners do not meet the advanced learning aptitudes of talentees. Thus, the content of any good TD program will differ significantly, both quantitatively and qualitatively, from its regular version. The excellence goal (#2) need not be an ultimate or peak achievement goal, like completing a Ph.D. or winning an Olympic medal. Talentees may choose intermediate goals, reachable within a shorter time period. But, "shorter" does not mean days or weeks; that goal must be far away enough to necessitate a substantial amount of developmental activity. It must also represent a significant challenge in terms of progress away from the baseline departure point. It is hard to quantify the meaning of "significant challenge"; for the time being, I will leave its operationalization to the judgment of program planners. This close relationship between the first two constituent elements goes even further; excellence goals will frequently take the form of a targeted mastery of a particular "big chunk" of the whole talent development content.

Because talentees embark on a developmental path more arduous than that offered to average – casual, amateur, non-competitive – learners, access (#3) will be limited to candidates who demonstrate good chances of future success. And what better proof of future performance can we find than past performance? In any occupational field it is a well-known fact that past achievement – the more recent the better – has significantly more predictive power than any measure of future potential. Since talent scouts usually identify future talentees by observing the non-competitive learning activities of a mixed group of learners (e.g., regular schooling, music lessons, playful sport participation), they will look for outstanding and precocious achievements, in other words emerging talent. Of course, because of its precocity, that talent will confirm the probable presence of outstanding potential.

On top of a required long-term investment, the DMGT's TD model asks from talentees regular learning and practice activities (#4). The term "regular" roughly corresponds to one-fifth of a normal full-time workload (7–10 hours per week); but it will increase substantially as talentees reach for higher excellence goals (Ericsson, Krampe, & Tesch-Römer, 1993). The TD model requires periodic performance assessments (#5) to establish normative progress. The term "normative" means that talentees' performances are compared to an outside norm, either a pre-determined performance (e.g., speed times in swimming, the "official" curriculum in education or music) or the progress of peer talentees. Theses assessments will serve as incentives for both the talentees and relevant individuals around them (e.g., teachers, trainers, parents). Finally, as implied in the previous item, talentees should be allowed to progress at the maximum pace (#6) they can – and want – to maintain.
The DMGT's TD Model Applied

The DMGT's TD model was created to cover talent development activities in most occupational fields. Let's look first at an example in music education. When a person, usually a child, begins learning to play a musical instrument, her teacher will introduce her through the regular music curriculum for that instrument. With average learners, that curriculum will prove to be perfectly satisfactory in pace and difficulty. But, if the teacher discovers that her student shows outstanding aptitudes for music, she will soon propose to her and her parents a transfer (#3) to a talent development program, whose main characteristic will be an accelerated or enriched curriculum (#1). As the new talentee begins her developmental process, the ultimate excellence goal (#2) is clear: high-level – national or international – expertise in playing that instrument. Of course, talentees or their teachers can split it into intermediate goals or stepping-stones. The talent development curriculum (#1) is also clear: access to a series of progressively more difficult and advanced learning and practice activities. Young talentees are expected to invest in regular practice (#4) more time than music students who follow the regular curriculum. As talentees progress, regular performance measures (#5), usually informal or formal competitions, allow them and their teachers to assess normative progress. If the pace slows, teachers might reconsider a student's talentee status. If, on the other hand, talentees progress faster, they will be allowed without hesitation to move ahead as fast as their talent and motivation allow (#6). Thus, in one year, highly talented music students will easily cover two, sometimes three years of the normal curriculum. How else can we explain the achievements of these young prodigies who reach professional performance levels well before adulthood, sometimes even before adolescence?

Sport is another large talent development field in which professionals almost automatically apply the six criteria of the DMGT's TD model. Just think of your favorite sport. (1) Does it offer a well-structured enriched program of activities? (2) Does it have clear ultimate and intermediate excellence goals? (3) Does it control access to a competitive track through measures of emerging talent? (4) Does it require regular learning and practice, even asking for increased time involvement as higher excellence goals are sought? (5) Does it perform regular progress assessments? (6) Does it allow for accelerated pacing based on individual achievements? Whichever sport you have chosen, I am convinced that you answered “Yes” to each of these six questions. Just like in arts, professional coaches have mastered long ago the strategies that ensure a proper implementation of the type of talent development program described above.

A Performance-Based Ideology

Inspired by talent development in arts, sports, and technology, the DMGT's TD model fully espouses their defining characteristics, among them the meritocratic ideology mentioned earlier. Its key component is a strict reliance on achievement as the criterion of access to and progress within a talent development program.Merit literally means talent, in other words “demonstrated high aptitudes” in a given occupational field; past achievements prove that candidates or talentees possess not only the raw high potential or giftedness to face a high level challenge, but also the personal qualities, especially perseverance (Gagné & St. Pierre, 2002), that contribute significantly to success. The DMGT framework makes it easy to understand the superior predictive power of existing talent, whether emerging or full-fledged, with regard to future talent. As proposed in the DMGT (see 2009a, and Reference Note 3), talent results from the progressive transformation of natural abilities (G) through a long developmental process (D), and with the catalytic help of personal characteristics (I) and environmental influences (E). Consequently, measures of talent incorporate the combined action of all these distinct causal sources (G, I, D, E).

So, from one perspective we can rightly affirm that talent is usually very easy to measure; it is nothing but outstanding (top 10%) performance. Yet, from another perspective we can argue with equal validity that talented performances have very complex roots. They have
roots in the genetics of high natural abilities, roots in passion and interest for a field's knowledge and skills base, roots in unfailing perseverance and will power, roots in parental and teacher support, and, let's not forget it, roots in lots of chance, for instance the good luck of a favorable genotype, or a supportive family environment, or of auspicious turning points. In other words, talent combines in a complex series of interactions outstanding natural abilities, outstanding intrapersonal catalysts, outstanding environmental support, and months or years of systematic developmental activities.

This focus on performance as the main entry requirement to a talent development program offers the best guarantee of equity and objectivity. Any other criterion will introduce unavoidably less relevant information, information whose predictive power will be lower than that of any good talent measure. This measurement “noise” includes not only any form of ethnic or gender quotas, but also multi-domain checklists and IQ scores that are not supported by clear proof of their transformation into academic talent. It is this respect for demonstrated high abilities – a.k.a. talent – that made the disproportions described in the initial section immune to accusations of inequity. Program administrators adopted that objective criterion because they judged it to be the most relevant predictor of future achievement in their excellence-oriented talent development program. Note that the predictive power of talent measures rests on the first two criteria of a good talent development program, namely a clear and challenging program of activities paired with an equally challenging excellence goal.

Now that we have described the DMGT's TD model in its most general form, let's look at its application to gifted education, the DMGT's Academic Talent Development (ATD) model.

**Academic Talent Development: Theory and Practice**

What are the main characteristics of this educational version? Which current gifted programs represent satisfactory applications of the ATD model? To what extent do most common forms of gifted programs differ from that desirable intervention model? These are the questions I will address here.

**Academic Talent Development (ATD)**

As was the case with the more general TD model, an ATD program will be defined first and foremost by its content, an enriched content of course. In my view, obtaining high marks within the regular classroom has nothing to do with academic talent development; most intellectually bright students can reach that goal much too easily. Within an enriched pathway, academic talentees face constant intellectual challenges. Enrichment in density, also called condensation or curriculum compacting (Reis, Burns, & Renzulli, 1992), serves as the pedagogical core of that special curriculum. Talent development specialists should prioritize it over other forms of enrichment because it offers the most relevant response to giftedness' trademarks, namely ease and speed in learning. Moreover, the school time retrieved through faster mastery of curriculum units creates learning space for additional enrichment. As I said in my sixth commandment (Gagné, 2007, p. 103): “Thou shalt condense ... foremostly”. Beyond adjusting the pacing through condensation, there are many more ways to enrich the K-12 curriculum, both qualitatively and quantitatively. Charles Murray, in a recent seminal book (2008), proposed a special curriculum for academically gifted (I would say “talented”!) high school students. It targets process abilities, more so than specific contents, for instance rigor in verbal expression, in forming judgments, as well as in thinking about virtue and the good. This enriched curriculum opens the door to specific excellence goals, well beyond those available through the regular curriculum. And recall that these goals will be placed far away enough to necessitate substantial talentee investment.

The first two defining elements lead directly to the third one: limited access. Academic talent development requires outstanding learning abilities, and, as argued above, these high natural abilities need to have manifested themselves through outstanding academic
achievements, except of course in the case of early entrance to school. This requirement poses few practical problems. Various surveys of the identification practices implemented by gifted program coordinators (e.g., Cox, Daniel, & Boston, 1985) have shown that two identification instruments out rank by far any others in terms of their prevalence: (a) IQ scores from group-administered cognitive abilities tests, and (b) scores from standardized achievement tests. Indeed, the domination of that pair of measures has led me to propose the acronym IGAT – Intellectually Gifted and Academically Talented – to describe the prototypical population in U.S. gifted programs. In other words, being bright is rarely sufficient to deserve the commonly used “gifted” label; students must also show high academic performance. The IGAT acronym conveys that idea of “bright achievers.”

Because of what I said above about the predictive relevance of talent measures, if forced to choose between IG and AT measures, I would not hesitate to prioritize indices of academic talent.

The fourth element, regular learning and practice, reminds us that an enriched curriculum must propose real intellectual challenges on a daily basis. I do say “on a daily basis” because schooling, as opposed to arts or sports, is a full-time activity. Accordingly, only full-time grouping of talentees with similar levels of content mastery will ensure proper implementation of the goal-oriented enriched curriculum. One does not answer full-time educational needs with part-time solutions. Consequently, this fourth constituent element excludes from the ATD model popular activities like summer camps, once a week pull-out classes, or weekend enrichment activities. This statement should not be taken as a critique of their potential usefulness; as confirmed by their popularity, they could play an interesting complementary role within a well-structured ATD program. But they lack too many of the defining ATD characteristics to constitute intrinsically adequate prototypes of academic talent development. In no way can they substitute for a “real” ATD program.

As part of these developmental activities, regular formative and normative academic assessment (#5) will allow talentees and their teachers to ascertain adequate progress toward the pre-defined academic excellence goal(s). Talentees should know regularly if their pace matches, falls behind, or exceeds expectations, theirs and those of significant people around them. Finally, considering the large observed individual differences within academic talentee populations (Gagné, 2005), those who progress significantly faster than their peer talentees should be allowed to accelerate (#6); this accelerated pace aims to minimize slack periods and useless waiting time. This final element directly questions the grade/age lockstep – one academic year per chronological year – which educational systems around the world usually impose on their students.

Prototypical ATD programs need not include all six components for the label to be applied. Of course, the more of them a given prototype implements, the more it will approximate the above definition. I consider that three of the six defining elements are essential: (a) an enriched curriculum (#1), (b) a clear and challenging academic excellence goal (#2), and (c) regular practice (#4).

ATD Applied

The North-American schooling system does not offer a clearly enriched educational path allowing talented young students to pursue challenging excellence goals from their very first years of schooling and consistently afterwards. For almost every one of them, the school system has planned a single path: the age-grade lockstep that covers the thirteen years extending from kindergarten to 12th grade. And that sad judgment of academic monotony extends to most other countries. If ATD prototypes are virtually non-existent in primary schools, I do acknowledge that some limited possibilities of consistent enrichment appear at the high school level. The best example, in my view, of a DMGT-inspired academic talent development program resides in “selective” high schools, a term borrowed from the well-developed New South Wales network of such schools (see Wikipedia). Disseminated here and there, mostly in large cities across the United States,
they offer a truly enriched curriculum to highly selected students. New York City has seven of them (Hernandez, 2008), including the well-known trio of Stuyvesant, Bronx Science, and Brooklyn Tech. The International Baccalaureate curriculum represents another option that covers the whole high school level. Finally, although they only target the last two years, residential high schools (Kolloff, 2003) clearly belong to this enriched high school curriculum prototype.

Why didn't I include among ATD prototypes the College Board's Advanced Placement (AP) program? Available in approximately 15,000 high schools in the U.S. (Hertberg-Davis & Callahan, 2008), it offers to high achieving and motivated Junior and Senior high school students, within the walls of their high school, a diversity of college-level courses. AP courses apply some of the defining characteristics of the ATD model: a high-level excellence goal, a challenging curriculum, and regular learning activities added to the high school curriculum. Even though no entrance exam controls access to AP courses, students self-select themselves rigorously because they know the level of challenge offered by these courses. AP courses belong to the comprehensive group of accelerative measures (see Colangelo, Assouline, & Gross, 2004), in so far as students who successfully complete one or more of them can “cash in” their accumulated credits when they enter college. In some cases, these accumulated credits might add up to a full semester. I decided to exclude them because of one major drawback: they exist beside – not within – the regular high school curriculum. Students who register for these courses maintain their daily regimen of the slow-paced regular curriculum.

Why didn't I also label as ATD prototypes the large variety of accelerative options found here and there in some school districts? Apart from the AP already mentioned, they include early entrance to school, grade skipping, combined classes in which students cover in one school year two years' worth of the regular curriculum (or three years of the regular curriculum in two years), early entrance to college, and some other less common options (Colangelo et al., 2004). Don't they offer a high-level excellence goal, as well as a real academic challenge to students? Don't they require careful selection of candidates? Don't they allow students to progress at their own faster pace? Again, their main drawback resides in their marginal status, in their non-inclusion within a systemic academically enriched pathway covering at least a few school grades. For instance, most children who benefit from early entrance to kindergarten or first grade will probably find the beginning of their first school year somewhat challenging because of that accelerative measure. But, they will soon face the daily humdrum of the regular slow-paced curriculum. So, as desirable as they would be within a global ATD program, when used alone accelerative enrichment provisions remain stopgap measures, a temporary respite from the daily boredom of the age-grade lockstep.

If the above examples represent a small minority of available special educational services for our IGAT bright achievers, what is the majority of so-called gifted programs made of?

**Current Gifted Programs**

Trying to paint a reliable picture of the nature and prevalence of current gifted programs is not an easy task. The most recent national data, based on the famous Richardson Foundation study (Cox, Daniel, & Boston, 1985), are almost three decades old. The authors of that comprehensive survey closely examined sixteen (16) different prototypical services (e.g., regular classroom enrichment, special pull-out classes, mentorships), half of them having an accelerative component (e.g., early entrance, non-graded schools, dual enrollment). They invited all U.S. school districts, 16,000 in all, to participate. Only 1,172 did so, just 8% of the total, which says a lot about the perceived importance of gifted programs in the educational system! One can entertain reasonable doubts about the quality – even the existence – of the gifted programs available in the non-participating 15,000 school districts. About a decade later, another national survey explored the more specific phenomenon of regular classroom enrichment (Archambault et al., 1993). These
two surveys indicate that two prototypical services, pull-out classes and regular classroom enrichment, cover a majority of existing special provisions for IGAT students in U.S. elementary and middle schools. Let us examine each of them more closely.

**Pull-Out Classes.** According to the Richardson survey, 72% of the 1,172 participating school districts mentioned pull-out classes as one of the provisions available to their IGAT students. This percentage placed it first among the sixteen prototypes. The survey organizers had prepared for each of them a series of subsidiary questions designed to assess the quality of their implementation in each school district. Using what they themselves labeled “minimal” (p. 34) criteria of substantial implementation, the researchers determined that 65% of the school districts mentioning that enrichment option were applying it “substantially”. Thus, pull-out classes kept their first rank when the authors excluded non-substantial programs. Pull-out classes typically offer non-curricular enrichment activities, often favoring enrichment in depth – Renzulli’s Type 3 activities (Renzulli, 1994) – over enrichment in difficulty or enrichment in diversity (see Gagné, 2007, sixth commandment).

Their outside status with regard to the K-12 curriculum excludes pull-out classes from membership in the ATD model defined above. That type of enrichment opens the door to criticism about their specificity for IGAT students; in theory, all students could benefit from the semester-long exploration projects common in such classes. Only enrichment in density (compacting) or in difficulty specifically answers the educational needs of IGAT students. The authors of the Richardson study (Cox, Daniel, & Boston, 1985) criticized rather strongly the pull-out model, mentioning that “its weaknesses were a cause for concern” (p. 43). They presented it as “a part-time solution to a full-time problem” (p. 43), describing its content as “divorced from what happens in the child’s regular class” (p. 43). They noted that the costs, namely adding the salary of a full-time special teacher to a school’s operating budget, were often higher than those of a full-time program. They finally worried that this model would give school districts “a false sense of accomplishment,” leading them “to stay with that limited approach” (p. 44).

**Regular Classroom Enrichment.** Regular classroom enrichment came second in the Richardson national survey; 63% of the 1,172 school districts mentioned offering it. But, through their subsidiary questions, the survey organizers determined that only 25% of the school districts were applying that service option substantially. Because of that low percentage, it moved from second to ninth rank when non-substantial services were excluded. Think about it. Out of 16,000 U.S. school districts, about 750, or less than 5%, mentioned offering regular classroom enrichment to their IGAT students. Yet, less than 200, just about 1% of all U.S. school districts, were judged to implement that option at a minimally substantial level. And recall that the researchers mentioned having set very generous substantiality criteria. Even if we assumed that three or four times as many school districts as those participating in the survey were effectively offering “substantial” regular classroom enrichment, their number would not exceed 5% of the total school district population.

Another large-scale study confirmed a few years later the disheartening Richardson results. In the early 1990s, the National Research Center of the Gifted and Talented (NRCGT) conducted a national survey of ongoing enrichment practices in U.S. school districts (Archambault et al., 1993). A representative U.S. sample of over 7000 3rd and 4th grade teachers received a detailed questionnaire “designed to determine the extent to which gifted and talented students are receiving differential education in the regular classroom setting” (p. 2). Again, the results were, to put it mildly, disquieting; they revealed that enrichment activities were offered no more than two or three times a month. Moreover, these activities usually targeted the whole class, leaving little specific enrichment for IGAT students. The authors concluded: “The results of this survey paint a disturbing picture of the types of instructional services gifted students receive in regular classrooms across the United States. It is clear from the results that teachers in regular third and fourth grade classrooms make only minor modifications in the curriculum and
their instruction to meet the needs of gifted students” (p. 5). This overview brings to mind the term “busywork”, a label Julian Stanley (1979) used with disdain to describe most of what passes for regular classroom enrichment.

Summary

The above discussion shows that the DMGT's talent development model can be applied to the field of gifted education. Its main manifestation in the form of selective – residential or not – high schools, as well as honors classes, clearly illustrates how to implement an academically challenging talent development pathway. The saddest observation was a failure to find any systematic application of that model in elementary or middle schools. The most common gifted programs, namely pull-out classes and regular classroom enrichment, coexist with the mainstream K-12 curriculum as a parallel outside track; they have literally no impact on the delivery of that curriculum. In other words, the vast majority of IGAT students in U.S. elementary and middle schools rarely have access to even the most basic forms of enrichment, let alone any consistent ATD services as defined above.

Conclusion: Looking Ahead

Almost two decades ago, Renzulli & Reis closed their critical review of an ongoing educational reform by stating: "Talent development is the “business” of our field, and we must never lose sight of this goal, regardless of the direction that reform efforts might take” (1991, p. 34). I would slightly modify that statement by describing our “business” as academic talent development. It does not deny openness to other forms of talent development (e.g., in arts or sports), but it identifies academic pursuits as the core mission of schools, and academic talent development (ATD) as the school system's specific mission with regard to its academically talented students. Indeed, much more than our current label of “gifted education”, the revised label of “academic talent development” would perfectly reflect the “business” of our field.

As we have seen in the last section, academic talent development remains largely unimplemented in North American schools, especially at the elementary and middle school levels. How would that implementation look like?

Implementing the ATD Model

A real ATD program would begin as early as kindergarten or first grade, thanks to an early entrance provision that would allow intellectually gifted children to begin their schooling even if their birthday fell a few days or weeks after the “official” cutoff date. As I said in my fifth commandment: “Thou shalt intervene … earliestly” (Gagné, 2007). Such a measure faces no insurmountable implementation hurdles. As a case in point, the province of Quebec began offering twenty years ago early entrance to kindergarten or first grade. To my knowledge, nowhere else in the world do we find such a widespread system. Each year, approximately 60% of the 2000 or so eligible children take advantage of that provision. The selection process, done by professional psychologists in private practice, includes careful assessment of three dimensions: intellectual precocity, socio-affective maturity, and fine psychomotor development (in that order). School principals will almost automatically endorse a positive recommendation. The vast majority of these young accelerated students adapt successfully to their accelerated insertion in the school system (Gagné & Gagnier, 2004). It is a sad state of affairs that such a system, which I consider to be the cornerstone of a complete K-12 ATD program, remains unavailable to the vast majority of intellectually precocious children.

Beyond that initial entrance component, a real ATD program would offer a parallel, enriched pathway to the regular K-12 curriculum. That pathway would be available to all children manifesting emerging talent; it would begin in first grade, in direct continuity with the early entrance cornerstone. It would propose challenging academic excellence
goals, coupled with the challenging means to reach them; and it would give priority, of course, to achievement measures, both for program access and for progress within it. Finally, implementing a “real” ATD program would mean adopting full-time grouping of talentees as the most appropriate delivery format. Ability grouping would not necessarily mean enforcing an “enriched” age-grade lockstep; educators would still occasionally allow further acceleration because of remaining large individual differences in ease and speed of learning within the talentee population.

That meritocratic focus would bring about a substitution of the inappropriate label “gifted children” for those of “(academic) talentee”, “talented”, or “IGAT” as more appropriate descriptors of students actively involved in an ATD program. This substitution does not mean that the gifted label would disappear. Within this revised orientation, the label would maintain a much needed, but reduced role; educators would use it to point at expressions of natural abilities, exactly as proposed within the DMGT framework. But talent would become the more common expression, if only because it would clearly specify the major criterion deciding access and progress within ADT programs. Teachers endorsed with the responsibility of guiding talentees through the program would, of course, be called “ATD teachers” instead of “gifted teachers” – awful! – or “gifted ed” teachers. Our professional association (NAGC) could even rename itself National Association for the Development of Academic Talent (NADAT), or something along these lines!

**Impact on Equity**

As we have seen earlier, this new focus on the development of academic excellence throughout the K-12 schooling process would render the equity issue obsolete. No better way exists to give access to a clearly defined talent development pathway than to measure preexisting or emerging talent. Even if these measures lead to disproportions as extreme as those observed at the University of California (see Table 3) or in graduate music programs (see Table 4), only ideologically biased observers will continue to protest. The vast majority of educators and concerned citizens would acknowledge the objectivity and transparency of our goal-related identification procedures. If there is any need for additional proof, it already exists in our own field. Here is an example.

In theory, everyone has access to Advanced Placement courses. Yet, both Blacks and Hispanics remain significantly underrepresented in spite of recent efforts by minority advocates and the College Board to increase their participation. No one thinks of blaming the schools, or the College Board, for these disproportions. Even more telling, no one would think of complaining that minority students are treated unfairly in AP courses. Yet, in 2004, only 32% of Black students received a grade of 3 or more (on a 5-point scale) as opposed to 96% of White students (Hertberg-Davis & Callahan, 2008, p. 39). In other words, 17 times as many (68% vs. 4%) Black as White students failed to reach what is considered a “creditable” grade on these courses.

Similarly, Hernandez (2008) discussed admissions to eight highly selective New York high schools, pointing at strong ethnic underrepresentation: “Among the 21,490 public school students who last year took the exam, the single gateway to eight high schools, 6 percent of blacks and 7 percent of Hispanics were offered admission, compared with 35 percent of Asians and 31 percent of white students.” Even more telling, Hernandez mentioned a similar ethnic underrepresentation among candidates to the stringent admission exam. Of course, some minority advocates express complaints about the validity of the selection procedure; but, because of its focus on mastered academic knowledge, it has resisted these attacks. In fact, as mentioned in the article, analysts place more emphasis on a lack of preparation and motivation among minority students. These data suggest that the dissemination of ATD programs would not reduce ethnic disproportions. In fact, a strong focus on achievement measures would possibly increase them, just as we observed in the various examples presented earlier. It is a well-documented fact that ethnic gaps in academic achievement are as large as those on cognitive ability measures: recall the
MSOI quote presented earlier about ethnic differences in academic achievement. I doubt that the gap has changed substantially over the past decade, or that it will change substantially in the near future. We also have to keep in mind the impact of such average differences when selecting tail-end subpopulations.

Finale
The small number of existing programs that espouse the ATD model, and especially their almost total absence in elementary and middle schools, suggest that extensive dissemination lies far in the future. The specter of elitism hangs constantly over our heads; the low priority of IGAT educational needs remains a serious obstacle to increased public investment; the ambivalent attitudes of many teachers and administrators have deep roots; resistance towards the two main administrative provisions needed to fully implement the ATD model, namely full-time grouping and acceleration, will not disappear easily. Changes in terminology will also happen very slowly; the “gifted” label is too deeply embedded in our language to expect a rapid increase in the use of the terms talented or talentee. Thus, just as students do with regard to their educational goals, we should split our ultimate trajectory into a coordinated series of more modest intermediate goals. Yet, that step-by-step approach to change should not keep us from maintaining constant pressure on educational authorities and the school community. As stated in my 11th commandment (Gagné, 2006): “Thou shalt advocate ... unremittingly!”

Acknowledgement
The author expresses his deep gratefulness toward Dr. Nancy Robinson, from Seattle, for her extremely useful feedback throughout the writing process, including the keynote address.

Reference Notes
1 This text is based on a keynote address at an International Symposium on “Public policies for disadvantaged students in gifted education”, held in Seoul, South Korea, November 19–20, 2008.

2 Ford computed her overrepresentation indices with the following formula: \((O - E) / O\), where O represents the observed percentage, and E the expected percentage, or population ratio. We should use E instead of O as the denominator. In the case of underrepresentation (U) indices, Ford switched from O to E as her denominator: \([(O - E) / E]\). Again, I disagree; the appropriate baseline, or denominator, for the phenomenon of underrepresentation should be the observed percentage \([(O - E) / O]\). But, there is a user-friendly solution to this problem. It consists in using a simple Observed/Expected ratio for both types of disproportions. A perfect representation will be represented by 1.0, underrepresentation by smaller values (e.g., .75, .50, .25), and overrepresentation by larger values (e.g., 1.5, 2.0, 3.0). This is the solution I decided to adopt in tables 1 to 5.

3 Readers unfamiliar with the DMGT will find on the web an 8-page description of the updated version; search for “DMGT 2.0 Overview.” That overview is also available in four other languages – French, Spanish, Portuguese, German – from the author.

References


The Author

Professor Françoys Gagné is a French Canadian from Montreal, Quebec. He obtained in 1966 his Ph.D. in Educational Psychology from the University of Montreal. Dr. Gagné has spent most of his professional career in the department of Psychology, at l’Université du Québec à Montréal (UQAM). After a decade of research on student evaluations of teaching, he became interested in talent development in the late 1970s. Although his research brought him to study a variety of subjects within the field of gifted education (e.g., attitudes toward the gifted and their education, peer nominations, developmental profiles), he is best known internationally for his theory of talent development, the Differentiated Model of Giftedness and Talent (DMGT), which has been endorsed by various educational authorities as their framework to define their target population and plan intervention provisions.
Talent Development: From Possessing Gifts, to Functional Environmental Interactions

Duarte Araújo and Keith Davids

Gagné (2011) suggests that talent development should be based on merit, proposing that, if gifted programs followed his theoretical model (Differentiated Model of Giftedness and Talent – DMGT), academic practices would be much more principled. Although these ideas seem acceptable for development of gifted programs, the DMGT model is biased towards the individual, based on assumptions that gifts and talents are entities to be acquired or possessed by individuals.

This bias reflects traditional assumptions that talent development involves the establishment and enrichment of internal traits that incur relatively permanent changes in an individual’s capabilities (e.g., Gagné, 2009). According to this view, the aim of practice is to increase the “strength” of relevant characteristics possessed by an individual, with research needed on understanding “what” has been acquired to change an individual’s internal state (e.g., Ericsson, Nandagopal, & Roring, 2009), or what transformations have occurred to internal entities (Gagné, 2009).

Enrichment theories propose that skilled individuals can be differentiated from unskilled by specific traits physically acquired during learning. Accordingly, knowledge and skill are viewed as a kind of substance possessed by gifted individuals. Learning results in the acquisition of an enhanced state, or increased amounts of knowledge in memory (Gibson & Pick, 2000).

It has been argued (e.g., Dunwoody, 2006, Davids & Araújo, 2010) that traditional behavioral science, with its emphasis on acquisition of enriched internal states, has developed an organismic asymmetry in its approach to understanding human behavior, neglecting the role of environmental constraints. This biased theoretical stance is founded on separation of the performer from the performance context, logically detaching content from context, and abilities from situations in which one expresses expertise (Turvey & Shaw, 1995).

Gagné’s model displays an inherent organismic asymmetry in attempting to explain giftedness and talent, because he purports to have identified constructs inside individuals that distinguish talentees (gifts, talents) from those without talent. This dualistic view encourages conceptual divisions that lead to intractable problems which become apparent with questions about how these entities become connected (Turvey & Shaw, 1995). For example, how are natural abilities (gifts) and competencies (talents), possessed by an organism derived from situated experiences with specific socio-cultural and physical influences?

A Symmetric View of Talent Development

A more symmetric view of human behavior is provided by ecological psychology which prompts the question: what adaptive purposes underlie human performance and its development? (see Gibson & Pick, 2000). Ecological psychology focuses on individual adaptability in evolutionary functional contexts. From this perspective, talentees are not an
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agglomerate of gifts and talents, but active individuals engaged in ongoing dynamical transactions with their functionally defined environments. Talent is not a possession acquired by an individual, nor a fixed property of a performer, but rather a dynamically varying relationship captured by the constraints imposed by the environment and the resources of a performer (Araújo & Davids, in press). Consequently, the individual-environment system is the minimal ontology for describing talent and its development.

Although Gagné’s model mentions the environment, he does not explicitly explain how environment-individual interactions occur. In his model, gifts and talents are conceptualized as components of an individual, with allusions to context as a catalyst independent of the element to be catalyzed, or simply referenced as the application location of an acquired talent, not its ontological existence. To put it simply, the tasks in which gifts and talents are expressed are excluded from the explanation. Much of the ensuing discussion on the DMGT model, the “talent development process” and influence of the environment, concerns how context enriches performers’ abilities. This bias contrasts with the explanation that individuals and contexts co-determine each other through ecological practice (Barab & Plucker, 2002). Both individual and environment (physical or social) have the potential to be impacted and transformed by these interactions. Gagné’s model does not address important questions for talent development such as: What connections exist between properties of a specific performance context and a given talent, for specific achievement? How does performance derive from, rather than merely correlate with, a specific set of talents?

In ecological psychology an individual’s talentedness can be explained without postulating internal acquisitions. This approach emphasizes understanding of the transaction between affordances (opportunities for action) and how performers become attuned to perceive key variables that specify goal achievement (Davids & Araújo, 2010). Affordance perception allows performers to regulate behavior prospectively. An affordance is a disposition of the surrounding environment whereas an effectivity is a complementing disposition of an individual. An effectivity allows an individual to bring about a functional environmental change (Turvey & Shaw, 1995). Through exploratory actions in specific contexts, perceptual systems become progressively better attuned to invariants in the environment (Vicente & Wang, 1998). The variables picked up become more subtle, elaborate, and precise with task-specific experience and are successfully coupled to actions (Jacobs & Michaels, 2007). Talented performance, therefore, derives from an increasingly functional fit of an individual and a performance environment. Ecological learning theories emphasize how talented performers exploit the informational richness of environmental properties (Jacobs & Michaels, 2007; Gibson & Pick, 2000; Vicente & Wang, 1998).

Successful talent development results in emergence of adaptive behaviors for use in a range of performance contexts. Adaptive behavior is an important characteristic of talent because constraints of the environment, task requirements, and an individual’s intentions and motivations alter continuously. Adaptive behavior, rather than being imposed by a pre-existing structure, emerges from this confluence of constraints under the boundary conditions of a specific task or activity context (Araújo & Davids, in press). A major challenge in expertise research is to understand how each individual uniquely adapts their behaviors in complex environments to consistently achieve specific task outcomes (see Phillips, Davids, Renshaw, & Portus, 2010, for an example in sport).

What makes one individual’s behavior more talented than another is not some possessed ability, but its contextualized functional value: its usefulness in particular performance contexts. The development of talent involves becoming better able to engage in interactions embedded in subsequent achievement experiences, and not treating the performer as an object to be changed.
References


The Authors

Duarte Araújo (born 1971) is Associate Professor in the Faculty of Human Kinetics at the Technical University of Lisbon in Portugal, where he is the director of the Laboratory of Expertise in Sports. His research involves the study of expertise, decision-making, and action in sport. He is an Editorial Board Member for the International Journal of Sport Psychology.

Keith Davids is Professor and Head of Human Movement Studies at Queensland University of Technology, Australia. His research interests include the theoretical frameworks of ecological psychology and dynamical systems theory applied to the study of neurobiological cognition and action. A particular interest concerns the role of constraints in motor learning and the implications for the acquisition of movement coordination.
Stability of Racial Differences in Gifted Education: The Case for Stereotype Threat

Joseph Baker*

The DMGT has become one of the predominant models in gifted education and in the lead paper, Dr. Gagné (2011) argues its relevance for understanding (and reducing) equity issues in this field. The position paper makes a reasonable case for the need to select the gifted and talented based on merit. The notion that “past performance best predicts talent” is relatively uncontroversial all other things being equal. However, research reveals a complex interaction between issues of race and individual psychology. In this commentary, I’ll focus on the author’s assumption that asymmetries in the distribution of intelligence (or other correlates of “giftedness” or “talent”) across racial groups reflect “real” (i.e., stable, biological) differences.

In his article, Gagné summarizes the results of several studies that generally reflect significant differences between racial groups on measures of attainment in education, music and sports (Tables 1–5), but emerging evidence suggests that these seemingly stable differences in performance may be attributed to other factors. Let us consider, for example, the well-known and pervasive differences between Black and White American students on standardized intelligence tests. Experimental data (Steele & Aronson, 1995) indicate that when such tests are framed as measures of intelligence, where racial stereotypes are strong (i.e., Whites are superior to Blacks), distributions reflect the stereotype even when the Black students came from well-educated families of middle-class standing; however, when the same tests are framed as diagnostic tools (i.e., not measuring intellectual capacity) both groups perform similarly. These results (and their subsequent replication (see meta-analysis by Walton & Spencer, 2009) suggest that performance of Black students on intelligence tests decreases when they are confronted with the possibility of confirming a widespread stereotype about low intelligence in Blacks. Steele and Aronson (1995) developed the concept of Stereotype Threat to explain these results and, since their initial investigation, several studies have supported the viability of this explanation for race-based performance differences.

Sport is another area of performance where racial differences are thought to be immutable. Stone, Lynch, Sjomeling, and Darley (1999) gave Black and White students a laboratory golf task proposed to measure “natural athletic ability”, “sport intelligence”, or “sport psychology”, depending on how the test was presented. The test itself was the same while perception of what the test measured was manipulated. Both groups scored equally well on the “sport psychology” control condition; however, when the test was framed as a measuring “natural athletic ability”, Black participants outperformed Whites and when the task was framed as a test of “sport intelligence” White participants outperformed Blacks (see also Baker & Horton, 2003 and Stone, 2002). Similarly, differences in math performance between males and females (Spencer, Steele, & Quinn, 1999) as well as White males and Asian Males (Aronson et al., 1999) are explainable using the stereotype threat framework.

While the mechanism of stereotype threat is still unknown (some have argued that it interferes with working memory, for instance, see Beilock, Jellison, Rydell, McConnell, & Carr, 2006), current findings indicate that anywhere a pervasive and salient stereotype exists, stereotype threat can be invoked and performance depressed. Interestingly, there

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is some evidence that the group on the beneficial end of the stereotype (e.g., Asians in math or Whites in intelligence tests) can receive a stereotype “lift” or “boost” (Walton & Cohen, 2003) – adding another dimension to this intriguing issue. Although it has not yet been examined experimentally, it is plausible that stereotype threat effects also apply to musical performance.

While the mainstream media (as well as many researchers) have largely misinterpreted this effect as being the primary explanation for the consistent racial differences between racial groups as they relate to academic achievement, the consistency of the results from stereotype threat experiments are certainly relevant to the discussion of inequities in talented and gifted education. Moreover, while the data presented by Gagné are robust, inquiry into genetic differences between races remains unresolved and without unequivocal support; for the conclusion that these results are the result of genetic advantages associated with a specific racial group, researchers should continue to examine alternative frameworks to explain the apparent dominance of one group over another. It is possible that what we believe about our genetic make-up is more important than what is actually true.

References


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Dr. Joe Baker is an associate professor in the School of Kinesiology and Health Science at York University, Canada and a visiting researcher at Leeds Metropolitan University in the UK. His research examines the factors affecting athlete development across the lifespan. Joe is the past-president of the Canadian Society for Psychomotor Learning and Sport Psychology.
In his study Professor F. Gagné (2011) is examining an extremely important and current topic, for indeed, the participation in talent programs of socioeconomically and ethnically disadvantaged students is disproportionate to their ratio in the population. The situation is the same in Hungary, too. This fact further worsens these students’ chances to catch up in society, so finding solutions to this problem must not be delayed. I am also glad to have been given the opportunity to comment on the study, because for the past ten years several programs have been launched in Hungary to involve the disadvantaged (ethnically and in other ways) in talent programs, so we have practical experience how to solve the problems raised by the author.

First of all I can express the general opinion of experts working in talent development that the DMGT, TD and ATD models worked out by Gagné are widely known and acknowledged, and since as early as the 1990s we have been relying on the ever-updated Gagnémodel, besides the Mönks-Renzulli one and the Munich talent model, in elaborating and implementing talent programs in Hungary (Balogh & Nagy, 1996; Balogh, Persson, & Joswig, 2000; Balogh & Tóth, 2001). We totally agree with the author’s fundamental definition: “Talent development (TD) is the systematic pursuit by talentees, over a significant period of time, of a structured program of activities aimed at a specific excellence goal” (Gagné, 2009, p.67). We also accept the six main constituent elements, all of them being very important for successful talent programs: (1) an enriched curriculum/training program, (2) a clear and challenging excellence goal; (3) selective access criteria, (4) systematic and regular practice; (5) regular and objective assessment of progress; (6) personalized – accelerated – pacing.

However, relying on the experience gained from our programs of this type, we are of the opinion that the ATD program alone – valuable as it is – does not solve the problem of equity in talent development. This program is an excellent tool to help efficient academic talent development, but in order to find a real solution to the equity issue we have to go back and analyze the identification programs. It is not enough just to consider what we can do to help the disadvantaged young people who have got into the programs to unravel their talent. The key solution is applying an identification procedure different from the one typical today. We agree with the authors Gentry, Hu and Thomas (2008), also quoted by Prof. Gagné, who say: “Broadening definitions and conceptions of giftedness and the associated identification procedures, as well as professional development, have been recommended as actions necessary to solve the problem of underrepresentation”. There is no hope of solving the problem until the sole criterion of access to talent programs is performance tests and academic achievement. In Hungary we have made the selection system of school talent programs more complex than the one discussed above, taking into consideration the following (Balogh, 2006):

- Ability and achievement are two different things; it is common to find underachieving, talented students.
- Psychological examination methods/tests can help identification, but they are not infallible, so they do not represent the only solution.
- Continuous teacher-student cooperation is the best tool to identify talent.
The more information sources are available on the achievement and abilities of the person to be identified, the more reliable identification is. Complexity is guaranteed by the following methods applied together:

- characterization by former teachers, development specialists, teacher, developing specialist,
- tests and assessments,
- questionnaires – general and subject-specific,
- opinions of school psychologists,
- characterization by parents,
- characterization by classmates/fellow students.

By taking into consideration these aspects, even underachieving emerging talentees get into our programs. Obviously, one of the main elements of development is to find the underachievement and address its correction. In this field, academic programs have been very successful in Hungary in recent years, and those launched specially for the disadvantaged should be highlighted. One example is Arany János’ Talent Development Program for secondary school students (Balogh, Bóta, Dávid, & Páskuné 2004), in which more than 6000 students have participated since 2000, with 80–90% going on to higher education. Mention must be made of the Csányi Foundation Program, which was launched for elementary school pupils five years ago.

Naturally, we totally agree with the author’s opinion that ATD-programs must start as early as possible (in kindergarten, in the junior section of primary school), since at that age there is a chance that disadvantages will not accumulate in emerging talents of the minorities. However, to make this come true both a systematic talent-spotting, -identifying program and making-up for the shortcomings uncovered in the early years (in abilities, motivation) are needed within personalized development programs.

References


The Author

Born in 1944 in Debrecen, Hungary, László Balogh holds the degrees of Teacher of Hungarian Language and Educational Psychologist from the University of Debrecen (1967) and Doctor of Psychology (1972) from the same university. In 1980 he was a Candidate of Psychology from the Hungarian Academy of Sciences. Dr Balogh began his professional career as Assistant Lecturer in 1970, becoming Associate Professor in 1972, Professor in 1983, Head of the Department of Psychology in 1985 and serving as Vice Dean of the Faculty Arts from 1989-93 and Dean of the Faculty of Arts from 1998-2001, all at the University of Debrecen.

He is the author of more than ten books and about 150 published papers including: Grammar and Thinking, 1982; The Role of the Complex-Task Teaching System in the Acquisition of Knowledge, 1978; The Complex-Task Teaching System and the Development of Thinking, 1987; The Development of Learning Techniques, 1994; Psychology in Teacher Training, 2002, Gifted Education in Schools, 2004; and Educational Psychology, 2006. He is a member of the European Council for High Ability, the Hungarian Psychological Association, and is President of the Hungarian Association for High Ability.
Implementation Concerns for Gagné’s Vision of Academic Talent Development

Stephen Cobley* and Jim McKenna

The Vision & Our Concerns

One central proposition in Gagné’s target article (2011) is that gifted and talented programs (G&T’s) in education should be reoriented to provide early, distinct, separated, enrichment content that accelerates the development of the top 10% of “talentees”. Whilst acknowledging the intent to prompt discussion and debate, and under the rubric of “there is nothing more practical than a good theory.” (Lewin; see Eysenck, 1987), we offer two main practical implementation issues which seriously challenge the potential of Gagné’s proposition in the UK. Overall, we suggest that G&T’s (and the associated DMGT model) must consider such implementation issues since it is only when they are resolved that the components of any idealised enrichment or talent development curriculum (i.e., type, frequency, duration, intensity, dynamism and content) can achieve their purpose.

Firstly, we argue that the current climate of UK schools makes the implementation of distinct G&T’s unrealistic and unattainable for a significant majority of schools. Secondly, we show how G&T selection is difficult to implement with any degree of accuracy or reliability. Throughout, we emphasise that any form of selection generates powerful motivational forces within schools, which can lead to systematic under- or over-representation (or enduring inequality).

Understanding the Current UK Schooling Climate

Based on our observations of schools in the North East of the UK (which may differ according to your geographical bearings and personal standpoint), G&T provision has grown in the last decade, motivated by national policy recommendations (Department for Education and Employment [DfEE], 2000; Neelands, Band, Freakley, & Lindsay, 2005). However, G&T’s remain on the periphery of school provision (i.e., it has relatively low status), often being “strapped or bolted on” beside the core teaching curriculum and “age-grade lockstep” (Gagné, 2011, p. 15). Further, provision is characterised by inconsistent practices and diverse program content. Indeed, Gagné’s discussion (see p. 16–18) resonates well with our observations and understanding; we rarely find distinctive forms of formerly timetabled G&T accelerated curricula.

Although not exhaustively, we offer some contributing factors, noting all the while that each is underpinned by powerful motivational forces. Consider contemporary social and economic developments in the UK which are impacting education. At any given moment these concerns are overlaid with concerns for (1) underachievement (e.g., West & Pennell, 2003), (2) attainment gaps (Department for Education and Skills [DfES], 2006a) and (3) under-provision for learning and behavioural difficulties (DfES, 2006b; Education & Skills Committee, 2006). It is important to appreciate that, as a notion, any form of provision has to also compete with what is regarded as core business in a school. In what follows we aim to show the scale and depth of challenge that any changed provision might need to overcome.

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G&T’s will have to genuinely compete for precious financial, time and human resources in each school. School buoyancy, reflected by flexibility in finances, space/timetabling, teaching resources, as well as its status (e.g., fee paying or state sector), history and culture, create different positions of readiness, affecting the degree and extent of G&T implementation. With or without resources, Headteachers and respective departmental Heads may have relative autonomy, but their decision-making is likely to be swayed by a combination of external (e.g., local/national agendas) and internal factors (e.g., school philosophy, teacher values). If a concern affects a sufficiently large (or vocable) proportion of a school population, and a given intervention is effective in reducing differentiation (i.e., it shrinks an elongated tail) and improves local preferences regarding “attainment”, then it is likely that the intervention will command greater resources. On this understanding, and with Gagné’s focus on just 10% of pupils, there may be a concern that G&T’s will not only exacerbate pupil differentials in both treatment and attainment, but also demand the allocation of scarce resources to do it. Further, when appearance is seen as more important than substance, “sham G&T” – where policy is changed but professional practice is not – may be associated with poorer than optimal outcomes. This does little to advance any case for specialist provision.

In many schools the overriding aspiration is to prepare all pupils for attainment. This means making substantial efforts in socialising children into ones able to profit from what the school offers within its general, let alone specialist, provision. For instance, many schools are working to support more pupils with diverse cultural-language backgrounds, as well as those with a broad range of learning and developmental needs. At worst, these illustrate just some of the present-day challenges that contribute to an elongated tail in the normative distribution of pupils in UK schools (i.e., extend the left-tail of Gagné’s figure 1).

Problems of Selection & Measurement

Selection is at the base of any G&T approach. However, it is questionable whether teachers – let alone researchers (e.g., Feldhusen, Asher, & Hoover, 2004) can accurately and reliably measure “natural abilities” and “competences”. In implementation, selection would probably be devolved to teachers who may variously adopt either (a) generic (vague) policy recommendations (e.g., DfES, 2006c), (b) self-determined pre-set schema, or (c) specific testing measurements applicable in the field. Yet, all of these approaches have profound shortcomings. For example, present guidelines suffer from a lack of specificity on what to measure, while self-determined schema are vulnerable to bias, with assessors knowingly and/or unknowingly (Institute for Government, 2010) preferentially endorsing particular “types” of pupil. Specific measurement instruments are time-consuming to apply, they often measure outcomes (e.g., performance) rather than any potential “readiness for learning”, and are often confounded by social (e.g., parent education & social economic status) as well as developmental (e.g., maturation) factors. Arguably then, these approaches are unable to adequately capture components of “natural ability” or “competency” (see DMGT) and may not be sensitive enough to either identify or distinguish pupils who fall into 10.1 to 11% from those in the 9.1 to 10% banding. Likewise, the many qualities and characteristics that lead to excellence in academic subjects are under-developed and unstable during the schooling years, which is why child development is described as dynamic, multi-dimensional and hard to predict (e.g., Simonton, 2001; Abbott, Button, Pepping, & Collins, 2005).

Gagné often draws upon sport to illustrate ways of objectively measuring competence (i.e., outcome measures – e.g., speed, strength, endurance) and to sensitively identify inter-individual differences. However, we urge caution about assuming infallibility. In the schooling years, such outcome measures are heavily confounded by the varied timing and tempo of biological maturation (e.g., Till, Cobley, O’Hara, Chapman, & Cooke, 2010). If not considered, maturation variation leads to selection bias and inequities, whereby the more mature, relative to their class peers, are overrepresented in school-based G&T’s (see
Likewise, without explicit awareness, a higher proportion of less biologically mature pupils are often selected for remedial classes (e.g., Wallingford & Prout, 2000) and are diagnosed with learning difficulties (e.g., Tarnowski, Anderson, Drabman, & Kelly, 1990; Martin, Foels, Clanton, & Moon, 2004). Thus, selection and measurement is not just an implementation concern for G&T's, it has important implications across the school spectrum, and for the pupil experience.

Motivational Consequences of Selection, De-Selection & Non-Selection

If we consider schools as motivational systems, selection inevitably invokes both non-selection and de-selection, each of which generates psycho-social and motivational consequences. Selection into G&T's will likely generate (1) positive effects including enhanced perceptions of competency and confidence and (2) significant social capital with peers, teachers and parents. Along with enriched G&T's these will likely reciprocate to create advantageous psychological responses (e.g., Hawthorne and Pygmalion effects). In contrast, the responses of deselected pupils, or from those who never accessed a G&T program, are likely to be more complex and darker than we prefer to acknowledge. These include a set of wholly undesirable characteristics including disengagement, low adherence and social contact, learned helplessness and apathy. Few teachers would agree to adopt any procedures that create such characteristics among their pupils, while still fewer will endorse advantaging the 10% without creating remedial support for those who fall into the wrong line of selection.

Summary

Gagné’s visionary proposition seems far removed from the status and provision of G&T's in local UK schools. Understanding the drivers and influential factors helps to both explain this position and determine future feasibility. G&T status is likely to remain unchanged until a stronger understanding of what and how to measure indicators of true giftedness and/or talentedness in respective fields is established. To achieve a closer approximation to what we understand as equity, more accurate and reliable measurement is required. Measures that minimise selection bias, and that control confounding/extraneous variables will help, but the psychological and social consequences of (de-/non-)selection may prevail, and will be a further challenge to overcome. Without such considerations, G&T's may never occupy a solid ground to justify full integration and provision, and claims about inequity – however demonstrated or produced – risk continuing to cast a foreboding leaden pall around the notion of “talent development”.

References


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Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Whose Cultural Lens? End Points, Creativity, Opportunities and Barriers

LeoNora M. Cohen*

I am grateful to Francoys Gagné for his meticulously researched DMGT model elegantly crafted over the years, his distinctions between gifts and talents, and his work on the catalysts and processes, which make this a dynamic, not static conception. I also admire his keen insights about the appropriate methods for assessing over- and under-representation among socio-economic levels and diverse populations. Although I find his views valid on equity and talent development when viewed from a measurement standpoint, missing perspectives are: looking at talent development through a cultural lens, considering the end point of talent development, and whether academic talent is the “name of the game”. I wish I felt more hopeful as a result of Gagné’s article (2011), which suggests that the status quo related to equity is likely to continue to be based on meritocratic principles. But lack of opportunity and barriers to aspirations development for those in poverty or in underrepresented groups need consideration.

Whose Cultural Lens?

An issue in defining gifts or talents is whose cultural lens. In Anglo-western culture, many can agree on the gifts or talents to be developed. However, sufficient work has not been done to know which should be developed, particularly in cultures that may have different values. For example, Freeman (2005) describes the different perspectives of Far-eastern and Western philosophies on the concept of giftedness. Western perspectives focus more on effects of genetics, wherein the child is “assessed and tested to discover their aptitudes” (p. 87). This is more like Gagné’s approach in which the natural abilities need to be identified. Far-Eastern perspectives focus more on environment. “Every baby is seen as being born with similar potential; the main difference is the rate of development, which to a large extent is in the power of each individual to fulfill through hard work” (p. 86).

Frasier, Garcia, and Martin (1992) identify traits, attributes, and behaviors that make up the giftedness construct, suggesting that giftedness be examined by how it is operationalized in diverse populations and socioeconomic groups. Such a paradigm could be used for appropriate identification and programming. According to Passow and Frasier (1996), gifts and talents may be overlooked, due to overemphasis on standardized tests, narrow definitions of giftedness, deficit orientations, failure to consider attributes and specific behaviors in a cultural context, and lack of dynamic assessment through learning opportunities.

In the USA, underrepresentation in gifted programs of African Americans, Native Americans, and Latinos in proportion to their population is a persistent problem (Ford, Grantham, & Whiting, 2008; Graham, 2009; Worrell, 2009), duly noted by Gagné. Ford, Grantham, and Harris (1996) state that multicultural perspectives connected to giftedness and schooling are given little attention, suggesting that for such students, school subjects lack relevance. They call for more culturally competent and diverse educators. Peterson (1999) shares concepts about giftedness from the perspectives of classroom teachers and from non-mainstream populations that have diverse cultural values. She discusses these different cultural lenses as illustrative of why minorities may be underrepresented in

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gifted education programs. Peterson (2000) also addresses a variety of populations who are missed in the identification process, not only the non-mainstream cultures, but poor, abused, at risk, challenged, or distressed. She says the problem may be conceptual, wherein only lip-service is paid to "inclusiveness", teachers are poorly informed about what gifts to identify, and programs may not be tailored for these students. Friedman-Nimz, Cohn, and Cash (2002) apply the concept of inclusivity to gifted students who are gay, lesbian, bisexual or transgendered (GLBT). Models from this field, as well as multicultural education and anti-oppression education are used to generate a model of inclusivity in the gifted context. These issues are not addressed in Gagné's paper.

We continue to ignore ways to understand and define giftedness and talents of non-mainstream children and adults outside the dominant hierarchical social order (Cohen, Ambrose, & Powell, 2000). Our cultural lens needs to be broadened. There is much work to be done to develop more culturally competent approaches in working with the diversity of gifted, talented, and creative students and to define these terms in other than through European male perspectives. Gagne's meritocratic principles are not sufficient.

**What is the end-point of talent development?**

An issue that is not really addressed in the model or in the equity argument is the end-point of talent development. Over 30 years ago, Gowan (1979, p. 70) stated: "The name of the game is to make the gifted child creative." Eminent adults are known for their creative work, not for being just good at something. Rather than focusing on enrichment of academic talent in children, an important aspect is development of creativity, including helping young people connect to areas of passion and encouraging very hard work and commitment to practice that may lead to creative productive giftedness (Winner, 1996).

Related to the equity issue, when the created products or ideas are valued by a culture, the creator is considered the essence of healthy human development. If creators buck cultural values too much they may be ignored or ostracized. Culture frames the acceptable fits of product or performance to which the creator must adapt and must be considered in the equity discussion (Cohen, in press a).

**Is academic talent the name of the game?**

If creative productivity is the end-point of talent development, then a broader view of this development should extend beyond the schoolhouse. While Gagné’s model suggests several talent domains, the focus of his paper is on academic talent development as the business of our field, relegating it to the schoolhouse. In a study of two eminent Brazilian brothers, their internal fire and “burn to learn” led them to pursue their passions largely outside of school, the oldest becoming a musician, the other a renaissance man best known as a landscape designer. Given a responsive environment, both boys developed their extraordinary talents, but demonstrated very different trajectories (Cohen, 2009, in press b). I suggest that academic talent is not the only game in our field; rather, we need to observe and listen to our children, providing the supports needed to optimize their potential.

**Opportunities and Barriers?**

Currently, we look for only a very limited number of gifted students, typically only those with high intellectual abilities or high achievers in school subjects and most often among those from higher socioeconomic levels, the top 10 percent, as Gagné notes. Educator and activist Jonathan Kozol (1991) suggests that we should focus on providing opportunity in schools and should make school so exciting that the poorest child aspires to become a doctor, chemist, or historian. When children do not have the chance to learn in rich environments or get the mediation needed to move to higher levels, we cannot know what talents are left undiscovered or underdeveloped. What might happen if a child of poverty
is given a violin, free lessons, and time in school to practice? Or an impoverished child is given the chance to go to a university summer science camp and awakens to possibilities within?

For children of poverty, from under-served populations, or those who have limited support, huge barriers exist against development of their aspirations unless support systems can be provided (Ambrose, 2003). For example, when Oakland first-graders were promised a college education and given ongoing assistance, they worked hard to achieve, were motivated to dream, and most went on to university (Brown & Millner, 2005).

If Gagné could float above his DMGT model and use a multicultural lens, consider the end-point of talent development and whether academic talent development is the best strategy for developing creative productive individuals; if he could address the importance of opportunities and reduction of barriers, I believe his arguments about equity related to his model would be more valid. I agree that the best and least costly approach in teaching the gifted is full-time programs. I just want to make sure that the potential of children of poverty and from diverse groups is recognized and supported. Only if opportunities are increased and barriers are decreased so there is a level playing field can merit be the determinant for identification and placement in special programs to support talent development.

References


Peterson, J. S. (2000, November). Those who are
missed: A conceptual problem? Paper presented at the National Association for Gifted Children Convention, Atlanta, GA.

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Resolving Inequity from Meritocracy in Gifted Education

Lyn J. Dimaano*

There are a number of ways one can face the issue of perceived inequity in the recruitment of students in gifted programs. Some of these are: make the programs available to as many potentially gifted students as possible, redefine limits of qualifications so more will qualify, assign quotas to be filled by “disadvantaged” groups, or face the issue head-on and find the roots of the perceived inequity. This last strategy can be rather thorny, and one must balance on a narrow trail of political correctness in order to be heard. This is particularly true in a world that labors under aspirations of equality or, at least, egalitarianism. Gagné (2011) has chosen to redefine gifted programs for academic development as academic talent development (ATD), championing meritocracy based on past performance as the framework of recruitment and hoping to make inequity irrelevant.

Gagné cites the meritocracy model used in college admissions in California and in enrollment in music programs in the United States, both of which have resulted in an overrepresentation of Asians. Sports, particularly professional basketball and football, where Blacks dominate are also a domain where recruitment is by merit of past performance. In these instances, recruitment results are hardly ever questioned, making meritocracy an attractive concept. Where standards and processes of admission are clear and acceptable, “inequitable” results do not become an issue. And so, Gagné proposes meritocracy as the basis for admission to gifted programs.

But how is merit to be measured? Gagné proposes a shift of focus from “intellectually gifted”, a concept denoting superior intellectual aptitude, to “academically talented”, which denotes superior academic performance, as the priority qualification for ATD. This is, of course, philosophically acceptable, at least in language, if programs for the intellectually gifted were, indeed, meant to develop emergent talents, rather than to educe talents that exist only as potential. Selective high school and college admissions, auditions to theater and music careers, and recruitment processes for graduate programs and sports clubs are rightfully talent searches, where applicants have developed their talents to some extent and already show some level of performance prerequisite to further development. In contrast, basic education is not a talent search. Its objective is to develop potential, which may or may not have manifested itself into some talent or other. Using achievement, rather than potential, as the criterion of merit, therefore, creates possible false negatives; that is, it eliminates high-potential, late-blooming or underachieving gifted students from development programs.

It may be countered that Gagné has set a lowered cut-off for performance evaluation. Defining giftedness as performance in the top 10% range among age peers is generous; Conceivably, given the rigor of his proposed program concept, this is likely to result in false positives, with more of the mildly gifted accepted but weeded out later because they are unable to rise to the challenge. Yet again, this does not address our concern for the false negatives: highly gifted individuals disqualified due to less than stellar achievement who may shine if placed in the program.

Another operational difficulty with using achievement as the standard of admission to an ATD program is that achievement evaluation is susceptible to training. Rigorous “early

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"intervention" can make a less gifted candidate seem more qualified than a more gifted, but lesser trained applicant. This will result in a combination of false positive and a false negative: the program accepts one who would likely drop out and rejects another who might have had a higher chance of success.

The basic weakness of Gagné's proposal on achievement-based meritocracy for academic talent development is that it is borne of political expediency rather than a sound philosophical basis. It is easy to defend a system as fair if an analogous system is generally held to be so. But one has to go beyond the mechanics of a system, and go deep into the objectives of an educational placement to find out what is fair and just. The change of terminology from "gifted program" for the intellectually gifted to "academic talent development" succeeds in limiting the concept of intellectual giftedness, a phenomenon that is difficult to observe and easy to deny, to academic talent, an observable and measurable quality. Meritocracy based on this quality may silence critics, but would exclude a chunk of the gifted population who would most benefit from gifted programs. Is that not an even greater inequity?

Yet, Gagné is not entirely averse to using potential as a primary factor of admission to ATD. In the same article, he cites early schooling in Quebec, which allows qualified young learners, after having been assessed for "intellectual precocity, socio-affective maturity, and fine psychomotor development (in that order)", to enter kindergarten or first grade ahead of their age peers. It is not clear whether intellectual precocity is measured by IQ or by performance in an achievement test, but because this is for children just entering school, we presume it to be the first. If it were the reliance on IQ which is the basis of the charges of unfair identification processes, then this shows that, as far as academic gifted programs are concerned, and even with the adoption of ATD, the equity issue will persist. However, all is not lost.

The one thing common between the University of California admissions, theater and music auditions, and recruitment in sports is that, in general, application for admission is open to anyone willing to take the risk of failure, knowing and accepting the standards by which they will be judged. There is, of course, the option for the university, theater or music group, or a ball club to invite anyone it deems worthy by the same standards, but, this option is not begrudged. This openness, and not meritocracy alone, shields these examples of selection for gifted programs from charges of inequity.

A solution, therefore, is to marry the concept of Renzulli's School Enrichment Model (SEM; Renzulli & Reis, 2000) that broadly recruits students into enrichment programs with Gagné's model of Academic Talent Development. The SEM programs will use a variety of measures for admissions, including IQ, creativity, and achievement test scores, and accept entrants via several pathways, including self-nomination, teacher-nomination, and parent-nomination, among others. The programs will then serve as incubation points for the early development of talent, the degree of which, measured by resulting achievement, can be used to recruit students to the more rigorous ATD programs. Early information on standards of performance vis-à-vis curriculum path will guide applicants and recruits alike on how much effort and competence will be expected of them.

The SEM-ATD combo model is not just a merging of two ideas; it modifies both parent models. Because of its identification and transitory function, the enrichment via SEM becomes more directed to academic concerns and is planned to produce measurably better performance in susceptible participants within a shorter period of time. The ATD, on the other hand, loses part of its exclusivity as, inextricably linked to the modified SEM, it considers broader measures for admissions. More important, the effectiveness of the combo model depends on the articulation of the curricula of the identification and the development program phases. The enrichment curriculum must correctly identify the suitable participants for ATD.

A major advantage of a tightly-articulated curriculum in the SEM-ATD combo model is that there is a lower chance of false positive recruitment, resulting in painful withdrawal of
the wrong recruits from the ATD. With close monitoring of enrichment participants, false positives can be avoided altogether. Enrichment participants who are not recruited into ATD would have, nevertheless, profited from the enrichment experience, and can take alternative development paths.

Does the combined model violate the principle of meritocracy? It certainly does not. We simply recognize that at the basic education level, potential has a stronger, yet less measurable, presence than manifest talent, and therefore must be given a chance to develop before being judged. As the individual develops in a program, talent emerges and performance becomes measurable. Achievement then becomes a valid – and politically equitable – criterion.

References


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Let me put my cards on the table at the outset. I am not an academic but a recently-retired national policy-maker. Please forgive me if I do not observe all the academic niceties: I intend no slight on the research profession, the readership of this Journal or Dr. Gagné himself.

I gave a parallel presentation at the Symposium in Seoul, South Korea where Gagné first presented the substance of his paper (2011). Mine reflected the development of England’s national policy on gifted and talented (G&T) education in which I played a significant part. I want to use some of that experience in this critical commentary.

Although he concentrates on minority ethnic representation in US gifted programmes, Gagné says his argument applies “to any form of under-representation in talent development programs and extends to any country where the equity issue has been brought up”. Speaking on behalf of England, I am not sure that I agree.

**Equity and Excellence**

The balance between equity and excellence is often a significant element in national education policies and also in G&T education. In England, until recently, we saw the equity issue very much in terms of ethnic minority underachievement. But now underachievement amongst the socio-economically disadvantaged is very much to the fore. Many of our minority populations have successfully “narrowed the gap” but the poor white working class have not.

In practice of course, an individual learner’s educational underachievement is causally complex and highly unlikely to be attributable to one factor alone. In England, gender, the presence or otherwise of a special educational need and whether or not the learner is summer-born are potentially significant elements, amongst several others.

Gagné’s commentary on the United States suggests that concern about the under-representation of disadvantaged populations (i.e. equity) – in this case defined largely in terms of Black or Hispanic ethnic background – is peculiar to gifted education, not being prevalent in any other example of access to educational provision, where true meritocracy (i.e. excellence) almost invariably prevails:

> Ethnic under/over representation appears almost everywhere in general educational attainments, in many specialised fields, as well as in most sports. These ethnic disproportions often exceed, sometimes by a huge margin, those observed in gifted education. None of these situations of extreme disproportions gives rise to accusations of biased access procedures ... all concerned parties accept these ethnic disproportions, whatever their direction, as fair representations of performance differences. (p. 10)

I have a major concern about this statement which applies to much of Gagné’s argument: it is the conflation of measures of attainment and performance with measures of ability and potential. For I believe that identification for G&T support should be about spotting the latter rather than simply confirming the former. Attainment is one factor in identifying ability but, by definition, it is useless in identifying gifted underachievers whose ability is not yet translated into high attainment.

Quite apart from that fundamental concern, there are several other factors at play in each of the parallel fields examined by Gagné that interfere with what one might term “fair
competition”. I very much doubt that one could substantiate his claim that “all concerned parties” in the US are convinced that such ethnic (or socio-economic) imbalances are entirely fair representations of performance differences.

That is certainly not the case in England, for equity issues – whether seen in terms of ethnic or socio-economic background – loom large whenever access to a relatively scarce educational opportunity or support service is under scrutiny. This is particularly true when there is a selection process involved. Some examples would be:

- entry to an outstanding primary or secondary school;
- entry to one of our remaining selective secondary schools;
- selection into either the highest or the lowest sets in schools that set children by ability;
- securing a place at a competitive university; and, of course,
- identification of gifted and talented learners.

In countries where the quality of educational provision is patchy, a selective meritocratic approach (excellence) often determines who will benefit from the scarce commodity of a high quality education. However, lotteries, targets and quotas of various kinds are frequently deployed to soften the impact of rationing by ensuring that disadvantaged populations do not lose out too severely (equity).

**Under-Representation in Gifted Programmes**

Gagné cites rather old statistical evidence of the under-representation of socio-economically disadvantaged learners and Black and Hispanic learners amongst those identified as gifted and placed in gifted programmes in the US.

A US Government representative (Perez, 2010) has recently confirmed that Blacks comprise 17% of the student population yet only 4% students enrolled in gifted classes are Black. He does not cite the source of this data but, if it is accurate, it paints a far worse picture than the statistics in Gagné’s article, though they are hardly a cause for complacency.

I once heard an expert say that under-representation of disadvantaged learners is an unresolved problem for G&T programmes the world over. That may be true, but there is evidence that it may be relatively less of a problem in some countries than others, though this relates to achievement rather than ability. A 2006 PISA study (OECD, 2009) by the OECD showed that:

- in a typical OECD country about a quarter of top performers in science come from a socio-economic background below the country’s average (and the UK is fairly typical in this respect);
- but in countries like Japan, Finland, Austria – and in Hong Kong and Macao in China – one third or more of top performers come from a socio-economic background more disadvantaged than the average;
- and in countries like Portugal, Greece, France and the US, 20% or fewer top performers come from a socio-economic background more disadvantaged than the average.

Other things being equal, one might expect higher performing education systems to achieve more equitable outcomes. McKinsey’s report “The Economic Impact of the Achievement Gap in America’s Schools” (2009) makes clear the consequences of failing to address the issue.

In England, our latest data for identified gifted and talented learners (Department for Education, 2010) shows that socio-economically disadvantaged learners and some ethnic minorities are under-represented compared with advantaged and white pupils respectively. The good news is that our G&T population is gradually becoming more representative; the bad news is that we are not moving quickly enough.
Our standard proxy for disadvantage – though not the only one and by no means the most refined – is eligibility for free school meals (FSM). In 2009, 27% of students eligible for FSM achieved five or more GCSEs (General Certificate of Secondary Education) graded A*-C including English and maths (the standard benchmark for examination performance at age 16) compared with 54% of those not eligible – exactly twice as many (Equality and Human Rights Commission, 2010). Meanwhile, the percentage of FSM-eligible pupils within the national gifted G&T population in secondary schools (7.5%) is only slightly more than half the percentage of secondary sector FSM-eligible learners as a whole (14.2%). This might suggest a continuing correlation between prior attainment and identification as G&T despite our best efforts to avoid it (see below).

The picture is much better in the primary sector, which perhaps bodes well for the future. One other compensation is the likelihood that, without the approach we have taken, our G&T populations would be even more dominated by relatively advantaged groups than they are already. And there is comfort in the evidence that, although we started much more recently, we do not seem to be doing too badly in terms of representation of ethnic minority populations or lower socio-economic groups when compared with the US.

**Approaches to Identification**

Gagné’s approach to identification seems unnecessarily restricted to measures of IQ and academic achievement. He criticises another commentator for daring to suggest that it may be desirable to adopt a broader view: “many school districts are bending backwards to include as many minority students as possible without completely putting aside their most common selection instruments, namely group IQ tests and school grades” (p. 6).

These may be the most common instruments, but they are not necessarily the best!

When developing England’s national G&T programme, we were clear that we wanted to focus on ability rather than achievement. We accepted that attainment measures were useful elements of an evidence base for identification but irrelevant, by definition, for those whose high potential was not yet translated into high performance against those measures. We saw IQ and cognitive ability tests as useful elements, but we were clear that no single instrument (or even IQ tests and school grades together) would serve as a “magic bullet” for identification.

So we adopted a multi-faceted approach, encouraging schools to consider the full range of qualitative and quantitative evidence available to them before reaching a “best fit” judgment. We advocated “identification through provision” as part of this mix, on the grounds that some learners may never have had the opportunity to demonstrate some abilities. We suggested identification should be an ongoing process, rather than a one-off selection, adjustable in the light of new evidence and changes in a learner’s rate of development (recognising that this is rarely linear or consistent).

This means that G&T identification in our system is not necessarily a permanent distinction, but – especially for younger children – a marker that the learner needs extra challenge and support “for the time being”. This helps parents and learners to manage the issues around labelling and movement in and out of the G&T population. It also enables schools to see G&T education as an integral part of their whole school strategies for personalised education.

We have also given schools significant flexibility over where to pitch their hurdles for inclusion in the G&T population, so that they partly defined against the rest of that school’s intake rather than determined entirely by a standard set of national benchmarks. This has an obvious downside in terms of consistency and ease of collaboration between institutions but, on the other hand, it encourages every school, no matter how disadvantaged its intake, to focus on its own most able pupils. In our view it should not be possible for any school to say that it has no G&T learners.
Finally, we ask schools to start from the premise that ability (not achievement) is evenly distributed within the population, so that they aim for a G&T population that broadly reflects the gender, ethnic and socio-economic balance of their intake. We do this because we believe that it helps teachers to focus more thoroughly on monitoring those groups that are most likely to harbour hard-to-spot underachievers. (And also, frankly, we took this stance originally because we did not want to mire our national programme in “Bell Curve”-type controversy at a time when many schools were resistant to the programme on the grounds of perceived elitism.)

I have already admitted that we have not been entirely successful. I suspect that this is attributable in part to sloppy identification practice in some schools which focus too heavily on attainment measures, relying over-much on the easily measurable. Despite our best efforts, these schools are following the same rather limited approach that Gagné advocates.

Parallels in University Entry, Music and Sport

A variety of social and cultural factors will also impact on the three areas identified by Gagné where meritocracy prevails in the US with the support of “all concerned parties”:

- We are told that entry to undergraduate courses at the University of California depends in large part on prior educational attainment including how that is conveyed through the SAT. Here we are back to the distinction between attainment and ability. Californians may accept the outcome with equanimity but, in England, we are much exercised about what we call “fair access” to our competitive universities and the Coalition Government regards this as a key indicator of social mobility. Ministers repeatedly remind us that, in one recent year, just 40 learners eligible for free school meals secured a place at Oxford or Cambridge. We do not have a level playing field because disadvantaged students will typically have experienced poorer quality education in their schools and colleges and less reliable information, advice and guidance about the university options open to them. They may also have had to overcome low family and community aspirations and even low expectations from some educators. Such inhibitors are not present for their more advantaged peers.

- Study of music at doctoral level will be affected by the same pre-university attainment filters plus, presumably, another set of filters determining entry to postgraduate courses, associated mainly with the quality of one’s first degree. As with undergraduate study, one is not comparing “like with like”. In addition to the factors already cited, there are likely to be some social and cultural effects associated with the nature of the music and the types of instrument studied. Put bluntly, students from advantaged backgrounds are likely to have had more exposure to classical music from an early age and more opportunities to learn a relevant musical instrument.

- Additional elements enter the equation when it comes to Gagné’s comments about sports. The sporting distinctions he cites relate to single sports rather than to sporting ability per se. We all know that different sports are dominated by different ethnic groups – that is presumably a function largely of the specific skills required by those sports and their social and cultural significance to the community in question. But we do not maintain – as far as I am aware – that generic sporting ability resides disproportionately with one race or background. Moreover, it would be ridiculous to apply this line of argument in relation to socio-economic disadvantage, even allowing for the fact that diet and fitness are typically better amongst relatively advantaged populations. To take a sport-specific example, we in England are concerned that we have few world class tennis players. But this is largely because tennis is perceived as a middle class game – we do not believe that people from poor backgrounds lack the physical and mental skills needed to play the game at the highest level!
Last Words

I do not wish to say much about Gagné’s DMGT. It is one of the best-known of hundreds of competing models that are advocated to policy-makers the world over. As such, it has some significant elements that all should consider, but no one theorist has the perfect solution and policy-makers should in my view be eclectic in their taste! It does not seem to me to be the sole response – or necessarily the best – to the issue outlined in the first half of Gagné’s paper.

I was struck that Gagné’s notion of talent development requires access to “be limited to candidates who demonstrate good chances of future success” (p. 12), that judgement to be based on past achievement. He would presumably regard our more catholic approach as the introduction of “noise” that is “not supported by clear proof of … transformation into academic talent” (p. 14). The counter-view is that we strive to avoid the circularity whereby high achievers are the only ones selected as capable of high achievement.

I have to admit that I had understood Dr. Gagné’s presentation in Seoul to be deliberately provocative, designed to prompt discussion and debate. I was unsure whether he seriously believed his own arguments. His position is as extreme, in its own way, as the “all children are gifted” argument and, assuming I’ve understood him correctly, I’m afraid I find each equally unconvincing.

References


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Following a 27-year career, Tim Dracup recently took early retirement from England’s Department For Education. Between 1996 and 2009 he was the Department’s senior official responsible for gifted and talented education and Head of the Department’s Gifted and Talented Education Unit throughout its existence. Tim was responsible to Ministers for all aspects of the development of England’s national programme for gifted and talented from its inception. He is now an independent consultant with a particular interest in national and international support for gifted and talented learners, educators and parents, including the economics of gifted education and the application of online learning and social networking techniques. He is a Trustee of the National Association for Gifted Children in the UK and sits on a working group that is developing a new umbrella organisation for gifted and talented in England. He tweets and blogs under the alias Gifted Phoenix and you can find his blog at http://giftedphoenix.wordpress.com/
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Culture Free Identification of Gifted Children: Based on Elementary Cognitive Tasks

Xiaoju Duan*

I appreciate the opportunity to comment on Gagné's article (2011) that proposes a framework for gifted development. Since his extensive article covers so many topics, from the equity problem in gifted education to the application of the ATD model, I will focus this commentary on only one point: the identification and selection of gifted children. In other words: what measures should be used to distinguish gifted children from others.

I fully agree with Gagné on the application of gifted education in every school and every subject. However, from a practical perspective, it is always very difficult to carry out such a nationwide education program due to limited resources. Besides, this approach does not address the important question of inequity in the access to special educational programs. Apparently, intelligence test results do not prove suitable as a criterion for identifying the gifted because of the culture-dependent results Gagné has already put forward. Considering that there are sensitive or critical periods for specific abilities to develop (Knudsen, 2004), one must conclude that the earlier gifted children are selected, the less likely they would miss the critical period during which abundant learning opportunities should be provided. Therefore, the selection and screening measures for the gifted should be culture free and appropriate for young children and fortunately, cognitive psychology gives us some insight into the field of the gifted and talented.

Elementary cognitive tasks, such as inspection time, simple and choice reaction time, and mental rotation, are culture free as requiring only minimal cognitive demands on the participant. These tasks can be taken as measurements for selecting gifted children as the positive relationship between such basic cognitive abilities and intelligence has been proved consistently (e.g., Duan, Wei, Wang, & Shi, 2010). Reaction time or speed of information processing is the main index for cognitive tasks and shows the speed and efficiency with which the central nervous system processes elementary information (Sheppard & Vernon, 2008). A considerable number of researchers have found that intelligence as assessed by standardized intelligence tests has been closely associated with speed of information processing (e.g., Kail, 2000). The evidence comes from studies of various participants such as infants, children, adolescents, adults, individuals with mental retardation, and gifted children (e.g., Zou, Shi, Yun, & Fang, 2003). Brighter individuals are capable of processing information faster and more accurately than less intelligent individuals. Although the quality of predictions based on these measures will not be perfect, a battery of elementary cognitive ability tests would help to identify gifted children more precisely.

Gifted children could also be identified from a dynamic perspective by measuring the training effects in performance during cognitive tasks. All participants are likely to perform tasks more correctly and quickly after extensive cognitive training and practice. This performance improvement is reflected by different patterns of brain activation, the increased activity in task relevant areas and decreased activity in task irrelevant areas, for example during working memory task training (Olesen, Westerberg, & Klingberg, 2004). The training and practicing profit from pre-test to post-test is a function of human intelligence; the higher the intelligence the more can one benefit from training (Neubauer & Fink, 2009). These findings could be applied in selection processes for talent

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development programs, as it is reasonable to assume that gifted children are more likely to profit from this kind of training. The potential of gifted children could be shown in several task-training activities and therefore it is unnecessary to take a whole school-year to prove they are quick learners and then allow them to skip a grade.

In view of the wide range of points in Gagné’s paper, the present comment just intends to help researchers and practitioners to get more ideas about gifted identification. The hope is that improving the selection fairness will help to diminish the under-representation of minority children in gifted programs.

References


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Reflections on a New Model Program for Academic Talent Development: Towards a Fair and Nondiscriminatory Assessment Method in Gifted Education

Jennifer N. Fiebig*

Gagné's article (2011) is a noteworthy contribution to the ongoing debate on ethnic representation and current assessment methods in gifted education. In the first part of the article he raises the question whether assessment methods are fair and nondiscriminatory. This topic is well established in the literature and has been critically debated by several scholars (Borland & Wright, 2000; Ford, 2003; Gagné, 2003; Joseph & Ford, 2006). The second part of the article goes beyond the fairness question and outlines a framework for a performance-based system for talent development. Here, Gagné articulates his criticism not only with respect to current assessment methods, but more fundamentally, with the way in which talented young students matriculate through the general educational system. It is Gagné's conviction that the establishment of a talent development program based on meritocracy "would render the equity issue [in the assessment method debate] irrelevant".

There is a large body of research on existing assessment practices and standardized testing methods for the evaluation of students with diverse cultural backgrounds who may be gifted (Joseph & Ford, 2006). However, the interpretation of empirical data from various studies is far from straightforward. By pointing out the characteristics of the so-called tail-end amplification in statistical analyses, Gagné reminds us that group disproportions increase dramatically the farther one moves away from the center (mean) of a distribution curve. This statistical phenomenon – which is paramount to the discussion of minority participation in gifted education – is usually ignored and Gagné deserves credit for pointing out its relevance for the field of giftedness. Are these disproportions an indicator for inequity, even moral injustice? Clearly, the views of many scholars and professionals in the field of gifted education imply the moral issue of ethnic underrepresentation (Borland & Wright, 2000; Ford, 2003). They demand the total disappearance of any disproportionate representation between social or ethnic groups within gifted programs. Gagné points out that this demand stands isolated in gifted education and that it does not have counterparts in other fields associated with talent development, as exemplified in four other areas of talent-related ethnic disproportions (a) in college-level educational attainment, (b) among the freshmen population in the University of California system, (c) among doctoral music students, and (d) in sports. Obtaining a college degree which can be considered a minor form of talented achievement, is a process characterized by substantial ethnic underrepresentation (Blacks, Hispanics) and overrepresentation (Whites), respectively. Almost four times as many Asians as Hispanics (52% vs. 13%) hold a college degree (U.S. Census Bureau, 2008). However according to Gagné, no one accuses teachers and administrators of any morally objectionable selection practices. A similar picture is obtained when analyzing the ethnic composition of freshmen at the University of California system. The field of talent development in music may serve as a third example. Here, the disparity between Asian doctoral music students (piano and violin) and Black

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ones is sixty-fold when population ratios are included. The forth example are athletes in basketball, football, and running, i.e. sports that are mostly dominated by Blacks.

Gagné’s proposal goes beyond an incremental improvement of contemporary assessment and selection methods, as he lays out a comprehensive new vision for gifted education. In his model program, academic assessment is not a singular event based on determining student’s IQ through standardized evaluations that are de-coupled from their consequences. Even if the issue of fairness – with respect to cultural and or ethnic backgrounds – were sufficiently correctable, the underlying principle of probing students’ abilities in a single test, which then defines their academic pathway, remains highly objectionable. Gagné’s model program would begin as early as kindergarten or first grade and the so-called “talented pathway would be available to all children manifesting emerging talent”. This admission procedure is in stark contrast to the current gifted programs that are more static and less flexible. By focusing on student’s natural abilities in a meritocratic context Gagné attempts to create a dynamic interaction between curricula, academic excellence goals and the active growth and enlargement of talent. This dynamic relationship, according to Gagné, removes elements of unfairness as much as possible because each step is merit-based, just like in the pursuit of musical or sport excellence.

It should be noticed that Gagné’s model program exhibits similarities with some European educational systems that are based on Pestalozzi’s ideas and principles – in particular with the German system. The latter consists of six years of basic education for all students. During those early years, excellence classes are usually the exception and most students stay together in collective classes. The separation occurs after the sixth grade where the students are assigned (based on merit) to one of three educational branches. These branches have distinct curricula with separate professional and academic goals. The highest branch (Gymnasium) prepares college-bound students for entering the university. It appears that the German model with its multiple, merit-based parallel branches, manifests a step towards the implementation of Gagné’s model program.

Gagné’s proposal is intellectually appealing because it addresses some of the most heavily criticized elements in the status quo of assessment methods for gifted education. In addition, his request for a more differentiated approach can hardly be criticized. On the other hand one cannot ignore that overhauling the entire educational system would require expansions of existing infrastructure and substantial financial resources, in addition to broad support from policy-makers. No matter how attractive this theoretical ansatz may be on the surface, it cannot and perhaps never will remove the emotional component that is present in the field of gifted and talented development. Especially in a State like California (which Gagné references), Hispanic Americans will comprise the state’s largest ethnic group by the year 2020 (State of California, 2007). Thus it can and perhaps should be argued that their access to the higher educational system is vital for the State’s, as well as, the country’s future. While I compliment Gagné for his theoretical model, it remains to be seen whether it can silence the criticisms and claims of moral unfairness.

References


and the equity issue in gifted education. 
*Talent Development & Excellence*, 3(1), 3-22.

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A Wish for the Gifted and Talented

Joan Freeman*

It was a pleasure to read this stimulating, thought-provoking and well written paper by Françoys Gagné (2011), a foremost thinker in the field of gifts and talents. He is a brave man, setting out all alone to tilt at the windmills of current thought. But in his own words, as he sums up his venture, its “extensive dissemination lies far in the future”. The reasons for this, I suggest, are to be found within this presentation.

Gagné describes considerable evidence of “unfair identification practice” for gifted education programmes. I should, though, spell it “programs” from now on because the whole concept of inequity is based on North American ideology, practice and research. He well recognises that current access to American programs is also accompanied by issues of money, race (whether as rejection or token admission), and the usual business of being in the right place at the right time. Gagné also assumes that designated gifted programs are actually available, whereas it would be hard to spot one in e.g. Scandinavia or Japan.

A very recent world overview of provision for gifted children (Freeman, Raffan, & Warwick, 2010), found that programs for the gifted, if they exist at all, vary to extremes in their aims and provision. Even within the USA there is enormous variation, such as between the American Renaissance Quest Camps designed for the whole family, and getting accepted for the Cryptology course at The Centre for Talented Youth. Then there are the Children’s Palaces in China for which children select themselves to achieve world-class levels of expertise, though Gagné does not mention self-selection. In fact, major trends from the 2010 survey show a gradual movement away from specifically gifted programs based on a small percentage of high achievers regardless of background, towards a concern for greater application, effort and democracy in education.

One could argue, in contradiction to Gagné’s account of the unfairness in selection, that there if there was no identification of the gifted at all then there would be no discrimination. An example is Finland, where overall educational standards are high and Finnish children come out on top again and again in most international competitions. Why would the Finns even want gifted programs?

But it is not only ethnic minorities that suffer discrimination in American schools. Winner (1996) writes that when girls start school they are identified for gifted programs in equal proportion to boys, but as they get older there is a striking decline in the proportion of girls selected for gifted education, most severely in the sciences. Although girls make up half the gifted population in kindergarten, this proportion shrinks to less than 30% in junior high school, and even lower at high school. Yet in Britain and other developed countries, gifted girls are now achieving much more highly than gifted boys at all levels and in virtually all subjects (sport excepted; Freeman, 2003). So, if the gifted were to be chosen for programs on the basis of high achievement in such countries, there would be a very high female dominance. Strangely, this does not happen.

Gagné’s description of the statistical minefield of using the tail-ends of the normal curve is very helpful, pointing out how the more distant from the mean the sample is, the more likely it is to give distorted outcomes. But in addition to that, I suggest further potential for distortion in attempts to transfer the American research data he presents onto other cultures. (I did not detect a single non-American reference)

Asians, for example, provide a great variety of cultures. Yet Gagné refers only to American

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immigrants from South-East Asia, such as Vietnam and South Korea, whose hard-working children dominate high-level achievement, especially in California where graduates make up “four times their ratio in the state population” (see Flynn, 1991). Some cultures, though, actually inhibit children’s motivation for success within Western education, discouraging questioning and giving the greatest esteem to boys’ memorisations of holy text (Freeman, 2005). Do such cultural differences change the meaning of Gagné’s assumption of “moral inequity”?

Gagné’s suggestions as to how to overcome inequity have grown from his *Differential Model of Giftedness and Talent* – “giftedness” being natural abilities and “talent” being systematically developed abilities. His propositions for teaching are already well accepted, such as “an enriched curriculum or training program”. Sheer precocity, he says, is a very strong indicator of future success. But after my own research of 210 gifted and non-gifted people growing up over 35 years, I am less sure. I did not find childhood advancement to be a reliable indicator of adult giftedness or talent (Freeman, 2010). The key component of Gagné’s suggested changes is “a strict reliance on achievement as the criterion of access to and progress within a talent development program”. “The North-American schooling system” seems to be at the root of the problems he is confronting.

In the end, I feel that he is perhaps being too hard on American providers of gifted programs. They cannot be all things to all people because they are themselves part of their own culture (Freeman, 2005). They are not emotionally or intellectually free to make independent decisions about who may join their courses. Little of the American research Gagné presents is explicit about the context in which it was done and does not even nod in the direction of how it might be transferred elsewhere, which somewhat detracts from its universality. Yet, in whatever manner the gifted are selected and by whatever adjectives their abilities are described, the outcome is most likely to be positive. It is not surprising that bright, keen children will learn more with extra educational help than those who have not had those opportunities and experience.

**References**


**The Author**

Professor Joan Freeman, PhD, is expert in the lifetime development of gifts and talents. She is an elected Fellow of the British Psychological Society, a Chartered psychologist, and winner of the Society’s Lifetime Achievement Award for her work in this area of human development. She is Founding President of the European Council for High Ability (ECHA), Honorary Fellow of the College of Teachers, Visiting Professor at Middlesex University, London and founder of the think-tank, the Tower Education Group (UK). She has a lively private practice for gifted early learners. Joan has published 17 books for scholars and parents translated into many languages, hundreds of academic and non-academic publications, given presentations in most parts of the world and is often in the media. Her 2010 book, *Gifted Lives*, presents dramatic myth-busting stories from her 35-year study of gifted people from childhood to middle-age. www.JoanFreeman.com
One Swallow Does Not Make a Summer: Expansions on Gagné’s Six Constituent Elements for Talent Development Programs

Robert Grassinger*

Professor Gagné (2011) describes six main constituent elements of talent development in his DMGT’s talent development (TD) model. I agree with the quintessence, but in my opinion there are some major points missing regarding each of these elements which I would like to add in the following.

1. Enriched curriculum / training program

I agree that a talent development (TD) program which is characterized by faster instruction and higher difficulty level will meet the needs of gifted learners. But for talent development it is further necessary to specialize in a domain of giftedness (e.g. mathematics) and later in a sub-domain (e.g. complex analysis; Ziegler, 2007). For example in the Russian educational system there are a few highly specialized boarding schools at the secondary level – like the Novosibirsk School for mathematically gifted students – which enable a successful specialization in a domain (Jeltova & Grigorenko, 2005).

2. Clear and challenging excellence goal

Clear goals are a sign of quality for every educational program, also in gifted education. It is undisputed that intermediate achievement goals are important for talent development. However, from my point of view there is also a great need for emotional and motivational goals in TD programs. For example, at the beginning of TD one of the most important goals is fostering development of interest (Hidi & Renninger, 2006). Later on it gets more and more important that learners identify themselves, as for example gymnasts or physicists, and develop a passion for learning in their domain (Mageau et al., 2009).

3. Selective access criteria

Ines Papert is one of the best ice climbers of the world, but grew up in Wittenberg (Germany), far away from the mountains. At the age of 12 she had not performed ice-climbing at all. After moving to Berchtesgaden (Germany) near the Alps she had access to a lot of possibilities for climbing, learned fast and became a passionate professional ice climber (Papert, 2006). What I would like to say is that past achievements are the best predictor for near-future performance, but they are not per se good predictors for becoming an expert or professional in a domain. Learning opportunities, learning pace, supportive environment and a developmental perspective should further be considered (Ziegler, 2005). Grassinger (2009) proposed a three-step developmental selective model: 1. Counseling of nearly all students, their parents and teachers on how to optimize learning processes and motivation generally and domain-specifically. 2. Those students who are doing well (measured by school grades or domain-specific performance) and show interest in talent development receive an individual mentor in a domain for between two and six months (paid by parents or sponsorship). 3. Those students that work in a motivated manner with the mentor and show good performances in their domain can continue and intensify their mentoring.

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4. Systematic and regular practice

There is a lot of empirical evidence that systematic and regular practice in the sense of deliberate practice is linked to talent development (Ericsson, Roring, & Nandagopal, 2007). Realizing this hard training in daily life is not easy, as it has to be embedded in regular family activities and must fit in with the everyday demands of educational institutions. From my point of view a talent development program should not only foster systematic and regular practice, but in addition should consider how to realize this in the daily life of the student. In other words, TD should be systemic, not only systematic and regular.

5. Regular and objective performance assessment of progress

Indeed a regular and objective assessment of progress in a kind of formative evaluation should be state-of-the-art in talent development programs. But performance progress should be evaluated alongside the development of personal goals and needs, the goals and resources of significant persons (e.g. parents) and of educational institutions (Ziegler, 2005). For example, talent development can hardly be successful if a student would like to become a pianist but the parents do not have the resources (financial or time) and/or the willingness to support talent development in piano playing. A further example would be of parents wanting to foster talent development in painting, but the student is not interested in that anymore and instead favors making music in a band with friends.

6. Personalized accelerated pacing

The optimal way to realize a personalized accelerated pacing would be a 1:1-mentoring (Bloom, 1984). But I think this in itself would not work because human beings are also social creatures with basic needs like social relatedness (Deci & Ryan, 2002). So a good TD program should balance highly individualized training and group instruction.

To sum up, in my opinion the six elements of good talent development programs seem too static and should be expanded with systemic and developmental perspectives. In detail, TD programs should further (1) foster specializations, (2) focus on emotional and motivational needs, (3) focus on environmental criteria and developmental processes in the selection procedure, (4) hold a systemic view on regular practice, (5) focus on the accompanying development of goals, competences and resources of the student and his/her environmental system, and (6) guarantee an appropriate balance between highly individualized training and group-instruction.

References


Expansions of Gagné’s Six Constituent Elements for Talent Development Programs

How I found my way on steep routes]. München: Malik.

The Author

Dr. Robert Grassinger is an Assistant Professor in the Department of Educational Psychology at the University of Ulm (Germany). In 2002, he and some colleagues began a counseling center for gifted students and their families with which he is still involved in. His research interests include giftedness and excellence development, counseling, motivation and self-regulated learning.
Ethnic and Socio-Economic Discrimination – Which Prevails?

Zenita C. Guenther*

The smaller proportion of underprivileged students in gifted programs has indeed been pointed out since it is observed that, as a group, low-SES subjects rank considerably lower on IQ tests. Certainly such results can be analyzed from different points of view, but are easier to explain with reference to minorities within a given population. My interest in this theme goes back a few decades, in terms of clarifying which groups of disadvantaged children succeed in schools, as compared with the ones who fail, with results showing socio-economic factors overshadowing other discriminating characteristics (Guenther, 1977). Recently a similar question was raised by Randall (2005) indicating that “at the individual student level, color has a greater impact on student achievement than socioeconomic condition does, but at the classroom level socioeconomic condition is more important than color ...” (Randall, 2005, p. 123). Thus when Gagné (2011) focuses discussion on ethnic as opposed to economic disproportion in Gifted Programs, it appears to me that an important point may be left out, at least for countries where lower economic-level groups, taken together, comprise most of the general population.

Without challenging the proposal that the equity issue can be addressed by the general orientation of the DMGT Academic Talent Development (ATD) model, I believe that socioeconomic factors impact both ethnic factors and culturally valued attributes, such as giftedness, and the “exceptions” among racial groups may be traced to differences rooted in socio-economic and cultural characteristics within that specific minority. If IQ tests are the main tool to recruit students for gifted programs while also being culturally loaded, the lower proportion of students found to be IGAT (Intellectually Gifted and Academically Talented) can be inevitably predicted.

There is no doubt that Gagné makes a most relevant contribution to Gifted Education on the issue of associating giftedness to intelligence, by providing a conceptual basis that distinguishes between Giftedness as the possession and use of outstanding natural abilities in one or more ability domains, (intelligence, creativity, social, perceptual, physical); and Talent as the outstanding mastery of systematically developed abilities within a given activity field (Gagné, 2009). Considering giftedness as a quantitative concept related to natural ability domains, in principle human beings anywhere can be gifted, and by looking at performance as the expression of natural ability within specific domains, intelligence would not be set apart from the other domains. However, a talent depends on the availability, within the environment, of ways to express ability, and here poverty, social and cultural disadvantages play major roles. When approaching talent identification from performance criteria, the trap of environmental factors cannot be avoided, since the expression of any ability takes place within the person’s environment: “without a violoncello, instruction and family support, Yo Yo Ma could not become an outstanding cello player” (Freeman & Guenther, 2000, p. 37). The same could be said of academic talent.

A Double-Faced Educational System

In Brazil the socioeconomic breach in the nation’s educational system is taken for granted, with general passive acceptance of both a public and a private school system operating at all levels, from nursery school to higher education. The public system runs two distinct
branches, one state and one city system, working simultaneously, but independently of each other, with identical purpose, organization and attributions. The private system is parallel to the public and is generally acknowledged as qualitatively superior to both public systems at the basic education level. The separating line between private and public school population at the bottom line is the economic means to pay for the private school service. Since we have little research other than academic theses and dissertations, which rarely include private schools in their samples, it may be theoretically possible to focus discussion on ethnic groups, but again, most students from any given ethnic origin are already grouped according to the economic criteria, and therefore the research in effect focuses on the underprivileged groups.

In trying to locate gifted students in the school population as a whole, it is impossible to ignore the differences: children from lower strata attending mostly public schools, and children from middle and higher classes, private schools. Quite often gifted kids from the private schools are found in larger proportions when selected by IQ tests, so much that some programs make it mandatory either to include public schools, or exclude private ones, especially if the program is maintained by one of the public systems. The opposite situation can be seen at the college level, with a hardly understandable inversion: public universities in general offer higher-quality courses and end up by selecting students mostly from higher socio-economic strata, and private colleges and universities as a rule have general lower quality, and receive the lower-class students who get their basic education in the public school systems. This situation is usually defined in terms of a merit system performance, but it is not a convincing argument that “individual merit” judged by academic performance is an equitable basis for comparison.

Gagné’s DMGT

Concerned with this situation and trying to avoid unfair procedures when starting our community center – the Center for Potential and Development (CEDET) – we found in Gagné’s conceptual principles a cornerstone for developing a different identification methodology. By teaching teachers to directly observe their classes it was possible to spot giftedness in the various domains of ability through indicative signs gathered from the body of research conducted with classroom teachers (Guenther, Barroso, Bezerra, & Veiga, 1997). However our goals went in a different direction from that of developing talents. Studying some turning-point findings such as in Gagné (2009) and Angoff (1988) regarding ability and talent development, as well as the point made by Freeman (2006) showing weak transference and virtually no long-term effects of “enrichment activities”, we concluded that to develop ability is far more relevant to both individual lives and society’s main purposes than is the cultivation of talents, so our intervention priorities were re-oriented in that direction.

References


The Author

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Meritocratic Principles Are Not Enough – Ways Toward a Fair Fostering of Talent Development

Bettina Harder*

In his article Professor Gagné (2011) proposes that inequity accusations in the field of gifted education can be silenced by using a meritocratic selection system with programs that foster “real” academic talent development. Although I agree on the importance of effective programming and appreciate the detailed and clear instructions offered by Professor Gagné, I doubt that this will silence the inequity debate. In the following, I will first outline my doubt, then refer to the remaining problems and suggest two starting points for working towards a fair fostering of talent development throughout society.

Applying the same meritocratic selection principles to gifted programs as are used at higher educational institutions and in sports is – in my opinion – no solution to the inequity issue. The outlined examples comprised (young) adults, whereas we are discussing gifted programs for children within or even prior to the schooling system. While adults can easily be viewed as self-responsible for their performance, which renders a meritocratic selection system fair because everybody has the chance to work hard for the required performance, children cannot. They depend heavily on their environment to provide them with good instruction and learning possibilities to be able to achieve on the level demanded by meritocratic selection standards. This doubt is supported by the ongoing accusations, while performance tests are one of the two most common selection criteria.

There remain two problems which will keep on fueling the arguments of advocacy groups: (1) Minority children often show worse performance on tests, as well as at school, due to a complex variety of causes, not due to lesser gifts. That means meritocratic selection procedures overlook these gifted youngsters, not providing them with opportunities to develop their gifts, to their individual and to society's disadvantage. (2) As long as an (arbitrarily chosen) upper percentage of the best-performing children are selected, the meritocratic system still has to deal with amplification effects favoring pupils growing up under more fortunate conditions.

We find ourselves in a dilemma: performance is a highly predictive and relatively objective indicator for future success and a necessary prerequisite for participation in gifted/talented programs. On the other hand we face the above-mentioned problems of meritocratic principles. I think these problems can be tackled by two practices in accordance with Gagné’s fifth and third commandment (2007): early intervention and multicomponential identification.

By early intervention I mean addressing the issue of unequal selection rates long before selection occurs – the inequity lies in the chances children have to show the required performance, so the goal should be to improve these chances to the utmost possible. The development of any sort of skills starts early and each competence is a precursor to the next, more advanced skill level (Ziegler & Stöger, 2009). To support this development from an early age, the child’s environment (e.g. family, child-care facility, preschool) must be prepared to foster talent development and to adapt to new challenges and conditions along the path. To help parents, special counseling personnel could be implemented and/or the accompanying professionals in child development (e.g. pediatricians, preschool teachers) could be trained to provide child-carers with information on talent development and support in the transfer to daily life. To improve the conditions in the

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complex interacting system in which a child grows up, long-term accompaniment opportunities are needed.

The second point of intervention is in the selection procedure itself. As Professor Gagné indicates, in the selection to talented programs according to the ATD model, the focus on selection criteria cannot be limited to performance. He suggests considering prior performance, the excellence goal, willingness to practice and progress in learning (characteristics of ATD programs referring to the participants). In the multicomponential identification commandment, Gagné (2007) prioritizes individual characteristics over environmental influences as good predictors for performance (besides prior performance and IQ). Taking into account that individual features, even IQ, are strongly influenced by environmental factors (as demonstrated by the Flynn-Effect for example, cf. Ziegler, 2010, for a discussion of context dependency), I suggest an even broader “multicomponental” account: a system-theoretical view perceiving extraordinary performance as the result of the strong interaction of person and environment (cf. Csikszentmihalyi, 1996; Gruber, Lehtinen, Palonen, & Degner, 2008). If the goal is to select those who are most likely to profit from the program, the focus on individual characteristics seems too short-sighted. Instead experts (e.g. trained teachers, counselors) should rate the system’s capabilities based on predefined criteria (e.g. necessary competences for program participation, the child’s goals, the system’s support possibilities and inherent values) instead of applying a social reference norm (the high-performing 5%).

To conclude, I agree with Professor Gagné that equity in the sense of the total disappearance of underrepresentation is unrealistic. Meritocratic principles are the best way to select program participants in a fair manner, though that alone will not silence the advocacy groups. In my opinion the equity issue will only be resolved when measures are undertaken to provide children with a fair chance to show the performance required for program admission, which implies the creation of early fostering environments.

Note
1 The fact that no accusations occur concerning ethnic under-representation of children in sports might be due to a lesser relevance of sports performance – compared to academic achievement – to personal success in life.

References

The Author
Bettina holds a Master’s degree in Psychology and is now a research scholar at the Institute of Psychology and Education at the University of Ulm, Germany. Her research interests include critical factors in the development of expertise, diagnosis and nurturing of gifts, and the development of pupils’ English competence. Bettina currently conducts a longitudinal study comparing the effects of special classes vs. regular classes for gifted children at the secondary school level.
Gifted Programs Need the Option of Acceleration

Annette Heinbokel*

Although I have done research in Germany into the issue of acceleration, I am not a researcher; I write this comment from the position of a practitioner. I have been teaching for almost 40 years, for most of that time mixed ability classes with a few gifted children in between. At present I teach at a grammar school where, due to the selection process, the percentage of gifted children in each class is higher than in a primary school, but they are still mixed ability classes albeit on a slightly higher level. I do offer acceleration and have advised and accompanied a fairly large number of children in that way, usually successfully, and in my normal lessons I try to offer enrichment. The school does not yet have a functioning gifted program and I am woefully aware that my efforts are quite inadequate. On the other hand the children and the parents are pleased that the gifts, talents and interests are noted.

In his article François Gagné (2011) states clearly the differences between gifts, or natural abilities, and talents. He lists the elements that should be part of a gifted program that deserves the name and is not just “busywork”. As an advocate of acceleration I was pleased to read that such a program must contain the option of different forms of acceleration. “Option” means it is not a “must” for the students (and their parents), but it should be offered by the schools and students should get the right kind of support if they decide to accept the offer.

The U.S. is a huge country and schools and other institutions there have been offering programs inside and outside school for the gifted – however giftedness was and is defined – and doing research for decades. There are hundreds if not thousands of articles on every aspect of giftedness, which gives the impression that “the grass is greener on the other side”, i.e. all is much better for gifted children in the U.S. than anywhere else. I have known for a long time that this is not the case, that there are pockets of excellence, but compared to the size of the country and the number of intellectually gifted and academically talented children, and compared to what is known about giftedness and therefore should be done, these pockets are rather small. So I was pleased to re-read the facts about the research on how much (or how little) was happening.

While reading the article I mentally compared the situation Gagné describes for the U.S. with the gifted programs in the 16 German states. Many people in Germany – individual teachers and those organized in different teacher unions or associations, as well as politicians – will not like his conclusions, and especially his proposal to put intellectually gifted and academically talented students into special classes or even schools so that they can develop all of their potential. Because of the changes to the German school system (with final exams for those going to university after 8 instead of 9 years of grammar-school-level learning), acceleration is particularly unpopular at present. Most people are not aware that some GT students still need the option of acceleration, even though the number of those needing it may be smaller at the moment. Disliking Gagné’s conclusions does not make them less important when discussing which elements should be part of a GT program and what should be offered to GT students.

However, even in Germany special schools have been accepted for decades in sports, ballet and music, and more so in the former eastern states than in the former western states, but rarely – and in the west only recently – for other kinds of gifts and talents. One

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recent example from a grammar school: an intellectually bright boy dreamed of being a professional soccer player since he was about 12. Not only that, he also worked hard at achieving this aim. In his last year at school he had good grades in the intellectual subjects and was offered his first contract as a young professional player. Some of the training sessions collided with his lessons at school. The school arranged his timetable for all the other students in that year to fit in with his soccer training. I think that’s great; however, I cannot imagine them doing it for a student wanting to study mathematics, and besides, this would be impossible to arrange if there were a dozen more students with special gifts and talents. Leaving regular lessons to work on an individual project, to attend extracurricular courses on a higher level or studying part time at university while still attending school has become increasingly popular since the 1990s. There are reports, though, that teachers whose classes they leave do not always see this as a positive effort: Some students got negative grades for not attending regular lessons.

References

The Author
Annette Heinbokel is a teacher and has an extra diploma in education. In the 1970s she was the driving force behind the founding of the German Association for Gifted Children and served on its Executive Committee twice. She also founded one of its first branches in the early 1980s and served on its Executive Committee till 2011. In 1999 she was awarded the “Bundesverdienstkreuz” for her efforts for gifted children. She did her PhD on grade skipping. Although a good gifted program needs elements of enrichment and acceleration, she is a strong advocate of all forms of acceleration.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Academic Talent Development for Every Talented Student

Lianne Hoogeveen*

The equity issue is a difficult issue. François Gagné (2011) is not afraid to discuss it critically. Firstly, he shows that under-representation not only exists in gifted education, but that similar and even much larger disproportions exist in and outside general education. One might wonder if the comparison is fair: although some students have more possibilities to participate in music and sport activities than others due to more facilitating (home) environments, those are activities one chooses or not. Going to school, however, is obligatory for every child and adolescent. In the United States “all children enrolled in public schools are entitled to equal educational opportunity without regard to race, color, sex, or national origin” (Office of the Law Revision Counsel, n.d.) and according to Dutch law, elementary education should enable all students to go through a continuous developmental process (art. 8 of the Law on Dutch Primary Education: Ministry of Education, Culture, and Science, 1998). If a child needs special education, for example because he or she is gifted, this child has a right to receive this education.

In the Netherlands, under-representation of disadvantaged students does not concern so much Blacks or Latinos, but children from families who have their origin in Turkey or Morocco. Although there has not been any systematic research on the prevalence of these students in gifted programs, every teacher or scientist in the field can tell you that these children are rarely found in special programs for gifted students. “We have other problems”, was the response of one teacher from a school with many Turkish and Moroccan students, when asked to participate in a research project considering giftedness.

Gagné suggests a well thought-out and elaborated (Academic) Talent Development ([A]TD) model, based on his differentiated Model of Giftedness and Talent (DMGT). One of its goals is to offer opportunities to all students. Something bothers me, though. If we look at the third of the six main constituent elements of Gagné’s definition of talent development, namely “selective access criteria”, which means that access “will be limited to candidates who demonstrate good chances of future success” (p. 12), I wonder what happens if the environmental catalyst does not facilitate, but hinders the early development process. Will selection through observable performance create an equitable comparison basis and end the inequity discussion? Shall the Dutch-Moroccan Mohamed, whose parents are in the bottom SES quartile, and who nobody expects to succeed in school, will get access to the ATD program if he does not succeed in demonstrating his outstanding natural abilities in high performance? As I stated earlier, if a child needs special education, because he or she is gifted, this child has a right to receive this education. And I would add to this statement: “…independent of the level of observable performance”. Gagné’s fifth commandment, “Thou shalt intervene … earliestly” (p. 26) can prevent “losing” some gifted students, but even at the age of six, a hindering environment can have a lot of influence on the development of a child.

So I should suggest reconsidering the third constituent element, and give a fair chance to all potentially high-ability students by giving them time to show their abilities, for example, in the Schoolwide Enrichment Model (Renzulli & Reis, 2003) – not in a selective

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(and thus excluding) test situation, but in response to intervention. Most important in a procedure like this is that observers be professionally trained to avoid the still-existing risk of a culturally biased judgment.

Gagné makes some appropriate remarks about what gifted education should not be. Obtaining high marks within the regular classroom has indeed nothing to do with academic talent development. The regular curriculum in the Netherlands, and surely in most countries, is well conceived, but not for gifted students. So what we need to do is reconsider the goal of the education we offer to our students – a consideration rarely made by teachers and policy-makers. Gagné does not consider this either, but is convinced that students need “constant intellectual challenges” (don’t we all?).

He mentions all the known curricular adaptations like compacting, enrichment and acceleration, with an emphasis on process abilities, and he stresses that the enriched program must be offered on a daily basis. Gagné’s description of marginal, non-inclusive, “so-called” gifted programs is recognizable in the situation of the Netherlands. The question is, whether the solution is the ATD program Gagné proposes. What will make or break this program is the teacher applying it. ATD-teachers will need intensive training to understand the goal of education and be able to offer the appropriate educational program necessary to reach that goal (Hoogeveen, van Hell, & Verhoeven, 2005). Only then will teachers and school administrators be prepared to individualize, or as Gagné prefers it, enrich the educational program effectively for every student who needs it.

It strikes me that Gagné accepts rather easily that his program will not reduce ethnic disproportion, but maybe even increase it. It sounds like he is saying: “We are not to blame, and others aren’t either”. Maybe that is so, but maybe it would be to our credit if we did not accept this disproportion in our field, and looked to see how we can change it.

Am I an ideologically biased observer? I suppose Gagné thinks I am. Donna Ford showed me very convincingly though, how difficult it is for black students to “act white” (Ford, 2008), which probably is necessary in order to “pass” the selection as proposed for an ATD program. I can imagine that Moroccan students in the Netherlands feel the same.

Maybe it is time to concentrate less on the gifted and more on offering better education to all students, including those who need a more challenging curriculum. Renzulli and Reis (2003) would agree, and so would Borland (2005), who suggests offering gifted education without bothering about who the gifted students are. I am sure that students would benefit from an ATD program such as Gagné proposes, but their success will depend on the professionalism of those who decide who shall participate, and of those who are to apply it. The goal-related identification procedure Gagné proposes may be transparent, but I doubt its objectivity until we see a proportional representation of all students.

References


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Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

The Neglected Gap Between Diagnosis and Implementation

Elisabeth Hotze*

Gagné (2011) assumes the equity issue has its basics in discussions on the fairness of academic identification practices for elaborated programs of gifted and talented students. Referring to the American educational systems, Gagné presents a highly interesting factual analysis of disproportions in the representation of disadvantaged and ethnic minorities in high-level programs for gifted and talented learners, which are exaggerated by statistical phenomena arising at either tail of a normal distribution of scores.

Regarding these considerable disproportions, Gagné points to the identification practices in gifted programs which are claimed to be unfair and compares them with other competitions in general education and other areas where even more serious underrepresentation is completely accepted. Gagné refers to recent research on high-level selection practices in the USA which is not far off from similar research findings in Europe.

To answer the question of unfair treatment of disadvantaged and ethnic minorities he presents identification practices after his meritocratically-oriented ATD Model as a solution to the equity issue.

All in all, the six characteristics – or rather the three main characteristics – of Gagné’s ATD program are a basic step towards fulfilling the equity demands. But unfortunately, they are almost totally absent in the existing programs in elementary and middle schools in the U.S., as pointed out by Gagné.

Administrative resistance and ambiguous behavior of colleagues towards implementation of the ATD programs, namely by full-time grouping and acceleration, prevent the conducting of equity-based programs for intellectually gifted and academically talented (IGAT) students.

Resistance and ambiguities indeed have very deep roots, and therefore the focus has to be on these roots. Circumstances are similar in Germany.

Gagné’s Analysis and Conclusion

If we neglect the fundamental economical and sociopolitical implications of the theme, equity is a moral issue: that means setting an obligatory, universal and binding standard for research and practice in the field of giftedness. Equal chances and opportunities to access educational processes and institutions at all levels (as demanded in Germany in the wake of the PISA-studies) undoubtedly belong to the foundation of the Charter of Human Rights. In his article Gagné argues for the fulfillment of this fundamental right for intellectually gifted and academically talented (IGAT) students.

In the field of gifted education, Gagné assumes the equity issue has its basis in accusations of unfairness in academic identification practices in programs elaborated for gifted and talented students. The accusation of unfair selection practices in gifted programs is based on a broad range of recent research that reveals significant underrepresentation of socially disadvantaged and ethnic minorities. These are indeed serious facts which urgently need to be discussed.

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Gagné’s undertaking to expand the factual basis of the equity issue in high-level selection of gifted and talented students is worthwhile because it is necessary to clarify the moral component of these findings.

In the first step of his argumentation, Gagné lays out recent findings concerning selection practices for national gifted programs, especially the results of the National Educational Constitutional Study in the U.S. These findings include among other things a 5:1 ratio of the top to the lowest quartile of social strata among selected gifted and talented students, and the characteristic over- or under-representation of ethnic groups. Moreover, Gagné points out the dramatic results due to the statistical amplification of underrepresentation at the “tail-ends”.

So far, the analysis of underrepresentation is not very different from similar reports on the opposite side of the ocean (research of the OECD).

In his next step of argumentation, Gagné compares statistically amplified group disproportions in the access to gifted programs with other selection processes. Correctly realizing that socio-economic or ethnic underrepresentation is a moral issue, Gagné hereby unnecessarily seeks to solve the problem by switching the focus onto other fields associated with talent development (competitions in music and sports) which show much larger disproportions but don’t seem to be affected by the moral inequity accusation. At this point however, the complaint “Why are we blamed for conduct that other areas are not accused of?” is a common and interesting argument. Though, from a moral point of view, it is rather weak.

Gagné after all assumes that the solution to the equity issue in gifted education is to be found in the Academic Talent Development (ATD) model. This model is based on the equality of merits in selection processes for gifted and talented students. Offering special support from kindergarten and elementary school up to college, the ATD program intends to provide equity for intellectually gifted and academically talented (IGAT) students by six intervention criteria: an enriched and condensed curriculum program, clearly defined excellence goals, selective access, systematic and regular practice, regular and objective assessment, and personalized pace.

Gagné points out three of them – (1) an enriched and condensed curriculum, (2) academic excellence goals and (3) regular practice – as the minimum standard characteristics of an acceptable and appropriate solution to the equity issue in existing supportive programs.

**Remarks from Everyday School Life**

Gifted education in ATD means cumulative learning depending on well-known catalysts. The ATD model is unquestionably a solid basis for supportive programs for IGAT students.

No doubt, the quality of merit – high-level performance – is the basic criterion in master advisory competitions. Otherwise, learning at a very high level and special designs for gifted programs would make no sense. The more elaborated a competition, the less doubt we have to have about the prevalence of this standard.

And no doubt, the moral issue of equity also means undertaking any institutional effort at the very beginning of the educational process to strive for equal learning opportunities and personal support of IGAT children in underrepresented and disadvantaged groups.

But what are the reasons for the resistance of institutions and ambivalent behavior of school professionals in elementary and middle schools towards very clear research findings and the conduct of equity-based programs?

Probably, the big gap between the ideas of “full-time grouping” and “acceleration” and their actual implementation arises due to undiscussed fears about their practical realization.
Advocacy (of Gagné's 11th commandment) should not remain declarative alone: it should lead to a clear naming and precise description of the real obstacles in daily school life. This means that strictly goal-oriented but open-result discussions between researchers and interested practitioners should take place in each single school community. Implementation of fruitful programs for intellectually gifted and academically talented children can’t be executed in a top-down manner in schools, but has to be prepared in a very precise, goal- and time-oriented way, and open to the ideas of all participants of the particular school community. All this is of course a question of successfully organized school development.

There is a good chance that in such discussions, probably fruitful creative paths to practical realization of “full-time grouping” and “acceleration” can be clarified: A possible solution could be that the administration defines a condensed curriculum which is structured as task-based and made accessible (e.g. via the internet) at all times. If IGAT students had access to practice problems in this curriculum and could work on them by themselves alongside the common lessons, this would be a first step to realization. Thereby students would be able to work in a sort of self-regulated manner. Such a system could easily be implemented in any classroom.

The implementation of such programs would help practitioners and reduce their workload. Therefore goal-oriented discussion between researchers and practitioners, considering the very complex questions of practical realization of these theories should be intensified.

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References


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The target paper by Professor Gagné (2011) presents an elegant argument that starts from a conceptualization of the equity issue as "expressed judgments by many professionals and scholars that members of disadvantaged groups suffer from unfair selection practices, which leads to their significant underrepresentation in gifted programs" (p. 3). It then develops, through a series of carefully chosen analyses, analogies and examples, to the recommendation to adopt the conceptual framework and pedagogical ideas of the DMGT model (Gagné, 2003) in order to silence, if not resolve, the equity issue.

Reading the paper with great interest I esteem the logic and courage with which Professor Gagné analyzes one of the most controversial issues in gifted education. Simultaneously, I feel that his concluding remarks, in which he anticipates that the dissemination of ATD programs will not reduce apparent ethnic disproportions but instead reduce public complaints about these disproportions, concerns me. I intuitively disagree with the scenario in which silencing the equity issue without actually changing the situation is articulated as a goal of a comprehensive educational programme.

Being aware that my disagreement is rooted in somewhat irrational area of ethical and moral values, I have tried to elucidate, first for myself, its rational sources. I found that the intrinsic logic of the paper is very compelling and turned to analyzing the basic assumptions on which the argument relies. As a result, I found that my concerns stem chiefly from my disagreement with two interrelated assumptions: the first one, about the applicability of meritocratic ideology to K-12 gifted education, and the second one, about the role of "natural abilities" in the DMGT model. I will briefly discuss each of these.

**Meritocratic Ideology and K-12 Gifted Education**

The world of adults that conforms to the laws of free market is (or at least is supposed to be) driven by a meritocratic ideology. For instance, it is difficult to imagine a successful IT company that would hire its key employees based on the reasons other than meritocracy. Universities are situated at the entrance to the adult world and, as a rule, are judged by the market and in accordance with its laws. Consequently, universities are interested in accepting freshmen who are "the best" in accordance with market-oriented criteria, i.e., by their past achievements and aptitude. Thus, it is perfectly reasonable that "Berkeley's chancellor, Robert J. Birgeneau, insisted that his university was a strict meritocracy confirmed by law" (Gagné, 2011, p. 8). Moreover, universities can insist on solely meritocratic entrance criteria in part because they are not directly responsible for the apparent disproportions among the freshmen. Even so, most of the top-ranked universities in the world, including UC at Berkley, offer special programs for young children of various ethnic and socio-economical backgrounds aimed at increasing their chances of entering the universities by meritocratic entrance criteria.

So, why does Gagné's argument of the sort "if Berkley can, why can't gifted education too?" concern me? Because the equity principle may have different interpretations whether applied to adults (including university freshmen as young adults) or to young children. In the former case, the equity is performance-oriented and requires meritocracy, but in the latter case the equity is opportunity-oriented and requires "high expectations..."
and worthwhile opportunities for all” (NCTM, 2000, p. 12). From this perspective, one of Gagné’s central claims, namely that “this focus on performance as the main entry requirement to a talent development program offers the best guarantee of equity and objectivity” (p. 14), is not easily defendable. Indeed, the performance-based ideology would be a fair basis for selecting young children to a talent development program only on condition that all the candidates for the program are given an equal opportunity to attain considerable achievements before the gifted program begins. This is definitely not the case, due to the variety of environmental factors (e.g., Click & White, 2003). In addition, if the children are really young, what “past achievements” can reliably matter? Stretching one of Gagné’s examples, the violin performance of a child who had never heard a violin because her parents disapproved this sort of pastime cannot be fairly compared, at least during the first music classes, with the performance of a child who had systematically observed her mother playing violin at home and tried to play violin herself. To make the comparison fair, the first child should also have been given an opportunity to get familiar with the violin before the competition began. In theory, a governmental educational system should assume the role of a provider of violins for all, but since the supply of violins is usually limited, it is probably safer, from the opportunity-oriented perspective on the equity issue, to avoid early competition among children who have different starting positions (cf. Davidson, 1986; Renzulli & Reis, 2003, for the elaboration of this approach).

The Uncertain Role of “Natural Abilities”

The Gagné’s idea to mainly base the identification practices in K-12 gifted education on the meritocratic ideology is fully consistent with his DMGT model. Thus, the expressed concerns regarding the meritocratic ideology in K-12 education can be re-stated as concerns regarding the DMGT model. Specifically, the perception of talent development as “the progressive transformation of outstanding natural abilities (gifts) into outstanding knowledge and skills (talents)” (Gagné, 2011, p. 11) is debatable. Indeed, this perception implies that the influence of natural abilities or innate talents on achievements can be operationally separated from the influence of the environmental factors. However, the relationships between innate talents and outstanding achievements are still to be thoroughly investigated (cf. Ziegler, 2007, for the Ericsson’s Challenge II). Consequently, the DMGT model can be taken as a promising theoretical construct that needs empirical validation rather than as a guideline for policy making in gifted education. In closing, the fact that the alternative perspectives exist (e.g., Hong & Milgram, 2008; Milgram & Hong, 2009; Renzulli & Reis, 2003) and imply alternative ways of resolving the equity issue makes the debate so interesting!

References


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François Gagné (2011) has recently presented an article bearing on academic talent development and the equity issue in Gifted Education. Here, I first comment on some aspects of his article and then move on to some new suggestions.

I wholeheartedly agree that the question of equity is of major concern to the field of gifted education. Webster’s Ninth New Collegiate Dictionary defines “equity” as “justice according to natural law or right; freedom from bias or favoritism”. Thus, equity mainly stipulates individual rights and fair access to opportunities for self-development. Sapon-Shevin (1996) justifiably points out that “arguments framed in terms of justice are complex because they often fail to discriminate between the goals of equality of access, equality of services, and equality of outcomes …. Few educators would advocate equal treatment if by that we meant giving every child the same kind of educational experiences at the same pace, using the same materials, and so on”. That is, different children should receive different educational services. This is absolutely reasonable, and it is the real equality of services. As to equality of access, most scholars’ real concern is what constitutes a scientifically credible basis for judging whether a certain child deserves a special educational program.

Consequently, I agree that the term “talent development” is more appropriate than “gifted education”. It is more defensible than “gifted education”, just because it is based on a much simpler assumption; an assumption that can be met more easily: some children show strengths and interests in certain areas and should be supported to further develop those talents that are culturally important as well as personally meaningful. Bernal (2003) argues that gifted education should no longer serve a fixed category of children deemed “gifted, and to promote the development of all talented young adults should be the educational goal. By nature, talent development programs can have a flexible entrance and exit policy (Subotnik & Coleman, 1996; Renzulli & Reis, 1997), and do not have to stick to any rigid cut-off values.

Some points made by Gagné might need some reconsideration, however. First, in Table 1 and Figure 1 Gagné points out that many school districts are trying hard to include as many minority students as possible. Unfortunately, the data displayed in Table 1 stems from the years 1978-1992. These data are outdated and the current situation might be fundamentally different. As a result, more recent data are needed.

Second, I have some concerns about the equity issue. As mentioned above, the term “talent development” is clearer and better defined than the term “gifted education”; On the one hand, employing this new term is (surely) a step towards resolving the equity issue. On the other hand, the term “gifted” is ingrained in people’s thought. Therefore, there is still a long way to go towards establishing the term “talent development”. So in the meantime there is some need for alternative methods to deal with the equity issue. Every child should have the chance to receive an adequate education and develop its talents. Equality of opportunities is definitely important to the equity issue. In Beijing, a program exists for promoting academically talented children from migrant worker families. The children attend a class fitted to their needs, where they receive a curriculum...
that is much more compact than that of common schools. Most of these children are from poor families. As fees usually apply in all education in China, the Song Ching Ling Foundation bears all the program costs up to university entrance (Ding, 2009). This program has opened up new perspectives for vulnerable social groups. However, as resources are limited, one such program cannot help every child in need. As an alternative, the internet might be a valuable source of efficient support for academically talented children. I believe that the internet will be the main medium of academic talent development programs in the future. South Korea has been working hard on an online gifted education system since 1998 (Kim, 2004). Thus, each and every child in South Korea has the equal opportunity to receive an adequate education via internet, limited only by personal interest and motivation. This is real equality, as long as every child has access to the internet, which can be provided by the government or school.

While Gagné does not say much about motivation, I argue that this topic should be of major importance in discussions about talent development and the equity issue. Indeed, some scholars claim that motivational factors play an increasingly important role as a person moves to more challenging stages of talent development (Ericsson, Krampe, & Tesch-Römer, 1993; Ericsson, Roring, & Nandagopal, 2007; Bloom, 1985). An equitable education policy should also consider motivation as an important factor in the decision about a child’s admission to a talent development program, in order not to reject highly interested and committed students too easily, just because they do not meet certain test score criteria.

**References**


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Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

The Neglected Importance of Emotions
Daniele Luzzo\textsuperscript{1*} and Fernand Gobet\textsuperscript{2}

Gagné (2011) addresses important questions for the field of gifted children's education. We are in broad agreement with his views, but also believe that some issues might be more problematic than proposed.

An important aspect of Gagné's approach is that, although academic performance is seen as the best measure of talent, IQ tests are also considered as useful measures. We would go one step further. Intelligence is a construct that implicitly refers to a theoretical framework. It is well known that different authors define intelligence in different ways, and that different definitions lead to the development of different tests. In speaking generally of the value of IQ, not referring to a specific test does not provide enough information for the reader. It is true that the external validity of IQ tests is good, but to take IQ as an unbiased and pure measure gives a distorted view of the problem. Thus, if Gagné wants to use IQ as a possible measure, he needs to specify the methodological framework he is using.

Academic performance is affected by methods of teaching, and we have two comments on this topic. Following the line advocated by Murray (2009), Gagné mentions the importance of teaching processes rather than contents. However, it should be pointed out that educational methods based on teaching general thinking skills have been found to lead to only limited transfer, if any at all (Grotzer & Perkins, 2000). This conclusion dovetails with the results from research on expertise, which show that there is not much transfer from one domain to another (Gobet & Campitelli, 2006). Thus, we are rather sceptical about this method of instruction.

Gagné mentions the large inter-individual differences even within a group of gifted children, and the necessity of providing instruction tailored to this diversity. We agree that this is important, although this might be very time-consuming for teachers. In this respect, we believe that the instructional computer-based technology developed in the last decades (e.g. Gobet & Wood, 1999) offers powerful means of teaching that are often neglected in the curricula offered to gifted children.

As is often the case in research on gifted children, Gagné's article neglects the role of emotions. The DMGT model focuses on the social utility of youngsters, but does not take into account their personal experiences and feelings. It is certainly a model that maximizes the intellectual capabilities of students, but with the consequence that they find themselves cut off from coetaneous groups. By contrast, several authors (e.g. Giordan et al., 2006; Lubart, 2005) have stressed that it is important to pay attention to the emotional needs of gifted children, who tend to show emotional hypersensibility (Guignard & Zenasni, 2004).

While we agree that the elements 1 and 2 of Gagné's (A)TD model (cf. Gagné, 2011, p. 12) are essential for talent development, we believe that point 3 is rather questionable because of the strong risk of creating an elite club. Similarly, point 4 incurs the reduction of time of socializing in the pursuit of higher academic performance. Again, there is a lack of consideration for the affective needs of the child. A possible solution, as outlined in Luzzo (2010), is to create modular programmes in which pupils have different kinds of

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work to do according to their abilities but with a common objective, which can be reached only with collaboration between all students, gifted or normal. 

The ATD programme cannot reach its objectives if children are not motivated and if there is no emotional support. School failure is, paradoxically, a frequent problem among gifted students (Terrassier, 1981). While the ATD may reduce some of the factors that lead to underperformance, its lack of concern for affect can lead to failures in efforts to improve pupils’ performance.

According to Gagné, inequity issues arise because of a lack of programmes having truly meritocratic value. Meritocracy is implicitly based on the assumption that a higher IQ leads to better social success. However, this is not always the case. A counter-example is the phenomenon of underachievement just mentioned, which might occur when a student’s actions, behaviours and reasoning are unacceptable in a conformist school system. Given that their way of behaving is different from the expectations of society, gifted children may experience a feeling of refusal on the part of the educational institution and, accordingly, reject school activities.

Several empirical studies have shown that teachers might have a particular conception of the ideal pupil, valuing obedience and conformity at the expense of traits such as curiosity or independence (Wentzel, 1993). Thus, the selection of students by teachers can lead to an abnormally high proportion of conformist individuals (Mouchiroud, 2004). Selection methods are also likely to favour children who are in a social environment allowing them to express their full potential. For example, a higher mathematical intelligence cannot be expressed and detected in an environment where manual skills are paramount, as in a farming environment.

Moreover, the under-representation of economically disadvantaged gifted children is also due to a series of false expectations put on these students. Society and parents have lower expectations for these pupils. There are three issues here. Firstly, these children are not recognized as gifted because it is not expected of them to be so. Secondly, these students have low expectations of themselves. So, in a kind of self-fulfilling prophecy, they will achieve poor results and will not be able to participate in programmes that were designed for gifted learners, including the ATD programme. Finally, while the solution proposed by Gagné has the advantage of being objective, it does not solve all problems linked to equity. In particular, defining equity involves values that inevitably will be different between different people.

Gagné’s article provides a unique perspective on the problem of the equity issue. Even though the DMGT model remains a good model for teaching, it must be completed by emotional support for the student. The introduction of computer-assisted teaching methods could help teachers in their tasks, giving them more time to deal with the emotional needs of the students.

References


high potential and talent]. Paris: Bréal.

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Fernand Gobet is Professor of Cognitive Psychology and Director of the Centre for the Study of Expertise at Brunel University, West London. He has published extensively on the psychology of expertise, language acquisition, and computational modelling. He is the main architect behind the CHREST project (Chunk Hierarchy and RETrieval STructures), one of the few cognitive architectures in the world. CHREST currently provides state-of-the-art models in multiple psychological domains including expert behaviour, vocabulary development, and syntactic development. He has authored five books, including Perception and Memory in Chess (with Adriaan de Groot), and Moves in Mind: The Psychology of Board Games (with Alex de Voogt and Jean Retschitzki).
Debating the Applicability of Gagné’s Talent Development Model in the Sport Domain

Dany J. MacDonald*

Every four years, athletes from around the world congregate to participate in the Olympic Games with hopes of bringing back a gold medal to their country of origin. As spectators, we often marvel at the athletic feats demonstrated and ponder the sacrifices made by these individuals when they step onto the highest level of the podium and cannot help but wonder what brought them there?

Understanding the pathways that individuals went through in reaching high levels of expertise relates to talent development. Recently, Gagné (2009) has suggested that talent development can be defined as “the systematic pursuit by talentees, over a significant period of time, of a structured program of activities aimed at a specific excellence goal”. As outlined by Gagné’s Differentiated Model of Giftedness and Talent (DMGT), this systematic pursuit of structured program activities consists of six conditions which are believed to result in the development of talented individuals. However, Gagné (2011) expands his vision of talent development by outlining that groups of individuals are over-represented in certain domains, making them a natural target for talent development programs. Of interest to researchers in the sport domain, Gagné argues that since Black athletes consistently make up the bulk of professional athletes, they have a natural advantage for participating in sport. Therefore, if we are interested in developing talented athletes, then by extension, the focus of our attention should be on this group as they are more likely to reach elite levels. Although there is compelling evidence to suggest that Black individuals are over-represented in professional sports, addressing discrepancies between Gagné’s DMGT model of talent development and how it relates to sport is worthwhile. More specifically: Should we be focusing with talent development programs on specific individuals, when in fact there are a range of other variables that are known to impact a child’s likelihood of reaching elite levels?

In a recent discussion about talent development programs in youth, Vaeyens, Güllich, Warr, and Philippaerts (2009) show that early talent development/identification programs for selecting future Olympians are largely ineffective. In fact, in an analysis of recent Olympians, they report that a majority of athletes made their international debut, in their sport of expertise, at the senior level. This suggests that athletes who reached the highest level of sport proficiency did not compete at the highest levels during their developmental years, meaning that talent development programs for youth were not effective in discovering the next wave of Olympic athletes.

The inability to accurately identify talented individuals at a young age is impacted by a range of variables inherent within youth selection programs. For example, youth sport participants are typically placed in categories based on their age to promote sport competition against similar-aged individuals. However, research consistently shows that when individuals are categorized into birth quartiles, athletes born earlier in the calendar year of the sport (i.e., January 1st for ice hockey) are consistently over-represented in elite sports. This phenomenon has been termed the relative age effect and has been consistently reported across a range of sports (for a review, see Cobley, Baker, Wattie, & McKenna, 2009). The process thought to contribute to the relative-age effect in sport is

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that relatively older athletes will have developmental (maturation) advantages over athletes born later in the year. This physical advantage will increase their likelihood of being selected to teams and give them more playing time and better coaching. Therefore it is possible that athletes are not necessarily selected to clubs because of higher skill levels but rather because of their early physical advantages.

Another factor associated with attaining professional-level sports participation is location of birth. The birthplace effect, originating with the work of Curtis and Birch (1987) and followed up by the work of Côté and colleagues (Côté, MacDonald, Baker, & Abernethy, 2006; MacDonald, King, Côté, & Abernethy, 2009), suggests that individuals in cities with populations below 250,000 have increased probability of reaching elite level status compared to individuals in larger urban centers. Although the exact mechanisms surrounding the birthplace effect are unknown, Côté et al. (2006) suggest that athletes growing up in smaller towns may have easier access to sport infrastructures and a safer environment in which to practice sport compared to athletes in large centres, which can increase skill development opportunities.

Taken together, the constructs of relative age and birthplace demonstrate that fostering talent in youth is a highly complex issue and that multiple factors will impact a child's athletic development. This appears to be inconsistent with the vision of talent development put forth by Gagné which suggests that special attention should be given to certain individuals, regardless of the other factors outlined above. Although it is possible that the DMGT model is applicable in other domains, we may in fact be bypassing a significant number of talented individuals in youth if we focus our attention on select groups of young age. As outlined by Vaeyens et al. (2009), youth development programs are mostly ineffective, which suggests that we need to expand the opportunities we provide to youth rather than restrict such opportunities. If the goal of sport is to develop high-level athletes, then maximizing the number of children who have access to talent development programs, rather than minimizing the number of youth in such programs, will increase the probability of identifying talented individuals.

References


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Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Minorities and Giftedness

Luz F. Pérez* and Jesús A. Beltrán

Gagné’s paper (2011) is excellent because it addresses one of the main problems of educators, parents, and experts who are concerned about the underrepresentation of minority students in gifted education.

As noted by Frasier (1997), there is no logical reason not to expect the number of minority students to be proportional to their representation in the general population. Nevertheless, the discrepancy between their participation in programs for the highly gifted and that of the majority students continues. Ford (1998) found that, in the last three decades, African American, Native American, and Hispanic students have been consistently under-represented in programs for the highly gifted, whereas White and Asian Americans have been consistently overrepresented. The underrepresentation of minority students in gifted education has been well documented (Daniels, 1998; Ford & Harris, 1994; Frasier, 1997; Morris, 2002).

Many solutions and recommendations have been offered to relieve the severe consequences of this problem (Gallagher & Coleman, 1992; Gardner, 1993; Pérez & Beltran, 2008; Renzulli, 1988; Sternberg, 1988), but few have been effective and operative.

One of the successes of Gagné’s model is the distinction between students’ giftedness or potential to achieve success and their talent or manifestations of high abilities systematically transformed over a long developmental process. Most authors consider them to be synonymous. But, due to this distinction, Gagné makes it possible for some pupils with an extremely high academic performance to be identified as talented and be nominated for participation in special programs for the highly gifted, although they do not achieve the maximum score in intelligence tests.

On the other hand, according to the DMGT model, talent is not a natural ability but rather the result of the progressive transformation of natural abilities with the aid of personal and environmental influences. Thus, the DMGT model makes it easy to understand the predictive power of existent talent, whether it is emerging or fully developed, in relation to future talent. And this has consequences when a student is nominated to educational programs for the highly gifted.

At this moment, in Europe, this model is especially interesting due to the concept of developed abilities, understood as competencies (knowledge and skills), because competencies transcend the notion of simple theoretical knowledge as the core of the curriculum.

Minority students are not considered to fit well in the process of evaluation because cultural indicators of giftedness are not a central part of the one-dimensional view of giftedness that prevails in our culture (Ford & Harris, 1990; Zappia, 1989). The DMGT model solves the problem because it has broken down the one-dimensional view by including a series of factors that enrich this definition and by integrating the minority students.

It is really interesting that Gagné has emphasized multiple levels of giftedness: lightly, moderately, highly, exceptionally, and extremely gifted. This facilitates the task of educational intervention, especially in the case of the extremely gifted because their needs are very different from those of the average students.

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Although some elements of the model may cause semantic or interpretative problems, we believe that, in general, it is a practical instrument to solve many problems of identification, and more so in the case of minority students.

To sum up, we emphasize as positive elements, these four: the distinction between giftedness and talent, the influence of personal and contextual catalysts, the new concept of academic talent development, and the system of identifying different levels of giftedness.

References


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Jesús A. Beltrán has been Professor at the Complutense University of Madrid (Spain), since 1980. He has written over 150 scientific papers and 45 books in the area of Educational Psychology. He is on the editorial Board of a number of national journals as well as the President of the Spanish Educational Psychology Association.
Few have the ability to deliver so much relevant substance in such a clear and compelling way as François Gagné! His seminal article “Academic talent development and the equity issue in gifted education” (2011) is no doubt one that will be discussed, cited, and hopefully acted upon in years to come. Needless to say, whenever something novel and important is published in the world of science it will also be the focus of considerable criticism for a variety of reasons. I am certain this will be the case also with this article. That said, I find that I have myself, in fact, very little to be critical about in regard to what Gagné so elegantly has written. I agree fully with the arguments presented and the conclusions made as well as the general analysis of the state of affairs in Gifted Education as they pertain to North America.

I initially reacted with some suspicion at using the US school systems as the basis of analysis and conclusions. There are cultural and political issues at stake in every national school system which make cross-cultural comparisons between almost any nation’s educational system difficult at best. Reading on however it soon became clear that Gagné uses the US school system mostly as an example, which certainly has bearing on school systems worldwide, but only for as long as other school systems have similar philosophical foundations and a related structure. The US school system is by and large heavily influenced by behaviorist notions which go well with measuring achievement every step of the way and psychometrically evaluating abilities for a variety of purposes; one of which is of course to identify gifted students for gifted programs. It is important, I think, to observe that this foundation is not internationally embraced. It does no longer exist in for example Scandinavia, which is currently dominated by a social constructivist understanding of learning and development. There is some development towards the same paradigmatic shift away from behaviorism and psychometric applications towards social constructivism also in South Africa, Australia, Hong Kong as well as in the UK (e.g. Donald, Lazarus, & Lolwana, 2002). A school system based on social constructivist notions will have difficulty in relating to the American example that Gagné bases the article on. It will simply not translate.

For one thing the notion of competitiveness between individuals which so saturates the North American culture (e.g. Walker, 1986) and is at the centre also of Gagné’s understanding of giftedness it seems, is much less pronounced in a social constructivist school system where group learning and co-operative efforts are more of a concern than is individual effort. This clashes with the understanding of Academic Talent Development (ATD), which is Gagné’s preferred term, as an individual pursuit towards excellence as based on meritocracy. The gist of the article, however, concerns the political notion of equity and how this relates to giftedness. I agree fully that Gagné’s suggestion to operationalize the DMGT Model as suggested would render the general and international equity debate, known by different labels in different countries, quite meaningless. An entirely merit-based and selective system by which to cater to high-achievers irrespective of their field of excellence and of what demographic group they represent would deflate the problem and create a much-needed change of perspective. But, in regard to what I just pointed out concerning different school systems being based on different values, another problem would arise, namely that of how to relate to elitism. Elitism as something negative is invariably a culture-related issue with sociobiological underpinnings (Persson, 2009), since elitism presents no problem when relating to sports...
and arts. But elitism in academic fields often raises protests as being “unfair” at the expense of others who are normal achievers or more often low achievers. It is my observation that this is a problem particularly to social constructivist school systems (Palincsar, 1998; Watson, 2001), which often also run on the basis of more or less socialist ideologies.

So, Gagné most certainly addresses problems which are of the utmost concern to the US school systems and others being more or less like it. He also presents an elegant solution to eliminate the equity problem, which should be taken seriously by US policy makers. However, for a school system based on other ideals and structured according to values different than those of the North American school systems, Gagné’s model and its suggested application directly confront the near-sacred political principles of an inclusive school system embraced by most of Europe (Mitchell, 1995); especially so if the school system has also adopted a social constructivist basis. Closest to an agreeable and fair solution by which to include high-achievers and cater to their needs in a progressive and meaningful way as an integrated part of the school system is in my understanding currently the school system in Wales. It generously counts 20% of its students as in need of more educational stimulation than regular students. The identification of students eligible for such provision does also not necessarily follow psychometric criteria. They are complimentary rather than primary (cf. Welsh Assembly Government, 2008).

While I would wish that Gagné’s vision of Academic Talent Development became a reality, simply because it makes sense on so many levels, I do also see a current political climate which would not be likely to take meritocracy as described by Gagné to heart when it comes to compulsory education no matter what category of student. Trying to introduce ATD in Europe would at least in some countries very likely be a case for political will over scientific sense and empirical fact. It would not be the first time in history that the scientific community contradicts the political will. However, that is not to say that some aspects of Gagné’s vision cannot transcend political ideology and be made to function at some level in different political climates. This, however, will demand further research and effort.

References

The Author
Roland S. Persson, PhD, is Professor of Educational Psychology. His research focuses widely on giftedness and talent but has an emphasis on social context and the gifted individual in society. Current aspects within this frame are equity issues (egalitarianism), gender, music behaviour, gifted education and social perception. Former editor-in-chief of High Ability Studies, member of World Council of Gifted and Talented Children and life-time honorary member of the European Council for High Ability.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

The Environmental Impact

Marold Reutlinger\textsuperscript{1*}, Kevin Till\textsuperscript{2}

The equity issue in Gifted Education is rarely considered in combination with talent development and giftedness, although it's known that in school education diversity exists between social groups. The PISA study (PISA-Konsortium Deutschland, 2004) shows that social background has a great impact on school achievement. Comparable results were found in the 16th Shell Youth Study in Germany (Leven, L., Quenzel, G. & Hurrelmann, K., 2010). For example, the level at which a father graduated from school affects his child's school achievement. This leads us to the conclusion that people's environment may explain the differences between ethnic and social groups, so that the different participation rates of the ethnic groups, as pointed out in the target article (Gagné, 2011), can be better explained with a stronger orientation to environmental influences. Therefore the DMGT model doesn't include strongly enough the aspect of the environment as catalyst. Catalysts in chemistry speed or slow a reaction (i.e., positive or negative catalyst), allow a lower rate-limiting free energy of activation, are selective (each catalyst allows just one reaction) and don't change during the reaction (catalysts are normally not consumed by the reaction itself). We think the influence of the environment on an individual is much more complex. The subgroups Milieu, Individual and Provision in the DMGT Model 2.0 (Gagné, 2009) are basic, but the possibility of the individual alone changing the environmental settings should be included.

The influence of the environment on the development process can be found in different categories. Training facilities (e.g. a swimming pool) for a special kind of sport (e.g. swimming) assist in developing excellence in this sport. But if a person gives a good performance, he/she probably will be invited to join a better team or a better training group in which the training environment could be totally different to the former facility. If the infrastructure for talent development in a domain doesn't exist (e.g. no swimming pool), there is no possibility to reach a high level in this domain. For describing or predicting talent development a structured environment is therefore necessary. This structure must contain different facets like learning possibilities, the infrastructure for improving skills, competing influences and how the talent development is sanctioned. Especially the way a talent is sanctioned, positively or negatively, is changeable for an individual and is changing all the time from situation to situation. Even the same situation can have a different influence.

One possible intervention for decreasing the differences in participation-rates by ethnic and social groups could be found in the way that talent development is sanctioned. Also the interaction between environment and the intrapersonal aspect must be considered. We still think it is really important not to lose the viewpoint on socio-economically and ethnically disadvantaged students who are underrepresented in gifted education.

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References


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Kevin Till (born 1982) is currently a PhD student within the Carnegie Faculty of Sport & Education at Leeds Metropolitan University (UK). Kevin's research interests focus upon talent identification, selection and development within UK junior Rugby League. Throughout his studies Kevin has worked with the UK Rugby League's national governing body the Rugby Football League (RFL). Alongside his studies Kevin also works as head of strength and conditioning for Castleford Tigers RLFC.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Gifted-Program Provision Is at Least as Serious a Challenge as Identification

Bruce M. Shore*

The key problem identified by Gagné’s paper (2011) is “on the mark”: Identification of gifted students is indeed subject to complaints about equity, and a substantial part of the vulnerability to such accusations may well lie with the reliance on measures of potential ability. Using a reasonably rigorous conceptual model of giftedness and gifted education, such as Gagné’s DMGT might mitigate some of this criticism, but perhaps not only for the reasons Gagné proposes. This model and some of the others developed in the field over the last few decades (see Maker, 1982; Renzulli, 1986; Robinson, Shore, & Enerson, 2006; Sternberg & Davidson, 2005) help by giving greater precision to the selection criteria, and thereby make the process more transparent. I agree that “observable performance” is an important part of this transparency. If a program is for students who are successful at mathematics, music, or football, then selecting students based on audition or the equivalent certainly makes sense... to a degree.

Two problems still remain. Gagné’s argument well recognizes the first difficulty, namely, that selection based on a talent already well developed, even partially, only addresses part of the issue of talent development. It recognizes how to develop a talent already emerging. However, such selection for differentiated gifted programming does not adequately address the question of how to nurture these talents before they are clearly emergent. The second challenge is that the focus remains still on selecting students for an educational provision that may be widely regarded as superior to the usual offering, even if the new provision is weakly defined and pedagogically questionable. Some of the accusation about inequity may be as much about the perceived value of the new provision, as about the criteria for identification of the students destined to receive this provision. If the identification process is flawed due to inadequate clarity of the concept of talent or giftedness (a question directly addressed by Gagné’s model), and the resulting benefit is commonly unclearly defined in curricular and instructional terms but labeled “the gifted program” or otherwise embellished, then the accusation of inequity could be doubly attracted. Gagné’s argument is open to this dual dilemma in the sense that it recognizes that there is something important lacking in most current K-12 gifted programs. But what is lacking?

I therefore am not convinced that “Observable performance creates an equitable comparison basis, thus effectively silencing inequity accusers”. However, it could help. Both the process of identification and the ultimate program benefit need to be addressed. My emphasis differs from Gagné’s in that I think much more attention needs to be on the provision of suitable programs rather than on identification, that far too many priority resources are devoted to identification versus provision, and that part of the solution involves moving the curricular and pedagogical models in play from the 19th century at least to the 20th if not completely to the 21st. Unless the learning experience is reformed, identification will continue to be burdened by accusations, justified or not, of unfairness.

The major thrust of instructional innovation in recent decades is for an inquiry-based approach (e.g., Aulls & Shore, 2008; Bruner, 1960; European Commission, 2007; National Research Council, 1996; Shore, Aulls, & Delcourt, 2008), for all students, not only the gifted.

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However, inquiry-based instruction, explicitly or otherwise, has also been at the heart of every major gifted curricular model from Renzulli’s Triad to the Purdue Models, and in other curricular innovations that have been widely co-opted in gifted education, for example, the International Baccalaureate. Inquiry approaches in which (for example) students’ interests and curiosity guide at least parts of the curriculum, learners and teachers expand their roles in terms of setting curricular goals and evaluating progress toward these goals, creating meaning is a shared activity among teachers and learners, and students learn to create knowledge as well as absorb it, are suitable for all learners. Failing to provide such opportunities for gifted learners is a serious disservice. Within such a didactic and pedagogical framework, differentiation does not take the form of a better or more prestigious program for one group of students who “pass” some criterion and something perceived as less valuable for others. Rather the differentiation takes the form of differentiated goals – by individual or group – within an equally valued curricular context. Inquiry-based curriculum also offers answers to the challenge of how one takes the first steps in developing talent when the talent is not yet manifested to an observable degree: One begins with the learner’s curiosity and interests and questions. Furthermore, if the learner, for whatever reason, has not expressed such interests, then the primary instructional task is to create experiences that promote curiosity, interest, and questions. Observable performance can then have early expression in the form of curiosity or interest.

From this perspective, the challenge is not to merely improve the model but to change it. Accusations of inequity in identification and provision will be harder if our schools take responsibility not for filtering but for creating learning situations that encourage curiosity so that students do not fall into a priori categories of those with observable accomplishments and those without, and for providing a valuable instructional environment for all students, even if the instructional goals and outcomes will be different. Defensible educational provision needs to trump identification.

References


Shore, B. M. (2009). Giftedness is not what it used to be, school is not what it used to be, their future, and why psychologists in education should care. Canadian Journal of School Psychology, 20(10), 1–19.


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Following 39 years on faculty, in 2010 Bruce M. Shore became Professor Emeritus of Educational Psychology at McGill University in Montreal, Quebec, Canada. After two years as a secondary school mathematics teacher, he joined the Department of Educational and Counselling Psychology, then was Chair for nine years, President of the McGill Association of University Teachers, and McGill’s Dean of Students for five years. For 21 years he was also in what is now the Teaching and Learning Services. He is a licensed teacher and psychologist in Quebec. His research addresses exceptionally able students' cognitive and social thinking, the special qualities of inquiry-driven teaching and learning as an optimal learning environment, and outcomes of inquiry-based instruction; he is Associate Director (McGill) of the multicampus Centre for the Study of Learning and Performance. He was awarded the 1995 National Association for Gifted Children (USA) Distinguished Scholar Award, and in 2003 was listed among the “53 most influential people in gifted education”. He received the 2009 Faculty of Education Distinguished Teaching Award, the McGill University David Thomson Award for Excellence in Graduate Supervision and Teaching, and the Principal’s Prize for Excellence in Teaching. In 2010 he was elected as a Fellow of the American Educational Research Association.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Priority to Early Identification: Better Prevention than Remediation

Jean-Charles Terrassier *

Francoys Gagné (2011) has developed a very useful approach with his ATD model to help pupils coming from any socio-cultural or ethnic background to express their full potential. With the same purpose, I created in 1971 the French National Association for Gifted Children that helped the French Ministry of Education to recognize the existence and the needs of what he prefers to call “intellectually precocious pupils”.

The proposals made by Francoys Gagné are mainly focused on the needs of the “talentees”, i.e. on children presenting evident qualities of cleverness, interest in knowledge, persistence, strong school motivation and having a positive environment at school and home. Evidently these children need special programs and curriculum, accelerated and enriched, and adapted to their appetite.

My main concern is: At what age should they be identified as talentees? In my opinion and according to my long experience, as early as possible. In kindergarten and at the beginning of elementary school, many gifted children whose potential has not been assessed by intelligence tests show a big interest in learning. However, if unidentified as gifted, their teachers will expect from them a “normal” development and will offer them only the basic school program. Some children will react, showing their disappointment by noisy attitudes or rejection of school work. I think that it is the proper attitude to give them a chance and the opportunity to be identified at that stage. Unfortunately, many will resign themselves to conforming to the lower level of demands. Not only the teacher and the program exert severe pressure towards “normalization”, but also other pupils, who expect from them behavior conforming to their own, under penalty of being rejected and condemned to a ghetto of solitude. Even parents, mainly those from a lower-quality cultural background, unaware of the potential of their child, will incite him or her to conform to the lower demands. The result of all these pressures toward the norm is what I call the “negative Pygmalion effect” that will encourage the gifted child to renounce on being himself for many years in order to be accepted by the others and so losing the opportunity to be identified as a talentee. The impact of this negative Pygmalion effect is stronger than that of the positive Pygmalion effect because not only does the teacher exert pressure toward the norm, but also the program, the peers and even the parents. Very frequently I have examined gifted children aged 10 to 15 who were very bright at the beginning of elementary school and who, not identified as gifted during that time, have now quite lost their motivation and interest for school and knowledge. This damage has not only negative consequences on school results, but more worryingly, worsen the development of their personality. An intelligence frustrated for years leads to a deteriorated self-image and depressive feelings.

Therefore, as Gagné, I do recommend early identification of talentees. But I want to draw people’s attention to different school attitudes and performances between boys and girls. According to my experience and various available statistics, boys are more fragile at school when facing a curriculum that does not answer their potential. By the end of secondary school, many more boys than girls are eliminated or in difficulties. I estimate that, statistically, gifted boys need about 10 more IQ points than girls to obtain school marks and results on examinations at same level until the end of secondary school.

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Consequently, early identification of talentees appears to me particularly urgent for boys before they lose their qualities as talentees.

Research about relations between IQ and school results show moderate correlations of about .40 to .50 (Grégoire, 2009). These correlations would certainly be more substantial if gifted children were offered a curriculum adapted to their potential as Gagné recommends.

In France, the Ministry of Education now is developing boarding schools for pupils in their last years of secondary school as talentees of low-quality socio-cultural background. I call these students the “survivors” because most gifted pupils of such origins are already lost for university study because of an inadequate offer from their schools during the previous years.

So it is clear that to take charge of such talentees before they renounce on their potential is not an elitist approach, but will be particularly helpful for children from low-quality socio-cultural backgrounds.

References


The Author

J. C. Terrassier is a clinical psychologist and specialist of gifted children (DESS/MA from Paris-Sorbonne University). In 1971 he founded the French National Association for Intellectually Precocious Children which he presided over for 24 years. He is the creator of the concept of “internal and social dyssynchrony”, of the “negative Pygmalion effect” and of the “compensated IQ”, all concerning gifted children and the way to help them to fulfill their potential. At the request of the French ministry of Education he authored the project for the first special classes for gifted children in 1987. Furthermore he is the author of two books and of many chapters in books and journals of psychology, psychiatry and pediatrics.
Equality and Equity in Educational Systems: A Universal Problem

Javier Tourón *

In his shrewd article on ATD and equity in the education of gifted pupils Gagné (2011) sets before us a problem that has devastating proportions and consequences for education systems around the world. I wish to concentrate my analysis on this aspect of his article, to conclude with a final comment on the implementation of the talent development model precisely in relationship with equity.

The thesis upheld by Professor Gagné is that the “equity issue is not specific to gifted programs in the USA” (p. 3) and that one cannot consider “the equity issue a phenomenon almost endemic or circumscribed to gifted education” which I believe to be completely true. But the fact that the lack of equity is present in other fields does not make it any less serious that phenomena of this type occur in our sphere. It does not seem to me reasonable, however, that the author affirms that the lack of representation of specific groups, especially ethnic groups, in other fields of human activity or sports, does not lead anybody to accuse them of lack of equity, and from this it is deduced – if I have understood correctly – that the lack of equity in dealing with gifted students has little justification.

My thesis is that the problem of equity is universal and seriously affects, above all, people who are most disfavoured economically, culturally and socially. And furthermore, that the pretended solution of favouring equality which is applied in many education systems only leads to greater inequity.

How is equity understood in the education system? The example below clearly illustrates the problem. The PISA 2006 results from the Spanish Institute of Evaluation (Instituto de Evaluación, 2006) points out the following:

A measure of dispersion is offered by the difference in points between the pupils situated in the percentile (95) and those situated in the percentile (5). If this criterion is used (…), it can be observed that Spain (295) has a low dispersion, fourteen points above that of Finland (281) and considerably lower than that of the OECD Average (311) and that of the OECD Total (339). This result demonstrates that the Spanish education system is comparatively one of those that offers greater equity to its pupils. (p. 44)

Nothing could be more erroneous. I agree with Gaviria when he points out in this respect that:

With regard to the term “equity” used to refer to standard deviation, we can say that not only is it a linguistically inappropriate use of the term, but that moreover it conveys an inadequate ideological load for the expression of the results. Whilst “standard deviation” is a morally neutral technical term, “equity” is a moral condition. The “normal” interpretation, according to this, would be that a smaller standard deviation of results is associated with greater equity, and, contrarily, a greater dispersion of the data would indicate less equity. Naturally, this denotes that the first situation is fairer than the second, which implies in turn that the correct political action should lead to an approach to the second situation and a distancing from the first (…).

Equality understood as homogeneity of results cannot become an objective of educational policy. Homogeneity in itself is not desirable, unless it is accompanied by very high mean results. That should be an objective of political action, to achieve the maximum performance of each and every one of the pupils. (Gaviria, 2003, p. 57–58)

Understood as such, it can clearly be appreciated that equity has little relationship with equality, especially of results, as I will point out below.

It was not in vain that Aristotle (The Politics, 1280a) said ”Justice is thought to be, and is,
equality – not however, for all, but only for equals. And inequality is thought to be, and is, justice; neither is this for all, but only for unequals” (Aristotle, 1991, p. 63). Expressed in other terms, it is not fair to treat unequals equally, nor to treat equals unequally. Furthermore, as Terceiro (1996) points out, with undeniable relevance for the argument we are maintaining:

John Stuart Mill distinguished, more than one hundred years ago, between two types of equality: ex ante and ex post. For Mill ex ante equality coincides with the idea of equality of opportunities: everybody should begin in the same conditions. Ex post equality is equivalent to equality of results: everybody should finish in the same conditions. Mill said that to insist upon ex post equality would represent the end of economic and social development.

This obviously means that, if we speak of equality in relationship with schools, it must be in access, but never in results, precisely because not all pupils have the same ability and, therefore, their results can never be the same, but different.

Educational systems, and not only programmes for the most gifted (these also), should guarantee ex ante equality or equality of opportunities, which would mean allowing access to an adequate education for every pupil. Adequate with regards to their personal conditions, their abilities and talents.

But to seek equality of results is to snatch every opportunity from those most able to progress in accordance with their personal conditions, which is typical of an egalitarian school that groups the pupils according to their age and not their ability.

“The good school, as I have suggested, does not diminish individual differences; it increases them. It raises the mean and increases the variance” (Eisner, 1999, p. 660).

It is necessary to distance schools from ideological trends that bear little relationship with the genuine sense of education understood as the fostering of the full intellectual and moral development of individuals. And, of course, it is necessary to dissolve the claimed opposition between excellence and equity (see on this the seminal paper from Benbow and Stanley, 1996).

We need to reclaim from the “old pedagogy” the differential treatment of pupils, making our schools more adaptive and concentrating more on the abilities of the scholars than on their age, avoiding offering the same curriculum at the same time to all. It is necessary for schools to concentrate on the individualisation of teaching and, therefore, of learning, promoting excellence, which in no way opposes equity; on the contrary, equity demands its promotion.

This amounts to facilitating the necessary educational resources that allow each pupil to go as far, as fast, as extensively and in such depth as his or her ability and competence allow. This is understanding the principle of equality of opportunities in its correct meaning. A school – and an education system – that do not tend to be as adaptive as possible cannot guarantee this striving towards excellence (cf. Tourón, 2010).

It is necessary to provide to all children good opportunities to learn and fully develop their human potential. This is coherent with the true meaning of education, which entails being sensitive to individual differences and acting accordingly. Equality should be understood as equal access to an appropriate education. Thus, not establishing or eliminating valid programmes for students with an exceptional ability, or a specific talent in any field, should be considered just as erroneous as eliminating programmes for students with learning difficulties. It is necessary for society to be concerned about all individuals and groups in order to thus respond to their diversity and, therefore, to the wealth that this conveys.

In view of that, it is possible to conclude that the problem of equity is not only present in access to programmes for gifted children, but that it affects the education system as a whole and, therefore, becomes a universal problem, with greater consequences for those who find themselves deprived of an adequate education: whether this is due to a family, cultural, or economic deficit, their ethnic group or any other cause that implies a lack of equity.
On the other hand, and to end these reflections, I understand that the considerations made by Professor Gagné regarding the implementation of his Talent Development Model are perfectly valid and they should be taken into account, not only in the development of programmes for gifted children, but to achieve a more adaptive school that reaches all pupils. It is time to change from the education of the gifted to a gifted education for all.

References


The Author

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Inequity in Opportunity to Learn: A Talent Development Reality

Joyce VanTassel-Baska*

Gagné (2011) argues two major points in his article. He avers first that the inequity issue in gifted education in the United States, identified as the underrepresentation of African Americans and Hispanics, is not a relevant one because these groups are underrepresented in other areas, and no one complains. His examples include college graduation rates, the university admissions policy in California, selection to doctoral programs in music, and sport where African Americans outperform other groups, demonstrating "reverse inequity" in talent distribution. He also provides a statistical argument to explain the artifact of heightened disproportionality at the extreme ends of the ability continuum, which he contends exacerbates the perception of the problem.

His second argument is the need to adopt a talent development approach to gifted programming which would make the selection paradigm purer and the resulting curriculum more appropriate for the learners selected. Under this argument, performance alone would be the criterion used for selection. He argues for curriculum compacting as the preferred approach to use in schools to achieve acceleration and excludes Advanced Placement (AP) and other forms of acceleration on the grounds that they are not school-based programs or available on a reasonable continuum.

In this response, I will first challenge the two major points Gagné makes in his argument: (1) that disproportionality should be and indeed is tolerated under the guise of meritocracy, and (2) that the principles of talent development are transferable to school practice in the manner he describes.

Gagné’s assertion that inequity in the distribution of minority students (except Asians) in gifted programs is a reality to be seen as tolerable as long as no one complains about it, lacks credence as inequitable educational practice in a world that values diversity. If gifted programs are perceived (true or not) as an important gateway to college admission at a selective school or as an advantage to upper level classes in high school, or as an edge in academic competitions for scholarships, then we have to be concerned about some students not having access to those opportunities through no fault of their own. While we know that some genetic advantages come with higher income and educational status of parents, we also know that the lack of stimulating environments of home and school coupled with lack of role models and educational interventions at critical stages of life can defer dreams out of existence. There is no way that performance judgments will create fairness for students who have no access to show talent in a field in the first place, due to lack of exposure and development in that field.

Gagné would argue that we should use our enlightened view of rigorous selection paradigms, based on predictive validity, and provide optimal match programs and services in an articulated manner to those whose performance merits it, reserving gifted education for those who can demonstrate their gifts on the timetable we have designated. In my view, we should also be concerned about finding and serving students from underrepresented groups who, given reasonable access and opportunity, may surprise us in what they can accomplish. Schools should try to make up for the inequities of birth, of poverty, and of educational disadvantage to the extent that they can, through providing

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special opportunities matched to need and promise. Even though schools are not responsible for such inequities, they are responsible for providing a quality education that elevates learning. Moreover, a field like gifted education must bend over backwards to search for potential, not just performance in a number of domains. To do less would dishonor the many minorities and children of poverty who have succeeded in spite of the odds. If that requires us to adopt other paradigms for selection, the use of multiple measures, the ongoing identification process that is best practice, then so be it. The goal of greater (not necessarily equal) representation of these groups in gifted programs is too important to our future, and theirs, to ignore.

Contrary to Gagné’s claim, disparity in minority-group college graduation rates do matter in the educational mosaic of K-16 education in the United States. All of K-12 education cares as seen in reform efforts to include more students in high-powered learning situations and to elevate both the standards and assessments needed to point the way to success at the next rung of education. This problem was the main impetus for No Child Left Behind legislation that has held schools accountable for students’ not making a threshold level of learning each year as judged by a high-stakes test. Universities care too. They have pumped millions of dollars into remedial programs for students from various groups in order to elevate their potential for success. They have created summer bridge programs to prepare these students for the rigors of coursework. They also have created campus support groups and other social networking strategies to aid in retention. Not only do educators care but also politicians, foundations, and other policy makers who have funded these efforts.

Gagné’s portrait of the field and its position in American education also seems skewed. The field is small, fragmented, and porous (see Ambrose, VanTassel-Baska, Coleman, & Cross, 2010), with little or no standing in general education circles. Thus we follow trends and emulate issues, not the other way around. Our lack of coherent responses to issues of identification and programming erodes our credibility. Because of our philosophical stances on acceleration and grouping, we have been perceived as working counter to the reform movement. Where programs have been successful, they have gone beyond the standards and prescribed assessments to provide accelerated and enriched curriculum for the gifted (see VanTassel-Baska, Bass, Ries, Poland, & Avery, 1998; VanTassel-Baska, Zuo, Avery, & Little, 2002; VanTassel-Baska & Brown, 2007; Feng, VanTassel-Baska, Quek, O’Neill, & Bai, 2005; Little, Feng, VanTassel-Baska, Rogers, & Avery, 2007), even using it with all students in our poorest schools (see VanTassel-Baska, Bracken, Feng, & Brown, 2009; Bland, VanTassel-Baska, Bracken, Feng, Stambaugh, & Kim, in press). This tactic has met with success in respect to enhanced concept development, critical thinking and content learning for all groups, yet Gagné fails to acknowledge such successes as indicative of talent development at work. Rather he would see it as violating the idea that curriculum for the gifted should be accessible only to a few. I would argue instead that curriculum should be designed for the gifted and used with as many students as might benefit.

Gagné compounds the omission of what works by also inaccurately portraying how acceleration is practiced in the United States. The Nation Deceived report was important for many reasons, but among them was its insistence on utilizing multiple forms of acceleration in the life of any gifted child. Successful programs of acceleration combine tutoring with content acceleration with summer program fast-paced classes with mentoring and early graduation. Compacting, where and when it is used, serves only as a stopgap measure in classrooms where acceleration practices have not been accepted school-wide. Its intent is to pre-assess and then move students to areas of independent investigation, not to develop talent within the tested domain. The statement that AP should be excluded because it is not an in-school program is erroneous. In fact, more than half of the states in this country mandate that schools offer AP courses in their high-school curriculum, and it is the most used gifted program at the high-school level available to students. For many gifted students, the last two years of high school are a staple of multiple AP classes, all provided within the context of their local high school.
Gagné also paints a picture of gifted education that was in place 20+ years ago in the U.S. by citing the Richardson Report (1987) for his information. Every other year, the National Association for Gifted Children (NAGC) publishes a “State of the States” report for use by researchers and practitioners that includes some key statistics on gifted education in the United States. It is completed by the person in each of the 50 state departments who has responsibility for gifted education. While I am sure it is subject to some inaccuracies, it is an up-to-date account of the status of gifted education. An analysis of the last two reports from 2007 and 2009 challenge Gagné’s broad claims and characterizations of current gifted programs and services (see NAGC, 2010).

Finally, Gagné’s supposition that talent development can be done in schools is also questionable on the face of it. Schools are not set up to provide the level of rigor, continuous practice, or singularity of purpose seen in the development of high-level talent in any number of fields. Rather, schools try to provide a common core curriculum to all, in the hopes that they will reach a reasonable standard of competency in it by the time they graduate. Our best hope as gifted educators in this scenario is to provide the tools and resources to schools to adapt that core curriculum for our best learners by speeding it up and enriching it, by paying attention to individual differences in small ways that can have large effects (acceleration to the next grade-level cluster or credit for summer work), and by collaborating with outside agencies to offer other options.

Gifted education has two agendas. One is to provide the most rigorous opportunities for students who are performers in the Gagné sense, ready to move to ever higher levels of achievement within a domain. For these students, special programs and schools coupled with options at university, often with a tutor or mentor, are necessary to optimize their learning. For poor and minority children not already performing at high levels, however, the agenda must include appropriate ongoing attempts to find and nurture talent development among their top 10%. Any lesser effort would be inequitable indeed.

References


The Author

Joyce VanTassel-Baska is the Jody and Layton Smith Professor Emerita of Education and former Executive Director of the Center for Gifted Education at The College of William and Mary in Virginia where she developed a graduate program and a research and development center in gifted education. She also initiated and directed the Center for Talent Development at Northwestern University. Prior to her work in higher education, Dr. VanTassel-Baska served as the state director of gifted programs for Illinois, regional director of a gifted service center in the Chicago area, coordinator of gifted programs for the Toledo, Ohio public school system, and teacher of gifted high school students in English and Latin. She has worked as a consultant on gifted education in all 50 states and for key national groups, including the U.S. Department of Education, National Association of Secondary School Principals, and American Association of School Administrators. She has consulted internationally in Australia, New Zealand, Hungary, Jordan, Singapore, Korea, China, England, Germany, The Netherlands, and the United Arab Emirates. She is past president of The Association for the Gifted of the Council for Exceptional Children, and the Northwestern University Chapter of Phi Delta Kappa, and the National Association for Gifted Children. During her tenure as NAGC president she oversaw the adoption of new teacher standards for gifted education, and organized and chaired the National Leadership Conference on Promising and Low-Income Learners, with a major emphasis on early childhood interventions.


Dr. VanTassel-Baska has received numerous awards for her work, including the National Association for Gifted Children’s Early Leader Award in 1986, the State Council of Higher Education in Virginia Outstanding Faculty Award in 1993, the Phi Beta Kappa faculty award in 1995, the National Association for Gifted Children Distinguished Scholar Award in 1997, the President’s Award, World Council on Gifted and Talented Education in 2005, the Distinguished Service Award, CEC-TAG, in 2007 and was inducted as an American Educational Research Association (AERA) Fellow in 2010. She has received awards from five states – Ohio, Virginia, Colorado, South Carolina, and Illinois – for her contribution to the field of gifted education in those states. She was selected as a Fulbright Scholar to New Zealand in 2000 and a visiting scholar at Cambridge University in 1993. Her major research interests are the talent development process and effective curricular interventions with the gifted. She has served as principal investigator on 60 grants and contracts totaling over 15 million dollars, including eight from the United States Department of Education (USDOE). She holds B.A., M.A., M.Ed., and Ed.D. degrees from the University of Toledo where she also received a Distinguished Achievement Alumna Award in 2003.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Inclusion and Differentiation for Children with High Potential

Belle Wallace*

Francoys Gagné (2011) has written a well-researched and clearly argued case that “a meritocratic ideology does not address issues of etiology; it focuses on the here and now of achievement. A meritocracy gives priority to performance – as the criterion of access to, and progress in a ‘real’ talent development program” (p. 10). He then argues that “observable performance creates an equitable comparison basis, thus effectively silencing inequity accusers” (p. 10).

Whilst these statements in themselves have a reasoned logic, Gagné does not address the important issue of the need to create opportunities for all students to discover their potential talents and abilities. Various cultures and subcultures favour and support certain manifestations of talents and abilities, hence students manifesting those particular talents and abilities are fortunate. However, many educators across the United Kingdom support the establishment of “a curriculum of opportunity” so that on-going diagnostic assessment of potential can be made across the full range of human abilities – and this assessment must then be followed by appropriate provision (See Her Majesty’s Stationary Office, 2003).

I can certainly agree with Gagné’s embracing model of giftedness and talent (DMGT). One can argue that a natural giftedness exists, although the “nature versus nurture” debate still roars loudly. The early formative years of any child’s life are characterised by rapid brain development: how much of this growth is due to genetics and how much is due to environment is still a debatable issue. Also, for any gift to develop, the individual, undoubtedly, needs mastery of systematically developed competencies (knowledge and skills) in order for the potential to become performance (cf. Gagné, 2011, p. 11). It is now widely accepted that high level performance derives from a continuum of traits ranging through: aptitude vs. achievement; potential vs. performance; natural vs. systematically trained; or origin vs. outcome (cf. Gagné, 2011, p. 11). I would also emphasise here five essential and powerful high-level components that must be included in the continuum of essential traits – creativity, problem-solving capacity, risk-taking, positive self-concept, and determination. Also, it has been widely reported that most, if not all, developing talents are fostered by the support of, and mentoring by, at least one caring and experienced adult. Benjamin Bloom (1985) led the way with regard to the importance of mentoring with his ground-breaking study of 120 immensely talented individuals.

Hence, with my additional emphasis in the preceding paragraphs, I can accept Gagné’s technical definition that “Talent development (TD) is the systematic pursuit by talentees, over a significant period of time, of a structured program of activities aimed at a specific excellence goal” (p. 12). I can also accept the DMGT’s Talent Development Model: “(1) an enriched curriculum/training programme; (2) a clear and challenging excellence goal; (3) selective access criteria; (4) systematic and regular practice; (5) regular and objective assessment of progress; (6) personalised – accelerated of course – pacing” (Gagné, 2011, p. 12).

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So how and why do I disagree with some of the tenets in Gagné’s paper?

Firstly, as I have already expressed above, I am committed to developing a curriculum of opportunity for all learners. This curriculum would celebrate all the human abilities ranging from: social/humanitarian, emotional, spiritual, linguistic/symbolic, mathematical/symbolic, mechanical/technical, auditory/sonal, scientific/realistic, visual/spatial, movement/somatic (see Wallace, Maker, Cave, & Chandler, 2004). As children manifest “gifts and talents”, so schools and parents organise appropriate enrichment and extension activities, with mentorship and support.

Secondly, whilst some children do manifest early signs of precocious development within one or more talent area, they still need an all-round education, with the specific gift or talent being nurtured. But many children are late developers, some gifts and talents emerge during adolescence as the young person encounters new experiences and subjects of study. Hence identification and appropriate provision need to blend into a combined and on-going process, and there can be no specific age when all children can be said to have, or not have, particular gifts and talents.

The 1944 Education Act (UK) set up three types of secondary schools. After a group IQ test at 11+ years of age, children were separated into Grammar Schools for those who were apparently “more academic” (5 to 15 % of the age group); Technical Schools were deemed suitable for those pursuing a trade (5 to 10% of the age group); with the Secondary Modern Schools for the rest. There is not the space here to detail the history of this scheme, it is sufficient to say that this tripartite system rapidly declined in the 60s due to the obvious failure of the group tests to adequately assess the development of pupils’ abilities at 11+ years.

So, is there a way to integrate all children so that identification and provision for various gifts and talents can be ongoing?

In the years 2006–2007, together with a team of researchers, we gathered in-depth data from 12 “successful” schools across the UK (five large secondary schools and seven primary schools; see the full report Wallace, Leyden, Montgomery, Winstanley, Pomerantz, & Fitton, 2010.)

The schools are in a wide variety of social/economic areas, and have a mixture of multi-lingual and multi-ethnic pupils. They had been judged to be successfully transforming high potential into high performance by the Government Office for Standards in Education (OfSTED). All schools have the following characteristics in common:

- The schools practise the policy of Inclusion with Differentiated Learning for all pupils. This means that pupil assessment is ongoing and all learning tasks are negotiated with the learners with regard to relevance and challenge.
- All pupils have a personal mentor with whom they have regular meetings; parents also have open access to mentors and senior management.
- The pupil voice is strong with active school and class councils playing a major part in decision-making with regard to school policy, the curriculum, and out-of-hours activities.
- The out-of-hours activities are extensive; multi-lingual and multi-ethnic activities are rich in variety and content; and time is made available for special training and master classes. Liaison with universities and outside experts is strong.
- Continuous assessment for learning is a key feature in all schools so that unnecessary repetition is avoided; communication channels between the staff, pupils and parents are open and data are constantly updated.
- The essential feature of all the schools is flexibility, hands-on, dedicated leadership, and full cooperation with staff, pupils, parents and school governors.

It was, indeed, a privilege to see the schools in action, and to witness the vitality of both pupils and teachers.
References


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Belle Wallace is Director of TASC International (TASC: Thinking Actively in a Social Context). Initially Belle worked in an advisory capacity (Essex LEA UK) with the brief for the Education of Gifted and Talented Children across all phases; she was Co-Director of the Curriculum Development Unit (University of Natal, SA) with the double brief for developing Assessment Strategies and Curriculum Extension for very able, disadvantaged learners, and training Curriculum Planners; she designed and was senior author of a whole school series of 48 language and thinking skills texts to redress cognitive underdevelopment in pupils from 6 to 17+ years; she edited Worldwide Perspectives on Gifted Disadvantaged in 1993, and the second volume of Diversity in Gifted Education: International Perspectives on Global Issues was published in 2006; she now works as a consultant on problem-solving and thinking skills both nationally and internationally.
Belle has been a delegate to, and served on the Executive Committee of, The World Council for Gifted and Talented Children; been editor of Gifted Education International since 1981; and is immediate past President of NACE (National Association for Able Children in Education).
Her main interests are: the identification and nurturing of potential in all children, and the provision of extension activities for those pupils who demonstrate the need; the development of problem-solving and thinking skills across the curriculum within a framework of whole school development; and the development of multiple abilities.
Most recently, Belle has published a series of six Problem-Solving and Thinking Skills books extending topics taken from the National Curriculum Framework (UK), and she has been named Fellow of the Royal Society for the encouragement of Arts (UK) in recognition of her service to education.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Where Are the Underachievers in the DMTG’s Academic Talent Development?

Mimi Wellisch1* and Jac Brown1

Proper assessment of the gifted has been a major issue of concern to professionals for many years, highlighted in Gagné’s discussion (2011) on the inequality and under-representation of children from low socio-economic and certain ethnic backgrounds. There have always been inadequate procedures for assessing the gifted, and IQ and other achievement tests are now often used only as a last resort to provide evidence of intellectual giftedness (Callahan & Eichner, n.d.). To his credit, Gagné (1985) included underachievers within his model (DMTG), setting the model apart in comparison to other models of giftedness and talent, and defining underachievers as “gifted intellectually, but not talented academically” (p. 108).

Twenty five years on, however, Gagné seems to have reversed his position on underachievers in the target article. He still maintains that the gifted “trademarks” - presumably also found in underachievers - are “ease and speed in learning” (p. 14). However he now argues that “being bright is rarely sufficient to deserve the … gifted label; students must also show high academic performance” (p. 15). This statement seems to indicate that the inclusion of gifted underachievers in the DMTG was perhaps too difficult to adequately assess, and may now conveniently be dismissed. This is confirmed by the Academic Talent Development (ATD) model presented, which requires high achievement as the single criterion for eligibility. The real equity issue that arises from Gagné’s article, therefore, is not whether disadvantaged or ethnic populations are underrepresented in gifted programs, but rather Gagné’s promotion of the ATD for only high achievers. If adopted without an alternative pathway for underachievers, it would automatically exclude many gifted children with promise and potential, who have no current capacity to achieve, regardless of their socio-economic or ethnic background.

Gifted underachievers do not necessarily hail from low socio-economic or ethnic minorities, but are nevertheless disadvantaged by learning disabilities (Silverman, 2009), or socio-emotional problems which may be a result of “childhood stress and trauma” (Winner, 2000, p. 165). These socio-emotional problems, as well as a variety of learning disabilities, can create learning barriers that prevent academic high achievement in gifted children (Munro, 2002). For example, Parker, Summerfeldt, Hogan, and Majeski (2004) demonstrated the significant predictive value of socio-emotional competencies in both high and low academic performance. A recent study also found that children with separation anxiety disorder, social phobia, or generalized anxiety disorder had lower school functioning than others (Mychailyszyn, Mendez, & Kendall, 2010).

Adelman and Taylor (2000) argue for an enabling component in an educational model to target children with learning barriers, as “better achievement surely requires more than good instruction” (p. 16). This suggestion certainly seems relevant to gifted underachievers. Gagné, however, offers no pathway or model that would enable talent development for these children, despite evidence that emotion and cognition are intertwined in human mental function (Adolphs, Tranel, & Damasio, 2003; LeDoux, 1996; Phelps, 2006; Vygotsky, 1987). On the contrary, he proposes that access to talent development opportunities should now be limited to only those “candidates who

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demonstrate good chances of future success” (authors’ italics) by replacing previous tests and assessments with “past performance” as these have “significantly more predictive power than any measure of future potential” (p. 12). If this suggestion is adopted, and traditional assessments such as IQ tests are abandoned and new ways of assessing natural abilities are not developed, it will be even more difficult to identify and assist gifted underachievers. Together, these suggestions will further marginalise the very gifted children who require additional support.

Gagné reminds us not to forget the role of chance in a variety of areas that affect talented performance, including in relation to “a supportive family environment” (p. 18), which is relegated to the “luck of the draw”. It would be tempting to assign developmental problems and relationships with family members that affect talent achievement to chance. However, attachment (Bowlby, 1969) associated with social and emotional adjustment, can hardly be put down to mere chance, as it has been rigorously researched, shown to be highly predictable (Fonagy, Steele, & Steele, 1991), and scholars view it as life-shaping. Attachment is both an environmental factor and a developmental necessity that can shape lives and should therefore be seen as a pivotal aspect of the talent development process. As such, it should be considered in a talent development model, particularly in planning for alternative interventions to educational provision. Readers who require more information about the connection between attachment and giftedness are referred to Wellisch (2010).

In summary, Gagné has decided to ignore the problems of an appropriate assessment of the gifted, choosing instead to focus on the even more limited assessment criterion of performance. His ATD approach to the gifted shuts the door on any alternative path to talent development, and excludes many who may be gifted but have no current capacity to achieve.

References


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Setting the Questions – Enlarging the Problem

Sieglinde Weyringer1* and Jean-Luc Patry1

In his article Françoys Gagné (2011) is pointing out a phenomenon which has followed the research and the nurturing efforts of gifted education very covertly since its beginnings (Galton, 1869): The way gifted education has been promoted since then might have the potential to become an instrument for freezing traditional structures and hierarchies of a society and for promoting exclusion. Since Galton, primarily psychologists have dominated the investigations in this scientific domain. The impact of educational sciences on theoretical modelling in gifted education is still marginal. And now, this article reveals the huge relevance sociology has for this research.

In his argumentation Gagné concentrates on the participation of students from low SES strata and/or ethnic minorities in gifted programs in the USA. The focus is on the development of cognitive abilities. Although in Austria similar updated data are not available, personal experience in watching several areas of ability-grouping verify the existence of the addressed disproportion also in our country. Before we give some examples, it has to be mentioned that 18% of Austrian citizens have foreign roots (Statistik Austria, 2010). But if we look into classrooms of higher secondary schools or in talent-classes or at the clientele who ask for ability-testing, we do not find this percentage.

Gagné highlights several other cases of talent-related ethnic disproportion. In Austria, we do not find comparable examples in the addressed domains. But, similarity exists with the number of students having a migration background who graduate with a vocational training. The question is: are they less intelligent, or do they follow perspectives of life originating with their ethnic background and different from the dominant ones? The possibility of this explanation should not be discounted in a further discussion.

Gagné appraises this statistically confirmed fact as a serious deficit caused by school education in general as well as by unfair access rules to gifted programmes and by their concepts. The lack of detailed knowledge concerning these issues allows some comments in general. Three aspects – related to schools, identification and didactical approach – will be set out in three questions: (1) What merit can a school system, or a school education, gain with the development of superior talent or abilities? At first the answer is: of course very much. School as a system of education has to provide optimal possibilities for the next generation to become fully accepted members of the society. This is the social contract between the society and the school system as an institution of this society. All persons involved in school education put much effort into doing the best. But, if we analyze the question in depth, we become aware that talent development is confronted with several obstacles concerning interactions between teachers and learners, learning styles, assessment tools, norms of reference groups, and content of curriculum. For example, internationally renowned musicians always point out the influence one special teacher had or has on their development of excellence. This special teacher-student dyad is usually fundamental to such mastery. The same principle can be found in sports, as in competitive ice-dancing. Even in the academic fields we find examples of excellent achievements based on the personal relationship between a professor and his/her student. In such relationships, the standard curriculum as well as some standards of training may be set aside. A school system cannot provide the same flexible possibilities

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for development. These limitations of school as a system and institution with a general educational mandate should be mentioned explicitly. The second aspect (2) focusses on the identification process. Gagné mentions group IQ testing and school grades as the practice for identifying talents. There is no doubt of the quality criteria of the IQ tests. But, are these criteria also applicable to school grades? The question of IQ tests is more general: Is it fair and sufficient to base a diagnosis on one single test and on one single testing procedure? Does the development of exceptional talent always follow the normal distribution of scores? The experience and results of the Terman studies show that an orientation along the normal distribution is not always appropriate. If national school systems learn from recognized findings as they should, a reduction of the addressed disproportions can be assumed. Discussions should refer to this problem because it may contribute to resolving the issue.

The third aspect (3) concentrates on the didactical approaches in gifted school education. Talent development, and the equity issue in gifted as well as in general education is concerned here. Gagné derives six main constituent elements from his definition of talent development. In general, no arguments can be found against them. However, from an anthroposophical standpoint and the philosophy behind it arise such questions as: Must a talent be trained, or should a person get support to develop his/her own personality out of respect for free personal will? Who defines a clear and challenging excellence goal: the teacher, society, parents or the talented person? Is selection an ultimate precondition for access to talent development? Who defines what is systematic and regular in practice, objectivity in assessment, personalized pacing? Each of these questions deserves consideration and discussion in depth.

Gagné’s remark on the school system in Finland may in fact already show a path to the establishment of equity in a school system. Talent development there is individualized and integrated into the regular school education – no selective programmes are necessary to nurture students. Another of his remarks addresses didactical approaches centred on the individual person, for example Montessori pedagogy, self-organised learning, open teaching. These and similar approaches make the development of personality the main goal: The individual shall gain mastery in integrating his/her talents, gifts and high abilities – as well as his/her weaknesses, average skills and disabilities – into a reliable self-concept. The challenge to the individual is to develop ethical behaviour with respect to the heritage one has received, genetically as well as societally. By contrast, we think selective programmes are not supportive of social integration. The theory and practice of talent development has to be based on equity for all. But, this claim has to take into account that the term “all” means individuals who potentially differ in all aspects of life, yet share the same planet. So talent development should not concentrate on the best performance and functioning, but on the best development with respect to responsibility towards oneself, towards all the “others”, and towards nature. We think that considering these anthroposophical and ethical standpoints would greatly improve the discussion of Prof. Gagné’s theses.

References

The Authors

Sieglinde Weyringer is post-doc assistant at the department of education of the University of Salzburg/Austria. She is founder of ECHA-Austria, the Austrian association for teachers educating gifted students (1998), general secretary and treasurer (1998-2006), President (2006-2010) and vice president (since 2010). From 2004 to 2008 she was member of the Executive Committee of ECHA international and treasurer of this association.

Her research focus is on education of gifted students in regular schools as well as in programs additional to school education, on values education, on educational problems with citizenship education, especially on the educational conditions for the establishment and the nurture of European identity. She has published several articles concerning her research.

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His main research activities have focused on situation specificity of human actions, on methodological questions such as evaluation theory, field research, critical multiplism, on the relationship between theory and practice, on meta-theoretical questions of educational research, on questions of moral development and education, on professional responsibility, on constructivism in education, etc. He has conducted several research projects in these fields.
Commentary on F. Gagné: Academic Talent Development and the Equity Issue in Gifted Education

Academic Talent Development: For All or Only Some?

Denise Wood*

Prof. Gagné (2011) has written provocatively about matters of equitable opportunity in gifted education. He has challenged the way that educational institutions identify and select the students who will be provided with opportunity to develop their academic talent and questions why there is a clear imbalance in programs of academic talent development. Certainly the problem of representation across diverse groups is one we cannot ignore, and one that has raised questions in the past about selection and programming in school settings.

The field of gifted education is one that is diverse (Ambrose, VanTassel-Baska, Coleman, & Cross, 2010) on many levels, with a range of definitions, philosophies and approaches proposed. Such diversity potentially creates the very case Gagné argues: that in some fields of talent those who are found and nurtured represent different groups than those found in academic settings, and that evidence of capacity to perform is recognised as a powerful indicator of raw ability. This is not so clear in the identification process for programs of academic talent development, where the tools of identification do not always reflect the skills needed to achieve in academic fields. In sporting and arts fields, knowing how to best utilise one’s natural ability is key to getting what is needed to become highly accomplished. Being chosen relies on demonstrating skill, interest and willingness to participate. Neihart (2008) identifies specific skills for achieving academically that can be borrowed from the fields of sporting talent. The intrapersonal skills that support high focus, clear attention to details, and the volition to put in time and effort, are the skills that academically gifted students don’t necessarily have intuitively. What has happened in the field of academic talent, where, in reality, only certain students appear to have access to the skills that promote their identification?

An issue with Gagné’s article is the dilemma of the underachieving student in an academic setting. The suggestion of selection by performance may remove the opportunity for students with issues outside of their academic skills. The issue of cultural capital and access to achievement comes to mind. Ambrose (2003) explained how in terms of achievement and success there were many trajectories that climb steeply and then, reaching barriers around personal capacity for success and access, falter and begin to descend. For some children performing may not be easy in an educational setting as they may be so marginalised by the setting itself that they are incapable of demonstrating the level of ability required to be noticed. Chance plays a part here, as it would surely in the sporting field. Being noticed in the street playing skilfully is happenstance but may lead to unexpected chances. Those groups misrepresented in fields of academic talent tend to be those who sit on the margins of educational focus. Without the necessary skills of social connection, with home experience that is far removed from the middle class environment that educational institutions are situated in, there are any number of children who will not have experienced the early interventions that provide the necessary cultural learning that allows them to perform in school settings.

An issue then is that, even with evidence of capacity, the barriers may be insurmountable. Gagné’s DMGT initially indicated that there were intrapersonal skills that were catalytic to talent development. Nowhere did the original DMGT suggest that these were innate. In fact, the model, by listing the relevant intrapersonal characteristics, provided a framework

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for support in these areas. Part of the developmental process is surely providing students what they need – training and information about the skills necessary for academic success (Neihart, 2008). While I support Gagné's proposal to ensure equitable representation across all groups in programs of academic talent, similarly to programs for sporting and musical talent, the case of underachieving students remains. The way to overcome the marginalisation brought about by personal lack of efficacy, confidence and engagement is to be prepared to sometimes take on a student without strong evidence of performance and to offer skills and support in personal growth and development that later enable entry into academic talent programs. In my experience in classrooms, there remain students who don't do anything to bring themselves to attention, and work hard to make sure they don't show performance. With persistence and determination (and perhaps blind faith), however, it has been possible to support their personal growth until they too realise the freedom that comes with self-understanding and acceptance. I believe this to be a necessary aspect of any talent development program, whether academic, sporting or creative. Talent development programs must ensure that the whole person is supported in the development of talent. An effective program of academic talent development addresses not only the skills necessary to be eminent in a field, but also the whole person.

Gagné gives clear details of a framework for designing classroom, and indeed whole school, programs designed to nurture academic talent development. Just as the DMGT, when it first emerged in Australia in the 1980's, challenged the sometimes nebulous notions of giftedness and talent that existed, this article now challenges the sometimes fuzzy descriptions of what makes an effective gifted program.

Gagné suggests that the rigorous, prescriptive detail of sport talent development programs is missing from current programs for ATD. His six elements are clear, and frame an approach more definite than many existing programs. Keating (1980) argues that the downfall of many gifted programs is a lack of rigor, knowledge and organised curriculum. Ambrose et al. (2010) propose that, in the field, there is a lack of reliance on research in program design, and a tendency to work with “fad”-based programs popularised through text books and commercial programs. Gagné provides a defined framework with three essential elements.

Can something as prescriptive as Gagné’s suggested program ensure equitable access to talent development, across all groups of potential talentees? Is academic talent development responsive to the same processes as other fields of endeavour, i.e. can it find those who show some evidence of capacity and provide them with a prescriptive program that focuses on the academic skills?

Are we then prepared to speak aloud for the very real support of academic talent for gifted students, while not losing sight of those who may, beyond their control, not have the wherewithal to be noticed in the first place? Are we able to find ways to reconcile the differences between those who can be, and those who could be (if they overcame the marginalisation of being in a diverse group) academically talented?

Gagné’s article suggests he believes so.

References


The Author

Denise Wood has been involved in the field of gifted education since the late 1980’s, beginning her work in a rural area in NSW, Australia, in primary classrooms. She is now an academic working in teacher education, and passionate about ensuring classroom teachers entering the profession have knowledge and awareness of gifted children in classrooms. Denise also works at a community level leading the NSW Association for Gifted and Talented Children and in schools, working with practicing teachers. Her doctoral studies focus on gifted adolescent girls and their responses to the images in popular culture around gifted women.
Academic talent development is a very important topic that has aroused psychology researchers’ and educators’ interest for centuries. Prof. Gagné (2011) relates this topic to equality in gifted education and insists that the inequality in gifted education could lose its relevance if most gifted programs followed his Differentiated Model of Giftedness and Talent (DMGT). Just as Prof. Gagné mentions in his thesis, the identification of “real” academic talent is the vital step in gifted education, and DMGT helps to deal with it.

The Definition and Identification of Academic Talent in the DMGT

The DMGT provides a clear clue to understanding academic talent by comparing it with the concept of giftedness. In the model, giftedness means outstanding natural abilities in one or more domains, while talent means competencies systematically acquired, i.e. outstanding knowledge and skills in a particular occupational field or sub-field. Thus giftedness indicates hereditary character or genetic endowments, while talent shows the realization or the results of the natural qualities (see also Gagné, 2009). Then the DMGT presents the talent-development process in three sub-components: activities, investment, and progress. The developmental process corresponds essentially to the progressive transformation of gifts into talent, with two sets of catalysts: intrapersonal and environmental, which facilitate or hinder the process.

Based on this understanding of academic talent and its developmental progress, the DMGT provides the criterion for the identification of academic talent: past achievement, a performance-based standard. The reason for this is: “Past achievements prove that candidates or talentees possess not only the raw high potential or giftedness to face a high level challenge, but also the personal qualities, especially perseverance, that contribute significantly to success” (Gagné, 2011, p. 13). Implementing this criterion in the school setting can help educators find the “real” academic talent, and the concrete selection process includes three dimensional assessments: intellectual precocity, social-affective maturity and fine psychomotor development. “Performance-based” means that the existing talent is the best predictor of future performance or potential. And if the selected talentees are then offered a parallel, enriched pathway which could be available to all children with emerging talent, equity in gifted education will come true. Thus, Prof. Gagné has rationalized the performance-based criterion from the definition and the developmental process of academic talent.

Can the Performance-Based Criterion Guarantee Equity?

Prof. Gagné insists that the focus on performance as a criterion offers the best guarantee of equity and objectivity. In his opinion, disproportion in gifted-program participation (under- as well as over-representation) means inequity in mainly college-level educational attainment as well as the entrance of the University of California system, caused by two identification instruments – IQ scores on group-administered cognitive abilities tests and on standardized achievement tests. The most powerful proof Prof. Gagné puts forward is that the ethnic distribution of students is disproportionate. That is,
the percentage of Black and Hispanic freshmen in the university system and/or program participation is below their population ratio in the whole country, whereas the percentage of Asian students is much above their ratio in the state population. In fact, this disproportion is shaped by various aspects that Gagné had already proposed in his arguments:

(1) Genetic basis. “Check the NBA [National Basketball Association] statistics: not one white player has finished among the top scorers or rebounders in recent years …. [One has to go back] to the 1950s, to find the last time a white led baseball in steals”; “All of the thirty-two finalists in the last four Olympic men’s 100-meter races are of West African descent” (Entine, 2000, quoted by Gagné, 2011, p. 9). Also, the percentage of Olympic medals that Kenya has collected is much greater than their population percentage of the world. All these differences may to a large extent result from genetic basis. We can’t attribute them to inequality in the athletic contests.

(2) Tradition. In sports, Brazil has the tradition of soccer, the Chinese, table tennis. Similarly, the cultural traditions of the Blacks, Hispanics and Asians may affect their tendencies in personal development and career options, as well as their attitude towards performance on entrance tests or in talented programs.

(3) Immigration. “Black students in that specialization represent barely 1/20th of their 12.8% ratio in the general population, as opposed to 10 times more [author’s emphasis] Asian students than their population size” (Gagné, 2011, p. 9). But this comparison doesn’t take the immigration factor into account. Most US Asians in the population are immigrants; these immigrants to a large degree were elites with better SES background or better family support. Comparing Blacks with Asians in the US is to compare elites from abroad with average natives – the basis of the comparison is not “equal”.

(4) Field. The field chosen for comparison is also a root of “inequality”. For example, in “general music education …, the disproportion between Black and Asian doctoral music students significantly decreases (.69 vs. 1.02). On the other hand, in another pair of specializations, the combination of students in piano and violin, which accounts for a substantial 18% of all surveyed doctoral music students, we observe the largest disparity between Black and Asian students” (Gagné, 2011, p. 9).

We can see thus that the inequity issue Prof. Gagné is concerned with is the disproportion in the distribution of participants in gifted programs, but the disproportions could be caused by one or more confluent factors as mentioned above. To some extent, the disproportion may reflect the discrepancy in some aspects. In other words, although to identify academic talent with academic performance has a psychological foundation and positive effectiveness in educational practice, and the DMGT can help to understand the rationality of this identification and the process of academic talent development, this step can’t solve the problem of disproportions, and disproportion itself is not the same as inequity. So the DMGT is not the “last straw that breaks the camel’s back”, that is to say, the use of the DMGT cannot solve the problem of inequality in gifted education.

In closing this short commentary, we would like to thank Prof. Gagné for providing an excellent model to encourage researchers to look down from above and take the nature of academic talent and its developmental process as a whole, and for arousing such great interest in the equality issue in gifted education.

References


The Authors

Jinghuan Zhang (born 1965) has been Professor of the School of Psychology in Shandong Normal University (China) since 2000. She got her Ph.D. in developmental and educational psychology from Beijing Normal University. Her main research interests lie in the field of creativity, especially creative talent and excellence in scientists, entrepreneurs, teachers and students. She investigates the personal characteristics, cognitive traits and the developmental progress of creative talent using quantitative and qualitative methods. Putting great emphasis on investigating teachers' creativity-fostering behavior and practice, she has carried out creativity-fostering programs in elementary and junior high schools for many years with a great impact on general education. Recently, she has focused her interest on social factors in creative talent. She is a member of the Council of Chinese Social Psychology, the executive director of the Shandong Social Psychological Association and the Shandong Creative Education Research Association.

Yuxia Chu (born 1974) has studied Educational Psychology at Shandong Normal University (China) since 1992. She will get her Ph.D. in developmental and educational psychology in 2011 under the direction of Jinghuan Zhang. Her main research interest is the investigation of the relation between mood and creativity in the development of students' creativity.
This is my third participation to the target article format (see Gagné, 1999, 2004). Some colleagues, within and outside gifted education, have confessed to me their intense “targetophobia”. For my part, I do enjoy – with some trepidation, of course – that rare opportunity to receive carefully drafted and honest feedback on my work. Of course, that feedback can sometimes test one’s self-confidence. Yet, in the long run, I find these comments very helpful; even those who had little positive feedback to express – as I sometimes do myself! – will help me sharpen my understanding of the scientific and political issues facing gifted education. So, I sincerely thank all 40 colleagues who devoted many hours of their professional time to comment on this target article.

When Professor Ziegler informed me that the manuscript had generated 32 comments from around the world, I was almost nonplussed. On the two preceding occasions there had been about half a dozen. Since most humans have a stronger tendency to express criticism than praise – just read letters to the editor! – I was worried that their large number would mean lots of “flak”. Professor Ziegler reassured me immediately, saying that most were on the positive side. When I received the PDF file, I felt a new type of worry. The amount of work looked formidable, with its 60 pages of single-paced text, more or less 35,000 words to read, annotate, then discuss. After a week of note taking, I had enough to write a small book! Fortunately, common sense and other writing commitments imposed some control on that task.

My plan is simple. First, I will propose a summary of my thesis; I hope it will clarify some involuntary ambiguities in the target article, as well as misunderstandings by some commentators. In Part II, I will discuss the major theme in both the target article and the comments: (in)equality and (in)equity in minority representation in gifted programs. Finally, I will briefly examine in Part III a series of more specific critiques directed at the ATD model and DMGT theory.

I – Summary of the Target Article Thesis

I have tried to synthesize as compactly as possible the thesis defended in the target article. The summary contains 10 logically sequenced (hopefully!) statements subdivided into four distinct thematic elements. An eleventh “nutshell” statement offers a slightly different perspective.

The Equity Issue

1. Advocates for some U.S. ethnic (and/or SES groups) frequently complain about significant inequitable under-representation in typical gifted programs, which they attribute to inequitable selection procedures. This is how the expression equity issue is specifically defined here.

2. No such complaints appear in many other talent-related situations with similar, sometimes even larger ethnic under- or over-representations (e.g., college degrees, University of California freshmen, graduate students in music conservatories, and some professional sports); these situations even include services directly identified...
with the field of gifted education (e.g., Advanced Placement, selective NY high schools, Governor's schools, state-funded residential high schools).

**Common Predictors and Ethnic Differences**

3. The two most common access criteria to gifted programs are IQ scores, the most appropriate measure of the DMGT's *intellectual giftedness* (IG), and academic achievement scores, the most appropriate index of the DMGT's *academic talent* (AT). In other words, the prototypical profile of the participants in U.S. gifted programs is IGAT, or a “bright achiever” profile.

4. African-Americans and Hispanics obtain *chronically* lower performances than Caucasians and Asians on these two selection criteria. “Chronic” means that their lower performances have been observed for decades, have not decreased substantially since then, thus are not expected to decrease substantially in the near future.

   - [Optional: Because of the tail-end amplification effect, small average ethnic differences will generate large selection disproportions among the top – or bottom – subjects, thus exacerbating the perception of inequity.]

5. If we exclude inequitable selection procedures, the set of etiological factors at the source of these ethnic differences remains very complex, no doubt involving social, psychological, and possibly biological factors. But, because my thesis focuses strictly on a specific form of perceived inequity (see #1) that has nothing to do with unequal opportunities, these socio-psychological sources of potential inequity have no relevance in the logical structure of my argumentation.

**Predicting Academic Success**

6. Academically focused provisions (see #2) stress high *academic* excellence goals pursued through strong enrichment of the *academic* curriculum, with progress measured through *academic* performance. They correspond to a meritocratic ideology. Such provisions directly answer the educational needs of students with a clear IGAT profile. [Omitted in target article: That profile excludes of course non-IGAT students (e.g., gifted underachievers), for whom we must provide appropriate recuperative learning activities through different, specifically adapted interventions.]

7. Hundreds of studies have shown that IQ and achievement scores, our field's two main selection tools (#3), are the best predictors of academic achievement. Thus, it makes perfect sense for the academically focused provisions described in #2 and #6 to adopt them as their main selection criteria.

8. And it is because of that close predictor-criterion relationship that their use as selection instruments will be judged fair and equitable. This explains in my view the general acceptance of the ethnic disproportions mentioned in #2.

**The Case of Typical U.S. Gifted Programs**

9. Typical U.S. gifted programs (e.g., regular classroom enrichment, pull-out programs, weekend or summer activities) focus most of their activities on a variety of enrichment options, many of which do not specifically target the high learning potential of gifted/talented students. In most of them, teachers are especially careful NOT to enrich the *regular* classroom curriculum in any systematic way, as do the academically focused provisions mentioned in #2.

10. That choice of enrichment options significantly decreases the relationship between the two academically oriented selection criteria, the “alleged” predictors, and the more “fuzzy” performance criteria of these typical programs. According to my thesis, this ambiguous predictor-criterion relationship gives support to inequity complaints, since it is no longer clear whether or not students really need an IGAT profile to perform in, and benefit from these typical programs.
In a Nutshell

11. The lack of perceived appropriate relevance (#10) between U.S. gifted programs’ expected outcomes (#9) and their most common access criteria, IQ and achievement scores (#3), makes these criteria appear inequitable (#1). I recommend to redirect energies toward a much broader dissemination of “real” ATD provisions inspired by a meritocratic – achievement guided – ideology (#6); U.S. gifted education would thus better serve talented (IGAT) students while solving the specific equity issue defined in #1. It would not, unfortunately, reduce over- or under-representation of ethnic groups, because of the chronic performance differences (#4) between these groups on the two ATD-relevant (#7) access criteria.

A Few Comments

1. Thinking of the many misunderstandings I found in the comments as a group, I wonder how they would have looked if I had included that summary at the end of the target article. It might have alerted a few commentators about their mistaken interpretation(s). After reading the above summary maybe some of them will say: “Ah! That’s what he meant!”

2. Notice that neither the description of the tail-end amplification phenomenon nor the inclusion of the ATD model was essential to my argumentation. In fact the ATD model does not appear explicitly in the above summary (see Part III for more details).

3. The omitted precision about underachievers (#6) would have clarified a major ambiguity concerning my interest for that special population.

II – Debating Equality and Equity

During my reading of the 32 comments, I became progressively aware of a fundamental reality: most educators, maybe more so in the United States, associate automatically, almost subconsciously, the expression “the equity issue”, not only with the fact of ethnic under-representation in educational and occupational spheres, but also with its most common perceived source, namely unequal opportunities. As the argument goes, unequal opportunities “explain” under-representation, which in turn is automatically equated with inequity. Through repeated exposition in professional and popular media, that association has acquired the strength of a Pavlovian stimulus-response pair. Consequently, many people react emotionally to that issue, not just advocates of disadvantaged groups, but all others who deeply care for social equity. When I wrote the target article, I did not realize, as I do now, the strength of that emotionality. I did not see that the expression “the equity issue” in the title and body of the text would automatically convey a very different meaning than the one I had chosen, especially when mixed with expressions like “render obsolete” or “lose its relevance”. I can see now how some sentences, like “this new focus on the development of academic excellence throughout the K-12 schooling process would render the equity issue obsolete” (Gagné, 2011, p. 19), could provoke strong reactions if my circumscribed meaning of “equity issue” were not kept in mind.

Even if I did clearly delimit, in the very first paragraph of the target article, the equity issue to advocates’ judgments of unfairness in selection procedures, some commentators appear to have “processed” that information imperfectly. Consequently, I can imagine now that every time the term “equity issue” kept reappearing, some readers would spontaneously give it its more common meaning of “unequal opportunities”. I wonder if that might be the source of VanTassel-Baska’s strong negative reaction, which brought her to accumulate so many errors of interpretation in just the first few paragraphs of her comment (see Reference Note 7). That same interpretative imbroglio might also explain why so many commentators (e.g., Cohen, Dracup, Dimaano, Harder, Hotze, Liu, Tourón, Wallace, Wood, Zhang & Chu) amplified the problem beyond my strictly delimited context
by bringing in the broader social issue of unequal opportunities. I have explained in the Part I summary (#5) why etiological issues of socio-psychological origins, a synonym for unequal opportunities, are technically irrelevant. Yet, so many commentators introduce that broader issue, blaming me in the process, that they would judge me unfair, and possibly cowardly, if I evaded the subject.

This second part is subdivided into three main sections. First, in order to bring some structure to the discussion I propose some terminological and conceptual precisions. I will then devote the second section to potential inequities that have their source in the selection process, the precise subject of “my” equity issue. In the third section, I will discuss the etiological issue of unequal opportunities, including a short discussion of the recurring subject of underachievement.

**Forms of (In)Equality and (In)Equity**

Both the terms “(in)equality”, “(in)equity”, and “(in)equity issue” appear in the comments. Many commentators automatically equaled inequality with inequity, or its obverse formulation. In reality, the term “(in)equality” simply describes a quantitative comparison: it is value neutral. On the other hand, the concept of (in)equity refers to moral issues, to the presence or absence of justice in human affairs. Inequalities abound in our physical and social environment: there are more women than men among elderly people, more densely populated countries than others, more urban dwellers than rural ones, more tall men than women, and so forth. Is there moral injustice in any of these inequalities? I don't think so. Similarly, bringing back an example from the target article, I see no inequity in the over-representation of Blacks in basketball and football. As I argued in the target article, if it were so we would see recurring discussions of that unfair situation in the sports sections of newspapers. Consequently, when VanTassel-Baska uses the expression “reverse inequity” (p.107) to describe that over-representation, she is totally wrong, attributing moral injustice to a situation almost everyone considers the “fair” result of demonstrated differences in talent. In short, as we will see in more detail below, we need to tread carefully when using the terms (in)equality or (in)equity.

**Outcomes, Services, Opportunities**

There is more to conceptual distinctions than just the equality/equity differentiation. We can also distinguish at least three types of inequalities. Through a Terceiro quote, Tourón (p. 104) introduces John Stuart Mill’s dichotomy of *ex ante* and *ex post* inequalities. The first term targets inequalities of opportunities, conditions that differ before the start of an educational process or an occupational career. The equity issue discussed in the target article belongs to that category. *Ex post* inequalities concern outcomes of a developmental process; my example of ethnic differences in college diplomas obtained belongs to this type. There is also a third type. Liu quotes Sapon-Shevin as follows: “Arguments framed in terms of justice are complex because they often fail to discriminate between the goals of equality of access, equality of services, and equality of outcomes” (p.83). So, not only are there potential inequalities in access (*ex ante*) and outcomes (*ex post*), but also inequalities in services. In continuity with Mill’s terminology, I propose to label that third form of potential inequalities “ex intra” [Latin for “within”].

The proper placement of inequalities is not always easy. Let’s use an example proposed by Dracup. He mentions that UK politicians have repeatedly brought up the fact that “in one recent year, just 40 learners eligible for free school meals [FSM] secured a place at Oxford or Cambridge” (p. 48). This is one of those ambiguous examples – like the University of California freshmen – that we can categorize either as an *ex ante* selection situation (most FSM candidates are rejected by Oxford or Cambridge) or as an *ex post* situation (most FSM students do not even become candidates). As another example, Tourón states: “[Equity] amounts to facilitating the necessary educational resources that allow each pupil to go as far, as fast, as extensively and in such depth as his or her ability
and competence allow. This is understanding the principle of equality of opportunities in its correct meaning” (p. 104). That quote confounds two distinct forms of inequalities: it means that ex intra inequalities (distinct services) would ensure ex ante equity (equal opportunities). Of course, Tourón probably equals “opportunities” with appropriate answers to distinct educational needs. These examples show that we need to be careful in the way we use the three types of inequalities.

These three forms of inequalities can be sources of parallel ex ante, ex intra, or ex post (in)equity. Again, it would be tempting to equate inequality with inequity; we should refrain from doing so automatically. Let’s examine each of these three distinct pairings.

**Ex Post Inequalities**

Inequalities in outcomes abound in talent development situations. Just look at any sport: some players never achieve any form of excellence, whereas others will reach international competition. And don’t forget all intermediate levels of excellence: local, regional, state, or national. We observe similar inequalities of outcomes in education, with some learners barely completing the equivalent of primary schooling as others reach a Ph.D.; again, we can observe a series of intermediate levels of achievement. Is there unfairness in that dispersion of outcomes? Would fairness require that everyone obtain a Ph.D.? You certainly see as well as I do the ridicule of such an expectation. At the level of individual differences, I cannot imagine anyone judging automatically unfair any developmental process where individual outcomes differ. In fact, I would agree with Mill’s statement: “to insist upon ex post equality would represent the end of economic and social development” (see Terceiro quote in Tourón, p. 104).

Critics contend that group differences represent a totally distinct situation where differences are immediately suspect, especially with regard to behavioral characteristics like abilities and personality traits. I have in mind how difficult it was not so long ago to bring out the subject of gender differences in some abilities, interests, or temperamental dispositions. Now, the accumulated research is impressive (e.g., Goleman, 2006; Pinker, 2008). So, should we expect all group inequalities to represent inequitable situations, like those observed in gifted program participation? The situation is not that simple. Recall my example of Black over-representation in some U.S. professional sports that I judged a clear situation of perfectly equitable inequalities. Similarly, I do not believe that some underlying unethical behavior explains the large Asian over-representation in music conservatories or on the University of California campuses described in the target article.

In spite of Mill’s admonition, many people do not hesitate to transform all kinds of ex post inequalities into inequities. Here are just a few examples. First, Tourón cites the Institute of Evaluation specialists who interpreted the smaller dispersion of the Spanish PISA results as proof of greater equity. By doing so, they were promoting an ex post form of equity: the more homogeneous the results, the greater the equity. Note, by the way, the expression “the greater the equity” in the preceding sentence. It means we can talk about (in)equity in quantitative terms; some outcomes, or services, or access modalities can be more (or less) (in)equitable than others. We rarely observe perfect or complete equity in human affairs; most people will find quite satisfactory – thus will tolerate – less perfect, but still quite acceptable forms of (in)equity.

Second, Pérez & Beltrán appear to endorse ex post inequity when they affirm: “there is no logical reason not to expect the number of minority students to be proportional to their representation in the general population” (p. 91). There might not be many “equitable” or “defensible” ex ante or ex intra reasons for such disproportions, but I would consider them “logical” just because of their empirical basis.

Third, are you aware of the “tall poppy syndrome”? According to Wikipedia, it is “a pejorative term used in the UK, Ireland, Australia, and New Zealand to describe a social phenomenon in which people of genuine merit are resented, attacked, cut down, or criticized because their talents or achievements elevate them above or distinguish them
from their peers" (see Wikipedia, TPS, 2011). That syndrome is an interesting situation of perceived “inverse ex post inequity”, since the “victim” is the emerging group, the tall poppies, in a situation of unequal achievements. As a last example, I will propose the case of feminist activists who consider as inequitable the much smaller percentage of women in STEM occupational fields (STEM = Science, Technology, Engineering, and Math). Yet, research has shown that most of these occupational differences are in fact attributable to very distinct career interests rather than to any form of discrimination. Pinker (2008, chapter 3) points out that the gap has remained large in spite of strong incentives to reduce it.

In summary, ex post inequalities prove nothing, strictly nothing. One needs to look at ex intra and ex ante inequalities to ascertain their potential inequity. Let's do just that.

**Ex Intra Inequalities**

Inequalities in educational services or provisions also abound. Some of them represent clear inequitable situations, like schools in poor or ethnic neighborhoods that offer fewer services or have less experienced teachers. But, let’s just limit ourselves to talent development. Here too there is a rich diversity. Just think of music conservatories for highly talented musicians, drama schools for promising actors, all kinds of competitive teams in sports, the debating teams so popular in Australia, honors programs and residential schools for academically talented students, as well as all available forms of accelerative measures. Every field of talent development thus offers a diversity of “unequal” provisions and services, all of which, with the exception of those in general education, most consider perfectly equitable. Indeed, only the subject of ability grouping in K-12 classrooms will bring opponents to the barricades!

Arguments against ability grouping take many forms. They include unfairly extracting potential models and mentors, preventing desirable mixing between social classes – an argument based on the myth that enriched classes contain only "rich" kids – creating unhealthy competition among talentees, as well as demotivating regular classroom teachers who lose their most stimulating students through an unacceptable “creaming” of the best achievers! The main argument that bears directly on the equity issue has its roots in egalitarian ideology. A democratic and egalitarian education demands an identical curriculum and learning environment for all, for fear that differential provisions will exacerbate SES and ethnic achievement gaps. Leftist ideologues (e.g., Berthelot, 1987) will even introduce Marxist ideas, arguing that special classes for children of the “elite” – a.k.a. the rich and powerful – will contribute to maintain and secure the social status quo, namely the dominance of that elite over the “working classes”.

Supporters of special ATD services counter that this alleged social equity is totally inequitable because it does not respect individual differences in learning aptitudes, interests, and needs. Liu quotes Sapon-Shevin as follows: “Few educators would advocate equal treatment if by that we meant giving every child the same kind of educational experiences at the same pace, using the same materials, and so on” (in Liu, p. 83). For his part, Stanley (1979) used the expression “age-grade lockstep” to describe the identity in curriculum and pace forced on almost all K-12 students. Supporters also point out that the International Convention for the Right of the Child (ICRC), formally adopted by the United Nations in 1989, clearly endorses that equitable view of ex intra inequalities. Here is the beginning of Article 29: “States Parties agree that the education of the child shall be directed to: (a) The development of the child’s personality, talents and mental and physical abilities to their fullest potential” (United Nations, ICRC, 2011). They also repeat a famous quote attributed to Thomas Jefferson: “There is nothing more unequal than the equal treatment of unequal individuals.” That quote perfectly parallels Tourón’s Aristotle quote. For a more detailed discussion of that debate, I emphatically suggest Benbow & Stanley’s (1996) superb analysis.
In short, I have briefly described a situation that opens the door to intense debate: some educators consider the introduction of *ex intra* inequalities perfectly equitable, whereas others judge them inequitable. Said differently, the (in)equity of some inequalities often depends on one's ideological stance.

**Ex Ante Inequalities**

This third and last form of equality/equity brings us to the core of the ethnic/SES equity debate: (in)equitable opportunities, as described in J. S. Mill’s definition of *ex ante* equality. It is by far the most common type of (in)equity mentioned in the comments. Unequal opportunities take many forms that can be grouped into two main categories: (a) inequalities that ensue from selection procedures (e.g., the equity issue defined in #1, inappropriate instruments or criteria, improper definitions), and (b) inequalities that precede the selection procedure itself, and contribute directly to the etiology of ethnic or SES disproportionate representations in educational situations (e.g., familial upbringing, income level, parental educational values). Note that both categories concern environmental influences; those in the (a) category belong to the *Provisions* (EP) sub-component of the DMGT, and those in the (b) category belong to either the *Milieu* (EM) or *Individuals* (EI) sub-components (see Figure 2 in Gagné, 2011). The next two sections are devoted to these two distinct forms of perceived *ex ante* inequalities, with their potential inequity.

**Procedural Inequalities (EP)**

Whether we look at educational or occupational situations, candidates are usually much more numerous than available places, forcing the adoption of selection procedures. Good selection procedures always aim to identify candidates most apt to succeed. That goal applies of course to talent development programs. To achieve that goal, program coordinators try to choose instruments that offer the best *predictive power* with regard to the excellence outcomes of their specific program. The success of their search depends as much on the clarity of the outcome(s) being predicted as on the psychometric qualities of the predictors: the fuzzier the program goals, the harder the prediction task. In other words, an effective selection procedure depends on (a) clear expected outcomes, and (b) psychometrically valid predictors of these outcomes. Let us examine these two situations separately. Note that the first one will focus on the equity issue discussed in the target article (see #1), whereas all other potential procedural inequities address issues associated with the instruments (tests, checklists, portfolios) or sources (e.g., teachers, parents, students) used as predictors of future excellence.

**Outcome-Based Inequity**

In most talent development situations, the goals talentees seek are clear: at least top 10% excellence in a chosen field, as defined in the DMGT. That operational definition of talent usually simplifies its assessment. Of course, the fields of sports and general education offer the most objective measures; but panels of judges will compare with reasonable objectivity musical, dance, drama, or figure skating performances, as well as the productions of graphic artists. With regard to educational progress, teachers can use homework, regular exams, or more formal standardized achievement tests. But, as I argued in the target article, the goals of most typical gifted programs in elementary and middle schools are not so clear. The type of enrichment frequently adopted by regular classroom teachers or special teachers in pull-out programs rarely includes any enrichment in density (curriculum compacting) of the regular daily curriculum. Consequently, opponents will rightly challenge their exclusive access to identified IGAT students because, as stated in #10, “it is no longer clear whether or not students really need an IGAT profile to perform in, and benefit from these gifted programs.”
In short, I argued that current gifted programs open the door widely to defensible accusations of inequity based on the doubtful relevance of the two most common predictors, IQ scores and achievement measures, used to identify participants for these programs. On the other hand, I showed that ATD provisions reinstated that strong predictor-outcome relevance.

**Predictor-Based Inequity**

Now, let's look at the predictor side of the equation. As noted above, selection instruments can take many forms and use different sources. I will discuss in turn issues brought up by the commentators with regard to achievement tests, IQ tests, alternative ability measures, as well as culturally sensitive definitions and criteria.

**Achievement Measures.** What is the best predictor of talent? Aptitudes? No, it is past or present talent-level performance. In other words, shortly after individuals enter a systematic talent development program, thus becoming talentees, they begin manifesting performance behavior that will progressively evolve over the next months and years. And the growth of these performance behaviors will tell more about the future chances of talentees to attain progressively higher levels of talent than any aptitude test battery. Simply put, if you want to predict which students will be the best achievers in Grade 5 just look at Grade 4 academic performances. Of course, the relationship is far from perfect; numerous factors can intervene during a school year or over a few years to increase or decrease students’ learning process and consequent achievement. But, all in all, nothing comes close to current or past high achievement as a predictor of future excellence.

Allow me to reiterate the underlying reason for the good predictive power of achievement measures. As stated in the DMGT, talent results from the complex interaction between the four causal components: Gifts, Developmental process, Intrapersonal and Environmental catalysts. Any effect associated with one of them, including sub-component or facet-level effects, will directly influence the performance. In other words, good measures of performance will reflect with strong reliability these various causal impacts (e.g., change in interest, anxiety, will power, parental or teacher support, accidents, disease, personal trauma). Of course, it will not be possible to dissect individual causal influences; but that kind of fine analysis is rarely a major preoccupation in selection situations.

**IQ Testing.** The above description illustrates the basic and most common situation: it does not cover initial entrance to a talent development program, where individuals have not yet had a chance to try their hand at learning the knowledge and skills of a particular academic or occupational field. That’s when program administrators look for other predictors, usually in the form of relevant natural abilities. In sports, talent development coordinators will often adopt measures of specific physical abilities – or anatomical characteristics – that they judge relevant predictors of future talent in their sport. In the case of gifted programs, coordinators will commonly adopt IQ tests as selection tools because so much research has shown that cognitive abilities represent the group of natural abilities most closely associated with academic achievement.

What is the relationship between theories of cognitive abilities and IQ tests? According to Luzzo & Gobet, it is a crucial question. They warn me as follows: “If Gagné wants to use IQ as a possible measure, he needs to specify the methodological framework he is using” (p. 85). Fortunately, I have a straightforward answer to that question: they will find its detailed description in Gagné (2009b). In a nutshell, I borrow my theoretical position from three related sources: (a) Jensen’s (1998) defense of the “g” construct, (b) Carroll’s (1993) hierarchical three-tier theory of abilities, and (c) a famous public declaration by 52 eminent scholars in the field of cognition (Gottfredson, 1997) called “Mainstream science on Intelligence” (MSOI). Its first three paragraphs appear in Reference Note 8. The second paragraph directly relates their definition of the concept of intelligence to its most appropriate measure: IQ tests.
Since the appearance of IQ tests in the early decades of the past century, education has entertained a love-hate relationship with them. Of course, their wide use indicates more love than hate. Yet, accusations of invalidity keep appearing again and again, particularly with regard to their use with ethnic minorities. A few commentators do bring up that issue; here are some examples. "Apparently, intelligence test results do not prove suitable as a criterion for identifying the gifted because of the culture-dependent results Gagné has already put forward" (Duan, p. 51). "A substantial part of the vulnerability to such accusations may well lie with the reliance on measures of potential ability" (Shore, p. 97).

Unfortunately, neither of them elaborates on their statement. For their part, Wellisch & Brown cite a text on that subject by Callahan & Eichner (2011) on the NAGC website that allegedly questions the validity of these tests (for details see Reference Note 9).

Critics especially accuse IQ tests of cultural bias; they argue that ethnic differences on IQ tests have their source in the instruments themselves. As a consequence, they contend that IQ tests unfairly discriminate against minority students in most selection situations, both educational and occupational. That belief persists, as I observe regularly in newspapers and even professional journals, in spite of the fact that hundreds of validation studies have shown that IQ scores predict academic achievement equally well for all major ethnic groups in the United States. In other words, the lower scores of Blacks or Hispanics on IQ tests exactly parallel their lower academic results at all levels of the educational system. In one of the most widely used handbooks on testing issues, Anastasi & Urbina (1997) conclude their review of the scientific literature as follows: "In summary, comprehensive surveys and critical analyses of available studies have failed to support the hypothesis that ability tests are less valid for Blacks than for Whites in predicting occupational or educational performance" (p. 168).

Fortunately, although many media professionals still use that "bias" argument when discussing ethnic IQ differences, most professionals in education including members of the targeted minorities acknowledge that scientific fact. For instance, in the Ford (2003) chapter quoted in the target article, the author cites detailed statistics of IQ differences between Black and White students; she notes the persistence of that gap, but never alleges that instrument bias could account for them. On the other hand, some scholars still entertain – and disseminate – that myth. For instance, nowhere else but on the NAGC website, Callahan and Eichner (2011) give an overview of IQ testing in a series of web pages for parents. In a sub-section called "What are these tests like? What will the scores mean?" the two authors affirm: "There is considerable evidence that students who are economically disadvantaged, from ethnic minorities, and/or speak English as a second language generally receive a lower score on IQ tests. This is a fault in the tests, not the students" [my emphasis]. That last sentence couldn’t be more wrong. Sadly, the wide access of the NAGC web site makes that statement especially detrimental.

In summary, the scientific literature clearly supports the view that both IQ tests and achievement tests are the best predictors of academic excellence. So, what should we answer when Ford (2003) asks: "Given the persistent [ethnic] gap in the intelligence, aptitude, and achievement test scores ... one must ask why educators continue to rely extensively or exclusively on such tests for recruitment purposes. This is not just a question of access; it is also a question of equity" (p. 511). In the context of current gifted programs, as I argued above, she has a point, a very good point. But, in the context of the type of ATD provisions described in the target article, coordinators cannot avoid intelligence and achievement tests if they want maximally relevant predictors of academic excellence. This is why, by the way, a large dissemination of ATD-inspired provisions, coupled with a long-term stability of ethnic differences, could increase ethnic/SES disproportions.

**Alternative Measures.** A few commentators responded to my "procedural" equity issue with a diversity of suggestions for alternative, seemingly more equitable means of identification. For instance, Duan proposes alternative instruments that focus on basic cognitive tasks (e.g., inspection or reaction time, speed of information processing). This is
an interesting suggestion; it remains to be seen how professionals will succeed in transforming these tasks into practical and cost-efficient psychometric instruments. A strange and amusing coincidence brings both Dimaano and Hoogeveen to propose combining Renzulli’s Schoolwide Enrichment Model (SEM; Reis & Renzulli, 2009) with the ATD model (I wonder how Renzulli would feel about that!). Dimaano asserts that the SEM, “because of its identification and transitory functions … [would] produce measurably better performance in susceptible participants within a shorter period of time” (p. 42). Interestingly, that proposal parallels my personal conviction that ATD provisions designed for very young students should use generous access criteria in view of the lower predictive power of identification instruments at these young ages. Local gifted program administrators will be the ones to decide whether that openness should manifest itself through SEM activities or other means. Finally, Harder (p. 67) suggests implementing my third commandment (“Thou shalt identify … multicomponently”, in Gagné, 2007, pp. 98-100). For that suggestion to be fruitful, we need to ascertain the predictive validity of additional sources and/or instruments, above and beyond the combined predictive validity of IQ and achievement measures. That will not be an easy task.

Broadened Criteria. I cited in the target article some of the arguments given by minority group advocates to explain the under-representation statistics. Two themes seemed important: “broadened definitions and conceptions” (Gentry, Hu, & Thomas, 2008, p. 199) and a better “understanding of cultural diversity” (Ford, 2003, 507). These two themes reappear in some comments, especially those of Cohen and Freeman. Cohen endorses the views of many minority advocates when she complains about the lack of openness to diverse cultural views of gifts and talents, what she calls a “multicultural lens.” Citing Passow and Frasier, she argues that “gifts and talents may be overlooked due to overemphasis on standardized tests, narrow definitions of giftedness, deficit orientations, failure to consider attributes and specific behaviors in a cultural context” (p. 37).

When I began reading Freeman’s comment, I couldn’t help smiling when she compared me to Don Quixote, judging me “a brave man, setting out all alone to tilt at the windmills of current thought” (p. 57). It is the second time such a comparison is made (see Borland, 1999, p. 141), this time in a much kinder way! Freeman concurs with my judgment that extensive dissemination lies far in the future, giving as her main reason worldwide cultural disparities in beliefs and provisions. She concludes: “such cultural differences change the meaning of Gagné’s assumption of ‘moral inequity’ ” (p. 58). I must confess that I did not understand that last statement. All in all, Freeman finds me a bit “too hard on American providers of gifted programs,” saying that “they cannot be all things to all people because they are themselves part of their own culture” (p. 58).

The subject of cultural diversity brings up many questions, which in my view have not yet received satisfying answers from minority advocates. Here are a few that come spontaneously to my mind. Unable to put aside my personal bias, I have structured them around the DMGT framework.

1. What would a culturally sensitive conception of giftedness look like?
2. If we consider that the DMGT offers a wide spectrum of natural abilities, where would these culturally sensitive gifts fit within the six G sub-components (see Figure 2 in Gagné, 2011)?
3. Would any of them fall outside the DMGT spectrum? If so, where would they appear with regard to the DMGT structure?
4. Since we would be looking at the development of culturally sensitive talents, which excellence goals would be highlighted?
5. How would the culturally sensitive gifts be related to these excellence goals?
6. Considering again the comprehensive coverage of fields of talent presented within the T component, which among them would be identified as more culturally sensitive fields?
7. And what would happen to academic talent development? Would it be completely sidelined?
8. How would a culturally sensitive selection process deal with the strong predictive power of IQ scores and achievement measures with regard to academic excellence?

These are just a few of the questions whose answers would help better understand the culturally sensitive theoretical views of minority advocates. Moreover, clear answers would certainly contribute to improve the identification skills of regular classroom teachers, thus alleviating current complaints about biased teacher judgments.\(^{11}\)

**Socio-Psychological Inequalities (EM & EI)**

I would be hard pressed to say how many dozens of draft pages I wrote in my efforts to react properly to all the commentators who scolded me, a few of them more strongly than others, for relegating to the sidelines the twin related issues of unequal opportunities and (minority) underachievement. After days of writing page after page, I finally realized that the opening summary already contained in #5 the “quintessence” of my response: irrelevance. But Cyrano de Bergerac would have said of that single word: “C’est un peu court jeune homme!” So, I will elaborate from that single word into the following paragraph.

The complex sources of the chronic ethnic and SES disproportions in most educational programs, including gifted programs, are strictly irrelevant in the logic of my argumentation simply because I chose to focus on inequity in the selection procedures. And why did I choose that specific focus? Again, the reason is simple: it seemed to explain quite well the difference between provisions that generated loud complaints (typical gifted programs) and others that did not (see list in #2 and target article). I hope that this is now clear to all. Consequently, as much as I can understand, and share, the social preoccupations of all commentators who brought up the subject of unequal opportunities, I dissociate myself from that issue, and consequently refuse to be accused of not doing something I never intended to do. Let me point out that this decision is well supported by the last paragraph of VanTassel-Baska’s comment. She speaks of two distinct and separate intervention “agendas”. As she clearly acknowledges, my discussion of ATD programs directly addresses her first agenda about providing challenging educational services to IGAT students. *Within* that first agenda, I just tried to demonstrate that ATD programs did answer (solve?) a specific source of complaints from minority advocates, namely the procedural inequities discussed in the preceding section: nothing more, and nothing less.

Having said that, I cannot completely put aside a subject over which I literally sweated (even in the middle of a Canadian winter!) for days on end. So, I will allow myself a few additional comments, mostly questions that came to the mind of a non expert struggling to clarify his personal position on the two social issues of unequal opportunities and underachievement.

**About Equal Opportunities**

It is easy to throw concepts around when we discuss over a beer or a glass of wine. We all do that on a regular basis. But the task suddenly becomes much harder when we are asked to define concretely the concepts we use so liberally in our friendly exchanges without thinking much about their more or less fuzzy meaning. We saw a very good example of that when I tried, earlier in *Part II*, to define appropriately the terms (in)equality and (in)equity. Recall how these two apparently simple constructs suddenly became much more complex, in themselves as well as in their relationship with each other. I believe we would confront a similar terminological and conceptual challenge if we were to operationalize in the same way the concept of “(un)equal opportunity”, including its synonym “level playing field”.

**Defining Opportunity.** Webster’s dictionary (McKechnie, 1983, p.1255) defines “opportunity” as “1. Fit or convenient time or occasion; a combination of circumstances favorable for the purpose; suitable time, combined with other favorable circumstances.” The key expression is “favorable circumstances”, and circumstances refer to
environmental influences, but in a very broad way. What should we include within the concept of unfavorable circumstances? Said differently, how should we define its opposite, the concept of “level playing field” used by Cohen and Dracup? In fact, are the two terms really synonyms, as they appear to be in their contextual use? Spontaneously, we associate equal opportunity with *ex ante* environmental conditions that preceded, and paved the way to a positive adaptation to schooling. But, we could expand that basic definition to include *ex intra* situations, like the availability in schools with large ethnic populations of services of comparable quality as those in schools situated in White neighborhoods.

Many commentators hesitate to give concrete examples of unequal opportunities; they essentially infer them from the *ex post* existence of disproportions. For instance, when Cohen says “only if opportunities are increased and barriers are decreased so there is a level playing field can merit be the determinant for identification and placement in special programs to support talent development” (p. 39), she doesn’t identify which opportunities need to be increased or which barriers need to be decreased. Similarly, Koichu affirms that my “focus on performance as the main entry requirement to a talent development program … [would be fair] only on condition that all the candidates for the program are given an equal opportunity to attain considerable achievements before [his emphasis] the gifted program begins” (p. 80). He judges that *ex ante* inequalities will have disappeared when we will observe *ex post* equalities. As I explained earlier, *ex post* statistics cannot be valid judges of equity.

Other commentators do bring up specific sources of inequalities. Among them, Baker discusses at length the phenomenon of stereotype threat, but acknowledges that too many scholars and media people have “largely misinterpreted this effect as being the primary [his emphasis] explanation for the consistent racial differences” (p. 28). He also mentions, just barely, the subject of genetic differences, and concludes wisely that “researchers should continue to examine alternative frameworks to explain the apparent dominance of one group over another” (p. 28). For their part, Zhang & Chu identify four “sources” of possible causes for observed disproportions: genetics, cultural traditions, immigration of higher SES people, and cultural differences in field of study attraction. They add that “the disproportions could be caused by one or more confluent factors as mentioned above” (p. 128). Dracup does try to explain the under-representation of free school meal (FSM) students in Oxford and Cambridge. He first points out that “disadvantaged students will typically have experienced poorer quality education in their schools and colleges”, then adds that “they may also have had to overcome low family and community aspirations and even low expectations from some educators” (p. 48). Finally, VanTassel-Baska affirms: “While we know that some genetic advantages come with higher income and educational status of parents, we also know that the lack of stimulating environments of home and school coupled with lack of role models and educational interventions at critical stages of life can defer dreams out of existence” (p. 107).

The above quotes illustrate the diversity of proposed manifestations of unequal opportunities, from the biological domain (genetics), to the economic (family income), the cultural (traditions, study interests), the social (poorer schooling, immigration patterns), and finally the psychological (family aspirations, role models, stereotype threat). Looking at all these factors we have a right to ask which among them are empirically confirmed causes, and which are merely plausible hypotheses. We can also ask ourselves, even with that large diversity, if the commentators have made a comprehensive coverage of all possible factors? I have in mind, for instance, recent research about the impact of deficient pre-natal conditions (Paul, 2010) on later development. There might be many more. Finally, when an appropriate identification has been made, a major task remains: determining the strength of their individual causal influence. In other words, which among them do make a significant difference?

**From Inequality to Inequity.** When inequality sources have been clearly identified and their causal influence confirmed, the question remains of establishing the presence of
(in)equity. Of course, few would argue about the inequity of a confirmed lower quality in the elementary or high school education given to FMS students. On the other hand, is there inequity in the genetic differences that might contribute to group disproportions in natural abilities? If so, who is morally at fault? Let's try a virtual example. First, imagine that clear empirical evidence has shown that U.S. parents of Asian descent do indeed have a more controlling approach in the education of their children. Enough testimonies (e.g., Chua, 2011; Gladwell, 2008, chapter 8; Robbins, 2006) – and probably many studies I didn't look for! – make that premise believable. Second, imagine that other empirical research has proven that this cultural difference in parenting behavior does impact significantly Asian children's academic achievement, thus improving their chances of entering more selective high schools or colleges (like the University of California). Should we consider that \textit{ex post} over-representation inequitable? Could that be a case of what VanTassel-Baska called “inverse inequity”? Should the children of Caucasian parents be considered “victims” of unequal opportunity? If not, when do cultural or ethnic differences in parenting behavior cross the line into “inequity territory”? Will a level playing field be reached only when other ethnic groups have adopted similar educational practices, or when \textit{ex post} disproportions have disappeared? These are just a few of the questions I asked myself as I tried to understand how to judge a certain situation inequitable, and who should bear responsibility, assuming of course that there is responsibility to bear and clear sources to bear it!

**Correcting for Inequity.** What can we do when faced with confirmed inequitable opportunities? What is the extent of our power to intervene effectively? My answer is: “very limited”. Let us again use Dracup’s example of the under-representation of free school meal (FSM) students at Oxford or Cambridge. Recall its ambiguous status as either an \textit{ex ante} situation (the Oxford/Cambridge selection process excludes a larger proportion of FSM candidates), or an \textit{ex post} one (there is already a similar under-representation of FSM students among candidates, so the selection process itself is fair). The second option represents of course the most probable one. What could these universities do to attract a larger number of FSM candidates? Should they modify their access criteria (e.g., lottery, positive discrimination) to facilitate FSM access? That would be a strictly political decision, the exact opposite, by the way, of the decision made by the University of California. Of course, some educators would applaud that equalitarian decision; they would use an \textit{ex post} argument, alleging – just like in the Spanish PISA results – that an increased equality in representation increases equity, whatever the means to reach it. Others would consider the lower validity of these modified criteria an inequitable breach of a desirable meritocratic selection policy. Again, inequity is in the eye of the beholder!

If they maintain their procedural equality for all, should Cambridge or Oxford feel guilty in any way for that under-representation whose sources lie far in the past? Are they really accountable for that inequity? Would they have to “tolerate” it? That same dilemma applies to all other levels of schooling. How can individual schools deal with the complex sources of unequal ethnic/SES representations, either in regular programs or talent development ones? VanTassel-Baska affirms: “Schools should try to make up for the inequities of birth, of poverty, and of educational disadvantage to the extent that they can” (p. 107). I wonder if her “should try” means that they are not really doing it, which would confirm my own judgment that “making up” for these deeply rooted sources of inequalities represents an extremely difficult challenge, especially at the local level. Only regional or national long-term intervention programs have some chance of ultimately correcting, at least partially, the socio-psychological conditions underlying ethnic under-representation.

The above discussion converges to a series of conclusions: (a) unequal opportunities result from a large number of causes; (b) their precise nature and relative strength remains a source of scientific controversy; (c) the contributing causes may vary between contexts (e.g., Asians vs. Blacks, academics vs. sports); (d) the most prominent causal
factors are chronic in nature: they have been active for decades, and will probably continue to do so for more decades; (e) that chronicity confirms their strong roots, thus their resistance to change in spite of major social efforts to correct the situation.

If local schools and school districts have very limited power to modify the deeply anchored social conditions that underlie unequal opportunities, what other choice do they have but to tolerate them, and try to “make up” for them as best they can? Well, it seems that tolerance is a cardinal sin, at least to VanTassel-Baska. She strongly blames me for allegedly arguing that “disproportionality should be and indeed is tolerated under the guise of meritocracy” (p. 107). If I understand her correctly, I would be using the virtuous concept of meritocracy to camouflage (she does say “under the guise of”) my – unconscionable it seems – tolerance of ethnic under-representation in gifted programs. First, I do not understand why she considers my use of the meritocratic ideology a camouflage to defend tolerance. Meritocracy plays a central and well-justified role in defining the DMGT’s ATD model. Strangely, she even acknowledges the value of the ATD model when she affirms at the end of her comment that gifted education’s first agenda aims to “provide the most rigorous opportunities for students who are performers in the Gagné sense, ready to move to ever higher levels of achievement within a domain” (p. 109). Doesn’t that look like support for the ATD model’s philosophy, including its meritocratic ideology? Second, I totally disagree with her view about the immorality of my tolerance of ethnic inequalities. Let’s discuss the many faces of tolerance.

**Tolerance and Serenity.** First it would help to define the term “tolerance”. Webster’s dictionary gives three distinct meanings: “1. to allow; permit; not interfere with. 2. to recognize and respect (others’ beliefs, practices, etc.) without necessarily agreeing or sympathizing. 3. to put up with; to bear; as, he tolerates his brother-in-law” (McKechnie, 1983, p. 1919). The first meaning refers to situations over which individuals hold at least some power of authority, a power they choose either to exercise or not; these individuals include police officers, civil servants, teachers, parents, managers, and so forth. Individuals in authority have to decide on a regular basis whether or not they will exercise their authority when interacting with subordinates; they opt to tolerate some behaviors but not others, depending on circumstances, their mood, or the type of behavior. The last two meanings address situations over which our power to effect change is very limited, most often inexistent. They differ in terms of our attitude towards them, a positive one (respect) in the first case, and a negative one (put up with) in the second. For instance, I do tolerate (positively) the divergent points of view expressed by most commentators, especially if I sense openness to dialogue. I do also tolerate (put up with) the others. In all these cases I have little power to effect any real change. Of course, I can react and argue, hoping that my arguments will reduce the gap between their position and mine (which is the right one of course!☺).

The inequity of ethnic unequal opportunities belongs of course to the third (put up with) meaning. Not only its direct victims have to tolerate them, but also those who feel touched by that injustice. Unequal opportunities share that third category with hundreds of similar “tolerated” inequities. Here are just a few I encountered as I was writing these lines: the living conditions of youths in Indian slums or Brazilian favelas, corruption by politicians or public officers, homelessness in large cities, terrorist kamikazes in IRAK, the death penalty for blasphemy in Pakistan, the stoning to death of adulterous men and women in Afghanistan, the exploitation of workers from foreign countries in some Arab states, living on less than $2 a day, dictatorship in many African countries, the slow involvement of foreign governments in the rebuilding of Haiti, as well as the countless other inequities that newspapers, magazines, and television bring us every day. What other choices do we have but to tolerate (put up with) them and hope that our world will slowly improve over the next decades (or is it centuries?)?

Of course we can sometimes intervene in minor ways, like giving to charity, or helping some person(s) in our close environment overcome obstacles that society has put in their
path. But, as laudable as these efforts may be, they won’t affect in any significant way the global situation. They are drops in an ocean, certainly important drops for those who are directly touched by them, but nevertheless just “drops” in the broader situation. And it is that global situation that we have to tolerate (put up with). As I was following the public demonstrations in Egypt against Mubarak, one commentator pointed out that he was, after Israel, the closest ally of the U.S. in that region. And he wisely added that in diplomacy democratic governments have to tolerate (put up with) the more autocratic, even dictatorial behavior of some of their “allies”. As he said: “If not, no one would be speaking to no one!”

These musings lead me to two conclusions. First, to the extent that we cannot change easily the complex and chronic causes of observed ethnic differences in both natural abilities and academic achievement, we have little choice but to tolerate (put up with) them. But “should” we do so? My second conclusion says “yes”; tolerance is not a “sin” as VanTassel-Baska’s comment seems to imply. Think of the well known prayer: “God grant me the Serenity to accept [a.k.a. tolerate] the things I cannot change; Courage to change the things I can; and Wisdom to know the difference” (Serenity Prayer, 2011). We “should” do so, not with guilt, self-inflicted or not, but with the serenity that will contribute to maintain our mental health.

About Underachievement

A few commentators (e.g., Balogh, Dracup, Dimaano, Wallace, Wellisch & Brown, Wood) bring up a “collateral casualty” of my proposed reorientation toward ATD programs: gifted underachieving students. Wood characterizes the problem as follows: “An issue with Gagné’s article is the dilemma of the underachieving student in an academic setting. The suggestion of selection by performance may remove the opportunity for students with issues outside of their academic skills” (p. 123). The strangest accusation comes from Wellisch & Brown. Misunderstanding completely a statement I make in the target article (“being bright …”, p. 15), they conclude wrongly that “the inclusion of gifted underachievers in the DMGT was perhaps too difficult to adequately assess, and may now conveniently be dismissed” (p. 115). I have always been proud to characterize the DMGT as the only talent development theory that offers, thanks to its precise differentiation of the giftedness and talent concepts, a clear definition of gifted underachievement in school: intellectual giftedness without academic talent. Why would I ever “dismiss” a sub-group that Wellisch & Brown themselves acknowledge as present in the DMGT from the very beginning (Gagné, 1985, p. 108)?

All commentators acknowledge that the etiology of underachievement is fairly complex and not quite easy to pin down (see Whitmore, 1980). For instance, Harder says: “minority children often show worse performance on tests as well as at school, due to a complex variety of causes, not due to lesser gifts” (p. 67). And Wood points out: “performing may not be easy in an educational setting as they may be so marginalised by the setting itself that they are incapable of demonstrating the level of ability required to be noticed” (p. 123). One thing is clear: except for rare cases where underachievement has its source in intense boredom caused by the slow-paced regular curriculum, we cannot expect that gifted underachievers will miraculously become high achievers when placed in an ATD program. All commentators acknowledge that difficulty, and worry about what would happen to them. The solution seems to be, as Wellisch & Brown suggest, the availability of “an alternative pathway for underachievers” (p. 115). Hotze suggests an “institutional effort at the very beginning of the educational process to strive for equal learning opportunities and personal support of IGAT children in underrepresented and disadvantaged groups” (p. 76). I also believe the solution to be outside the ATD model: gifted underachievers, whether or not they belong to minority or low SES groups, need a special alternative pathway, distinct from the highly challenging course offered in ATD programs. I will leave to experts the task of engineering that pathway.
Conclusion

In continuity with the structure of the opening summary, I have tried to synthesize as systematically as possible the main observations and conclusions presented in Part II. Keep in mind that the whole series focuses on ethnically and socio-culturally differentiated measures of outcomes and causal factors.

1. Equality and equity differ in nature: equality refers to quantitative comparisons whereas equity concerns moral issues. Inequalities can create inequities, but not necessarily; equalities can also create inequities.

2. There are three distinct types of inequalities and equities: (a) in outcomes attained (ex post), (b) in services offered (ex intra), (c) in opportunities given (ex ante). All can be analyzed both qualitatively and quantitatively.

3. Outcome inequality statistics prove nothing by themselves about associated inequity.

4. Some inequalities in services are clearly inequitable (e.g., fewer services in schools in ethnic neighborhoods), but others are not. For instance, supporters of gifted education consider ability grouping a very equitable ex intra inequality, whereas opponents strongly disagree.

5. Inequalities in opportunities can be subdivided into two categories: (a) procedural inequalities (selection instruments & criteria), and (b) socio-psychological inequalities (unequal opportunities).

6. Normally, procedural equality for all means equity. But some argue differently, for instance by promoting affirmative action for Blacks in education, or for women in STEM occupations.

7. One form of outcome-based procedural inequity has its source in fuzzy program goals and content, which decrease the predictive power of the more common selection criteria (IQ and achievement scores), consequently affecting their perceived relevance. [This is the specific form of equity issue discussed in the target article.]

8. In spite of observed significant cultural differences, achievement and IQ scores are equitable measures because of their good predictive power for academic and occupational achievements.

9. The alleged cultural bias of IQ tests has strictly no empirical support: it is just a myth, but a strongly rooted one.

10. Alternative and/or broadened criteria will be useful in so far as they show proper predictive power for clearly defined outcome goals in related enrichment programs.

11. The whole subject of unequal opportunities is not relevant to the thesis defended in the target article simply because it is not part of my circumscribed definition of the targeted “equity issue”.

12. The concept of equal opportunity (or level playing field) is very complex, with a diversity of manifestations (e.g., early parenting, financial resources, educational values, family structure).

13. The empirical basis of some causal sources of ethnic differences in IQ and achievement remains controversial, as is the level of their explanatory power.

14. Despite continuing major public efforts to reduce unequal opportunities and their outcome in IQ and achievement differences, their chronicity confirms a strong resistance to change, thus continued presence for at least the coming decades. Consequently, educators have little choice but to tolerate (put up with) these unequal opportunities.

15. Most gifted underachievers would not benefit from the highly challenging content and pace of ATD programs. They require an alternative pathway that will help them overcome their unequal opportunities and bring their achievement up to the level of their gifted potential.
III – DMGT-Related Issues

Comments about the DMGT take two main forms: (a) critiques and suggestions inspired by the Academic Talent Development model (ATD), and (b) more theoretical comments and objections on the validity of the DMGT theory itself, especially excessive importance given to natural abilities coupled with insufficient causal significance attributed to environmental influences, essentially the never-ending Nature vs. Nurture debate. I will discuss these two themes in that sequence.

About the ATD Model

It might seem strange at first, but there was strictly no need to introduce the DMGT-based ATD model as support for my equity thesis. The opening summary (#6) clearly shows that it was sufficient to stress the meritocratic, achievement-oriented core of the talent development provisions free from inequity accusations, especially gifted education services (e.g., Advanced Placement, selective high schools, residential high schools). Indeed, when I proposed the target article to another U.S. professional journal, two reviewers, who strongly criticized the equity part but liked the ATD section, recommended that I separate completely the two thematic issues and resubmit only the part on the ATD model. Eventually, Professor Ziegler took the whole manuscript, offering me this perfect occasion to publish for the first time my recent addition to the DMGT theory, while simultaneously proposing this controversial thesis on a special form of perceived inequity. Not only is this the first publication of the ATD model, but, as I will argue below, this model represents the first clear definition of the talent development concept in our field. To support that claim of primogeniture, I will briefly retrace the (short) history of the talent development concept in our professional writings. Then, I will discuss comments about the model itself, as well as problems that might slow its dissemination.

Talent Development in Context

Although the talent development concept is not new in gifted education, it came into common use only recently. If we move back just a few decades, the expression disappears from the titles of books or chapters, as well as subject indexes. I did observe that phenomenon in two well-known edited handbooks from that period (Barbe & Renzulli, 1975; Passow, 1979). The expression “talent development” became increasingly common after 1980. The immense popularity of Bloom’s (1985) Developing talent in young people might have helped. Soon after, Renzulli & Reis (1991) ended a seminal article on an ongoing educational reform with the following statement: “Talent development is the ‘business’ of our field, and we must never lose sight of this goal, regardless of the direction that reform efforts might take” (p. 34). Unfortunately, they did not define that key expression, nor specify if the talent in question was strictly academic or had broader application (e.g., in sports, arts, technology). It appears that they assumed, wrongly in my view, that a consensus existed about its meaning.

In the 1990s, the number of books that included “talent development” in their title grew steadily. For instance, the administrators of the Belin/Blank Center in Iowa chose that expression as the title for their series of Proceedings from the biennial Wallace symposia, while the late John Feldhusen (1992) named his theoretical model Talent Identification and Development in Education (TIDE). Even a cursory look at the tables of contents and subject indexes of recent handbooks (Colangelo & Davis 2003; Dixon & Moon, 2006; Kerr, 2009; MacFarlane & Stambaugh, 2009; Plucker & Callahan, 2007; Renzulli, Gubbins, McMillen, Eckert, & Little, 2009; Shavinina, 2009; Sternberg & Davidson, 2005) confirms the frequent use of that expression by gifted education scholars. Some of them believe that the growing use of the “talent development” expression marked a major paradigmatic change. For instance, Olszewski-Kubilius states:
In 1983, when I entered the field of gifted education, there was a paradigm shift occurring. People were beginning to use the term talent development and, in fact, my center at Northwestern University was one of the first to incorporate the term into our title – The Center for Talent Development, or CTD. This was not just semantics, although it may have appeared so to outsiders, but indicative of an important conceptual shift in thinking among leaders in the field of gifted education and those who studied exceptional ability. (2009, p. 81).

Unfortunately, she does not specify the nature of that conceptual shift. More specifically, Brody affirms:

More recently, we have seen a shift in our field away from a focus on ‘gifted education’ to one of ‘talent development,’ with the new terminology reflecting a growing realization that using a measure of general intellectual ability as a sole predictor of achievement is not adequate. (2009, pp. 93-94)

Notice how Brody associates the new expression with a distancing by professionals from an alleged reification of IQ as sole predictor of achievement. I am not sure I fully share that allegation. Anyway, this short literature review led me to one conclusion: in spite of its increased use in the technical language of the field, the term talent development remained essentially undefined. Most scholars have adopted it, just as Renzulli & Reis did, as an interesting label to describe the purported purpose of gifted programs. But, almost no one has given an explicit description of the essential characteristics of that developmental process. Among the half-dozen or so recent handbooks I examined, I found dozens of mentions of the “talent development” expression, but only two chapters in which the authors concretely try to define and describe the talent development process.

In the first one, Treffinger & Selby (2009) propose the Level of Service (LoS) approach to talent development. Its core element consists of four increasingly selective groups of activities: (a) for ALL students, (b) for MANY students, (c) for SOME students, and (d) for a FEW students. One might question the relevance of a concept of talent development applied to all students, or even many of them. The authors also identify “six foundational programming areas ... with which educators can organize their work in planning programming for talent development: differentiated basics [instruction], effective acceleration, appropriate enrichment, self-directed learning, personal growth and social development, and career orientation with a futuristic perspective” (p. 637). Their presentation of these six “programming areas” puts the focus on the curriculum more so than the process itself, although the first three items are undoubtedly process-oriented. But, in my view, the whole system lacks appropriate structure as a potential “model” of talent development.

In the other chapter, Jarvin & Subotnik (2006) propose an elite talent development model with two main focus areas: (a) the description of a three-step developmental path, namely from innate abilities to competencies, from competencies to expertise, and finally from expertise to scholarly productivity/artistry (SP/A); (b) an analysis of the major facilitators and inhibitors of talent development for each of these three consecutive steps. I found that their model came somewhat closer to my own image of what a talent development model should include. Although the authors identify their model as “the SP/A model of academic talent development” (p. 203), their last developmental stage shows an openness to a diversity of fields well beyond the announced “academic” status of the model. Still, except for an interesting description of the three stages (the DPS facet within the DMGT’s D component; see Gagné, 2009a, p. 67), Jarvin & Subotnik’s model does not really describe the diverse characteristics of a developmental process. Their chapter gives primary importance to environmental influences.

A fair critique would exceed the limits of this rejoinder. It would require that I describe more extensively these two distinct proposals, compare them, then show how they significantly differ from the definition of academic talent development I proposed in the target article. Interested readers have the necessary references to perform by themselves that comparative analysis.
ATD Elaborations

Quite a few commentators had things to say about the ATD, either to just point out omitted subjects or to propose diverse additions to the target article description. Although I could offer as an alibi the limited space available in an article format, still many of the points brought up about omitted contents would have been omitted anyway! That is why I warmly thank these commentators for their interesting suggestions.

Omissions. Some commentators just briefly pointed out what they judged to be missing contents. For instance, Liu mentioned that I “did not say much about motivation”, adding that “this topic should be of major importance in discussions about talent development and the equity issue” (p. 84). Luzzo & Gobet judge that my “article neglects the role of emotions” (p. 85). Finally, Araújo & Davids state: “Although Gagné’s model mentions the environment, he does not explicitly explain how environment-individual interactions occur” (p. 24). All these comments are quite correct of course. It did not seem necessary at the time to elaborate more extensively either on the DMGT theory itself or on the ATD model. With regard to the subjects of motivation and emotion, Liu and Luzzo & Gobet should find a more substantial discussion of these two important intrapersonal catalysts in the lead article of a recent High Ability Studies thematic issue on the subject of motivation (Gagné, 2010). In the case of Araújo & Davids I will come back to their “environmental” issue in the next section.

Comprehensiveness. After pointing out that there were “some major points missing regarding each of these elements which I would like to add” (p. 59), Grassinger systematically proposes additions or precisions for each of the six ATD characteristics. Although he does not adopt the appropriate DMGT conceptualization and terminology (e.g., using “domain” instead of “field” for mathematics, or associating mathematics with giftedness instead of talent), his suggestions remain easy to understand. I might argue here and there with minor comments, but I basically endorse Grassinger’s summative statement at the end of his comment. I will certainly come back to them when I prepare a more extensive description of the ATD model.

Curriculum. In the case of Shore, the focus is on curriculum issues (the first ATD characteristic), more specifically on a pedagogical approach called “inquiry-based instruction”. He considers his emphasis to differ from mine in the following way: “I think much more attention needs to be on the provision of suitable programs rather than on identification” (p. 97); he insists that “defensible educational provision needs to trump identification” (p. 98). I can understand that perceived divergence within the context of the target article, with its emphasis on unfair identification practices. On the other hand, Shore missed an important precision, namely that “an ATD program will be defined first and foremost by its content, an enriched content of course” (Gagné, 2011, p. 14). Apart from that minor disagreement, I find Shore’s suggestion a worthwhile contribution to a more detailed description of the ATD curriculum.

Identification. Most commentators who bring up the identification issue (the third ATD characteristic) argue for early identification, a subject very dear to my heart. Recall my fifth commandment: “Thou shalt intervene … earliestly!” (Gagné, 2007, p. 102). Terrassier even makes this issue the core of his comment. Just like Balogh, he worries that late identification, and of course intervention, might consolidate undesirable behaviors, especially loss of “motivation and interest for school and knowledge” (p. 101). Harder and Duan believe that early identification would help compensate for the negative effects of inadequate family conditions; Duan points out that it would make it “less likely they would miss the critical period during which abundant learning opportunities should be provided” (p. 51). Hotze concurs, saying “that the moral issue of equity also means undertaking any institutional effort at the very beginning of the educational process to strive for equal learning opportunities” (p. 76). I can’t agree more with these arguments. Still, I am frequently amazed by the resilience of so many bright students who maintain...
their IGAT status in spite of the daily boredom they endure in the slow-paced regular classroom.

MacDonald alone strongly argues against early identification. He brings in research from the field of sports to support his view that early identification does not predict very effectively later excellence in sports. Since I could not examine in detail the research he cites in support of his position, I have little to say about his conclusion, except that this special view from the world of sports does not have its parallel in general K-12 education.

Finally, Wallace’s comment brings up a very special identification question as part of her interesting analysis of 12 successful schools identified across the UK school system. She describes these successful schools as located “in a wide variety of social/economic areas”, and having “a mixture of multilingual and multi-ethnic pupils” (p. 112). Moreover, “they have been judged to be successfully transforming high potential into high performance” (p. 112). Since these schools do not seem to have any selective status in terms of access modalities, I wondered what was the percentage of high potential and high performance students with regard to the DMGT’s top 10% parameter. That central question follows from a statement Wallace makes in her text where she scolds me for not addressing “the important issue of the need to create opportunities for all students to discover [her emphasis in all cases] their potential talents and abilities” (p. 111). She seems to believe that everyone is gifted, a belief I certainly cannot share. Apart from that doubt about her operational definitions of “gifted” and “talented”, I applaud her commitment to develop “a curriculum of opportunity for all learners” (p. 112).

**Acceleration.** Heinbokel devotes most of her comment to the specific issue of accelerative enrichment (the sixth ATD characteristic). She strongly defends it, yet acknowledges its limited popularity in the two countries she has worked in: the United States and Germany. That pessimistic assessment perfectly parallels the views of most supporters of that most useful measure (see Colangelo, Assouline, & Gross, 2004). And it brings back to my mind Borland’s apt remark on the subject.

“Acceleration is one of the most curious phenomena in the field of education. I can think of no other issue in which there is such a gulf between what research has revealed and what most practitioners believe. The research on acceleration is so uniformly positive, the benefits of appropriate acceleration so unequivocal, that it is difficult to see how an educator could oppose it.” (1989, p. 185)

**Implementation Issues**

From various comments on the implementation of ATD programs, I retained two themes: (a) the slow expected pace of their dissemination, and (b) their impact on the (broader) equity issue.

**Slow Dissemination.** Recall my own pessimistic (realistic?) prediction that “extensive dissemination lies far in the future” (Gagné, 2011, p. 20). That lament has echoes in a few comments (e.g., Cobley & McKenna, Fiebig, Persson). For instance, Cobley & McKenna fully endorse my “visionary” proposition, quoting that “there is nothing more practical than a good theory” (p. 33). Yet, as practical as it might look to them, as well as those who are already implementing ATD services, they see the ATD model as conflicting with the educational philosophy of many UK educators. Consequently, Cobley & McKenna envision a slow and difficult implementation of ATD provisions, which they attribute to “the current climate of UK schools” (p. 33). Fiebig also believes in the low probability of a rapid dissemination. As she points out, “one cannot ignore that overhauling the entire educational system would require expansions of existing infrastructure and substantial financial resources” (p. 54). I cannot agree with Fiebig that the implementation of ATD provisions requires such major changes; many school systems have already succeeded quite well in implementing some prototypes. I rather believe that the main obstacle, as is usually the case with most services in gifted education, lies in strongly resistant negative attitudes. Changing them will require much more effort than making administrative adjustments!
Persson's warm accolade and full endorsement of my positions really touched me. His main worry concerns obstacles, especially in Europe, to a wide dissemination of the meritocratic ATD model in schools. He introduces competing social ideologies, especially social constructivism and fears of elitism. He associates these two ideologies, judging that it "is a problem particularly to social constructivist school systems ... which often also run on the basis of more or less socialist ideologies" (p. 94). I totally share his view that my ATD prototypes "directly confront the near-sacred political [his emphasis] principles of an inclusive school system embraced by most of Europe" (p. 94; see Dracup for that type of argument). Persson believes that "trying to introduce ATD in Europe would at least in some countries very likely be a case for political will over scientific sense and empirical fact" (p. 94). With my limited knowledge of European educational systems, I cannot judge whether Persson's diagnosis is overly pessimistic, or just plainly realistic. Others, like Pérez & Beltrán, appear decidedly more optimistic when they point out that "in Europe, this model is especially interesting due to the concept of developed abilities" (p. 91).

Impact on Equity. I stated in the target article, then reiterated in the opening summary (#11) my conviction that the dissemination of ATD programs would not decrease ethnic-based disproportionate representations in our field: it would probably increase them. In my view, the data from New York selective high schools, University of California freshmen, as well as Advanced Placement registrations and success rates, speak for themselves. Two simple reasons support that prediction: (a) the strong relevance of IQ and achievement measures as predictors of future performance in meritocratically inspired ATD programs, and (b) the chronically lower performances of Blacks and Hispanics on measures of these two crucial predictors. What do the commentators say? Zhang & Chu propose an amusing metaphor to illustrate my prediction: the straw (the ATD model) that won't succeed in breaking the camel's back (unequal opportunities of ethnic/SES minorities). On the other hand, Hoogeveen scolds me because I accept "rather easily that ... [my] program will not reduce ethnic disproportion, but maybe even increase it. It sounds like ... [I am] saying: 'we are not to blame, and others aren't either" (p. 72). I confess that I did not really understand her admonition.

Questioning the DMGT Itself

A few commentators did not address the two main themes of equity and meritocracy, but targeted the DMGT itself. Since the DMGT was not a central theme in the target article, I could have left aside these comments, and just send the commentators to other proper references, especially a recent major chapter on the defense of the giftedness concept against those I called "Antinat" (against natural abilities) researchers (Gagné, 2009b). In the interest of the general reader, who might have a limited knowledge of the DMGT, I decided to offer at least short responses to their objections. Opponents to the DMGT profess a common ideology: they tend to reject the existence of natural abilities, what they like to call "innate talent", while at the same time emphasizing the critical influence of environmental factors. Allow me to label that ideological syndrome "environmental bias", or EB for short. I have given priority to that particular issue. After that discussion, I will complete this Rejoinder with two short subjects: (a) the proper rationale underlying gifted education services, and (b) the pursuit of development goals other than academic excellence.

Environmental Bias and the DMGT

Environmentally biased (EB) scholars have always existed in the social sciences, at least as far back as the time of Skinner's behaviorism. It serves as scaffolding for many educational theories, including some we observe in the field of talent development.

Mild Environmental Bias. A large part of the professional talent development literature, not only in education, but also in arts, business, or sports, examines the impact of all types (EM, EI, or EP) of environmental variables on the growth of talent. As an example,
retrospective interviews of eminent individuals frequently leave the distinct impression that they (or the interviewer!) attribute to significant persons, especially their parents, the lion's share of causal influences in the emergence of their talent (Bloom, 1985; Cox, Daniel, & Boston, 1985; Hemery, 1986). Opposing scholars have even found for that “bias” a name that aptly conveys its primacy: the Standard Social Science Model or SSSM (Tooby & Cosmides, 1992). Note that the SSSM mindset extends its tentacles all the way to school personnel, media people, as well as laypersons. Just think of the first question journalists ask when they try to make sense of atrocious events like the recent shooting in Tucson (AZ): “What could have happened in Jared Loughner’s past to explain such a terrible behavior?” In other words, they are spontaneously looking for early familial influences (these questions almost condemn the parents without proper evidence), or more recent environmental influences (like Sarah Palin’s “aggressive” web site!).

One need not actively belong to that ideological orientation to be affected in a milder way by its ubiquity. For example, just think of the concept of “unequal opportunities”, so central to the analysis of ethnic disproportions. Very few scholars dare bring up other sources of influence, like intrapersonal dispositional factors (e.g., motivation, personality traits, perseverance) or even genetic factors. As I said earlier, the expression “minority/SES under-representation” will automatically bring to mind unequal opportunities as the crucial etiological factor, or group of factors. I did observe environmental leanings in many comments, even from colleagues who have adopted the DMGT as their theoretical framework. Here are just a few examples.

“We should focus on providing opportunity in schools and should make school so exciting that the poorest child aspires to become a doctor, chemist, or historian” (Cohen, p. 38). “The trap of environmental factors cannot be avoided, since the expression of any ability takes place within the person’s environment” (Guenther, p. 63). “[The problem of equity] becomes a universal problem, with greater consequences for those who find themselves deprived of an adequate education: whether this is due to a family, cultural, or economic deficit, their ethnic group or any other cause that implies a lack of equity” (Tourón, p. 104). “For some children performing may not be easy in an educational setting as they may be so marginalised by the setting itself that they are incapable of demonstrating the level of ability required to be noticed” (Wood, p. 123). These spontaneous tendencies to stress environmental influences are quite understandable – to some extent – in view of (a) the better visibility of environmental influences over other sources (e.g., genes, mental states), and (b) the tendency, when thinking about I or G influences, to interpret them as the direct product of environmental influences.

**Strong Environmental Bias.** The pool of commentators did include a few strong believers of the EB ideology, for instance Baker, MacDonald, Reutlinger & Till, and especially Araújo & Davids. I will briefly react to what seemed to me the core of their opposition to the DMGT. First, Baker questions my “assumption that asymmetries in the distribution of intelligence (or other correlates of ‘giftedness’ or ‘talent’) across racial groups reflect ‘real’ (i.e. stable, biological) differences” (p. 27). I felt uncomfortable with his apposition of the terms “stable” and “biological”. My understanding of stability strictly involves long-term duration (or chronic status) of some phenomenon, which is exactly the case for ethnic/SES differences in IQ and achievement measures (#4 in opening summary). It says nothing about etiology, biological or otherwise.

Second, as I understand his comment, especially his long second paragraph, MacDonald complains that I give undue importance to natural abilities over a diversity of environmental factors. Focusing on the field of sports, he discusses more extensively two of them, relative age effect (RAE) and birthplace, to argue strongly against early identification. Then, on the basis of these examples, he concludes:

[These environmental factors] demonstrate that fostering talent in youth is a highly complex issue and that multiple factors will impact a child’s athletic development. This appears to be inconsistent with the vision of talent development put forth by Gagné which suggests that special attention should be given to certain individuals, regardless of the other factors outlined above. (p. 90)
MacDonald will probably be surprised that I totally agree with the first of these two sentences. Indeed, it closely parallels a conclusion that has appeared in every description of the DMGT over the past decade. Here is a recent quote: “In a nutshell, talent emergence results from a complex choreography between the four causal components, a choreography that is unique to each individual” (Gagné, 2009a, p. 76). Note that this quote comes from the chapter MacDonald cites in his reference list. I have no idea why he didn’t notice it. Now comes my question to him: “How can that sentence be inconsistent with my vision of talent development when it looks like a clone of my own key conclusion about the complex dynamics at play in the talent development process? I would also suggest a more appropriate rephrasing of MacDonald’s second sentence: “This appears to be inconsistent with the vision of talent development put forth by MacDonald (and other EB thinkers) which suggests that overwhelming attention should be given to environmental influences, regardless of the other factors outlined above.”

Third, Reutlinger & Till’s comment focuses on my alleged lack of recognition of environmental factors. They affirm: “the different participation rates of the ethnic groups, as pointed out in the target article, can be better explained with a stronger orientation toward environmental influences. Therefore the DMGT Model doesn’t include strongly enough the aspect of the environment as catalyst” (p. 95). I found this comment a novel – and amusing – way to criticize the DMGT. I will point out to them that I labeled “catalysts” the I and E causal components to distinguish them from the G component. The G component does have a special role in the DMGT because I consider natural abilities as “building blocks” of the specific skills and knowledge that characterize each type of talent. Still, just like the G component, Intrapersonal and Environmental catalysts have a full “component” status within the DMGT. Consequently, I cannot understand Reutlinger & Till’s complaint, unless as an expression of the typical EB ideology.

Finally, Araújo & Davids use their whole comment to present the basics of their own “ecological” view of talent development. In essence, they argue that “the DMGT model is biased towards the individual, based on assumptions that gifts and talents are entities to be acquired or possessed by individuals” (p. 23). That statement, whose alleged assumption I do indeed endorse, sets the scene for a major divergence in perspective between their position and mine. I will not discuss in detail here their theory, which I have not examined in depth. Their citations would no doubt enlighten me on the reasons why my DMGT, with its affiliations to a “traditional behavioral science” that emphasizes the “acquisition of enriched internal states” suffers from “an organismic asymmetry [their emphasis] in its approach to understanding human behavior, neglecting the role of environmental constraints” (p. 23). Allow me to disagree with that alleged neglect, when one of the four causal components of talent emergence covers a large diversity of environmental influences. Their peculiar terminology, especially their use of the terms “affordances” and “effectivity”, appears directly borrowed from the late Richard Snow’s well-known aptitude theory (see Snow, 1992; Snow & Lohman, 1984; Talbert & Cronbach, 2002), which I extensively criticized in a long personal letter to him, as well as exchanges with David Lohman (see Reference Note 16; also Gagné, 2009b, pp. 160-165).

The DMGT’s Balanced Perspective. The DMGT offers, in a unique way, a comprehensive map of all potential causal influences of talent emergence, conveniently structured into components (G, D, I, E), sub-components (e.g., GI, TA, IM, DI), as well as third-level facets (e.g., GIV, GIN, GIS for the three dimensions – verbal, numerical, spatial – of the RADEX; see also Gagné, 2010, for facets within the I component). To my knowledge, no other theoretical view of talent development offers such breadth and logical structure, and applies to all fields of potential excellence. Of course, the DMGT highlights the special role of high natural abilities or gifts; I do believe in their existence as spontaneously developing entities with strong biological roots in biological processes.

Moreover, not only do they contribute to the crucial differentiation between giftedness and talent, but I also describe them as the very building blocks of the knowledge and skills that define a particular field of talent. Still, all four causal components (G, I, D, E) act
in concert to foster the emergence of talent. That comprehensive perspective (and its figural representation) makes it easier not to focus unduly on just one of the components, a tendency that can be observed not only among scholars (e.g., Ericsson's deliberate talent, Araújo/Davids and others' environmental bias), but also among professionals and laypeople. For instance, consider the quasi reification of effort and perseverance in the Asian culture, as described by Cohen in her comment, by Gladwell (2008) in his “rice paddies and math tests” chapter 8, and very recently in Amy Chua's (2011) very controversial “tiger mom” book. Correctly used and understood, the DMGT should help every person interested in the talent development process keep in mind the complex etiology of talent emergence.

Of course, the talent development process always involves all the components, albeit in different ways and different strengths at different times over its whole course. This is why I tend to smile when someone emphasizes a single component as if it were THE causal explanation of the observed talent. Look at the following example: “without a violoncello, instruction and family support Yo Yo Ma could not become an outstanding cello player” (Guenther, p. 63). Such examples, proposed most of the time to highlight some environmental influence, bring to my mind two closely linked reactions. First, I could replace the first few words in many ways: “without exceptional natural abilities for music, Yo Yo Ma ...,” or “without a passion for music in general and for that particular instrument, Yo Yo Ma ...,” or “without thousands of hours of deliberate practice, Yo Yo Ma ...,” or “without the strong will power needed to maintain that heavy schedule of practice, Yo Yo Ma ...” Second, I could point out the thousands of young boys and girls who, every year, start cello lessons; most of them quit within a year or two, and just a few ever reach professional status. In brief, there is much more to becoming a Yo Yo Ma than just being placed in a propitious environment that offers the cello, the instruction, and the family support.

The Yo Yo Ma illustration brings to the foreground the most important question in talent development: “What makes a difference?” I have yet to read another scholar in our field confronting head on, as I do, the delicate and complex question of the relative importance of all known causal factors of talent emergence, not just environmental ones as EB researchers do. It has appeared in all the chapters on the DMGT published over the last decade (e.g., Gagné, 2003, 2004, 2009a). Again, this is not the place to elaborate on the subject. Here is a recent summary that will give a glimpse of my current position.

“What Makes a Difference? Do some components generally – on average – exercise more powerful influences on talent emergence? My own review of the existing literature has brought me to propose the following downward hierarchy among the four components: G, I, D, E. I have discussed this hierarchy in detail elsewhere (e.g., Gagné, 2003, 2004). But, creating a causal hierarchy should not make us forget that in most situations all components play a crucial role in the talent development process. In a nutshell, talent emergence results from a complex choreography between the four causal components, a choreography that is unique to each individual.” (Gagné, 2009a, p.76)

A Proper Rationale for Talent Development

Luzzo & Gobet state that “the DMGT model focuses on the social utility of youngsters, but does not take into account their personal experiences and feelings” (p. 85). When I read that comment, I could not retrace any part of the target article where Luzzo & Gobet could have extracted that alleged focus, especially since I disagree with their statement. I retained their critique because it addresses a crucial question with regard to proper advocacy in gifted education: “Why is it important to develop the talent of all gifted children? Which ideology should guide our defense of their right to a special education?” In his effort to answer that question, Borland (1989) identified two basic rationales that professionals, teachers, and parents put forth to buttress the importance of special educational provisions for IGAT students. The first one, called the national-resources approach, presents gifted children as “a vast untapped resource that should be identified and exploited for the common good” (p. 27). It is similar to Luzzo & Gobet’s “social utility” focus. The second one, which Borland calls the special-educational approach, is based on
their outstanding natural ability to learn. As Borland argues, students should be offered special services “not because they promise to be productive adults or because they fit an expert’s profile of the gifted child, but because they demonstrate pronounced educational needs that can only be met by the provision of a special or modified curriculum” (p. 31). It is clear that Borland prefers the second approach … as I do!

I brought up that question in my tenth commandment “Thou shalt dream … eyeswideopenly!” (Gagné, 2007). Here is how I summarized its contents.

The 10th commandment cautions talented youth as well as their educators and parents against dreaming of fame and eminence with their eyes shut. On the long road to unparalleled excellence, young talented children will need to overcome many I and E obstacles as well as face the very restricted definition of eminence. Dreaming “eyeswideopenly” means not only to remain aware of these major hurdles but also to open one’s eyes to more modest but still highly desirable achievement goals. It also suggests keeping one’s eyes wide open to noncompetitive ways of pursuing the actualization of personal gifts toward more self-oriented life goals. (p. 114)

Alternative Developmental Goals

A few commentators question the challenging academic excellence goals proposed as the second characteristic of an ATD model. Here are the most relevant quotes I noticed on that specific subject. “An issue that is not really addressed in the model or in the equity argument is the end point of talent development” (Cohen, p. 38) “Rather than focusing on enrichment of academic talent in children, an important aspect is development of creativity, including helping young people connect to areas of passion and encouraging very hard work and commitment to practice that may lead to creative productive giftedness” (Cohen, p. 38). “I suggest that academic talent is not the only game in our field; rather, we need to observe and listen to our children, providing the supports needed to optimize their potential” (Cohen, p. 38). “So talent development should not concentrate on the best performance and functioning, but on the best development with respect to responsibility towards oneself, towards all the ‘others’, and towards nature” (Weyringer & Patry, p. 120). “An effective program of academic talent development addresses not only the skills necessary to be eminent in a field, but also the whole person” (Wood, p. 124).

I will limit my comments to four main points. First, I cannot agree with the substitution of anything else for the talent excellence goals that characterize the ATD model. Although I agree that “academic talent is not the only game in our field”, I believe that the pursuit of academic competence in the various subjects of the general K-12 curriculum remains a priority goal for all students, including talentees. How else can we justify the energy and time invested by countless specialists in the design of that national curriculum, including the closely argued negotiations that accompany even minor changes to its content? Second, critics should keep in mind the specific nature of the DMGT as a TALENT development model/theory, a major point I keep stressing in DMGT-related publications. Here is an example. “The DMGT is a talent-development model. It is NOT a model representing a person’s total personal development; it was not designed to address questions of moral or ethical development, or consider the growth of personal maturity” (Gagné, 2009a, p. 75). Consequently, I must disagree with Cohen’s blame that I do not address the nature of the “end point for talent development”. My introduction of academic excellence goals as the second characteristic of a good ATD program seems a clear enough answer.

Third, when I read Cohen’s suggestion to substitute the development of creativity for the enrichment of academic talent, I sensed a “Renzullian” influence, namely his distinction between “schoolhouse giftedness” and “creative-productive giftedness” (Renzulli, 2005). I cannot agree with the “rather than” at the beginning of her sentence because it implies abandoning academic excellence as a goal, a goal whose importance I stressed in my first comment above. Moreover, I cannot see why they have to be opposed (either or), instead of being pursued in parallel within the enriched curriculum of any ATD program. By the way, that would be my main critique of Renzulli’s distinction. Finally, I would agree only partially with Cohen’s statement that “eminent adults are known for their creative work,
not for being just good at something” (p. 38). I can think of many eminent lawyers whose fame rests more on exceptional power of analysis and eloquence than on creativity, journalists whose eminence has grown because of the strength of their judgment and wisdom more so than any creative writing, actors who achieve eminence through an exceptional technical mastery and sensitive expression of composers’ creative works, and so forth. In other words, talent-level creative productivity mainly characterizes a few specific fields of talent, like science, engineering, fiction writing, musical composing, choreography, or graphic arts. Moreover, major studies have shown (e.g., Park, Lubinski, & Benbow, 2008; Subotnik et al., 1993; Terman & Oden, 1959) that the vast majority of talented individuals, even highly talented ones, do not become “eminent” in any significant way. Properly defined eminence, as Galton did so well (Galton, 1892/1962), will apply to very few individuals. In other words, as I stated in the tenth commandment, “there is little room at the top” (Gagné, 2007, p. 113).

Fourth, the above comments do not mean that I do not approve of the parallel goals mentioned by the three commentators quoted above. No doubt that parents and educators should try to foster personal maturity and civic sensitivity, among other things. But, because these parallel goals would be influenced by a different set of causal influences – not just environmental ones, by the way! – acting with a distinct dynamic, they cannot appear within the DMGT model itself. Maybe we could imagine a model of personal development similar in structure to the DMGT, but whose main expected outcome would be some form of personal and social maturity. The causal components would of course include natural abilities, but they would no longer be the building blocks, “just” the catalysts. The building blocks might be temperamental predispositions, with their genetic anchoring, that would progressively transform themselves into appropriate personality traits (in spite of Araújo & Davids’ disagreement). Of course, that brief spurt of creative thinking would need to be worked at much more carefully. Maybe another project when I get old!

Conclusion

During the polishing phase of this rejoinder, I had to check back regularly in the comments for the accuracy of my quotes. I kept finding statements that I was tempted to include and discuss. Fortunately, I resisted. I have no doubt overlooked many valuable contributions from the commentators, but I believe to have included the gist of what I wanted to say. I hope to have at least quoted everyone accurately. I sure tried to do so because I imagine them being as frustrated as I am when facing inaccurate attributions. Again, I offer my sincere thanks to all the commentators for their generous contribution.

Reference Notes

1 The target article, commentaries and this rejoinder can be downloaded from www.iratde.org/journal/issues (Issue 1/2011). Readers who have difficulty accessing any of the referenced articles or chapters about my work can just email me; it will be a pleasure to send them an electronic copy. For better readability the commentaries are cited only by the authors’ names (set in italics), full references can be found in my reference list.

2 I observed only one instance of what I would call “verbal aggressiveness”: The last paragraph of Dracup’s comment. I will only say this: He might have found my “extreme position” as unconvincing as the “all children are gifted” argument, but if he reads all other comments he might feel lonely with his un-conviction!

3 As will be seen mainly in Part II, the specific writing I adopted, using “(in)” on some occasions, means to convey the complexity of a situation where equalities mix with
inequalities, and equity with inequity. Of course, I will use the most relevant term wherever possible.

4 Just like Dracup (see p. 45), Liu judges that the statistical G/T disproportion data displayed in Table 1 “are outdated and the current situation might be fundamentally different” (p. 83). They should consider that I found these statistical data in the most recent edition of one of the best handbooks in the field (Colangelo & Davis, 2003). I could have quoted slightly more recent, but essentially comparable data (see Gentry, Hu, & Thomas, 2008, p. 197), but they were not in table format. I might add that the recurring discussion of the subject in recent publications confirms the stability of the situation. As an example, Worrell (2009) affirms: “It is a truism to note that African American, American Indian, and Latino youth are underrepresented in gifted and talented education (GATE) programs relative to their percentage in the population of school-age children” (p. 149).

5 I took for granted that I had differentiated in the target article the term “program” from the terms “provision” or “service”, as I usually do when using them. I introduced that terminological distinction rather recently in my oral presentations of the ATD concept. They are distinguished as follows: The term program designates a structured set of talent development provisions or services that covers ideally the full K-12 system, at least a complete level (e.g., primary, high school). My only exception is the expression “gifted program(s)”, which I keep using because of its ubiquity in the professional literature and its well-known meaning, although that term really represents provisions or services.

6 I find very interesting the fact that nobody discusses the ubiquitous Asian over-representation in every sphere of education (notice the “except Asians” in the next note), although its very presence automatically creates, just like in communicating vessels, some degree of under-representation in other ethnic groups. It also raises important questions about the (in)equity of social factors. I leave to experts the task of examining that phenomenon in detail, not just to ascertain the sources of that over-representation, but also to bring the discussion of that specific situation within the broader equity issue.

7 First, VanTassel-Baska has me say that “the inequity issue in gifted education in the United States, identified as the underrepresentation of African Americans and Hispanics, is not a relevant one because these groups are underrepresented in other areas, and no one complains” (p. 107). That is a very distorted presentation of my position. As clearly restated in the opening summary, the inequity issue I target is not the under-representation itself, but the perceived unfairness in selection procedures. This is a huge – and unfair – distortion of perspective. That basic misinterpretation colors other subsequent statements. For instance, according to her, I allegedly assert “that inequity in the distribution of minority students (except Asians) in gifted programs is a reality to be seen as tolerable as long as no one complains about it” (p. 107). Again, the “complaints” I target are not “the inequity in the distribution, as she states incorrectly, but the perceived unfairness of the selection procedures.

Second, she introduces incorrectly the concept of “reverse inequity” (see main text for details).

Third, contrary to what she states, I do not “contend” – its use in the context sounds more like “claim” or “allege” than “state” or “explain” – that tail-end amplification exacerbates the perception of the problem. I simply describe a strictly factual statistical phenomenon that most educators and scholars are not aware of, yet has an important impact on representation statistics in fields that focus like ours on non-normal behaviors or characteristics.

Fourth, contrary to another of her assertions, I do not exclude AP courses or other accelerative measures. Indeed, acceleration is implied in the first characteristic of the
ATD model, namely enriched curriculum; it also reappears explicitly in the sixth one, flexible progress. What I argued was that these provisions (see note 5 above) could not be labeled ATD programs because they did not implement one important ATD characteristic, namely continuity over at least a few years. I took care to point out that these provisions could play an important role as desirable additions within a global ATD program (cf. Gagné, 2011, p. 16).

Fifth, she distorts the first of my alleged two major points as follows: “That disproportionality should be and indeed is tolerated under the guise of meritocracy” (p. 107). I will discuss in the main text the question of tolerance.

The MSOI document takes the form of a series of 25 short statements on the nature and measurement of intelligence, on the validity of IQ scores, as well as the origin and stability of individual and group differences. The MSOI appeared in the December 13, 1994, issue of the Wall Street Journal. The first three statements, reproduced below, precisely circumscribe the concept of general intelligence.

1. Intelligence is a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings – “catching on”, “making sense” of things, or “figuring out” what to do.

2. Intelligence, so defined, can be measured, and intelligence tests measure it well. They are among the most accurate (in technical terms, reliable and valid) of all psychological tests and assessments. They do not measure creativity, character, personality, or other important differences among individuals, nor are they intended to.

3. While there are different types of intelligence tests, they all measure the same intelligence. Some use words or numbers and require specific cultural knowledge (like vocabulary). Others do not, and instead use shapes or designs and require knowledge of only simple, universal concepts (many/few, open/closed, up/down). (Gottfredson, 1997, p. 13)

According to Wellisch & Brown, Callahan and Eichner affirm: “IQ and other achievement tests are now often used only as a last resort to provide evidence of intellectual giftedness” (p. 115). I could not imagine that major scholars in gifted education would make such a statement. I visited the website, and could not retrace any similar affirmation. Instead, I found the following statement in a section called “What can you expect as a result of IQ testing?”: “IQ is the best overall predictor of school achievement and educational success; hence intelligence tests are often one of the assessments used to identify exceptional general intellectual ability in children” (Callahan & Eichner, 2011). This quote directly contradicts Wellisch & Brown’s citation!

This conclusion directly contradicts one of Dracup’s comments about IQ and achievement measures. He affirms: “These may be the most common instruments, but they are not necessarily the best” (p. 47). He doesn’t identify what other means would be better. Of course, the “best” predictive power depends, as stated earlier, on the type of outcome being predicted. With regard to academic excellence goals, I cannot imagine any better predictors than these two measures.

Cobley & McKenna question the capacity of teachers and researchers to “accurately and reliably measure ‘natural ability’ and ‘competencies’ ” (p. 34). I cannot agree with that strong judgment against teachers as sources of information for gifted programs. Research has shown (e.g., Gagné, 1994; Hoge & Cudmore, 1986; Siegle & Powell, 2004) that well-trained teachers do produce fairly accurate lists of gifted or talented students. Of course, they need a clear description of the characteristics to look for, which brings forth the issue of clear outcome goals.
That virtual example parallels an ongoing debate in New South Wales (Australia). It has its origin in the much higher performance of young Asians on the entrance exam to the local network of selective high schools. This gives them a priority in the choice of the “best” selective schools, with the result that one of them, the highly rated James Ruse Agricultural High School, has now a student population composed of over 90% young Asian students.

Balogh proposes a much broader identification approach, thanks to which “even underachieving emerging talentees get into our programs” (p. 30). I heartily applaud this promising approach that appears to correct the causes of underachievement. Yet, I can’t help asking myself how they succeed in fitting underachievers in an ATD program. How can they fully implement the model’s six characteristics, especially its highly condensed curriculum? If indeed their program does so, it should be publicized much more extensively.

Two strongly critical judgments against the DMGT do not belong to that ideological tendency. In the first case, Dracup asserts: “I have a major concern about this statement [a quote from my target article, 2011, p. 10] which applies to much of Gagne’s argument: It is the conflation of measures of attainment and performance with measures of ability and potential” (p. 45). I understood “conflation” to mean “fuse, melt, or join together”. First, I could not find any such “conflation” in the quoted sentences. Second, I find that objection rather strange since the DMGT, as everyone knows, is the only talent development theory that clearly differentiates high potential (giftedness) from high attainment (talent), and takes pains to explain how each of the two constructs will usually be measured in its different forms, either “domains” of giftedness or “fields” of talent (see Gagné, 2004, 2009a).

For his part, Koichu doubts that “the influence of natural abilities or innate talents on achievements can be operationally separated from the influence of the environmental factors” (p. 80). I have difficulty understanding that argument. Although I would tend to agree that most empirical studies in education do limit themselves to exploring only one independent variable at a time, I could cite dozens of studies that try – and often succeed – in doing just that: Separate the relative causal influence of two or more variables. In one personal publication (Gagné & St Père, 2002), we first did a literature review of studies that had tried to measure the relative influence of IQ (a G variable) and “motivation” (an I variable measured as either IM or IV) on academic achievement (a T variable). Then, we described a similar empirical study in a Quebec high school. There are literally hundreds of other studies like that one.

David Brooks, a columnist for The New York Times, was among the few journalists who highlighted the “mental illness” hypothesis. He wrote:

In short, the evidence before us suggests that Loughner was locked in a world far removed from politics as we normally understand it. Yet the early coverage and commentary of the Tucson massacre suppressed this evidence. The coverage and commentary shifted to an entirely different explanation: Loughner unleashed his rampage because he was incited by the violent rhetoric of the Tea Party, the anti-immigrant movement and Sarah Palin. (Brooks, 2011)

The following text, titled “A critique of Richard Snow’s aptitude theory”, is an excerpt from one of my unpublished manuscripts.

To ensure a faithful presentation of the basic tenets of Snow’s definition of aptitude, I barely paraphrased his own words (from a pivotal 1992 article in Educational Psychologist), and those of his colleagues who assembled and discussed his thoughts in the commemorative book already mentioned.

Snow’s definition. His definition of aptitude leans heavily on Gibson’s concept of affordances. Snow defines them as follows. The affordances of a situation are what it offers the person, what it provides or furnishes, for good or ill. The term implies a complementarity of person and situation, as in an ecological niche. A niche is a place or setting that is appropriate for a person – a combination of situational components into which the person “fits”. Using that definition, Snow argues that aptitudes are affordances, which means that they are properties of the union of person and environment that exhibit the opportunity structure of a situation and the effectivity structure of the person in fitting that situation, that is, in taking
advantage of the opportunities afforded for learning. Said differently, an aptitude is an interface between
an inner environment (the person) and an outer environment (the instructional treatment situation).
Aptitude differences are invisible when inner and outer environments are perfectly adapted to one
another. When the outer environment is demanding, however, limiting properties of the inner environment,
called inaptitudes, show through at the interface as aptitude differences. Instructional treatment redesign
seeks to circumvent these inner limiting properties (inaptitudes) by adapting the outer environment or by
changing the inner environment (removing the inaptitudes by direct training).

Colleagues’ interpretation. In the commemorative book on Snow’s theory of aptitude [see Talbert &
Cronbach, 2002], the authors give an early definition of aptitude that differs somewhat from the above
paragraphs. They first mention that, according to Snow, the term aptitude should refer to being equipped
to work at a particular kind of task or in a particular kind of situation. They then note that the concept of
aptitude is especially close to that of readiness (as in “reading readiness”), suitability (for a purpose or
position), susceptibility (to treatment or persuasion), proneness (as in “accident-prone”). And they
continue as follows: “In this book we use the term aptitude to mean degree of readiness to learn and to
perform well in a particular situation or in a fixed domain.”

Comment. This short comment will barely scratch the surface of my views about Snow’s theory of
aptitudes. One thing is clear: I strongly disagree with most of the views expressed in the preceding
paragraphs. Basically, I cannot accept such a broad and inclusive view of the concept of aptitude. Anastasi
and other measurement specialists kept complaining of the excess meanings acquired by the concept of
aptitude. What I saw in Snow’s theory was a deliberate effort to create excess meaning. More specifically, I
cannot agree with a view of aptitude that includes aspects of the environment (aptitudes are properties of
the union of person and environment). My own definition will focus strictly on intrapersonal
characteristics. Secondly, I cannot agree with a definition that makes aptitude almost synonymous with
readiness. As we will see later, the term readiness is much broader than the extension I wish to give to the
term aptitude. Thirdly, I cannot agree with a definition that closely associates aptitude with “suitability”,
“susceptibility”, and especially “proneness”. Just trying to imagine an “aptitude for accidents” makes my
mind cringe! These associations excessively broaden the core of the concept. Fourthly, I cannot even
accept that the part of his definition that mentions intrapersonal characteristics includes motivational
(conative) and personality (affective) components.

As part of the recent 2.0 update of the DMGT (Gagné, 2009a), I proposed three distinct
“basements” under the behavioral phenotypes that characterize the DMGT variables:
(a) Genotypic foundations, (b) physiological (endo)phenotypes, and (c) anatomical
(exo)phenotypes. I concluded that presentation as follows:

The present section should make clear that natural abilities neither are innate nor appear suddenly at
some point during a person’s early – or later – development. Just like any other type of ability, natural
abilities need to develop progressively, in large part during a person’s younger years; but they will do so
spontaneously, without the structured learning and training activities typical of the talent development
process. (p. 75)

To illustrate that complexity, I analyzed the short biography (in Readers’ Digest) of an
exceptionally talented young, blind, classical guitarist born in the middle of the
Vietnam war (Gagné, 2000). I aimed to show how useful a tool the DMGT could be when
dissecting the diverse causal influences that pave the way to excellence.

EB researchers probably noticed that the E catalysts appear on the lowest rung of my
hierarchy. They will find my detailed argumentation for such a placement in the cited
references, especially Gagné, 2004. Since then, I have introduced an additional
argument for the lower placement of the E component. In older versions of the DMGT,
environmental catalysts appeared below a central arrow that graphically illustrated the
developmental process as a progressive transformation of gifts into talents. In the 2.0
update (see Figure 2 in Gagné, 2011), I moved up the E catalysts, placing them partially
behind the intrapersonal catalysts. The partial overlap signals the crucial filtering role
that the I component plays with regard to environmental influences. Except for a limited
direct E influence on the developmental process (the narrow arrow at left), the bulk of
environmental stimuli have to pass through the sieve of an individual’s needs, interests,
and personality traits. All human beings – indeed all living things – continually pick and
choose which stimuli will receive their attention.
References


The Author

Professor Françoys Gagné is a French Canadian from Montreal, Quebec. He obtained in 1966 his Ph.D. in Educational Psychology from the University of Montreal. Dr. Gagné has spent most of his professional career in the department of Psychology, at l’Université du Québec à Montréal (UQAM). After a decade of research on student evaluations of teaching, he became interested in talent development in the late 1970s. Although his research brought him to study a variety of subjects within the field of gifted education (e.g., attitudes toward the gifted and their education, peer nominations, developmental profiles), he is best known internationally for his theory of talent development, the Differentiated Model of Giftedness and Talent (DMGT), which has been endorsed by various educational authorities as their framework to define their target population and plan intervention provisions.
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- **Length**: A paper submitted should not exceed 6000 words including abstract, references, illustrations and appendixes.
- **Abstract**: An abstract should consist of a maximum 125 words. The abstract must, if it is the result of an empirical research, briefly outline theoretical basis, research question/s, methodology and instrumentation, sample/s and important characteristics (e.g. number, gender and age) as well as the main findings of the study. Also, it should include main conclusions. An abstract for a theoretical article or a review should describe the topic, the objective or thesis and the scope of the article. It should also outline the main conclusions.
- **Footnotes** should be numbered consecutively with superscript Arabic numerals.
- If reporting **statistics**, sufficient information must be included according to the APA Manual.

Figures and Tables

- Figures and Tables must be placed on separate pages; not included in the text. They should be submitted as separate file/s. Figures and Tables must have an Arabic number, an explaining text and a title. Their approximate place in the text should be clearly indicated.
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