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Popular Estimates of the Prevalence of Giftedness and Talent

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Jean Bélanger
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People's conceptions of giftedness and talent have many components, among them estimates of the percentage of gifted and talented persons in the population. To explore these popular perceptions of prevalence, a large heterogeneous sample of adults were asked their estimates; for half of them the target concept was "gifted" persons, while the other half were questioned about "talented" persons. All subjects also indicated if they perceived a difference between being gifted and being talented, and if so what was the nature of that difference. The major results were: the estimates varied enormously between respondents for both concepts; the average estimate was almost twice as large for talented persons (36%) as for gifted persons (17%); the perceived discrepancy was the same even for those respondents (20% of the sample) who judged the two concepts to be synonymous. Most arguments used by the majority who differentiated the two concepts were quite congruent with the direction and intensity of their differential estimates.

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New professionals in gifted education quickly discover that their specialization arouses a great deal of questions and opinions from friends and acquaintances; it seems that most people have developed their own implicit theory about the nature of these human characteristics. The systematic examination of these implicit theories of giftedness is not only interesting for heuristic purposes: it can also have useful applications. For instance, they probably buttress the attitudes people will have toward special educational services for gifted children; knowing more about these theories and their most

widespread characteristics could guide the planning of sensitization activities or advocacy documents.

The present text focuses on a specific aspect of these implicit theories, namely the perceived prevalence (percentage) of gifted and talented persons. This question is important, not only because it is a crucial component of an adequate operational definition of giftedness and talent, but also because of its very practical impact on the selection procedures adopted at the start of a program. Strangely, this important subject is among the least discussed by specialists in gifted education. Indeed, most textbooks do not tackle the subject directly. One is bound to find in them reference to the most frequent cutoff score used for intellectual giftedness—an IQ of 130—, or for academic achievement—a percentile of 95—, both placing prevalence at 2% to 5%.

Authors will also mention the disparate cutoffs used in the research studies they describe, from very selective ones (e.g., an IQ of 140 or more) to much more "liberal" ones (e.g., an IQ of 120 or a percentile of 85 or 90); they never discuss why some of these thresholds are fifteen times larger than others.

The diversity among specialists in gifted education suggests a similar diversity among the general public. A search for pertinent empirical data did not reveal a single published study on this specific subject. The only articles that were somewhat relevant to our subject addressed people's perceptions of the characteristics of *intelligent* persons (Sternberg, Conway, Ketron, & Bernstein, 1981; Siegler & Richards, 1982); but, in neither case were the subjects asked to estimate the prevalence of "intelligent" persons in the general population.

This article addresses three distinct questions. What is the average perceived percentage of gifted persons in the population? How closely do people in the street agree among themselves? Do

these percentages differ when people are asked about talented persons instead of gifted ones? This last question was inspired by Gagné's (1991) differentiated model of giftedness and talent, in which he proposes four categories of aptitudes (gifts): intellectual, creative, socio-affective, sensorimotor. Through the action of intraindividual (e.g., motivation, autonomy) and environmental (e.g., parents, teachers, trainers) catalysts, these aptitudes contribute to the development of talents in various fields of human activity (e.g., academic, technical, artistic, social, business, athletics, and sports). Gagné did not directly address the question of the differential prevalence of gifted and talented persons. But, his affirmation that "giftedness is necessary but not sufficient for talent to emerge" (1991, p. 74) implies that there should be more gifted persons than talented ones.

Method

Subjects

The sample was composed of 341 adults from 6 independent subsamples:

- 76 persons waiting in an airport terminal for a departure or an arrival;
- 46 students in a program of continuing education for retired citizens pursuing a college degree;
- 51 students in a Bachelor of commerce program;
- 43 employees in the computer service of a large university;
- 80 students in a teachers' education program;
- 45 parents of children attending an elementary school in a middle-class neighbourhood.

In the absence of a representative sample of the adult population, ecological validity was approximated by sys-

tematically looking for maximal heterogeneity in the subgroups (Cook & Campbell, 1976).

Instrument

A self-administered questionnaire was used. It had two forms (G and T): one used the word gifted, and the other the word talented. Apart from some sociodemographic information (age, education, sex), the questionnaire contained three questions. The first one was concerned with the characteristics of gifted/talented persons (Gagné, Motard, & Bélanger, 1991). The second question, placed on the same page as the first, was directly related to the subject of the present article: "In your view, what is the percentage of Quebecers who belong to the group of gifted [talented] persons?" The third question, on a separate sheet and common to both forms, asked respondents to state whether or not they perceived a difference between being gifted and being talented; if so, they had to specify the nature of that difference. [Note. The questionnaire was written in French and administered to French-speaking persons in Quebec. The English versions of the questions used in this article were prepared by the technique of back-translation (Brislin, 1986). First, a translation to English was made; the English text was then translated back to French. Only minor adaptations had to be made.]

Procedure

The questionnaires were administered in three different ways; but in all cases the two forms were randomly distributed to the members of each subgroup. The three groups of students received the questionnaire in their classroom. The airport group was assembled by an experimenter who spent two half-days asking people to complete the questionnaire; there were only a few refusals. Parents were approached through their children who brought home an envelope containing a letter of invitation and a copy of the questionnaire. The 85 parents were given a few days to send back the completed questionnaire; after two verbal reminders by the teachers to their pupils, 45 completed questionnaires (53%) were returned. Finally, the 105 members of the computer service received the same documents as the parents through in-house mail; the return rate was 41% after one written reminder.

Results

While the different subgroups differed quite extensively in terms of their sociodemographic characteristics, no significant difference was observed for either of them within each subgroup between the subjects who received the two different forms of the questionnaire; this confirmed the success of the random distribution. The estimates extended all the way from 0% to 100%, with an overall mean of 28%. Large standard deviations—slightly lower than the means—indicated much variability among individual values. A major difference appeared between the two forms of the questionnaire: the subjects judged that there were almost twice as many talented persons (36%) as there were gifted ones (19%). Moreover, those who perceived a difference between being gifted and being talented (80% of the sample) gave lower prevalence estimates for both concepts (17% for giftedness and 33% for talent) than those who judged them to be synonymous (27% for giftedness and 46% for talent). A three-way ANOVA (Form \times Subsample \times Difference) uncovered a significant form effect, $F(1, 273) = 35.9$, $p < .0001$, $Eta^2 = .10$, confirming the highly significant difference between the average estimates of gifted and talented persons; a significant difference effect, $F(1, 273) = 8.4$, $p < .004$, $Eta^2 = .02$, confirmed the statistical significance of the lower estimates from those who perceived a difference between giftedness and talent. The subsample effect was not statistically significant nor were any interaction effects (Sample \times Form or Form \times Difference); it meant that the two significant main effects were consistent from subsample to subsample, and that the lowering of the estimates by those who differentiated giftedness and talent was about the same in both forms.

Concerning possible relationships between the sociodemographic variables assessed and the level of the prevalence estimates, no systematic difference was observed between sexes, even when we controlled for the form they had received. Similarly, there was no significant correlation between age of subjects and their estimates, even when computed separately by form. But, a significant inverse relationship was observed between degree of schooling and level of estimated prevalence; it was approximately equivalent in the Giftedness subgroup, $r = -.27$, $p < .002$,

and the Talent subgroup, $r = -.34$, $p < .0001$, indicating a tendency for the more educated respondents to give somewhat lower estimates on average.

Discussion

The first striking result was the extreme diversity of the estimates given by the subjects; signaling the presence of major individual differences in the implicit theories that people have developed about giftedness and talent, at least in terms of the number of persons who fit these labels. It is interesting to note that a majority of these estimates exceed the highest values proposed by most specialists in the field. Yet, if the respondents had in mind the many facets through which giftedness and talent can manifest themselves, then these estimates would be less surprising; they would even be quite in line with the positions defended by a small minority of specialists (e.g., Gagné, 1991; Taylor, 1968), namely that a majority of the population deserves to be recognized as gifted or talented as long as we look beyond the limited domain of intellectual giftedness.

The second striking result was the major difference between the averages in the two forms of the questionnaire: giftedness was perceived to be much less common than talent. The present methodology does not allow a clear explanation of this difference. However, answers given to Question 3 by those who explained their perceived difference between giftedness and talent suggest possible explanations. Here are some of the most frequently mentioned arguments (Gagné, Motard, & Bélanger, 1991):

- giftedness is reserved for exceptional, rare or extraordinary behavior;
- the gifted excel at many things while the talented perform in a single area;
- giftedness is restricted to intellectual abilities while talent extends to all other fields of performance;
- giftedness is hereditary, while talent is attainable through effort and perseverance, even in the absence of any special natural gifts.

All the above arguments support a more common occurrence of talented persons than gifted ones.

The third striking result was the more selective estimate on average from those who perceived a difference between the two constructs, whether they received forms G (17% vs. 27%) or

T (33% vs. 46%). Because of its presence in both forms, the arguments invoked to differentiate the two constructs cannot be called upon to explain that systematic difference; indeed, they would make sense only if the discrepancy was larger in the case of giftedness as compared to talent (producing a significant Form x Difference interaction). Could this difference be just a reflection of the inverse relationship between level of education and prevalence? In other words, could it be that those who differentiated the two constructs were better educated than those who did not? The results of an ANOVA did not confirm that hypothesis. So, that particular significant but slight discrepancy remains unexplained. Concerning the relationship between level of education and the prevalence indices, the tendency of more educated respondents to be slightly more selective than less educated ones, it could be that educated people hesitate less to be more selective, confident that it will not jeopardize their membership into the gifted or talented "club". Conversely, less educated persons would tend to give more generous estimates in order to maximize their chances of being included.

Are these results representative of the general public's positions? There are at least two limits to a generalization of

these results. The first one is the non-representativeness of the sample. Yet, the total absence of any significant differences between the subgroups, as well as between sexes, indicates that the main results were very consistent across the whole sample. Thus, they can be considered fairly representative of the views of adult Francophone Quebecers who completed a high-school education. The second constraint is the cultural distinctness of the society in which this survey was conducted; cross-cultural comparisons should be made to establish whether or not these aspects of peoples' implicit theories of giftedness and talent are culturally stable.

While this exploratory study opens the door to an interesting area of research, and a pertinent one also, it leaves many questions unanswered. For instance, what arguments would people use to defend their estimate if it were challenged by a higher one or by a lower one? What answers would we get if subjects were asked to give two estimates, one for giftedness and one for talent, and then explain the difference (if any) between their answers? Would the prevalence estimates differ if subjects were asked about gifted or talented children instead of adults? What other characteristics of these implicit theories are related to their

prevalence estimates? How would the prevalence estimates differ if the target construct was "precocious child", or "prodigy", or "genius"? What would be the estimates of professionals in gifted education (e.g., teachers or program coordinators), as well as those of professionals in regular schools or schools without special programs? As can be seen, much room is left for anyone interested in examining in more detail this fascinating question of the perceived prevalence of giftedness and talent.

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Child Search and Screening Activities for Preschool Gifted Children

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A demonstration project of child search and screening activities was conducted to analyze referral rates and patterns for very young gifted children in northwest Louisiana and to test a modified case study approach for screening these referrals. Despite the use of intensive child search strategies, the demographic data for the referred group of 96 children did not match the demographic data for the parish of residence: males, Blacks and rural children were underrepresented in the sample. The modified case study approach used, however, was considered effective.

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Preschool child search and screening programs are in effect for many exceptionalities as a result of Public Law 94-142 and resulting state legislation (Colligan, 1982; Thurlow, 1985; Bursaw and Ysseldyke, 1986). Indeed, the Louisiana Department of Education mandates child search activities for exceptional preschool children, including gifted children. Although the state department of education specifically defines the identification process and criteria, the screening procedures are left to the discretion of each parish school district. The variety of untested search and screening approaches in use across the state was the primary impetus for this study. Because of a paucity of research literature and a limited number of proposed screening models for this subpopulation, a set of strategies and activities were produced by the project staff based on their familiarity with other experimental projects (Karnes and Taylor, 1978; Karnes et al., 1978;

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