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Abstract

We were thrilled to see an article focusing on giftedness, written by such thoughtful and well-respected researchers as Subotnik, Olszewski-Kubilius, and Worrell (2011). The expansive scope of their synthesis is so impressive that it could serve as a crash course introduction to gifted education. In our commentary, we focus specifically on the perspective of education service delivery. From this perspective, we review their guiding principles, chief goal, and provide some follow-up questions for further clarification as well as an implementation option also based on talent development.

Keywords

programming/service delivery models, definition and/or conception of giftedness/talent, philosophical/theoretical

As avid *Psychological Science for the Public Interest* readers, we were thrilled to see an article focusing on giftedness, especially one written by thoughtful and well-respected researchers such as Subotnik, Olszewski-Kubilius, and Worrell (2011). The expansive scope of the article is so impressive that it could serve as a crash course introduction to gifted education. The authors' explanation of the need for more unity in how giftedness is defined and discussed is a much-needed addition, and they should be congratulated for filling this void. Internal disagreements within the field lead to a weakened message being delivered, as the disagreements connote a lack of clear thinking and can be used as a reason for outsiders to ignore or dismiss the field. In this commentary, we focus specifically on the perspective of education service delivery.

Conceptualizing Giftedness

We agree with the first four guiding principles proposed by the authors: that abilities matter, that there are different talent domains with different developmental trajectories, developmental opportunities need to be offered at each stage, and psychosocial variables play a role in development. However, additional details concerning their proposed definition of giftedness would have been helpful. Phrases such as "clearly at the upper end of the distribution in a talent domain" (Subotnik et al., 2011, p. 7) do not specify explicitly who is gifted and who is to be served. Is it the top 10%, 5%, 1%, or 0.1% of each talent domain?

Are those percentages based on local, state, national, or international reference points? How are they assessed and how often are they reassessed? Without answers to these questions, implementation in schools will remain as fractured and fragmented as it is now.

The fifth premise, the desire to increase the incidence of eminent individuals "contributing in a transcendent way to making societal life better and more beautiful" (Subotnik et al., 2011, p. 7), is laudable and would lead to great improvements in quality of life. We welcome such a developmental perspective of gifted education, but we wonder whether eminence should be the primary goal of gifted education as we know it (primarily based in the K-12 environment). College and beyond are vital parts of development but are not typically considered within the realm of gifted education.

One caveat is that we implicitly operationalize eminence as extremely rare. In a world with 7 billion inhabitants, there are 7,000 "one in a million minds," of which roughly 300 should come from the United States (perhaps a few more because it is such a resource-rich nation). If Colin Powell and Tom Brokaw are the reference points (as cited by Subotnik et al.), then one in a million may be a bit extreme. However, if being a tenured faculty member is the reference

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point, then perhaps one in a thousand is more acceptable (although faculty members vary substantially in their performance and quality). If they are eminent, then we believe that currently used identification and service methods are quite successful at identifying eminence in academic and creative domains (e.g., Park, Lubinski, & Benbow, 2007; Wai, Lubinski, & Benbow, 2005; Wai, Lubinski, Benbow, & Steiger, 2010). However, if this is the case, we think a term more along the lines of creative productivity would be a better descriptor than eminence for this level of success, leaving eminence for more rarified air. All this said, if true one-in-a-million eminence is the goal, we feel the following four points require additional attention.

First, do the developmental experiences that differentiate the eminent from the expert occur in childhood and adolescence, or do they occur later in life after completing K-12? If these differentiating experiences occur entirely after K-12 education ends, then developing eminence shifts away from a traditional education perspective to a postadolescent and early adulthood initiative. Second, if eminence is the goal of gifted education, then the preeminent question we must ask ourselves is whether we know how to reliably identify and cultivate future eminent individuals. If not (and we think it is not), then we must investigate how to do this before we can hope for schools to develop eminence reliably. As discussed by Subotnik et al., we understand how individuals prepare for high levels of expertise, but the necessary and sufficient features of programs that reliably lead to the development of eminence have yet to be discovered.

Third, how can a school evaluate its curriculum when success cannot be assessed for several decades (a time frame necessary to assess whether eminence is achieved)? Such assessment grows even more complicated when individual motivation and interests play such a vital role in development, as the authors underscore. It grows nearly impossible when luck and happenstance are taken into consideration. The authors do an excellent job explaining the complex factors leading to eminence but the connection to how schools (and interactions with mentors, coaches, gatekeepers, etc.) can develop eminence needs further clarification.

Finally, the authors highlight that gifted education should seek to inspire high motivation, strategic risk taking, and choosing to take advantage of opportunities as precursors to eminence. All these behaviors fall under the mastery/growth mindset that the authors espouse throughout the article. However, the dichotomous goal of achieving eminence comes across as more of a performance goal mindset that requires validation. We worry that this disparity would send mixed signals to educators and students on whether they should strive for mastery or to demonstrate competence. Researchers (e.g., Mueller & Dweck, 1998) have demonstrated the power the environment has on subsequent student behaviors and goal orientations, thus making the articulation of goals within the field all the more important. We feel that the focus should be on advancing more students further through the domain trajectory continuum (described on p. 34).

Specific Service Suggestions

The specific suggestions for services, outlined at the end of the article, would likely garner wide political support. So much so that we believe they would be appropriate for any student at any level, not just those who are potentially eminent. However, we wish there had been more detail on how these guiding principles could be implemented by schools to help develop talent. We pose as a thought experiment, the question of what would happen if Congress passed the "Rethinking Gifted Education Bill" in its next session, putting the definition, goal, and suggestions of the Subotnik et al. article into law? What would schools have to do to implement them, who would do it, and what would it look like? We developed the following list of questions that we believe would need to be answered to make any and all of those decisions. Given the extraordinary scope of their article, we recognize that not all issues could be addressed in a single article. Nevertheless, clear answers to such questions are required for the field to implement the ideas expressed in the Subotnik et al. article.

Identification/Testing

- How and when is giftedness measured/determined?
- With eminence as the goal of gifted education, what is the impact of identification on students and their families? Does identification imply overly high expectations?

Programming

- What do programs look like in schools? Are they uniform across schools/states?
- Do programs vary across K-12 grades?
- What extent do programs rely on acceleration versus enrichment strategies?
- What do schools do to maximize eminence within and across individuals?

Assessment and Evaluation

- How do parents/policy makers assess the quality of a school or program?
- How and when are schools/programs evaluated in terms of eminence development?
- Given the other four components of the giftedness definition as well as the role of happenstance and luck, is eminence the goal for "all" or should some strive for "only" expertise? How are services and success differentiated for the two groups?

An Implementation Option

As discussed above, the broad scope of the Subotnik et al. article prevented focus on the granular details of implementing

its guiding principles at the K-12 level. We propose a possible implementation here that would help avoid some of the policy problems outlined by Subotnik et al. that plague gifted education (e.g., charges of elitism, the excellence-equity tug-of-war); we approach implementation through the lens of equating the needs of gifted students with the needs of all students. Rather than portray the needs of gifted students as being unique, we suggest weaving them into the general education tapestry. To accomplish this, we would revise the chief goal of gifted education to be the chief goal of all education: to ensure that all students receive the education appropriate for them at any given time by maximizing the match between individual students' educational experiences with their individual educational needs.

Like the Subotnik et al. article, this implementation strategy borrows heavily from developmental psychology, applying some of the basic tenets of Vygotsky's zone of proximal development (ZPD) and Bronfenbrenner's bioecological theory (Bronfenbrenner, 1977, 1979; Bronfenbrenner & Ceci, 1994) idea of providing "opportunity structures" to help students develop. In brief, according to Vygotsky (1978), ZPD is the area between what students can perform on their own and what they can perform with the help or guidance of a more capable peer. It is in the ZPD that student learning occurs; everything easier has already been mastered and anything more difficult is not yet within reach. If the goal of education is to maximize time spent in ZPD, then no particular group would be ignored or undervalued. Such a structuring would also foster mastery learning goals because advancing to a new unit would not be determined by time spent on task but demonstration of mastery.

In addition to being in line with the Subotnik et al. guiding principles, such an implementation blends with the work of scholars who have previously connected Vygotsky's work with giftedness (e.g., Kanevsky, 1995; Moss, 1990; N. V. Stanley, 1993). Moreover, others have made similar implementation suggestions using different terms. For example, Borland (2003) suggested gifted education without gifted students, Callahan and Miller (2005) proposed a child-responsive model of giftedness, Cronbach and Snow (1977) developed the idea of aptitude-treatment interaction, and SMPY researchers recommended providing students with educational opportunities tailored specifically to their individual learning rates (e.g., Benbow & Stanley, 1996; J. C. Stanley, 1980) that they now refer to as "appropriate developmental placement" (Lubinski & Benbow, 2000, p. 138). In one way or another, all these ideas suggest that, as J. C. Stanley (2000) put it, the idea is to teach students "only what they don't already know" (p. 216)." In fact, J. C. Stanley has gone into great detail on how these ideas could be implemented:

My proposal in the area of mathematics is for a longitudinal teaching team that spans kindergarten through the 12th (or 14th) grade in a school system. Working in a mathematics learning center, the various members of this team would be responsible for meeting all the mathematics needs of all the students in the school system.

The buck would stop with them. Every student would be helped to meet clearly stated, substantial criteria of mathematical competence. A few students would accomplish these early, perhaps by age 8; a few others would have to work hard until age 18 in order to attain the minima. Some students would proceed far beyond the minimum essentials; others would stop with them and devote their efforts thereafter to other subject matter.

Much of the instruction might still be in groups, but not age-graded ones. Attaining levels of achievement instead of letter grades would be stressed. All members of the longitudinal mathematics team would have to be highly competent, but some would specialize in helping slow learners and others in helping fast-moving ones. (Technologically sophisticated educational diagnosticians would also be essential.)

Obviously, this longitudinal-teaching-team model could be applied to other subject-matter areas such as language arts, social studies, science, and foreign languages. There might also be art, music, drama, physical education, and social and emotional development teams. Attention to individualized differences, both within areas and across areas, would be increased vastly. (J. C. Stanley, 1980, p. 11; for a detailed description of identification procedures, see J. C. Stanley, 2000)

An essential component to any successful form of giftedness programming is fluidity in curricular pacing that would avoid permanent group tracking. Students begin school at different starting points and given the large differences in rates of learning, not to mention other environmental and social factors, educational endpoints need not mirror these relative educational starting points (for further discussion of learning rates and developing talent, see Papierno, Ceci, Makel, & Williams, 2005). We need to recognize and respond to changes in learning rate differences so that students can remain in ZPD as much as possible. We believe such an implementation strategy is in line with the guiding principles proposed by Subotnik et al.

Such an educational implementation is certainly not easy; it has its difficulties, many of them similar to the eminence goal, namely, measurement reliability and validity and the potential for Matthew effects. However, the overriding benefit is a greater ability to measure progress in real time (e.g., a continuum of goals and a focus on mastery learning). Many may claim that radically reorganizing education around current performance instead of current age would be extremely difficult; and they would be right. But would it be any more difficult than asking a teacher to lead a classroom when some students already know more than half the material to be covered that year?

Educational Values

There is a strong value of educational equity in the United States (Gardner, 1961/1995). We think equating the goal of gifted education with the goal of all education would facilitate

greater acceptance from the extended education community while not sacrificing educationally appropriate opportunities for any group of students. We do not disagree that developing individuals who will make transcendent contributions to society is important, but surely a society as resource rich as ours can seek to achieve multiple goals (including eminence) simultaneously and not just a singular goal.

In sum, the Subotnik et al. article is an exceptional synthesis with provocative proposals. We find ourselves agreeing with Brody and Stanley (2005), though, who wrote, "Another misconception is that gifted students, to be truly exceptional, must be achieving at the level of the great thinkers of the world, such as Gauss, Euler, Fermat, Bertrand Russell, Mozart, Galois, Pascal, Newton, Sweitzer, or (especially) Einstein" (p. 32). Surely being a tenured faculty member or raising a family should not be considered a "failure" of our educational system. If they are, then we feel it is not our educational services that need rethinking but our educational values.

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Bios

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