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# Intelligence



## Book review

### **Real education: Four simple truths for bringing America's schools back to reality, 2008, Murray, C., Crown Forum, New York, 219 pages, ISBN: 978-0-307-40538-8**

Murray's *Real Education* is a collection of his “deeply rooted objections to American education” (p. 9) that he has finally let spill out onto the page. From this book, an honest reader groomed in the current educational system may come away with the impression that their own education might possibly have been somewhat fake, or at the very least suboptimal. If America's schools have long been sleepwalking, then Murray has decided to attempt to wake them up—by sharing with America four simple truths and dispersing foggy dreams of “educational romanticism,” a disconnect between the way many wish things could be in American education, and the way they actually are.

The first truth is that ability varies. Murray skillfully targets the cognitive elite, knowing that they have likely heard of Multiple Intelligences but have not all heard of *g*. In utilizing MI he sidesteps a number of technical arguments. He says the seven abilities are not equally valuable in adult life—the invaluable all-purpose tools are interpersonal, intrapersonal, linguistic, and logical–mathematical ability. “Few adults make their living in occupations that demand exceptionally high bodily-kinesthetic, musical, or spatial abilities as the indispensable requirement for excellence” (p. 22). Although he groups spatial, logical–mathematical, and linguistic into “academic ability,” and does mention that spatial ability (defined as mental visualization and object manipulation) is “important at the highest levels of achievement among engineers, architects, and many kinds of scientists” (p. 23), I would argue that for engineering, architecture, many sciences and the visual arts (as well as other arenas), spatial ability is more than just important but crucial, if not the indispensable requirement, for excellence (Gohm, Humphreys, & Yao, 1998; Humphreys, Lubinski, & Yao, 1993; Smith, 1964; Wai, Lubinski, & Benbow, in press). As Murray later advocates for the training of the elite in a way that is akin to Plato's Guardians, it is important to remember that above the entrance to the Academy it was inscribed: “Let no one ignorant of geometry enter my door” (Smith, 1964, p. 301).

The second truth is that half of the children are below average. “It is safe to say that a majority of readers have little experience with what it means to be below average in any of the components of academic ability” (p. 33), revealing the audience he has targeted. He uses sample items from basic

competency tests illustrating the percentage who failed the item to make his point to readers that if “asked to describe the things that a person with average academic ability can do, you will probably describe a person who is actually above average” (p. 34). Murray says: “Children with below-average bodily-kinesthetic ability have to take P[hysical] E[ducation] with everybody else, but no one tries to make them into good athletes” (p. 44). Why is it that parents, teachers, and counselors refrain from telling students without the requisite abilities to become a professional athlete, whereas they push many students without the requisite abilities to become occupational professionals? It seems that what is needed for all students is the appropriate vocational counseling (Dawis, 1992; Gottfredson, 2003; Tyler, 1992; Williamson, 1965).

This leads us to the third truth: that too many people are going to college. Murray argues that we have made the BA into a symbol of first-class citizenship and that we really need certifications rather than degrees. Many students who are pressured to get the BA should rather aim for vocational school to acquire a skill. I agree with Murray that choices to attend or not attend college deserve our respect and that “there are no first-class and second-class ways to enjoy the exercise of our realized capacities” (p. 168). Until we as a society are able to respect others at any occupational level for choosing to exercise their capabilities to the fullest, we are not really allowing them to have personal dignity.

The fourth truth is that America's future depends on how we educate the academically gifted. Murray says, “America's future *does* depend on an elite that runs the country. The members of that elite are drawn overwhelmingly from among the academically gifted” (p. 107). He says the elite possess smarts but they need wisdom. This includes mastery of the tools of verbal expression, analytical building blocks for making sound judgments, rigor in thinking about virtue and the good, and humility. In contrast to a small number of the elite such as some “scientists, physicians and artists,” Murray argues that “verbal expression is what the elite does” (p. 113). This may be true for C. P. Snow's (1959) “humanists” but is likely not as important for many of the “scientists” or possibly other intellectual cultures where nonverbal symbol manipulation in the form of quantitative and spatial ability plays a larger role. We should allow each gifted student to build on their strengths even if this means decreasing their well roundedness. Otherwise, we may be weighing down a gifted student's intellectual progress by forcing them to carry a suboptimal intellectual load. Climbing high up one mountain

path may prevent you from hiking up many others, but it may also afford a view that no other has seen before. We should encourage those gifted students who choose to pursue excellence in any field to carry their desired intellectual load so that they can discover new intellectual views.

On the topic of humility, Murray says it is crucial that the gifted hit their mental limits, to understand those limits in their gut, not only so that they can empathize with the less able who hit their limits much earlier, but because “No one among the gifted should be allowed to rise to a position of influence without knowing what it feels like to fail. The experience of internalized humiliation is a prerequisite for humility” (p. 132). I agree with Murray that genuine humility among the gifted is lacking because many have neither felt intellectual walls that they simply could not move past nor have fully internalized what that means. Thus it may be crucial to 1. have every gifted student take enough higher level mathematics until they honestly acknowledge their intellectual limits (as this is likely the most efficient way), and 2. tailor an educational program to challenge them (Benbow & Stanley, 1996; Stanley, 2000) so that they reach those walls as soon and in as many areas (not just limited to math) as possible. “The problem is that they have been given no help in tapping the magnificent body of thought...that *Homo sapiens* has already produced” (p. 126). Simply put, many gifted students have not stood on the shoulders of giants, or even on the faces of giants (Bolles)<sup>1</sup>, but have failed to step on any giant at all. On rigor and thinking about virtue and the good, Murray says that gifted students should know that “people even smarter than they are have written helpfully about it in the past” (p. 128). Again we see that Murray focuses on what has been verbally invented, rather than what has been mathematically or spatially invented. For mathematically or spatially gifted students, it might be important to emphasize that people even smarter than they are have mathematically and spatially expressed themselves helpfully through great innovations of the past.

Reading *Murray's Human Accomplishment (2003)* is a humbling yet awe-inspiring experience, but reading *Real Education* in a sense is even more so, precisely because it is easy to say you're not the very best at something but still really good, but hard to say that you don't have more to learn. Murray writes: “pattern recognition refers to the ability to see

the relevance of other nonidentical situations. It is inextricably linked with experience” (p. 115). Through the vision of his experience, Murray has provided for us a beautiful work of distilled synthetic scholarship, arguably one of the highest forms of the expression of pattern recognition. When reading this book, it is easy to be charmed by the deceptively simple prose and neglect the conceptual power of the ideas that are masterfully woven into the pages. Although readers will not welcome all of Murray's viewpoints with open arms, they will wonder with anticipation what he will say next. And when they turn the very last page, hopefully they will have a more sophisticated understanding of higher education and the challenges facing these systems. *Real Education* is a quick, enjoyable, and must read for educators, policy makers, and social scientists.

## References

- Benbow, C. P., & Stanley, J. C. (1996). Inequity in equity: How “equity” can lead to inequity for high-potential students. *Psychology, Public Policy, and Law*, 2, 249–292.
- Dawis, R. V. (1992). The individual differences tradition in counseling psychology. *Journal of Counseling Psychology*, 39, 7–19.
- Gohm, C. L., Humphreys, L. G., & Yao, G. (1998). Underachievement among spatially gifted students. *American Educational Research Journal*, 35, 515–531.
- Gottfredson, L. S. (2003). The challenge and promise of cognitive career assessment. *Journal of Career Assessment*, 11, 115–135.
- Humphreys, L. G., Lubinski, D., & Yao, G. (1993). Utility of predicting group membership: Exemplified by the role of spatial visualization for becoming an engineer, physical scientist, or artist. *Journal of Applied Psychology*, 78, 250–261.
- Murray, C. (2003). *Human accomplishment: The pursuit of excellence in the arts and sciences, 800 B.C. to 1950*. Harper Collins.
- Smith, I. M. (1964). *Spatial ability: Its educational and social significance*. London: University of London Press.
- Snow, C. P. (1959). *The two cultures and the scientific revolution*. New York: Cambridge University Press.
- Stanley, J. C. (2000). Helping students learn only what they don't already know. *Psychology, Public Policy, and Law*, 6, 216–222.
- Tyler, L. E. (1992). Counseling psychology—Why? *Professional Psychology: Research and Practice*, 23, 342–344.
- Wai, J., Lubinski, D., & Benbow, C.P. (in press). Spatial ability for STEM domains: Aligning over fifty years of cumulative psychological knowledge solidifies its importance. *Journal of Educational Psychology*.
- Williamson, E. G. (1965). *Vocational counseling: Some historical, philosophical, and theoretical perspectives*. New York: McGraw-Hill.

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<sup>1</sup> Earl Hunt (September, 2008, Personal Communication) shared with me that the paraphrased quote from Robert C. Bolles (which he was known to say repeatedly) is: “Newton said that he had been able to see further than others because he stood on the shoulders of giants (those who had gone before him). In Psychology we stand on their faces.”