

Restricting or Universalizing Targeted Interventions: National Policy Ramifications

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Each year billions of dollars are invested in interventions aimed at improving the health, educational, and social outcomes of children. In large part these interventions are motivated by what theorists have described as the "Matthew Effect" which results when initial advantages (e.g., financial resources, academic ability) held by one group lead to cumulative differences that widen pre-existing gaps (Walberg and Tsai, 1983). Governmental agencies have funded numerous targeted interventions that are designed to reduce disparities between these two groups, primarily by elevating the performance of the lowest group toward the level of the higher group. However, it turns out that when some of these gap-narrowing interventions are given not only to the group of children who most need assistance but also to the better functioning group, the higher functioning children benefit even more from the intervention, and the result is increased disparity.

Demonstrations of inducing the Matthew Effect can be found across multiple domains. For example, in the cognitive domain researchers have reported disproportionate gains by gifted students (Borkowski & Peck, 1986) and older, more able students (Jones, Ridgeway, & Bremner, 1983) following interventions. Similarly, in the social domain higher SES families have been found to benefit more from certain interventions than lower SES families (Spath, Redmond, Hockaday, and Shin, 1996). Economists have shown that advantaged families are more likely to utilize, and therefore benefit from, scholarships and college subsidies (Dynarski, 2000; Stanley, 1999, respectively). And in the biological domain, Shapiro (1999) points out that it is likely that the distribution of genetic enhancement therapy through commercial markets will make these interventions initially available only to the wealthy, resulting in a widening of social and political disparity between the rich and poor.

These examples demonstrate that when interventions across various domains (cognitive, economic, social, biological) are made available without regard to individual children's needs, the result is often that those from advantaged backgrounds gain more from the intervention than do their disadvantaged peers. This ability to manufacture increased disparity by universalizing interventions poses some intriguing and thorny social policy questions that have not been dealt with by policy makers. From an ethical position, one could argue that any intervention that elevates the performance of any student should be made available to that student, without regard to his or her financial needs, ethnic membership, aptitude, etc., and without regard to the social and political consequences of that student's elevation in relation to lower-functioning peers. From a political and economic standpoint, a nation's next generation of leaders, scientists, writers, engineers, etc. is drawn overwhelmingly from the top 10 % of its population of students. So, if a nation's standing vis-a-vis its international trading partners is dependent on the performance of its top echelon of scholars and business leaders, then any intervention that raises the performance of those top students will serve to make that country more competitive. Further, the bolstering of higher-performing students would likely have a

positive impact on everyone, as national economic growth stemming from their success could trickle down and provide much-needed economic resources for their lowerperforming counterparts.

On the other hand, the narrowing of gaps associated with demographic factors may be just as important for a nation's future success, and raising the bottom group's level of attainment could, at times, have a greater cost-benefit ratio or economic "return" than elevating the top group's level (e.g., by reducing future welfare dependency, teenage pregnancy, criminality, etc.). To the extent that this is the case, interventions that are more targeted and constrained would appear appropriate, even if this strategy results in fewer of that nation's students considered in the elite category that fuels tomorrow's business and science leaders. More over, from an ethical perspective, as a nation do we have an obligation to raise the level of disadvantaged children because their position in the lower group is likely a function of external rather than internal differences (e.g., achievement measures are confounded with SES/race/school resources)? If true, we should take every measure to equate these external differences, even if this means restricting access to potentially beneficial interventions, so that every student is given the opportunity to be amongst that top 10%.

Most Americans endorse the allocation of national funds for the remediation of lowerperforming students. However the findings presented here raise an important, and politically controversial, question as to whether our scientific and educational efforts should be focused on abolishing or actually taking advantage of the Matthew Effect. Currently there is no national discussion along these lines. Undoubtedly, there is a mix of interventions, some targeted and some universally available to all, that produce the best overall cost-benefit ratio. But, to the extent that such gap-widening can be artificially induced by making certain targeted interventions available to everyone should prompt policy-makers to consider whether our national policy should be mindful of raising the top students, bottom students, or both, and the political and economic ramifications associated with each option.

References

Borkowski, J. G. & Peck, V. A. (1986). Causes and consequences of metamemory in gifted children. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp. 182-200). Cambridge: Cambridge University Press.

Dynarski, S. (2000). Hope for whom?: Financial aid for the middle class and its impact on college attendance. *National Tax Journal*, 53, 629-662.

Jones, H., Ridgeway, J, Bremner, J. G. (1983). The effect of encouraging self evaluation on children's ability to transfer the use o a mnemonic strategy. *Human Learning: Journal of Practical Research and Applications*, 2(4),327-338.

Shapiro, M.H. (1999). The Impact of Genetic Enhancement of Equality. *Wake Forest Law Review*, 34(3), 561-637.

Spoth, Redmond, Hockaday, & Shin (1996). Barriers to Participation in Family Skills Preventive Interventions and their evaluations: a replication and extension. *Family Relations*, 45(3), 247-254.

Stanley, M. (1999). Education, opportunity, and the mid-century G.I. Bills. Working paper, Harvard University Department of Economics.

Walberg, H. J., and Tsai, S. L. (1983). Matthew effects in education. *American Educational Research Journal*, 20, 359-373.