The Vision of Julian Stanley

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Julian Stanley

Prologue

The world of educational research will forever remember Julian Cecil Stanley for his monumental contribution (with Donald Campbell) of a monograph on experimental and quasi-experimental research design (Campbell & Stanley, 1966) that served as the "Bible of Research Methodology" since its publication. The world of gifted education will forever remember Julian Stanley for his remarkable vision in creating and developing the Talent Search Model. I had the privilege of studying with Dr. Stanley during my senior year at The Johns Hopkins University in the 1974-1975 academic year. This article highlights the key points from an interview I conducted with Dr. Stanley at the request of *Roeper Review.*

History of the Talent Search

Although Julian Stanley had periodic involvement in gifted education in the 1950's, his commitment crystallized in the late 1960's through the exposure to several mathematical prodigies. One student, an eighth grader in a public school in Baltimore, was using Fortran to help graduate students analyze their dissertation data. Influenced by the writings of Leta Hollingworth, Dr. Stanley administered the Scholastic Aptitude Test (SAT) to this student. When the student's score on the mathematics portion of the SAT was higher than the average score of undergraduate students at Johns Hopkins, Dr. Stanley approached Dr. Carl Swanson, a renowned biologist and Hopkins' Director of Admissions, and secured the student's admission to The Johns Hopkins University at age 14. The success of the student and those of a few others led Dr. Stanley to approach the Spencer Foundation for funding to study the development of mathematical and scientific talent. Following a meeting with the President of the Spencer Foundation, Dr. Stanley wrote a 4.5 page proposal that resulted in a 5-year $266,100 grant in 1971 to identify mathematically and scientifically gifted youth, to describe their characteristics, and to facilitate their educational development. This was the beginning of the Study of Mathematically Precocious Youth (SMPY), which Dr. Stanley founded together with two graduate students (Dan Keating and Lynn Fox) and supported with the grant. The initial work is described in *Mathematical Talent: Discovery, Description, and Development* (Stanley, Keating, & Fox, 1974).

The first talent search in 1972 involved 450 students from Baltimore and the surrounding area, who scored at the 95th percentile on in-grade achievement tests. The continued growth of the talent search and the need for testing sites that were accessible to students led Dr. Stanley to recognize the need for regional talent searches. Interactions with the Dean of Education at Northwestern University and the Provost of Duke University led to the establishment of the Center for Talent Development at Northwestern University (CTD) and the Talent Identification Program (TIP) at Duke. The Rocky Mountain Talent Search was established at the University of Denver. SMPY took responsibility for the Middle-Atlantic states, New England, the West Coast, Alaska, and Hawaii. Today, over 300,000 students in the United States participate in one of the regional talent searches.

Diagnostic Testing Followed By Prescriptive Instruction (DT/PI)

In the 1970's, Dr. Stanley introduced DT/PI (Diagnostic Testing followed by Prescriptive Instruction) to the field of gifted education. At the beginning of a course such as algebra, a student would be given a standardized algebra examination such as the Cooperative Algebra I test to see how much algebra the student already knew. Tests were corrected and an error analysis was conducted to determine what concepts a student needed to learn. Instruction was provided only on those concepts. When the instructor was confident that mastery had been achieved, the student would be given a parallel form of the standardized test. If a student obtained the mastery criterion, normally the 90th percentile, the student would move to the next level course and begin with the appropriate standardized test as a pretest.

Using this technique, students could greatly accelerate their progress. In one informal experiment, 15 mathematically precocious youth served as tutor/mentors to younger students who had scored at the 50th percentile on the standardized Algebra I test. Meeting with students in groups of five and with prepared materials, the mentors were able to help two-thirds of the students attain the 85th percentile

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after one day of instruction. Using this technique, students enrolled in three-week summer courses in high school biology, chemistry, and physics were able to master the content in these courses as demonstrated by their scores on the College Entrance Examination Board Achievement Test in biology, chemistry, and physics (Stanley & Stanley, 1986).

On Radical Acceleration

In the beginning, radical acceleration (entering university two or more years earlier than is typical) was an intervention that Dr. Stanley pioneered for mathematically precocious youth. At the time, there were few alternatives. Today, there are many worthwhile options. There are now numerous summer programs available to challenge mathematical and verbally talented students. It's critically important that there be articulation with a student's community school so that students who master a course in three weeks are permitted to enroll in the next course in the curricular sequence. Dr. Stanley was a strong supporter of dual enrollment programs in which students can take university-level courses for credit while in high school. Advanced Placement enables students who perform well enough on a particular Advanced Placement Examination to earn university credits at an earlier age. Residential high schools, such as the Texas Academy of Mathematics and Sciences at the University of North Texas and the Advanced Academy of Georgia at the University of West Georgia, enable participants to have an accelerated academic experience as well as the social, cultural, and recreational benefits of being part of a cohort. Dr. Stanley also believed that various competitions such as International Mathematics, Chemistry, and Physics Olympiads could be beneficial for mathematically and scientifically talented students. Judicious use of these options enable a student to enter university with a rich high school experience and a sizeable number of university credits that can be applied to a baccalaureate degree.

Epilogue

Julian Cecil Stanley passed away on August 12, 2005 at age 87. Celebrations of his life were held in September at the Vantage House in Columbia, Maryland, where he resided, and in November at the convention of the National Association for Gifted Children in Louisville, Kentucky. I am grateful that I had the opportunity to attend the celebration in Columbia and publicly acknowledge the tremendous impact Julian Stanley had on my career at the celebration at NAGC. Julian C. Stanley will be remembered as an individual who exemplified the meaning of the term, "a scholar and a gentleman." I feel blessed to have studied with someone who was both incredibly brilliant and incredibly gracious.

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