

## Arthur R. Jensen (1923–2012)

Arthur R. Jensen epitomized the “London School” of psychological thought, studying human individuality as a branch of biology by teaming evolutionary, genetic, and experimental/multivariate/quantitative methods to examine psychological diversity. His intellectual ancestry traces back through his mentor Hans Eysenck to Cyril Burt, Charles Spearman, and, ultimately, Sir Francis Galton. Haggbloom et al. (2002, *Review of General Psychology*) ranked him among the top 50 eminent psychologists of the 20th century primarily for his work on the construct of general intelligence (*g*) and its antecedents. But he was also known for his studies in human learning, memory, the cumulative deficit hypothesis, Spearman’s hypothesis, the speed of information hypothesis, and test bias. Yet, because of the controversial nature of his work, his career was conspicuously marked by tensions: The extent to which his work was either admired or reviled by many distinguished scientists is unparalleled.

Art was born in San Diego, California, on August 24, 1923, the son of Linda and Arthur Jensen, who owned and operated a building materials company. Art’s exceptional intellectual talent appeared by grade school, and his penchant for enthusiastically lecturing his family at dinner on topics he was studying led his parents to nickname him “the little professor.” An insightful fifth-grade teacher, recognizing how quickly Art mastered assignments, allowed him to research different topics and lecture to the class. The lectures soon expanded to other classes in his school, on topics ranging from Gandhi’s life and evolution to the behavior of reptiles. Herpetology was a boyhood hobby, and Art experimented to ascertain whether light or temperature motivated lizards to go underground, discovering it was the latter. Gandhi was his hero, and his attraction to Gandhi’s philosophy is likely what got Art kicked out of Sunday school. His regnant passion, however, was music, a lifelong interest mentioned frequently in his conversations and scholarship.

An accomplished clarinetist by age 10, Art played in a band alongside future American Educational Research Association president Ellis Page. Page recalls that whenever the instructor left class, he turned the baton over to Art. After an audition with Leopold Stokowski’s All-American Youth Orchestra, 17-year-old Art played second clarinet with the San Diego Symphony for a year. But he realized that he would not amount to much, by his standards, if he continued with a musical career, and he wanted to find something he truly excelled in.

After earning a bachelor’s degree in psychology (Berkeley, 1945), Art worked at his father’s business, then as a pharmacology technician, social worker, high school biology teacher, and orchestra conductor while earning a master’s degree from San Diego State. In 1952, he went to Columbia University’s Teachers College to study clinical and educational psychology under Percival Symonds. When not involved in psychology, he could often be found at Carnegie Hall observing Toscanini’s rehearsals (score in hand).

Art respected Symonds but felt that his interest in projective techniques was more a literary exercise than important science, a feeling that intensified during Art’s clinical internship at the University of Maryland’s Psychiatric Institute (1955–1956). Yet, he drew on important advice from Symonds, who told him that if he really wanted to be a top academic, he should work with a leading expert for a few years after obtaining his PhD, rather than taking the most attractive or best-paying position—not to learn more psychology or acquire more through reading, but to see how leading contributors structure their lives and priorities.

During the evenings of his internship, Art read widely in psychology, seeking a mentor. Eysenck’s *The Scientific Study of Personality* (1952) resonated with him, as did other luminaries in individual-differences/psychometrics. He wrote Eysenck, asking to join his laboratory. Eysenck proved an outstanding mentor, and Art’s two years at the London Institute of Psychiatry (1956–1958) were invaluable, setting the stage for essentially all of his future research and a tenure-track position at Berkeley’s Graduate School of Education (1958).

His first few years at Berkeley combined individual-differences assessments with serial learning, short-term memory, and information-processing paradigms. Art distinguished Level I (rote learning and memory) and Level II (abstract reasoning and problem solving) abilities and hypothesized different systems underlying them. By the mid-1960s, he became immersed in the literature on cultural disadvantage. It was so vast and rapidly growing that he decided to organize and evaluate it comprehensively, which coincided with an invitation to spend a year at Stanford’s Center for Advanced Study in the Behavioral Sciences (1966).

Initially, Art wrote a chapter on how group differences in learning were likely traceable to deprivation–opportunity differences. Digging deeper into this literature, however, he was struck by how uncritically genetic influences were dismissed, and he began publishing articles on behavior genetics and individual differences in learning potential. His article “Social Class, Race, and Genetics: Implications for Education” (1968, *American Journal of Educational Research [AJER]*) attracted an invitation from the *Harvard Educational Review* to expand his treatment of the topic. The result, “How Much Can We Boost IQ and Scholastic Achievement?” (1969), questioned the efficacy of extant programs designed to enhance intellectual development and hypothesized that individual and group differences in learning potential have both genetic and environmental components. The article ignited a firestorm across academe, the popular press, and the Berkeley campus.

His suggestion that genetic differences give rise to important psychological differences was anathema to prevailing academic ideology, but he also hypothesized that if traits run in families because of genes, they may also run in families of families (races) for the same reason. Unsurprisingly, this

raised the reaction to Art's work to an incendiary level. At the time, even the existence of psychological traits was considered questionable; developmental handicaps were thought by many to be "curable" through identifying the right contingencies. A two-page comment in the *American Psychologist* (1972) by Art's boyhood musical companion Ellis Page contained a resolution signed by 50 distinguished scientists (including Jensen); it documents the sentiments of the time and the extent to which investigating the possible role of biological influences on psychological phenotypes was considered scientifically off limits. Page's comment was designed to allay harassment and to reinforce the importance of such research.

Art's experience was extreme. Police bodyguards escorted him on the Berkeley campus, death threats led to his home phone being monitored by the police, his car tires were slashed, and he was frequently picketed and even spat on as he walked to classes. During the most intense period, the police, unable to provide the 24-hour security the threats warranted, recommended that he and his family secretly move to a new residence (which they did).

Art continued publishing, speaking, and adding consternation and complexity to his career. Some of his publications reinforced mainstream positions, while others questioned education's being "the great leveler." He opposed segregation by demographic categories, supported treating all students as individuals, promoted learning opportunities tailored to student progress in the curriculum, and stressed that individual differences within groups are larger than average differences between groups. He emphasized, however, that while optimal learning environments maximize overall learning for all students, they simultaneously expand, rather than reduce, individual differences in achievement. Although well-known psychologists had discussed this fact for 90 years, when Art christened it the "first law of individual differences," he drew disfavor from those committed to the idea that human psychological differences are exclusively due to environmental diversity. Art pointed out that this law applies as well to biological siblings raised in the same home.

When asked how he withstood the assaults, Art replied that he tried to live by Gandhi's principle of correspondence between inner thoughts and public pronouncements. When he hypothesized that both environmental and genetic antecedents are responsible for individual and group differences in *g*, he meant both: He published compelling studies documenting the extent to which impoverished environments attenuate the intellectual development of Black children in the rural South, confirming the "cumulative-deficit-hypothesis" (*Developmental Psychology*, 1974, 1977), and he explicated powerful sibling-control designs for examining this and other developmental phenomena (1980, *AJER*).

His book, *Genetics and Education* (1972) contains an illuminating preface on the events surrounding the *Harvard Educational Review* controversy. His other books include *Educability and Group Differences* (1973); *Bias in Mental Testing* (1980), the first comprehensive treatment of test bias; and *Straight Talk About Mental Tests* (1981). *The g Factor* (1998) explicates *g*'s nomological network with outcomes in education, occupations, and life in general (within and between families) and Art's view that *g* has as much relevance for the human condition as

Thorndike's law of effect. It distinguishes horizontal versus vertical inquiry on the nature of *g*, stressing the latter, and speculates on underlying individual differences in general neurological phenomena (e.g., brain nerve conduction velocity, the ionic concentration at the axonal membrane in synaptic latency, number of cortical neurons, amount of neural redundancy, plus other neurophysiological variables). His final book, *Clocking the Mind: Mental Chronometry and Individual Differences* (2006), summarizes 30 years of work on the development of chronometric assessments; it is a psychophysics/psychometrics amalgam that aspires to provide a ratio scale for intellectual assessments utilizing a standardized apparatus. It also identifies the "musical signatures" of the great composers and describes Art's theory of *g*.

Two comprehensive interviews with Art are Robinson and Wainer's in the *Journal of Educational and Behavioral Statistics* (2006) and Miele's in his book *Intelligence, Race, and Genetics* (2002). Distinguished scientists on all sides discussed Art's positions on education, race, science, and public policy in target articles, commentary, and rejoinders in *Behavioral and Brain Sciences* (1981, 1985), *Psychology, Public Policy, and Law* (2005), and Modgil and Modgil's *Arthur Jensen: Consensus and Controversy* (1987). Nyborg's *The Scientific Study of General Intelligence: A Tribute to Arthur R. Jensen* (2003) contains students' remembrances. James Flynn, a longstanding critic, nevertheless dedicated his book *Are We Getting Smarter?* (2012) "to Arthur Jensen, whose integrity never failed" and observed, "Jensen's life is emblematic of the extent to which American scholarship is inhibited by political orthodoxy."

Art rose to the top of Berkeley's promotional ranks and retired in 1994. A founding member of the Behavior Genetics Association, he received the Lifetime Achievement Award from the International Society for Intelligence Research (2006) and the Kistler Prize (2003) for contributions to the understanding of connections between the human genome and society. Lee Cronbach proved prescient during Art's professional youth, warning him that if he continued with his line of inquiry, he would forego many awards. Art didn't care. In 1998, Paul Meehl remarked that while he was honored to receive a prestigious measurement/psychometrics award, he was embarrassed because Jensen's contributions exceeded his own (and many other recipients'). Jensen's *Festschrift* in a special issue of *Intelligence* (1998) is a must read; Detterman's introduction to the issue is telling, and the contributions are illuminating as well as personally self-disclosing.

Calm, deliberate, brilliant, and encyclopedic in his erudition on differential psychology, Art Jensen will be deeply missed by colleagues and friends. The attention he devoted to improving the work of others is well known to many authors, colleagues, and editors.

After battling Parkinson's disease, Art passed away at home, in Kelseyville, California, on October 22, 2012. He was preceded in death by his first wife, Barbara, and his sister Lois. His daughter and son-in-law, Bobbi and Joe Moray, and his second wife, Justine, survive him.

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